



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

PERMIT MODIFICATION APPROVAL

June 26, 2013

RAVEN RIDGE ENERGY
3230 PENNSYLVANIA AVENUE
CHARLESTON, WV 25302

Re: Permit Modification Approval for API Number 3906348 , Well #: OSBORNE 2A
RUN 1997' of 4 1/2" & FRAC

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith
Regulatory/Compliance Manager
Office of Oil and Gas

I 6/27/2013

3906348M



MODIFICATION

June 26, 2013

James Martin, Chief
DEP - OOG

Re: Osbourne 2A
API #47-39-06348

Dear Mr. Martin

We are writing this e-mail in regards to the receipt of a violation dated June 24, 2013 on the above referenced well. The violation was a result of Cunningham Energy not following the conditions of our original permit.

This well was permitted to be shot however after further evaluation of the well's log, it became apparent that shooting the well would not be sufficient for yielding the greatest results. Upon this discovery the decision was made to run 4 1/2" pipe so that the well could be stimulated and fracked on a later date. We were unaware that we needed to contact an inspector before running the 4 1/2" pipe. We were under the impression that notifying an inspector within 48 hours of the frac would be sufficient. Cunningham Energy notified Inspector Urban, on June 24th that we intended to frac the well on June, 28th. Please see attached an amended WW-2B with regard to this change.

We request to frac this well on June 28, 2013, this pit has been closed in and we plan to blow the well back into the frac tanks which are already set on location.

We apologize for the misunderstanding and inconvenience, and ask that this letter and attached corrected WW-2B serve as a request for modification of our original permit as well as abate this violation.

Thank you for your consideration.

Regards,

Ryan E. M. Cunningham
President
Cunningham Energy, LLC
3230 Pennsylvania Ave.
Charleston, WV 25302
(304) 344-9291



Received
Office of Oil & Gas

JUN 26 2013

Cc: Terry Urban

3906348 M

WW - 2B
(Rev. 8/10)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: RAVEN RIDGE ENERGY 494485865 KANAWHA(39) BIG SANDY (1) CLENDENIN (299)
Operator ID County District Quadrangle

2) Operator's Well Number: OSBORNE 2A 3) Elevation: 846'

4) Well Type: (a) Oil X or Gas X
(b) If Gas: Production X / Underground Storage _____
Deep _____ / Shallow X

5) Proposed Target Formation(s): WEIR Proposed Target Depth: 2100'

6) Proposed Total Depth: 2400' Feet Formation at Proposed Total Depth: 2,000' - 2,400'

7) Approximate fresh water strata depths: 150'

8) Approximate salt water depths: 1,100' - 1,600'

9) Approximate coal seam depths: NO COAL LISTED ON TITLE

10) Approximate void depths,(coal, Karst, other): NONE

11) Does land contain coal seams tributary to active mine? NO

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
STIMULATE AND 2 STAGE WATER FRAC

Handwritten signature and date: 6-26-13

13) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor						
Fresh Water	9 5/8'	LS	17LBS	350'	350'	CTS
Coal						
Intermediate	7"	J55	23LBS	1,850'	1,850'	CTS
Production	4 1/2"	N80	1160LBS	1997'	1997'	150
Tubing						
Liners						

Received
Office of Oil & Gas

Packers: Kind: _____
Sizes: _____
Depths Set _____



west virginia department of environmental protection

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601 57th Street SE
Charleston, WV 25304
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Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

December 28, 2012

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-3906348, issued to RAVEN RIDGE ENERGY, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, well operators report of well work, is to be submitted to this office within 90 days of completion of drilling, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: OSBORNE 2A
Farm Name: BODKINS, DANIEL & LAURA
API Well Number: 47-3906348
Permit Type: Vertical Well
Date Issued: 12/28/2012

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR § 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR § 4-19.1.c, if the operator is unable to sample and analyze any water well or spring within one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. Operator must use a 7" frac valve to control the well shot.

3906348

TORPEDO SERVICES, INC.

Oil, Gas, & Water Well Shooting
165 Country Club Road
Beattyville, KY 41311
Phone: 606 464-9696

Listed below are the steps and process that we will use in shooting the M. Bird 1A, Crum 1A, Crum 2A, Crum 3A, Osborne 1A, and Osborne 2A.

The wells will be backfilled with pea gravel. We will be shooting and adding water in the hole to wash down any debris that might have stuck to the bore of the well when the gravel was placed in the hole. Then we will place 10 ft. x 5 inch diameter shells in the hole. Each shell will contain a mixture of ammonium nitrate and nitromethane, and will weigh approximately 120 lbs. On the top of each shell will be a one lb. cast booster. Each 10 ft. shell will be lowered in the hole individually. After we have all of the shells in the hole, we will add fresh water in the hole to act as a tamp for the shot. Then we will screw the shot diverter into the pipe. I will make up the charge to detonate the explosives in the hole. That charge will contain 5 one pound cast boosters. There will be 2 electric blasting caps inserted into the boosters, then attached to a electric duplex 20 gauge wire. That wire will be lowered into the hole and will sit on top of the charges in the hole. The diverter will be aimed towards the pit and when everyone is ready, the shot will be detonated. The fluid should come out of the hole and the diverter will divert the water into the pit.

7" FRAC VALVE WILL BE USED
WHILE SHOOTING.

RECEIVED
Office of Oil & Gas
DEC 11 2012
WV Department of
Environmental Protection

WW-2A
(Rev. 6-07)

1.) Date: 11/30/2012
2.) Operator's Well Number OSBORNE #2A
State County Permit
3.) API Well No.: 47- -

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name DANIEL AND LAURA BODKINS
Address P.O. BOX 847
CLENDENIN, WV 25045
(b) Name
Address
(c) Name
Address
5) (a) Coal Operator
Name
Address
(b) Coal Owner(s) with Declaration
Name
Address
(c) Coal Lessee with Declaration
Name
Address
6) Inspector TERRY URBAN
Address P.O. BOX 847
CLENDENIN, WV 25045
Telephone (304) 549-5915

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas
OR
Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

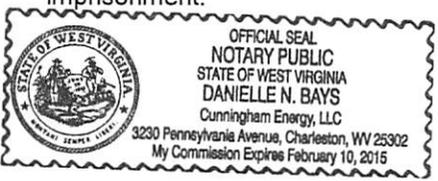
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through ___ on the above named parties by:

- Personal Service (Affidavit attached)
- X Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Well Operator CUNNINGHAM ENERGY LLC, AKA, RAVEN RIDGE ENERGY LLC
By: RYAN CUNNINGHAM
Its: OFFICER
Address 3230 PENNSYLVANIA AVENUE
CHARLESTON, WV 25302
Telephone (304) 344-9291

Subscribed and sworn before me this 30th day of November

[Signature]

Notary Public

Danielle N. Bays
My Commission Expires 2/10/2015

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Office of Oil & Gas
DEC 11 2012

Department of Environmental Protection

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov

3906348

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) Connie Ashley</p> <p>C. Date of Delivery 12.11.12</p>
<p>1. Article Addressed to: Leslie & Connie Ashley 43 Doctors Creek Road Clendenin, WV 25045</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>
<p>2. Article Number (transfer from service label) PS Form 3811, February 2004</p>	<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p> <p>7011 2000 0001 0375 4861</p> <p>Domestic Return Receipt</p> <p>102595-02-M-1540</p>

M.BIRD

7011 2000 0001 0375 4861

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Sent to
 Leslie & Connie Ashley
 43 Doctors Creek Rd
 Clendenin WV 25045

Postmark Here

7011 2000 0001 0375 4854

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Sent to
 DANIEL E. LAUREN BUDKINS
 PO BOX 8477
 CLENDENIN WV 25045

Postmark Here

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
ALVIN ENGELKE, AGENT	CUNNINGHAM ENERGY LLC, AKA RAVEN RIDGE ENERGY LLC	1/2 OF 1/8	260/431
LINDA OSBORNE	CUNNINGHAM ENERGY LLC, AKA RAVEN RIDGE ENERGY LLC	1/4 OF 1/8	260/775
EMMA JEAN LADD	CUNNINGHAM ENERGY LLC, AKA RAVEN RIDGE ENERGY LLC	1/4 OF 1/8	260/80

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

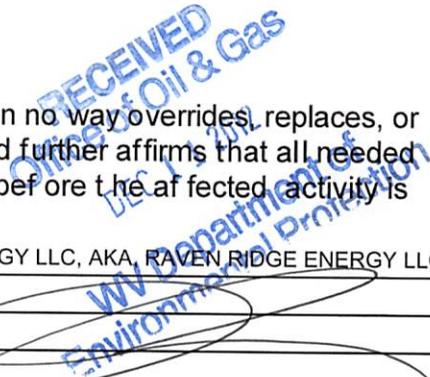
The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:
By: Its:

CUNNINGHAM ENERGY LLC, AKA, RAVEN RIDGE ENERGY LLC
 RYAN CUNNINGHAM
 OFFICER

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

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EMMA JEAN LADD	CUNNINGHAM ENERGY LLC, AKA, RAVEN RIDGE ENERGY LLC	1/4 OF 1/8	280/80

Raven Ridge Energy has the right to operate Cunningham Energy, LLC's lease by contractual arrangement.

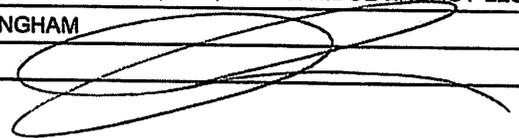
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Well Operator: _____
 By: Its: _____
 CUNNINGHAM ENERGY LLC, AKA, RAVEN RIDGE ENERGY LLC
 RYAN CUNNINGHAM
 OFFICER



3906348

WW-2B1
(5-12)

Well No. OSBORNE #2A

West Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name STURM ENVIRONMENTAL
Sampling Contractor HUPP SURVEYING

Well Operator CUNNINGHAM ENERGY LLC, AKA, RAVEN RIDGE ENERGY LLC
Address 3230 PENNSYLVANIA AVENUE
CHARLESTON, WV 25302
Telephone (304) 344-9291

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

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HUPP Surveying & Mapping
P.O. BOX 647
GRANTSVILLE, WV 26147
(304) 354-7035 hupp@frontiernet.net FAX: (304) 354-6548

November 29, 2012

RE: Water Samples for Osborne #2A

There appears to be thirty (30) potable water source within 1,500' of Osborne #2A, therefore tests should be offered and samples taken as required.

1. Daniel & Laura Bodkins
P.O. Box 847
Clendenin, WV 25045
Tax Map 12E Parcel 1
2. Hershel & Dorothy Harris-Trustees
2020 Benjamin Rd.
Malabav, FL 32950
Tax Map 12E Parcel 2
3. Cledith & Donna Hinchman
85 Spencer Rd.
Clendenin, WV 25045
Tax Map 12E Parcel 9
4. Dalman Jett
744 Pigeon Rd.
Procious, WV 25164
Tax Map 12E Parcel 8
5. Glenn Vicks
14444 Black Lake Rd.
Thomasville, NC 27360
Tax Map 12E Parcel 9.1
6. Mary & Douglas Hunt
2240 Highway 701 N
Loris, SC 29569
Tax Map 12E Parcel 11
7. Michael Cahill
P.O. Box 157
Clendenin, WV 25045
Tax Map 19 Parcel 41

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8. William & Charlotte Barnes
P.O. Box 1615
Clendenin, WV 25045
Tax Map 19 Parcel 42
9. Cathy Null
P.O. Box 733
Clendenin, WV 25045
Tax Map 12E Parcel 12
10. Paul Yoak
44 Spencer Rd.
Clendenin, WV 25045
Tax Map 19E Parcels 1 & 1.1
11. Juanita Plumley
4700 Ridge Rd.
Clendenin, WV 25045
Tax Map 19E Parcel 3
12. Willie & Ruth Icenhower
P.O. Box 393
Clendenin, WV 25045
Tax Map 19E Parcels 4, 5, 6, 7.1 & 8
13. Frank Taylor & Kenneth Sloan
P.O. Box 384
Clendenin, WV 25045
Tax Map 19E Parcel 8.1
14. Kenneth Sloan
P.O. Box 384
Clendenin, WV 25045
Tax Map 19E Parcel 9
15. Paul & Janet Keiffer
36 Spencer Rd.
Clendenin, WV 25045
Tax Map 19E Parcels 10 & 11
16. John & Diane Payne
41 Spencer Rd.
Clendenin, WV 25045
Tax Map 19E Parcel 14

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17. Philip Winkler
40 B Spencer Rd.
Clendenin, WV 25045
Tax Map 19E Parcel 13
18. Robert Robinson
P.O. Box 1552
Clendenin, WV 25045
Tax Map 19E Parcel 7
19. Paula Darnell
30 Spencer Rd.
Clendenin, WV 25045
Tax Map 19E Parcels 46.1 & 46.2
20. Nida Hascue
210 Pine Cir
Dunbar, WV 25064
Tax Map 19E Parcel 46
21. Thomas & Annie Cook
2516 County Rd 2334
Como, TX 75431
Tax Map 19E Parcel 47
22. Patrick Schoonover
HC 74 Box 81
Bomont, WV 25030
Tax Map 19E Parcel 48
23. Kenneth Harper
P.O. Box 1582
Clendenin, WV 25045
Tax Map 19E Parcel 49
24. Michael Cahill
P.O. Box 157
Clendenin, WV 25045
Tax Map 19 Parcel 41
25. Shana Ellis
P.O. Box 1358
Clendenin, WV 25045
Tax Map 19 Parcel 42.1
26. Jeffrey & Crystal Milam
P.O. Box 958
Clendenin, WV 25045
Tax Map 12D Parcel 23

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- 27. Barbara Jones
50 Valley Dr.
Clendenin, WV 25045
Tax Map 12D Parcel 22.1

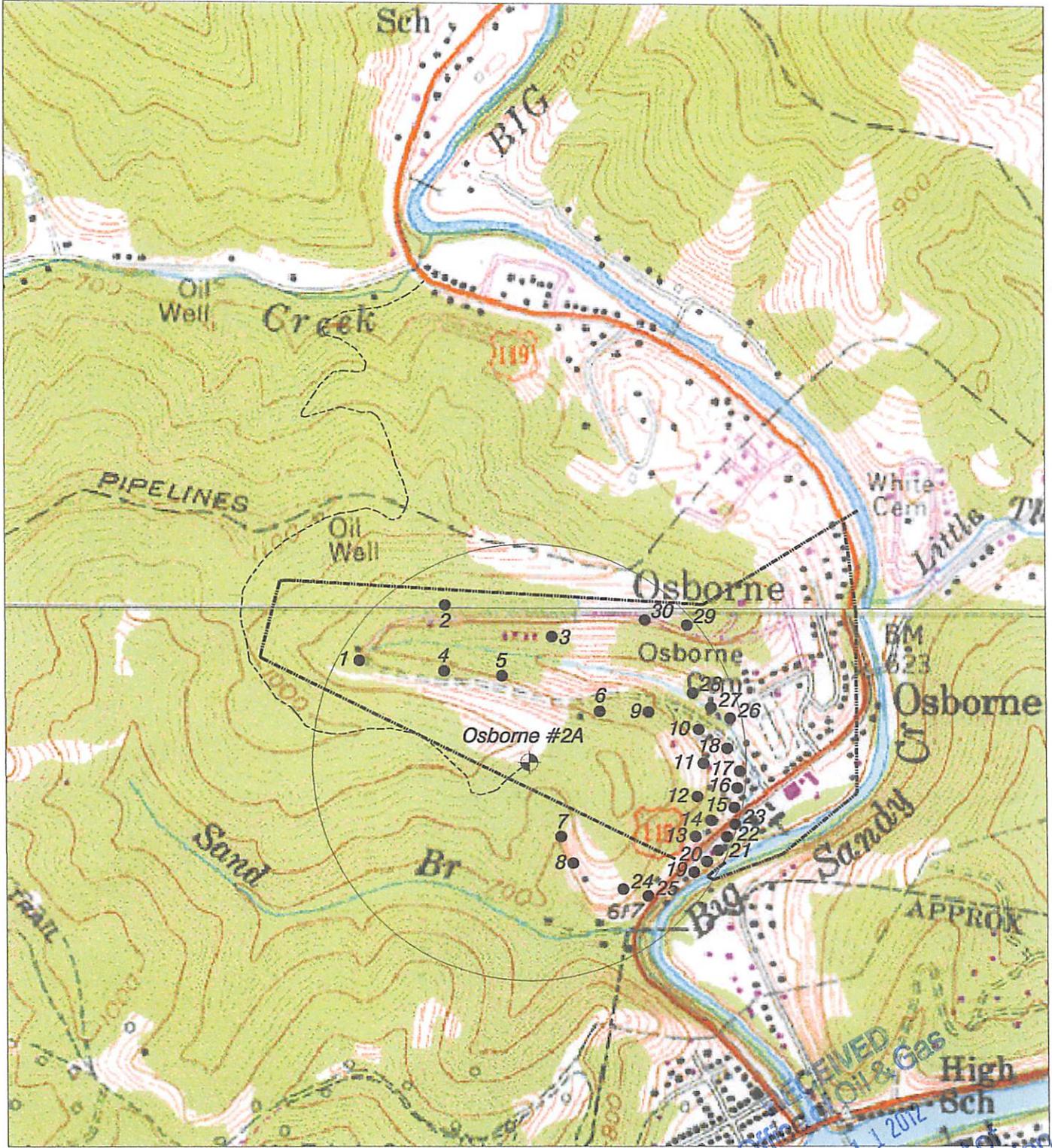
- 28. William Gunnoe
P.O. Box 1172
Clendenin, WV 25045
Tax Map 12D Parcel 22

- 29. Larry Bowen
4844 Chimney Dr.
Charleston, WV 25302
Tax Map 12D Parcels 2 & 3

- 30. Slack Groups LLC
30 Wingfield LN
Elkview, WV 25071
Tax Map 12D Parcel 1

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WV Department of
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RAVEN RIDGE ENERGY, LLC. OSBORNE #2A Water



NORTH

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WV Department of
Environmental Protection
EEC 1 1 2012

HUPP Surveying & Mapping

P.O. BOX 647 GRANTSVILLE, WV 26147
PH: (304)354-7035 E-MAIL: hupp@frontiernet.net

1" = 1000'
Clendenin Quad

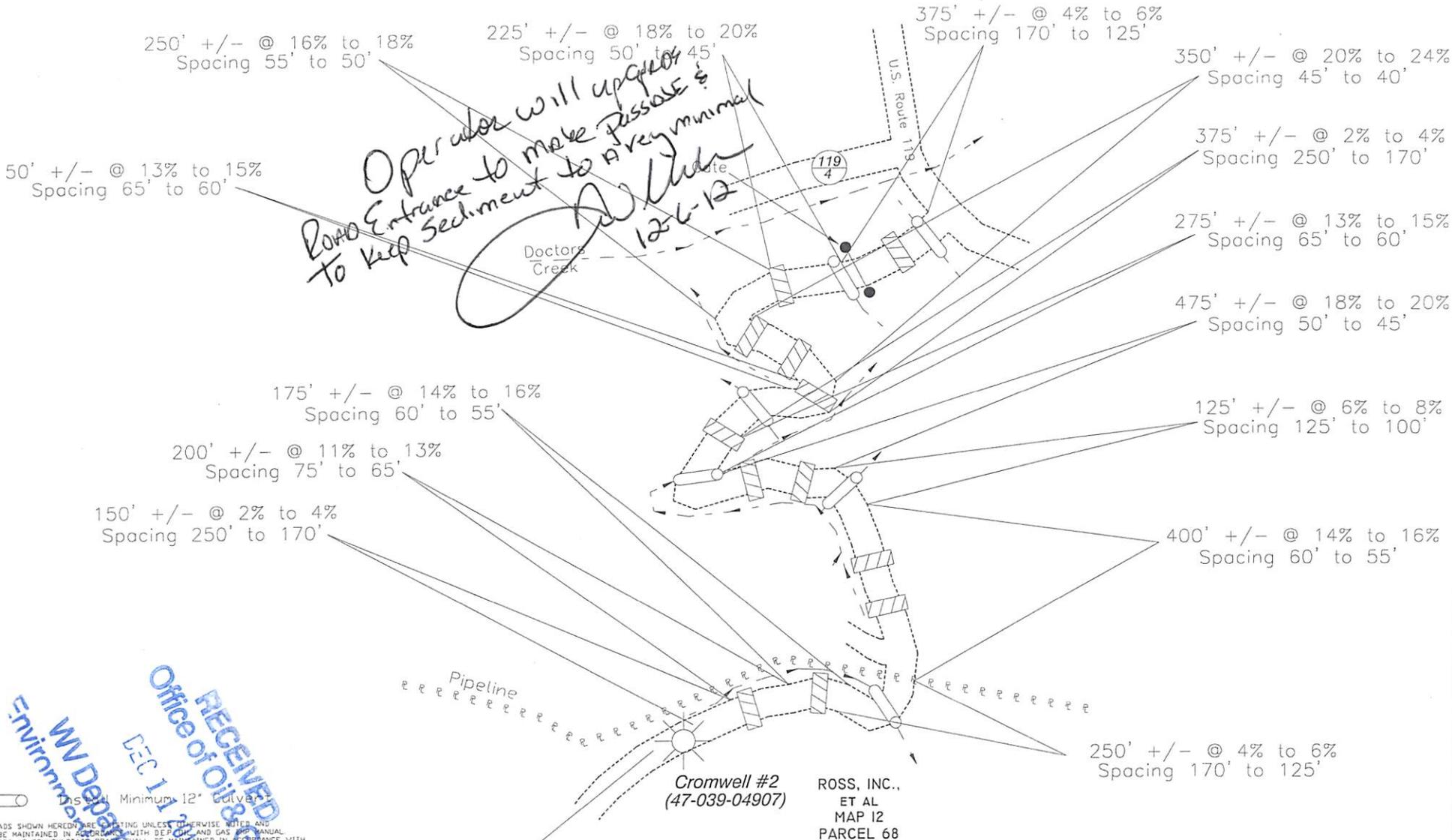
Raven Ridge Energy, LLC.
3230 Pennsylvania Ave.
Charleston, WV 25302

RAVEN RIDGE ENERGY, LLC. Osborne #2A

Form W-9

Page 1 of 3

Drawing Not To Scale



NORTH

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WV Department of Environmental Protection

Minimum 12" Culvert

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH DEP OIL AND GAS AND MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED FROM D.O.T.

SEDIMENT BASINS, TRAPS AND APPROPRIATE EROSION CONTROL BANKS ARE TO BE CONSTRUCTED AT ALL CULVERTS AND DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFYING THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

CONTRACTORS/COMPANY ARE RESPONSIBLE FOR LOCATING UTILITIES WHETHER SHOWN ON THIS PLAN OR NOT.

TEMPORARILY SEED AND MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT AND STACK ALL TIMBER ABOVE 6-INCHES IN DIAMETER AND THICKER.

STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

See Page 2

HUPP Surveying & Mapping
P.O. BOX 647 GRANTSVILLE, WV 26147
PH: (304)354-7035 E-MAIL: hupp@frontiernet.net

Drafted BY:	Date Drafted:	Job Number:
DB	11/28/12	W20122143

39 06 348

RAVEN RIDGE ENERGY, LLC. Osborne #2A

Form W-9

Page 2 of 3

ROSS, INC.,
ET AL
MAP 12
PARCEL 68

Road Is Existing To Here.
Begin New Construction.

See Page 1

Surface & Lease Boundary

Cromwell #2
(47-039-04907)

Proposed
Crum #1A

BODKINS
MAP 19
PARCEL 39

Proposed
Crum #2A

BODKINS
MAP 12E
PARCEL 1

Surface & Lease Boundary

Proposed
Osborne #1A

Proposed
Osborne #2A

BARNES
MAP 19
PARCEL 42

Surface Boundary

475' +/- @ 10% to 12%
Spacing 80' to 70'

75' +/- @ 4% to 6%
Spacing 170' to 125'

325' +/- @ 12% to 14%
Spacing 70' to 60'

125' +/- @ 16% to 18%
Spacing 55' to 50'

150' +/- @ 6% to 8%
Spacing 125' to 100'

150' +/- @ 4% to 6%
Spacing 170' to 125'

175' +/- @ 10% to 12%
Spacing 80' to 70'

200' +/- @ 4% to 6%
Spacing 170' to 125'

75' +/- @ 9% to 11%
Spacing 90' to 75'

200' +/- @ 4% to 6%
Spacing 170' to 125'

350' +/- @ 18% to 20%
Spacing 50' to 45'

125' +/- @ 2% to 4%
Spacing 250' to 170'

75' +/- @ 8% to 10%
Spacing 100' to 80'

950' +/- @ 2% to 4%
Spacing 250' to 170'

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV DDT REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE DDT.

SEDIMENT BASINS, TRAPS AND APPROPRIATE EROSION CONTROL MEASURES ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV DEP OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFYING TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

CONTRACTORS/COMPANY ARE RESPONSIBLE FOR LOCATING UTILITIES WHETHER SHOWN ON THIS PLAN OR NOT.

TEMPORARILY SEED AND MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT AND STACK ALL TIMBER ABOVE 6-INCHES IN DIAMETER AND THICKER.

STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

HUPP Surveying & Mapping

P.O. BOX 647 GRANTSVILLE, WV 26147
PH: (304)354-7035 E-MAIL: hupp@frontiernet.net

Drafted BY:

DB

Date Drafted:

11/28/12

Job Number:

W20122143

Drawing Not To Scale NORTH

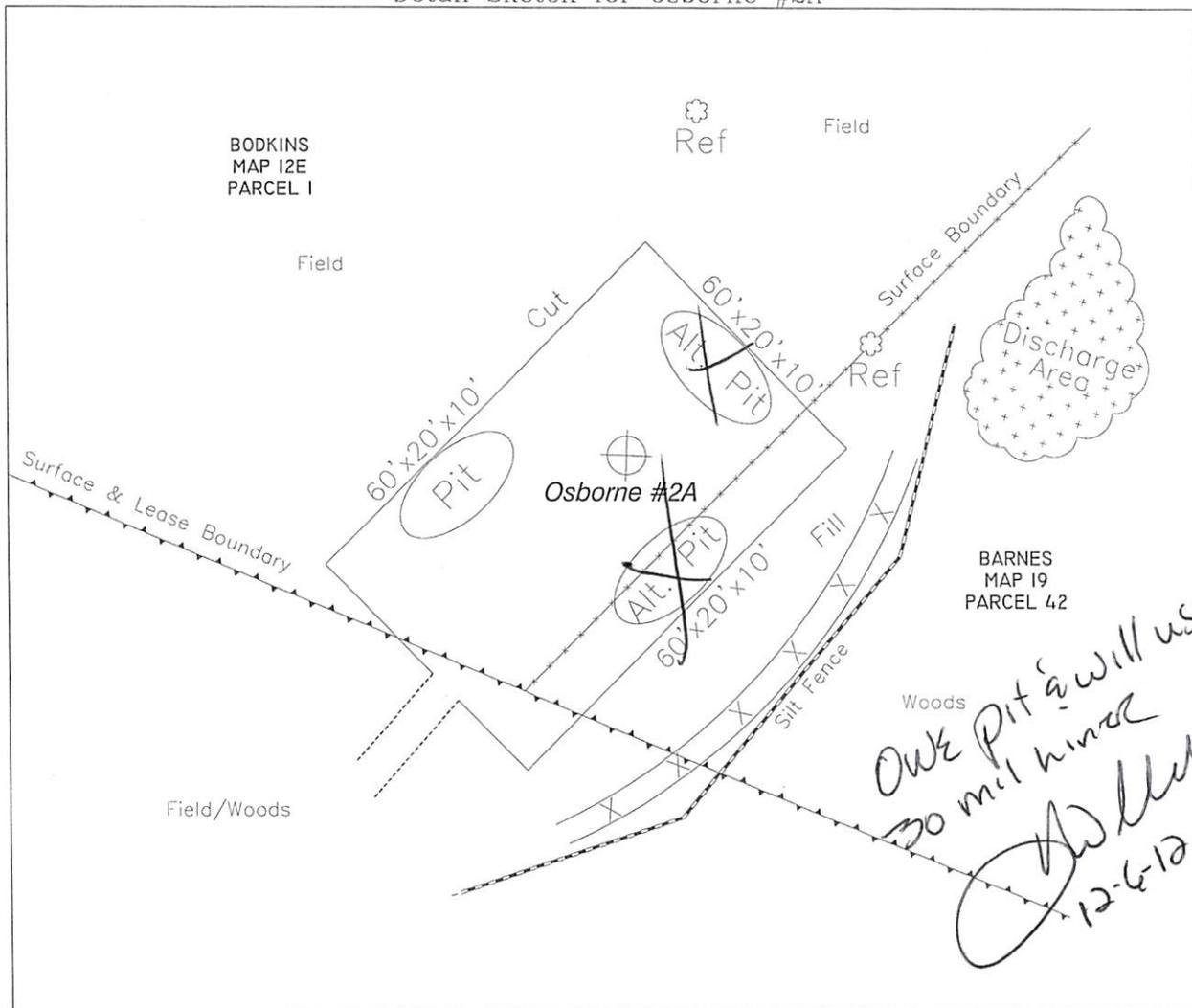
3906348

RAVEN RIDGE ENERGY, LLC. Osborne #2A

Form W-9

Page 3 of 3

Detail Sketch for Osborne #2A



Drawing Not To Scale NORTH

 Install Minimum 12" Culvert

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH DEP OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

SEDIMENT BASINS, TRAPS AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV DEP OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED.

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TEMPORARILY SEED AND MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT AND STACK ALL TIMBER ABOVE 6-INCHES IN DIAMETER AND THICKER.

STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

RECEIVED
Office of Oil & Gas
DEC 11 2012
WV Department of
Environmental Protection

HUPP Surveying & Mapping P.O. BOX 647 GRANTSVILLE, WV 26147 PH: (304)354-7035 E-MAIL: hupp@frontiernet.net	Drafted BY:	Date Drafted:	Job Number:
	DB	11/28/12	W20122143

3906348

WW-9
Rev. 5/10

Page _____ of _____
API Number 47 - _____ - _____
Operator's Well No. OSBORNE #2A

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS**

**CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE**

Operator Name CUNNINGHAM ENERGY LLC, AKA, RAVEN RIDGE ENERGY LLC OP Code 49445865

Watershed SAND BRANCH OF BIG SANDY CREEK Quadrangle CLENDENIN

Elevation 978' County KANAWHA District BIG SANDY

Description of anticipated Pit Waste: WATER AND SOAP

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes _____ No X

Will a synthetic liner be used in the pit? YES. If so, what mil.? 30

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. AIR, FRESHWATER

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used? SOAP

Will closed loop system be used? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. _____

-If left in pit and plan to solidify what medium will be used? Cement, lime, sawdust _____

-Landfill or offsite name/permit number? _____

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature [Signature]

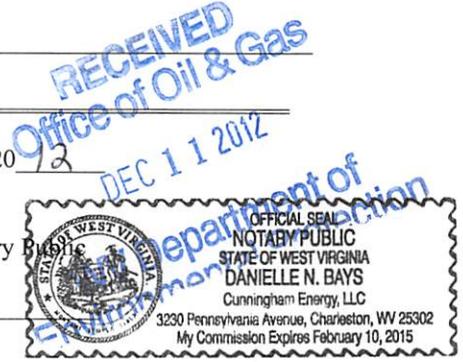
Company Official (Typed Name) RYAN CUNNINGHAM

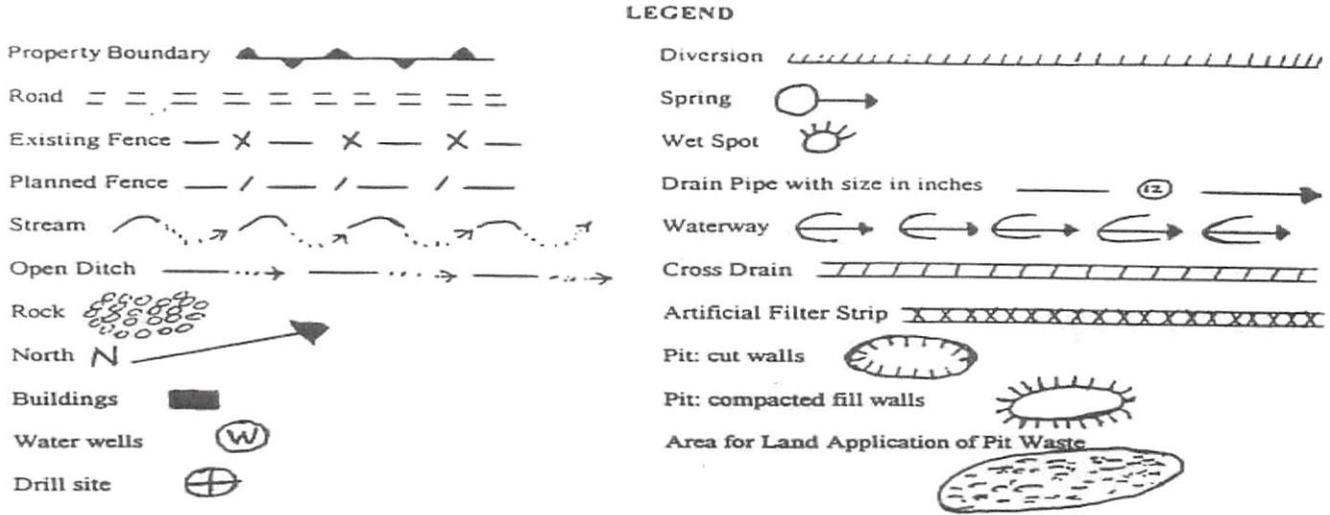
Company Official Title OFFICER

Subscribed and sworn before me this 30th day of November, 2012

[Signature] Notary

My commission expires 2/10/2015





Proposed Revegetation Treatment: Acres Disturbed 3.5 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 1/3TON lbs/acre (500 lbs minimum)

Mulch HAY 2 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY 31	40	ORCHARD GRASS	15
ALSIKE CLOVER	5	ALSIKE CLOVER	5
ANNUAL RYE	15		

Attach: Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Amy W. Miller

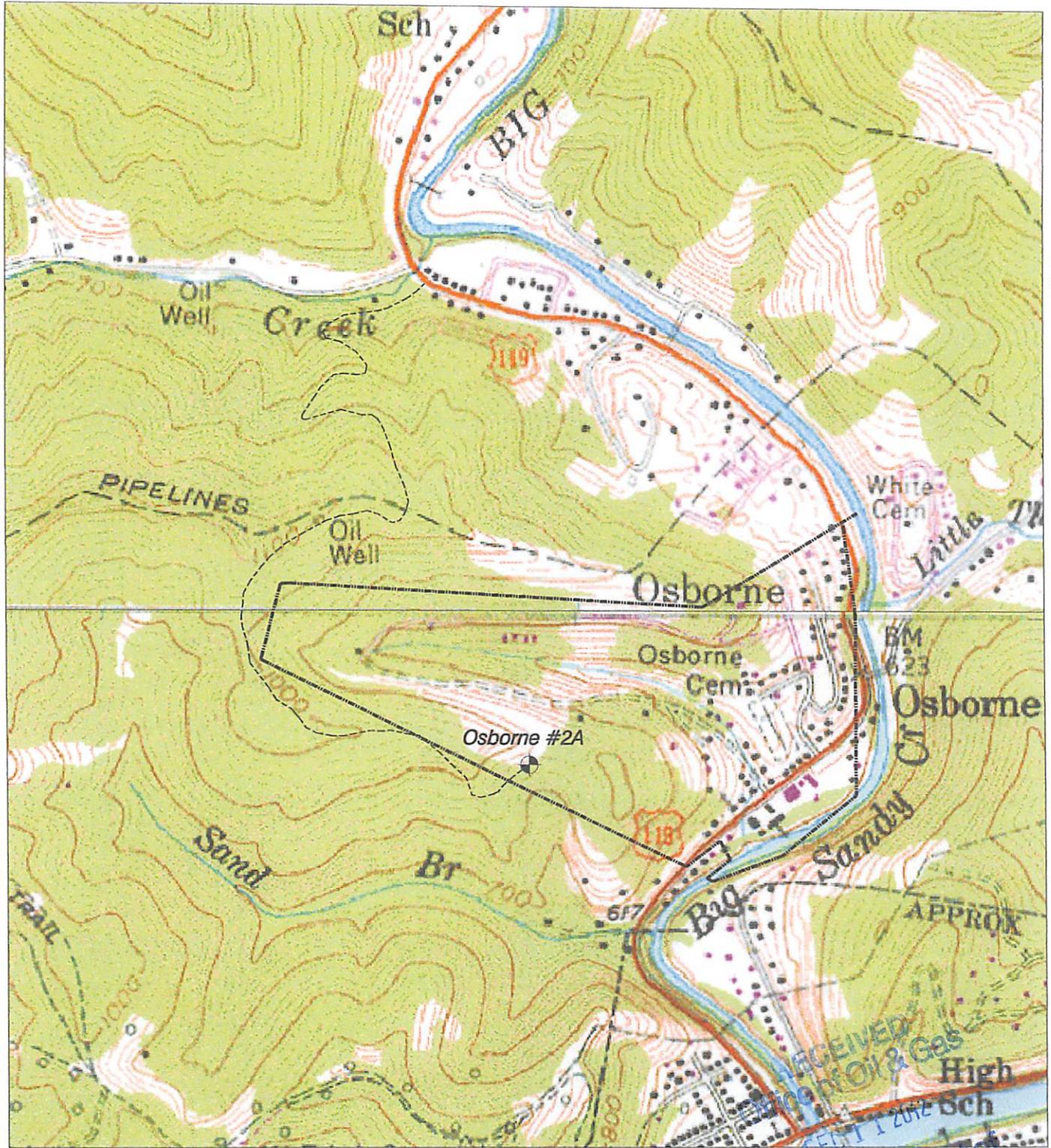
Comments: Operator will upgrade from Entrance to Make more passable and Keep Erosion to a very Minimal

Title: Inspecter del's logs Date: 12.6.12

Field Reviewed? Yes No

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Office of Oil & Gas
DEC 11 2012
WV Department of
Environmental Protection

RAVEN RIDGE ENERGY, LLC. OSBORNE #2A



NORTH

HUPP Surveying & Mapping

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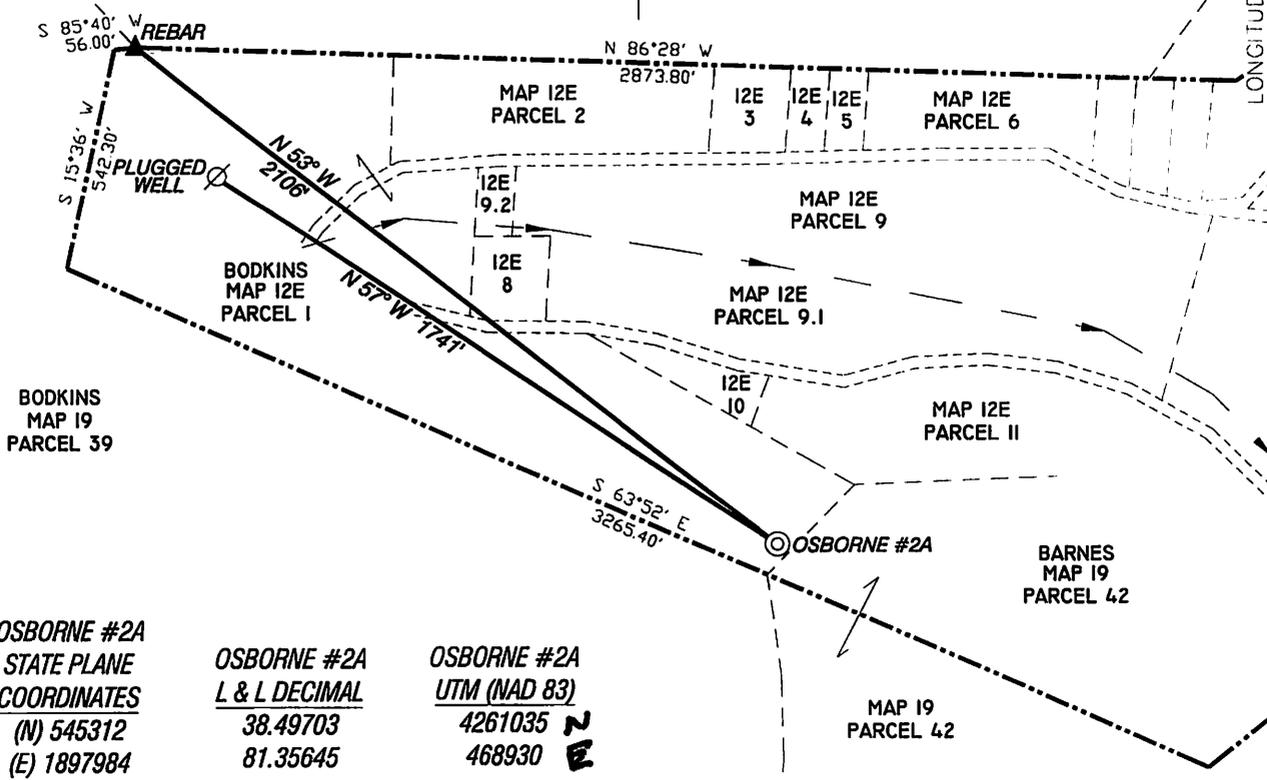
1" = 1000'
Clendenin Quad

Raven Ridge Energy, LLC.
3230 Pennsylvania Ave.
Charleston, WV 25302

RECEIVED
Environmental Protection
WV Department of Energy, LLC.
1/1/2012

OSBORNE #2A

ROSS, INC., ET AL
66.69 ACRES±
MAP 12
PARCEL 68

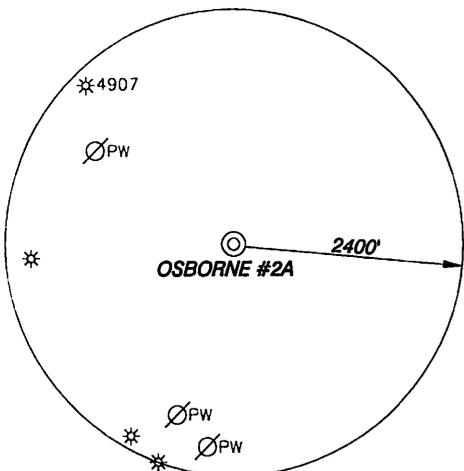


OSBORNE #2A
STATE PLANE
COORDINATES
(N) 545312
(E) 1897984

OSBORNE #2A
L & L DECIMAL
38.49703
81.35645

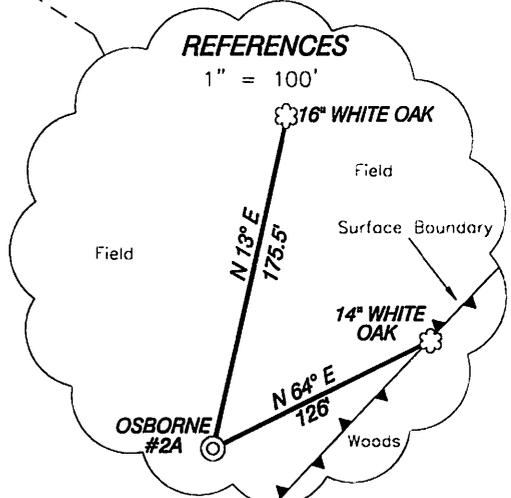
OSBORNE #2A
UTM (NAD 83)
4261035 N
468930 E

NORTH



NOTES

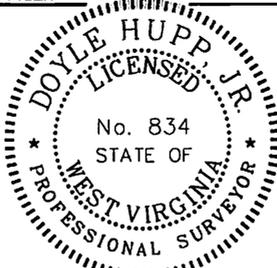
TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.
TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 11-28-12.
LEASE BOUNDARY SHOWN HEREON TAKEN FROM A LEGAL DESCRIPTION PROVIDED BY RAVEN RIDGE ENERGY, LLC.
SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF KANAWHA COUNTY IN MAY, 2012 AND INFORMATION PROVIDED BY RAVEN RIDGE ENERGY, LLC.
WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).



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. 834

Doyle Hupp Jr.
HUPP Surveying & Mapping
P.O. Box 647 Grantsville, WV 26147
(304) 354-7035 EMAIL: hupp@frontiernet.net



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE NOVEMBER 28, 2012
OPERATORS WELL NO. OSBORNE #2A
API WELL NO. 47-039-06348
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. W2143 (BK 63-8)
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER GRADE) SCALE 1" = 500'

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 846' WATERSHED SAND BRANCH OF BIG SANDY CREEK
DISTRICT BIG SANDY COUNTY KANAWHA QUADRANGLE CLENDENIN 7.5'
SURFACE OWNER DANIEL & LAURA BODKINS ACREAGE 23.86±
ROYALTY OWNER ALVIN ENGELKE-AGENT, et al LEASE ACREAGE 124.8±
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 BERA
ESTIMATED DEPTH 3,000'

WELL OPERATOR RAVEN RIDGE ENERGY, LLC. DESIGNATED AGENT RYAN CUNNINGHAM
ADDRESS 3230 PENNSYLVANIA AVE. CHARLESTON, WV 25302 ADDRESS 3230 PENNSYLVANIA AVE. CHARLESTON, WV 25302

COUNTY NAME PERMIT