

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47-095-02344 County Tyler District Ellsworth  
Quad \_\_\_\_\_ Pad Name \_\_\_\_\_ Field/Pool Name \_\_\_\_\_  
Farm name Adams, Betty Lou Well Number Cucumbertree 1V-1  
Operator (as registered with the OOG) Alliance Petroleum Corporation  
Address 4150 Belden Village Ave. NW Suite 410 City Canton State Ohio Zip 44718-2553

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing \_\_\_\_\_ Easting \_\_\_\_\_

Elevation (ft) 1080' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine  
Mud Type(s) and Additive(s)  
KCL - Clay Stay - Soap

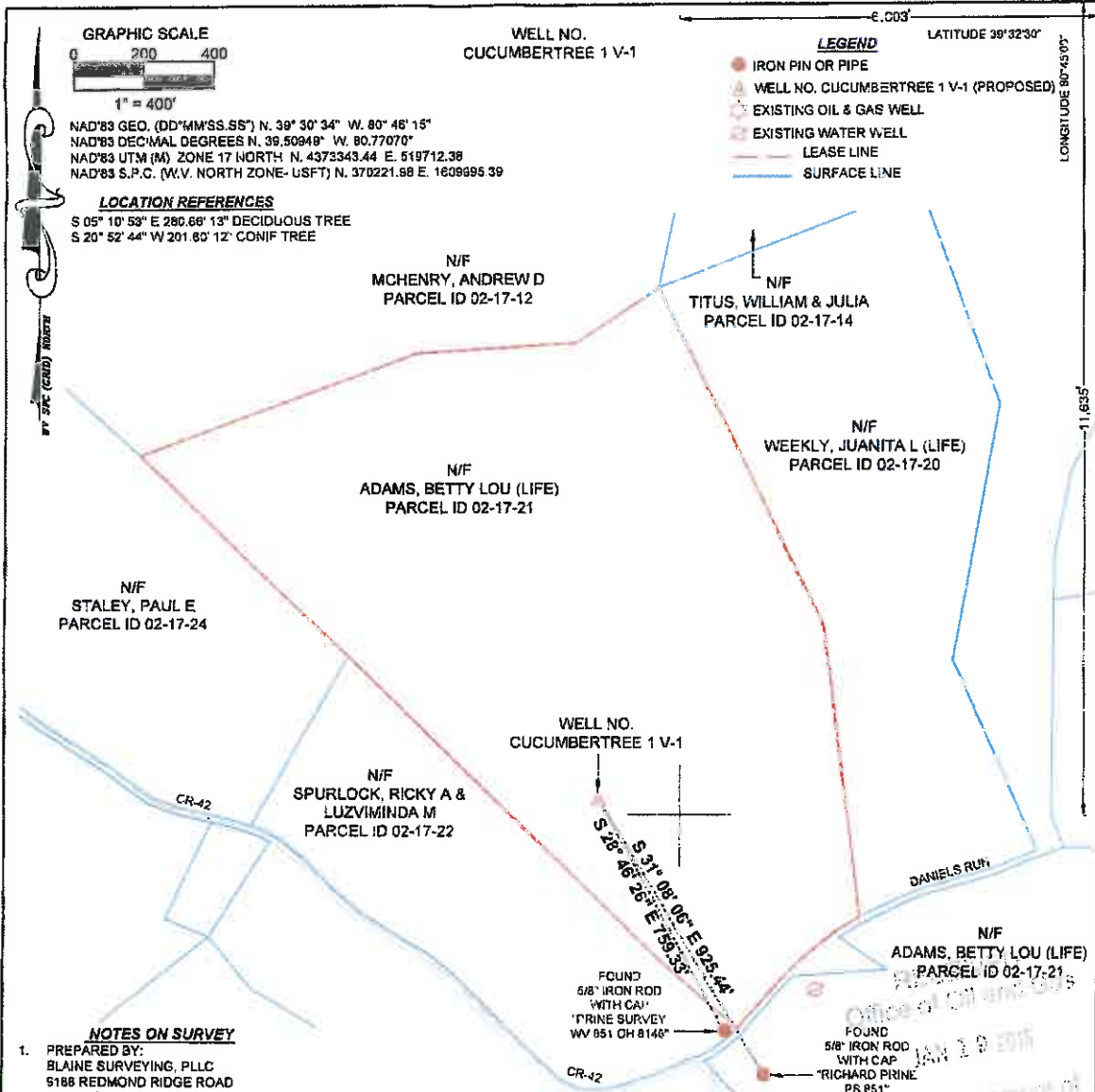
Date permit issued 2/18/16 Date drilling commenced 4/12/16 Date drilling ceased 4/17/16  
Date completion activities began 6/9/16 Date completion activities ceased 6/16/16  
Verbal plugging (Y/N) \_\_\_\_\_ Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 0-300' Open mine(s) (Y/N) depths \_\_\_\_\_ N  
Salt water depth(s) ft 1854' Void(s) encountered (Y/N) depths \_\_\_\_\_ N  
Coal depth(s) ft 730' - 732' Cavern(s) encountered (Y/N) depths \_\_\_\_\_ N  
Is coal being mined in area (Y/N) N

APPROVED  
NAME: [Signature]  
DATE: 12/6/16  
Office of Oil & Gas  
JUSTIN SUPRE

Reviewed by: \_\_\_\_\_  
02/03/2017



- NOTES ON SURVEY**
1. PREPARED BY: BLAINE SURVEYING, PLLC  
5185 REDMOND RIDGE ROAD  
GALLIPOLIS FERRY, WV 25515
  2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 342 PAGE 381.
  3. THIS IS NOT A BOUNDARY SURVEY. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF TYLER COUNTY IN NOVEMBER 2015

OPERATORS WELL NO: CUCUMBERTREE 1 V-1  
SCALE: 1" = 400'  
MINIMUM DEGREE OF ACCURACY: SUB-METER  
PROVEN SOURCE OF ELEVATION: CORS NETWORK & WV VRS  
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS



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 ENVIRONMENTAL PROTECTION

Signed: *Jonathan Blaine*  
L.L.S.: #2220 DATE: 1/15/16

WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
601 57TH ST.  
CHARLESTON, WV 25304

47 095  
API WELL NO. STATE COUNTY PERMIT

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

WATERSHED: OUTLET MIDDLE ISLAND CREEK ELEVATION: 1080'  
DISTRICT: ELLSWORTH COUNTY: TYLER QUADRANGLE: PORTERS FALLS 7.5  
SURFACE OWNER: ADAMS, BETTY LOU (LIFE) ACREAGE: 70 +/-  
OIL & GAS ROYALTY OWNER: BLACK GOLD GROUP, LTD, ET AL ACREAGE: 70 +/-

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG & ABANDON   
CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY): \_\_\_\_\_

TARGET FORMATION: RHINESTREET ESTIMATED DEPTH: TVD 5900'

WELL OPERATOR: ALLIANCE PETROLEUM CORPORATION DESIGNATED AGENT: JEFFREY SAYGER  
ADDRESS: 4150 BELDEN VILLAGE AVE NW SUITE 410 ADDRESS: 18 FOX HILL TERRACE  
CANTON, OH 44718-2553 PARKERSBURG, WV 26101

02/03/2017

API 47-095 02344 Farm name Adams, Betty Lou Well number Cucumbertree 1V-1

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	15"	13-3/8"	30'	New	H-40 36#		Driven
Surface	12-3/4"	9-5/8"	355'	New	H-40 26#		Y
Coal							
Intermediate 1	8/3/4"	7"	2259'	New	J-55 17#		300
Intermediate 2							
Intermediate 3							
Production	6-1/2"	4-1/2"	3227'	New	J-55 10.5#		155 Sks.
Tubing		1-1/2"	3028'	Used	J-55 2.75#		
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	None	Driven					
Surface	Class A	135'				CTS	8hrs.
Coal							
Intermediate 1	Class A	300'				CTS	8hrs.
Intermediate 2							
Intermediate 3							
Production	50/50 Poz.	155				2727	
Tubing	N/A						

Drillers TD (ft) 3252' Loggers TD (ft) 3255'  
 Deepest formation penetrated Bayard Plug back to (ft) \_\_\_\_\_  
 Plug back procedure \_\_\_\_\_

Kick off depth (ft) \_\_\_\_\_

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_  
6 Total on 4-1/2" - Every 100' off Bottom

Received  
Office of Oil & Gas

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_ OCT 24 2016

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

API 47- 095 - 02344 Farm name Adams, Betty Lou Well number Cucumbertree 1V-1

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	6/9/16	3098'	2948'	20	Bayard - 5th. - 4th. sands

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	6/15/16	24.1	2,562	2302	1792	267 sks.	256	272 mscf

Received  
Office of Oil & Gas  
OCT 24 2016

Please insert additional pages as applicable.

API 47- 095 - 02344

Farm name Adams, Betty Lou

Well number Cucumbertree 1V-1

PRODUCING FORMATION(S)

DEPTHS

PRODUCING FORMATION(S)	DEPTHS	TVD	MD
Bayard	3048	3056	
5th. Sand	3003	3005	
4th. Sand	2948	2954	

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 370 psi Bottom Hole psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 15 mcfpd Oil bpd NGL bpd Water bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	0		0		***SEE ATTACHED GEOLOGIST REPORT

Please insert additional pages as applicable.

Drilling Contractor Nexus Drilling  
Address P.O. Box 903 City Jane Lew State WV Zip 26378

Logging Company Weatherford  
Address 6 Garton Plaza City Weston State WV Zip 26452

Cementing Company Universal Well Services  
Address P.O. Box 2437 City Buckhannon State WV Zip 26201

Stimulating Company C & J Services  
Address 8300 Rt. 119 North City Black Lick State PA Zip 15716

Office of Oil & Gas  
OCT 24 2016

Please insert additional pages as applicable.

Completed by Martin L. Miller Telephone 740-373-8771  
Signature *Martin L. Miller* Title Sr. VP of Operations Date 10-10-16

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

12856 Claylick Road  
Newark, Ohio 43050-9116  
Office 740-763-2758  
Home 740-763-2758  
Mobile 330-963-0199

# National Minerals Corporation

**ALLIANCE PETROLEUM CORPORATION**

**CUCUMBERTREE 1 V-1**

**ELLSWORTH DISTRICT**

**TYLER COUNTY, WEST VIRGINIA**

Received  
Office of Oil & Gas

OCT 24 2016

*Oil, Gas & Mineral  
Exploration*

.....

02/03/2017

WELL: Alliance Petroleum Corporation 1 V-1 Cucumbertree

LOCATION: Ellsworth District, Tyler County, West Virginia.

PERMIT NUMBER: 47-095-02344.

ELEVATION: 1080' Ground, 1090' KB

STATUS: Preparing to complete as a gas producer.

CASING: 7" @ 2273'.

TOTAL DEPTH: 3252' Driller 3255' Logger.

CONTRACTOR: Nexus Drilling Co.

TOOLS: Rotary.

COMPLETED DRILLING: 4/17/2016.

FORMATION AT TOTAL DEPTH: Devonian shale.

ELECTRICAL SURVEYS: Gamma Ray- Compensated Density- Neutron- Caliper- Temperature- Induction by Appalachian Well Surveys. Mud log by Stratagraph NE. Inc.

SHOWS: An excellent oil cut was noted in the Big Lime samples at 1,960'. Very good shows of gas were recorded in the Bayard (3,050'), Big Injun (2,090') & 3<sup>rd</sup> Salt (1,885'). Small shows of gas were recorded in the Gordon (2,845'), Gantz (2,590') & Weir (2,398').

FORMATION TOPS:	1 <sup>st</sup> Salt Sand	1634'	- 544
	2 <sup>nd</sup> Salt Sand	1695'	- 605
	3 <sup>rd</sup> Salt Sand	1854'	- 764
	Maxon Sandstone	1910'	- 820
	Big Lime	1950'	- 860
	Keener Sandstone	2016'	- 926
	Big Injun Sandstone	2038'	- 948
	Weir Sandstone	2402'	-1312
	Gantz Sandstone	2596'	-1506
	Gordon Stray Sandstone	2782'	-1692
	Gordon Sandstone	2825'	-1735
	4 <sup>th</sup> Sand	2890'	-1800
	5 <sup>th</sup> Sand	2970'	-1880
	Bayard Sandstone	3045'	-1955

Office of Oil & Gas

OCT 24 2016

02/03/2017

## STRUCTURAL COMPARISON:

	Alliance Petroleum Cucumbertree 1 V-1	Alliance Petroleum Cottonwood 1 V-1
Big Lime	- 860	- 854
Gordon Sandstone	-1735	-1731

## GEOLOGY

Fair to good shows of gas were noted on the mud log in the Bayard, 5<sup>th</sup> and 4<sup>th</sup> Sands. However, the electric logs indicate that these zones have fair to poor development and a substantial amount of the gas was probably coming from the Gordon. The fact that the gas shows continued to rise for several hundred feet below the Gordon is probably due to severe pressure depletion in that zone.

I would first recommend completion of the Bayard, 5<sup>th</sup> & 4<sup>th</sup> Sandstones. The Bayard (3,045-3,058') shows good thickness (13') but only fair porosity (6%). The 5<sup>th</sup> (2,970-3,006') and 4<sup>th</sup> (2,890-2,954') were fairly thin with low porosity. However, some gas effect was noted on the neutron log and small gas shows were noted on the temperature log. Good gas shows were noted on the mud log in these zones. However, as mentioned above, I believe most of this gas was a delayed show from the Gordon. After fracturing and cleanup of the Bayard, 4<sup>th</sup> & 5<sup>th</sup>, I would recommend perforating the Gordon. Tubing could be run with a packer between the Gordon and 4<sup>th</sup>. The lower zones could be produced up the tubing and the Gordon could be produced through the annulus between the production casing and the tubing. This way, pressure and flow from each zone could be measured independently. Fluid production should not be a problem for any of these zones.

Future potential also exists in the Gantz, Weir, Big Injun, Big Lime and 3<sup>rd</sup> Salt. The Gantz, from 2,596 to 2,602', is thin, but has good porosity and good gas effect on the neutron log. A small show of gas (background of 20 units to a maximum of 59 units) was noted on the mud log. A zone of very good porosity was noted at the top of the Weir (2,402-2,408'). Good gas effect was noted on the neutron log and a small show of gas (background of 15 units to a maximum of 72 units) was indicated on the mud log. The Big Injun, Big Lime & 3<sup>rd</sup> Salt Sand are behind the 7' casing. Therefore, we only have a gamma ray-neutron log for evaluation. A very good show of gas (background of 480 units to a maximum of 2,805 units) was recorded in the Big Injun at 2,090'. The neutron log indicates a thin zone from 2,087 to 2,090' with good gas effect. Below this, fluid saturations in the Big Injun rise, indicating a potential water zone just below the gas. An excellent fast milky oil cut was recorded on the mud log in the Big Lime at 1,960'. The neutron log shows high fluid porosity from 1,956 to 1,962'. Some oil production may be possible from this zone, but water saturations are unknown. A very good show of gas (background of 18 units to a maximum of 2,024 units) was recorded in the 3<sup>rd</sup> Salt Sand at 1,885'. The neutron log shows two zone of good gas effect from 1,879 to 1,883' and 1,841 to 1,848'. Some gas production may be possible from this zone. However, water saturations are unknown.


Office of Oil & Gas

OCT 24 2016

02/03/2017



Respectfully submitted,



NATIONAL MINERALS CORPORATION  
By: Douglas L. Core, President

April 19, 2016

Department of Energy  
Office of Oil & Gas

OCT 24 2016