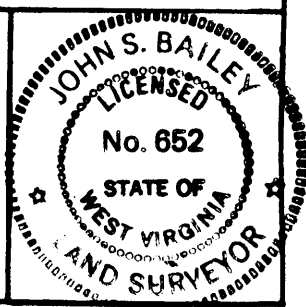


FILE NO. MSES84-410
 DRAWING NO. _____
 SCALE 1"=1000'
 MINIMUM DEGREE OF ACCURACY 1 IN 200'
 PROVEN SOURCE OF ELEVATION BM EL 731 USGS DISK AT RR TRACKS 1350 S.E. OF LOCATION

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) John S. Bailey
 R.P.E. _____ L.L.S. 652



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

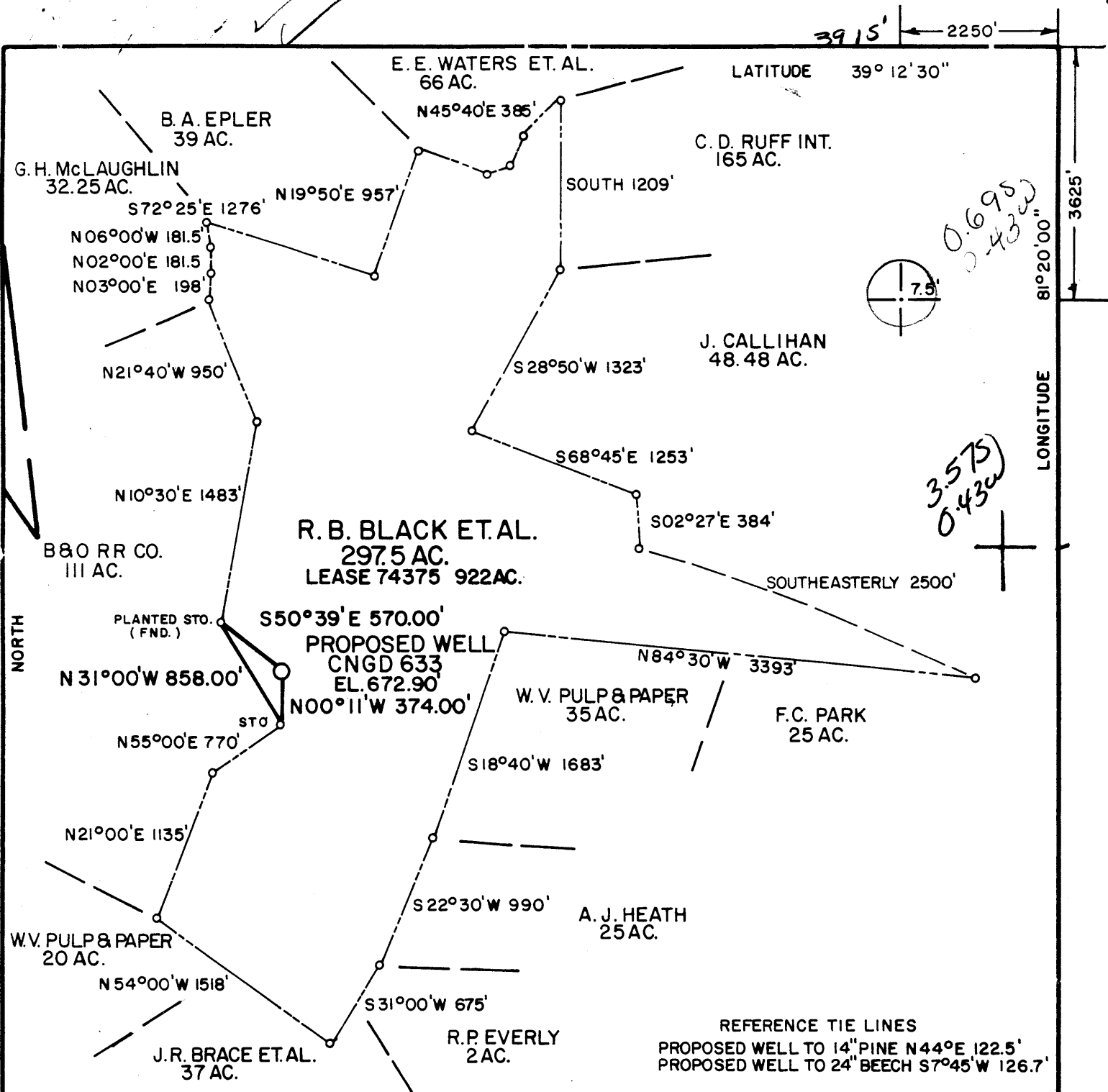


DATE SEPTEMBER 17, 19 84
 OPERATOR'S WELL NO. CNGD1412 REV.
 API WELL NO. _____
47 - 107 - 1313 - P
 STATE COUNTY PERMIT

Department of Mines
 Oil & Gas Division

WELL TYPE: OIL _____ GAS X LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS", PRODUCTION X STORAGE _____ DEE? _____ SHALLOW X)
 LOCATION: ELEVATION 672.90' WATER SHED BEETREE RUN
 DISTRICT WALKER COUNTY WOOD
 QUADRANGLE PETROLEUM 7.5' (1976)
 SURFACE OWNER W.V. PULP & PAPER COMPANY ACREAGE 297.5
 OIL & GAS ROYALTY OWNER MELVIN R. CARPENTER LEASE NO. 74375 LEASE ACREAGE 922
 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 DEVONIAN SHALE ESTIMATED DEPTH 5500
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS
 ADDRESS ONE PARK RIDGE CENTER PITTSBURGH, PA. 15219 ADDRESS CROSSWIND CORPORATE PARK BRIDGEPORT, W.V. 26330

FEB 14 1989



3915' ← 2250'

LATITUDE 39° 12' 30"

81° 20' 00"

LONGITUDE

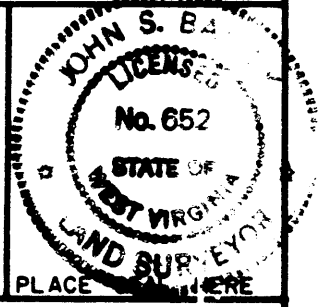
0.695
0.430

3.575
0.430



FILE NO. MSES84-410
 DRAWING NO. _____
 SCALE 1"=1000'
 MINIMUM DEGREE OF ACCURACY 1 IN 200'
 PROVEN SOURCE OF ELEVATION BM EL. 731 USGS DISK AT RR TRACKS 1350' S.E. OF LOCATION

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) [Signature]
 R. P. E. _____ U. L. S. 652



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



Department of Mines
 Oil & Gas Division

DATE MAY 29, 1984
 OPERATOR'S WELL NO. CNGD 633
 API WELL NO. _____
47 - 107 - 1313
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS", PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X)
 LOCATION: ELEVATION 672.90' WATER SHED BEETREE RUN
 DISTRICT WALKER COUNTY WOOD
 QUADRANGLE PETROLEUM 7.5' (1976) 544 Elizabeth NC2
 SURFACE OWNER W.V. PULP & PAPER COMPANY ACREAGE 297.5
 OIL & GAS ROYALTY OWNER MELVIN R. CARPENTER LEASE ACREAGE 922
 LEASE NO. 74375
 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 DEVONIAN SHALE ESTIMATED DEPTH 5500 AUG 6 1984
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS
 ADDRESS ONE PARK RIDGE CENTER PITTSBURGH, PA. 15219 ADDRESS CROSSWIND CORPORATE PARK BRIDGEPORT, W.V. 26330

IV-35
(Rev 8-81)

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DEPARTMENT OF ENERGY



State of West Virginia
Department of Mines
Oil and Gas Division

Date October 4, 1984
Operator's
Well No. CNGD WN 1412
Farm Black
API No. 47 - 107 - 1313

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: 672.9 Watershed Beetree Run (LK 10C)
District: Walker County Wood Quadrangle Petroleum 7.5' (1976)

COMPANY CNG Development Company
ADDRESS P. O. Box 15746, Pittsburgh, PA 15275
DESIGNATED AGENT Gary A. Nicholas
ADDRESS Rt. 2 Box 698, Bridgeport, WV 26330
SURFACE OWNER WV Pulp & Paper Company
ADDRESS P.O. Box 577, Rupert, WV 25984
MINERAL RIGHTS OWNER Melvin R. Carpenter
ADDRESS 700 W. Murrill Street, Baytown, TX 77521
OIL AND GAS INSPECTOR FOR THIS WORK
Glen P. Robins ADDRESS Rt. 1 #6 Mt. Pleasant Est. Mineralwells, WV 26150
PERMIT ISSUED 8-1-84
DRILLING COMMENCED 8-24-84
DRILLING COMPLETED 8-30-84
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.			
11 3/4 9 5/8	238	238	To surf.
8 5/8	2091	2091	To surf.
7			
5 1/2			
4 1/2	4854	4854	215 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5500 feet
Depth of completed well 4864 feet Rotary x / Cable Tools _____
Water strata depth: Fresh 70' feet; Salt 1685' feet
Coal seam depths: 450' - 455' 1375' - 1380' Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Devonian Shale 1st Stage _____ 2nd Stage _____ 3rd Stage _____ Pay zone depth 4160 - 4320 3575 - 3660 3419 - 3514 feet
Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 108 Mcf/d Final open flow No Show Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure 355 psig (surface measurement) after 48 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)

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

Perfco Perf 1st Stage Devonian Shale ~~4160 - 4320~~^{Huron}; 20 holes; (.39) select fire HSC
 2nd Stage Devonian Shale ~~3575 - 3660~~^{Huron}; 20 holes; (.39) select fire HSC
 3rd Stage Devonian Shale ~~3419 - 3514~~; 20 holes (.39) select fire HSC

Halliburton Frac 1st Stage - Break 2800, Avg. TPSI 2950, Avg. Rate 75,000 SCF/min,
 ISI 2100, 5 min 1850, used 500 gals MOD 202 + 800,000 SCFN₂
 2nd Stage - Break 3100, Avg. TPSI 3100, Avg. Rate 75,000 SCF/min,
 ISI 2050, 5 min 1900, used 500 gals MOD 202 + 800,000 SCFN₂
 3rd Stage - Break 3100, Avg. TPSI 3200, Avg. Rate 75,000 SCF/min,
 ISI 2050, 5 min 1900, used 500 gals MOD 202 + 800,000 SCFN₂

Perfco ran Ret. Plugs @ 3682 & 3518 and recovered after 2nd and 3rd stage Frac Jobs.

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			0	20	Water @ 70' 5" - 7" stream
Sd, Sh & RR			20	450	@ 1685' 1-1/2" stream salt water
Coal			450	455	
Sd, Sh & RR			455	870	
Lime			870	930	
Sd, Sh & RR			930	1375	
Coal			1375	1380	
Sd, Sh & RR			1380	2295	
Lime			2295	2380	
Sd, Sh & RR			2380	4864	Rhinestreet at T.D.
				J.D.	
			1633	-	
Big Lime			-	1761	
Big Injun			2183	2199	from nearby 18 - very large
Berea			-	4319	Upr Dev. undiff 2199 1251
Lower Huron			4497	4500	Low Huron 2450 270
Pipe Creek					Jawa 4320 1080
					Angola 4500 250
					Rhinestreet 4780

LOG TOPS ✓

(Attach separate sheets as necessary)

CNG Development Company
Well Operator

By: 

Date: October 4, 1984

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 any encountered in the drilling of a well."



1) Date: June 19, 1984
 2) Operator's Well No. 633
 3) API Well No. 47 - 107 - 1313
 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 _____
 B (If "Gas", Production / Underground storage _____ / Deep _____ / Shallow)
 5) LOCATION: Elevation: 672.9' Watershed: Beetree Run (LK10C)
 District: Walker County: Wood Quadrangle: Petroleum 7.5' (1976)
 6) WELL OPERATOR CNG Development Company
 Address C/o Paul W. Garrett, P.O. Box 15746
Pittsburgh, PA 15244
 7) DESIGNATED AGENT Mr. Gary Nicholas
 Address Crosswind Corporate Park
Rt. 2, Box 698, Bridgeport WV 26330
 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Mr. Glen P. Robinson
 Address Rt. 1, #6 Mt. Pleasant Estate
Mineralwells, WV 26150
 9) DRILLING CONTRACTOR:
 Name Sam Jack Drilling Company
 Address P. O. Box 48
Buckhannon, WV 26201
 10) PROPOSED WELL WORK: Drill / Drill deeper _____ / Redrill _____ / Stimulate
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____
 11) GEOLOGICAL TARGET FORMATION, Devonian Shale
 12) Estimated depth of completed well, 4965 feet
 13) Approximate trata depths: Fresh, - feet; salt, - feet.
 14) Approximate coal seam depths: - Is coal being mined in the area? Yes _____ / No

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15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	DEPT. OF MINES
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor	16					20-30	-		Kinds
Fresh water	11-3/4	H-40	42	X		250	250	To surface	By Rule 15.05
Coal									Sizes
Intermediate	8-5/8	X-42	23	X		1800	1800	To surface	By Rule 15.05
Production	4-1/2	J-55	10.5	X		4965	4965	200-400 sks	Depths set
Tubing	1-1/2	CN-55	2.75	X					By Rule 15.01
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-107-1313 Date August 1, 19 84

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 August 1, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: <input checked="" type="checkbox"/>	Plat:	Casing	Fee
BLANKET	<u>lo</u>	<u>MR</u>	<u>MR</u>	<u>003</u> <u>401</u>

[Signature]
 Administrator, Office of Oil and Gas

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

File

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

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVITE SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: WESTVACO Operator Well No.: CNGD 1412

LOCATION: Elevation: 672.90 Quadrangle: PETROLEUM
District: WALKER County: WOOD
Latitude: 3625 Feet South of 39 Deg. 12 Min. 30 Sec.
Longitude 2250 Feet West of 81 Deg. 20 Min. 0 Sec.

Well Type: OIL _____ GAS X

Company: CNG Development Company
Rt. 2, Box 698
Clarksburg, WV 26301

Coal Operator Marvin Carpenter Heirs
or Owner c/o Ruth N. Carpenter
408 Crider Dr.
Brookhaven, MS 39601

Agent: _____
Inspector: Glen Robinson
Permit Issued: 02/06/89

Coal Operator _____
or Owner _____

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

_____ and _____ Halliburton being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by CNG Development Company, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 9th day of June, 1989, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
			4.5"	3733'
Gel	4790	4320		
Cmt. - 90 sks	4320	3200		
Gel	3200	1057		
Cut 4.5" csg at	1057'			
Cement - 60 sks	1057	857		
Gel	857	200		
Cement	200	0		

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Description of monument: 8" Pipe - 48" Tall Capped on top, threaded end on bottom
Screwed into the 8" Casing

and that the work of plugging and filling said well was completed on the 9th day of June, 1989.

And further deponents saith not.

Sworn and subscribe before me this 26th day of June, 1989
My commission expires: 07/11/93

John C. Moore
Paul Biggs
Mary Ellen Ellifitt
Notary Public

