

# PINE MOUNTAIN OIL & GAS LEASE

## 24,642.98 ACRES ±

LATITUDE 38°32'30"

JACK McGLOTHIN  
D.B. 154/220  
31.69 AC±

THEODORE D. YOUNG, ET UX  
D.B. 170/94  
7.5 AC±

JACK McGLOTHIN  
D.B. 154/220  
20 AC±

EVELYN McGLOTHIN  
D.B. 179/251  
5 AC±

EVELYN McGLOTHIN  
D.B. 179/251  
7.55 AC±

EVELYN McGLOTHIN  
D.B. 179/251  
28.25 AC±

WELL NO. BK-1  
(825363)  
API# 47-015-2686  
STATE PLANE  
COORDINATES  
(N) 551,661  
(E) 2,005,553

### WELL NO. BK-1 (825363) API# 47-015-2686

#### NOTES ON SURVEY

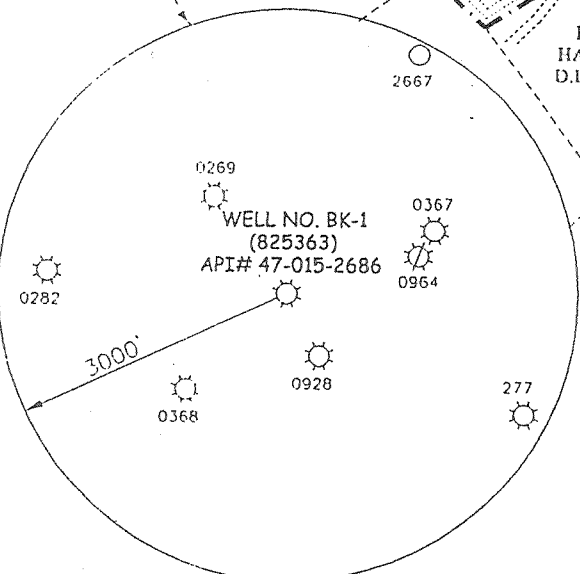
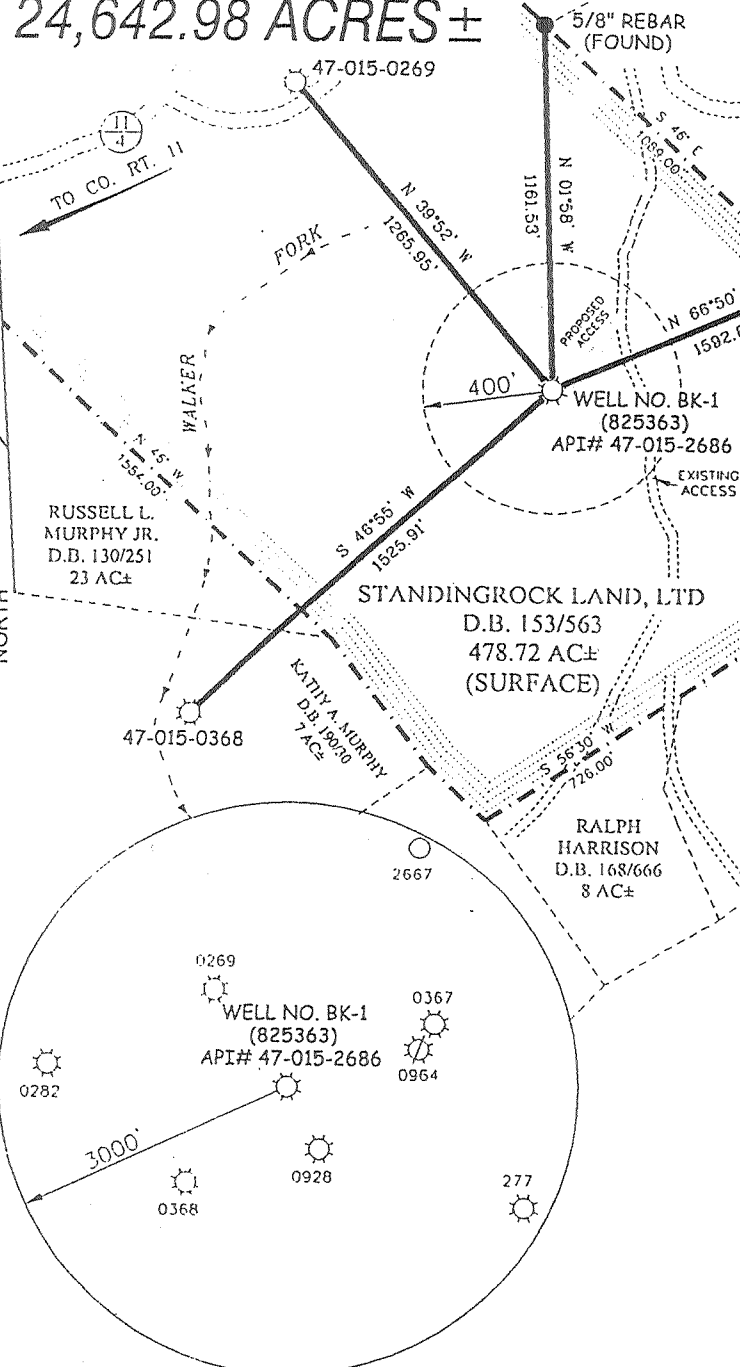
1. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 1/30/03.
3. METES AND BOUNDS CALLS SHOWN HEREON TAKEN FROM ADJOINING DEEDS AS SETOUT HEREON AND OF RECORD IN THE OFFICE OF THE COUNTY CLERK OF CLAY COUNTY, WV.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF CLAY COUNTY IN OCTOBER, 2002.
5. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).
6. ORIGINAL PLAT DATED JANUARY 30, 2003 UPDATED NOVEMBER 11, 2003.

NORTH

LONGITUDE 80°57'30"

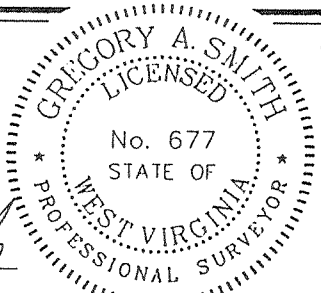
6,650'

LAT. 38°30'54.0"



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677 *Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE NOVEMBER 12, 20 03  
 OPERATORS WELL NO. BK-1 (825363)  
 API WELL NO. 47 - 015 - 2686  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 5142P1R2 (125-37)  
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 600'

STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,365' WATERSHED WALKER FORK  
 DISTRICT BUFFALO COUNTY CLAY QUADRANGLE STRANGE CREEK 7.5'

SURFACE OWNER STANDINGROCK LAND, LTD ACREAGE 478.72±  
 ROYALTY OWNER PINE MOUNTAIN OIL AND GAS, INC. LEASE ACREAGE 24,642.98

PROPOSED WORK: LEASE NO. \_\_\_\_\_  
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER \_\_\_\_\_  
 PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ORISKANY/HELDERBERG  
 ESTIMATED DEPTH 7,057'

WELL OPERATOR COLUMBIA NATURAL RESOURCES, LLC DESIGNATED AGENT MIKE JOHN  
 ADDRESS P. O. BOX 6070 ADDRESS P. O. BOX 6070  
CHARLESTON, WV 25362 CHARLESTON, WV 25362

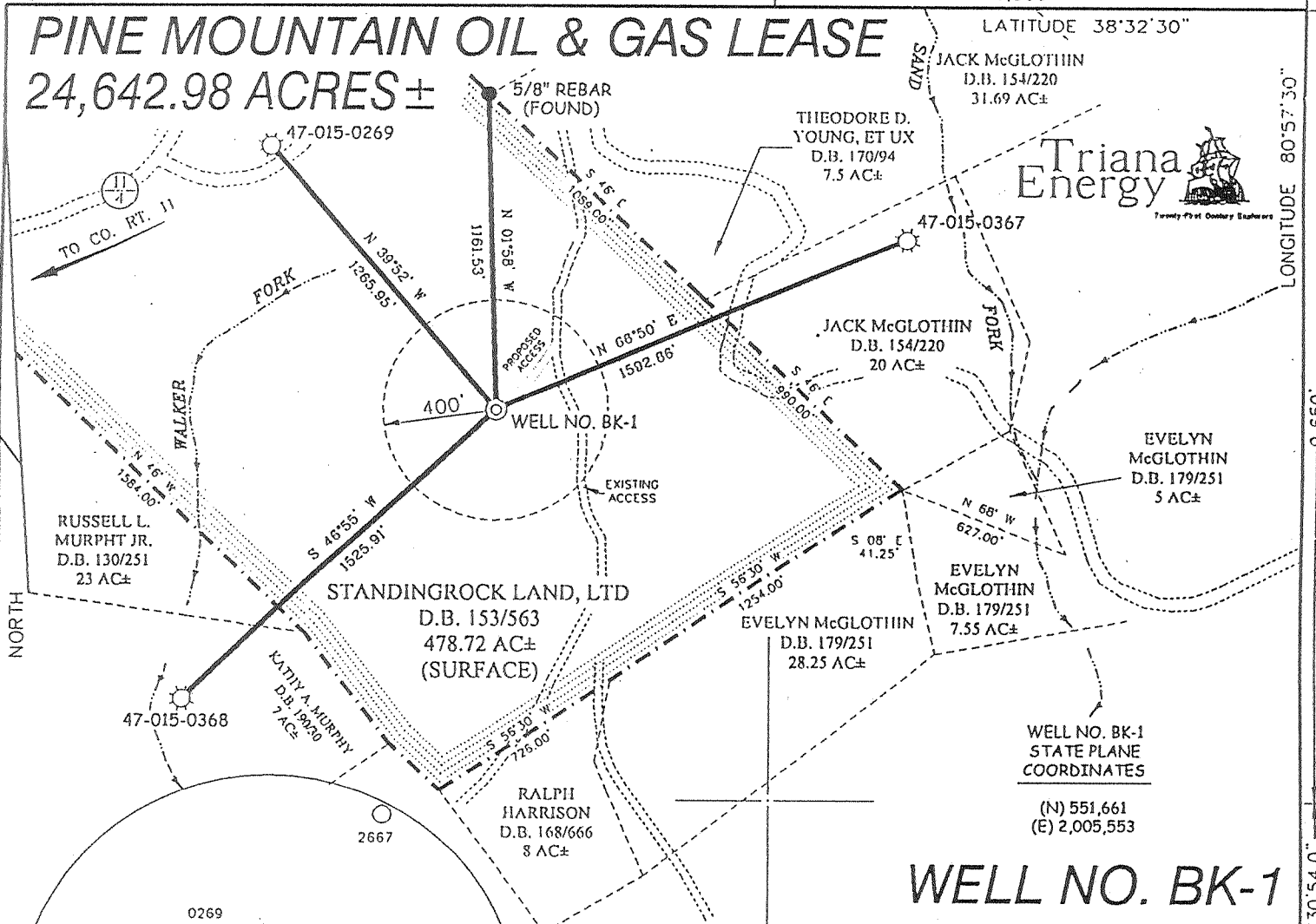
DEEP WELL 3-0 (Swardelo Widen 264)

NOV 12 2003

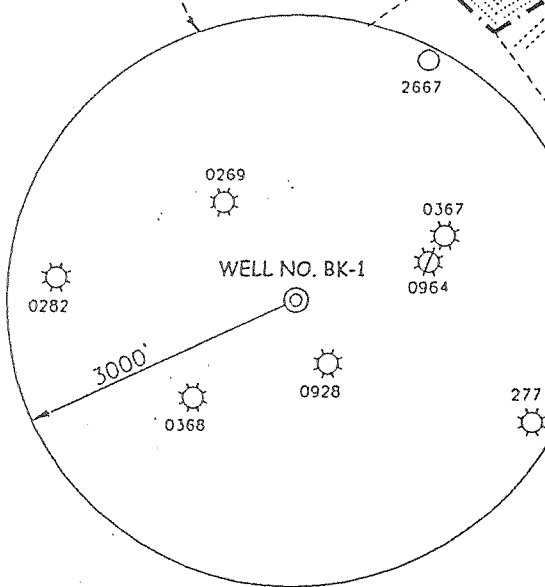
COUNTY NAME CLAY  
PERMIT 210866

# PINE MOUNTAIN OIL & GAS LEASE

## 24,642.98 ACRES ±

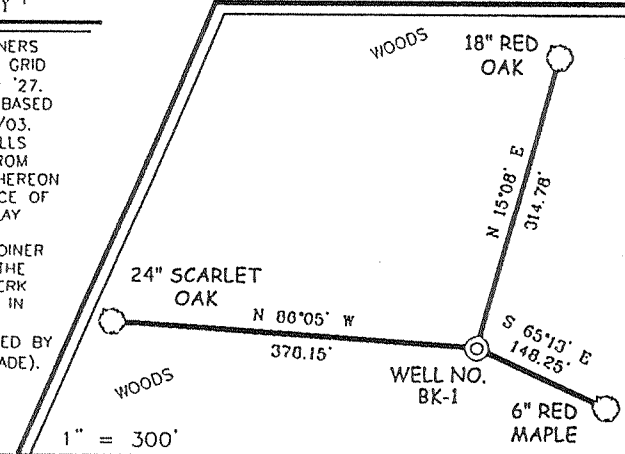


### WELL NO. BK-1 REFERENCES



#### NOTES ON SURVEY

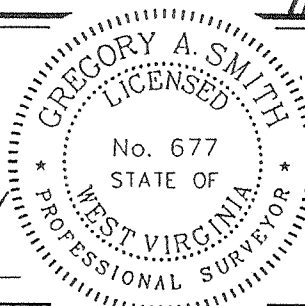
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5. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).



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P.S. 677

*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE JANUARY 30, 20 03

OPERATORS WELL NO. BK-1

API WELL NO. 47-15-02686  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 5142PIR (125-37)

PROVEN SOURCE OF ELEVATION JUNCTION OF ROADS ELEVATION = 1,243' SCALE 1" = 600'

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS



WELL TYPE : OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION : ELEVATION 1,365' WATERSHED WALKER FORK  
DISTRICT BUFFALO COUNTY CLAY QUADRANGLE STRANGE CREEK 7.5'

SURFACE OWNER STANDINGROCK LAND, LTD ACREAGE 478.72±  
ROYALTY OWNER PINE MOUNTAIN OIL AND GAS, INC. LEASE ACREAGE 24,642.98

PROPOSED WORK : LEASE NO. \_\_\_\_\_  
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER \_\_\_\_\_  
PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ORISKANY/NEWBURG  
ESTIMATED DEPTH 7,855'

WELL OPERATOR TRIANA ENERGY, INC. DESIGNATED AGENT MIKE JOHN  
ADDRESS 300 SUMMERS STREET, SUITE 300 ADDRESS 300 SUMMERS STREET, SUITE 300  
CHARLESTON, WV 25301 CHARLESTON, WV 25301

COUNTY NAME CLAY  
PERMIT 2686

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas  
Well Operator's Report of Well Work

Farm name: Standingrock Land, LTD  
Location Elevation: 1365'  
District: Buffalo

Operator Well No: BK-1  
Quadrangle: Strange Creek  
County: Clay

COLUMBIA NATURAL RESOURCES	Casing & Tubing	Used in drilling	Left in Well	Cement fill up Cu.Ft.
Address: P. O. Box 6070 Charleston, WV 25362-0070	20"	34'	34'	
Agent: Mike John				
Inspector: Rick Campbell	13 3/8"	572'	572'	Cement to Surface
Date Permit Issued: 12/12/06				
Date Well work commenced: 01/08/04	9 5/8"	2270'	2270'	385 Sacks
Date Well Work completed: 01/13/04				
Verbal Plugging:	7"	6590'	6590'	171 Sacks
Date Permission granted on:				
Rotary X Cable <input type="checkbox"/> Rig <input type="checkbox"/>	4 1/2"	7647'	7647'	173 Sacks
Total Depth (feet):				
Fresh Water Depth (ft): 100				
Salt Water Depth (ft.):				
Is coal being mined in area (N X Y <input type="checkbox"/> )				
Coal Depths (ft):				

OPEN FLOW DATA

Producing formation: Helderberg and Oriskany Pay zone depth(ft) from 6,843 to 6,738

Gas: Initial open flow \* MMCF/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 pressure) after Hours

2nd producing formation: Pay zone depth (ft) from to ; from to

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 pressure) after Hours

3rd producing formation: Pay zone depth (ft) from to ; from to

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 pressure) after Hours

\* Hole full of water attempt to convert to Brine Disposal well.

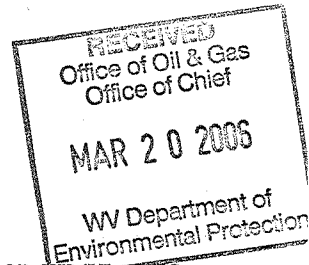
NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR SIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

WELL OPERATOR: COLUMBIA NATURAL RESOURCES, LLC.

By: [Signature] Date: 2/21/06 Copies to:

Region  
Area - MAR 3 1 2006  
Geology

*(Swandale - Widen 264) 6-6*



CLAY 2006 F

# WELL # 47-15-2686-F

## PERFORATIONS:

Stage 1, Perforations: 13 holes from 6843' to 6829' 14 holes from 6752' to 6738'

Stage 2, Perforations: holes from to

Stage 3, Perforations: holes from to

Stage 4, Perforations: holes from to

## FRACTURING:

### 1<sup>ST</sup> STAGE:

Perforations from 6829' to 6738' Acid 1500 gal. 15% HCL,  
Breakdown @ 3500 PSI, Avg. Rate 6 SCFM  OR BPM x  
ATP 3500 PSI, Total H<sub>2</sub>O Bbl., Total sand  
Total N<sub>2</sub> Scf. POST I.S.I.P. 15 min.

### 2nd STAGE:

Perforations from - , Acid gal. 15% HCL,  
Breakdown @ PSI, Avg. Rate SCFM  OR BPM   
ATP PSI, Total H<sub>2</sub>O Bbl., Total sand #  
Total N<sub>2</sub> Scf. POST I.S.I.P. 15 min.

### 3rd STAGE:

Perforations from - , Acid gal. 15% HCL,  
Breakdown @ PSI, Avg. Rate SCFM  OR BPM   
ATP PSI, Total H<sub>2</sub>O Bbl., Total sand #  
Total N<sub>2</sub> Scf. POST I.S.I.P. 15 min.

### 4th STAGE:

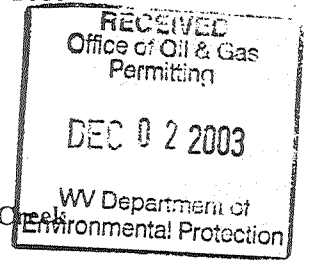
Perforations from - , Acid gal. 15% HCL,  
Breakdown @ PSI, Avg. Rate SCFM  OR BPM   
ATP PSI, Total H<sub>2</sub>O Bbl., Total sand #  
Total N<sub>2</sub> Scf. POST I.S.I.P. 15 min.

Additional Comments: Bridge plug set @ 7310', 50/50 POZ cement (28.6 cf) to 7200'.

MAR 31 2006

GCS

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas  
Well Operator's Report of Well Work



Farm name: Standingrock Land, LTD  
Location Elevation: 1365'  
District: Buffalo

Operator Well No: BK-1  
Quadrangle: Strange Creek  
County: Clay

COLUMBIA NATURAL RESOURCES	Casing & Tubing	Used in drilling	Left in Well	Cement fill up Cu.Ft.
Address: P. O. Box 6070 Charleston, WV 25362-0070	20"	34'	34'	
Agent: Mike John				
Inspector: Rick Campbell	13 3/8"	572'	572'	Cement to Surface
Date Permit Issued: 2/27/03				
Date Well work commenced: 5/8/2003	9 5/8"	2270'	2270'	385 Sacks
Date Well Work completed: 8/17/03				
Verbal Plugging:	7"	6590'	6590'	171 Sacks
Date Permission granted on:				
Rotary X Cable <input type="checkbox"/> Rig <input type="checkbox"/>	4 1/2"	7647'	7647'	173 Sacks
Total Depth (feet): 7856'				
Fresh Water Depth (ft): 100				
Salt Water Depth (ft):				
Is coal being mined in area (N X Y <input type="checkbox"/> )				
Coal Depths (ft):				

OPEN FLOW DATA

Producing formation: Salina Pay zone depth(ft) from 7,464' to 7,470'

Gas: Initial open flow show MMCF/d Oil: Initial open flow Bbl/d  
Final open flow show MCF/d Final open flow Bbl/d  
Time of open flow between initial and final tests Hours  
Static rock Pressure psig (surface pressure) after Hours

2nd producing formation: Pay zone depth (ft) from to ; from to

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 pressure) after Hours

3rd producing formation: Pay zone depth (ft) from to ; from to

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 pressure) after Hours

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WELL OPERATOR: COLUMBIA NATURAL RESOURCES, LLC.

By:

Date: 12-1-03

Copies to:

Region  
Area -

DEC 05 2003

CLAY 2686

CNR LLC BK-1  
API # 47-15-2686

Formation	MD top	subsea
Salt Sand	1576	-197
Maxton	1873	-494
Little Lime	1984	-605
Big Lime	2072	-693
Big Injun (Grnbr)	2231	-852
Weir	2448	-1069
Berea	2878	-1499
Devonian Shale	3715	-2336
Marcellus	6470	-5091
Onondaga	6514	-5135
Huntersville	6559	-5180
Oriskany	6686	-5307
Helderberg	6693	-5314
Salina	7057	-5678
NEWBURG	7704	-6325

CLAY 2686

# WELL # 47-15-2686

## PERFORATIONS:

Stage 1, Perforations: 24 holes from 7464' to 7470'  
Stage 2, Perforations: holes from to  
Stage 3, Perforations: holes from to  
Stage 4, Perforations: holes from to

## FRACTURING:

### 1<sup>ST</sup> STAGE:

Perforations from 7464 -7470, Acid 1000 gal. 15% HCL,  
Breakdown @ 4536 PSI, Avg. Rate 11 SCFM  OR BPM x  
ATP 4600 PSI, Total H<sub>2</sub>O Bbl., Total sand 2200 # Frac job maxed out  
on pressure before completing job.  
Total N<sub>2</sub> Scf. POST I.S.I.P. 15 min.

### 2nd STAGE:

Perforations from - , Acid gal. 15% HCL,  
Breakdown @ PSI, Avg. Rate SCFM  OR BPM   
ATP PSI, Total H<sub>2</sub>O Bbl., Total sand #  
Total N<sub>2</sub> Scf. POST I.S.I.P. 15 min.

### 3rd STAGE:

Perforations from - , Acid gal. 15% HCL,  
Breakdown @ PSI, Avg. Rate SCFM  OR BPM   
ATP PSI, Total H<sub>2</sub>O Bbl., Total sand #  
Total N<sub>2</sub> Scf. POST I.S.I.P. 15 min.

### 4th STAGE:

Perforations from - , Acid gal. 15% HCL,  
Breakdown @ PSI, Avg. Rate SCFM  OR BPM   
ATP PSI, Total H<sub>2</sub>O Bbl., Total sand #  
Total N<sub>2</sub> Scf. POST I.S.I.P. 15 min.

Additional Comments: During flowback of frac recorded H<sub>2</sub>S of 4000 ppm. SI to abandon Salina section.