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

December 09, 2013

WELL WORK PERMIT

Re-Work

This permit, API Well Number: 47-3906347, 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 completion of permitted well work, 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 1A
Farm Name: BODKINS, DANIEL & LAURA
API Well Number: 47-3906347
Permit Type: Re-Work
Date Issued: 12/09/2013

Promoting a healthy environment.

3906347R

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. All pits must be lined with a minimum of 20 mil thickness synthetic liner.

5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.

6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.

7. Well work activities shall not constitute a hazard to the safety of persons.

8. This permit is being conditioned to address the possibility of flooding in the area of this well. Any tanks stored on this location must be securely anchored in cement to prevent the loss of tanks should a flood occur. In addition, cages must be placed around the well head to prevent debris from damaging the well head.

3906347R

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, LLC

494485865	KANAWHA 39	BIG SANDY 1	CLENDENIN 299
Operator ID	County	District	Quadrangle

2) Operator's Well Number: OSBORNE 1A 3) Elevation: 980'

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: 2,200'
6) Proposed Total Depth: 2,500' Feet Formation at Proposed Total Depth: 2,100-' - 2,500'
7) Approximate fresh-water strata depths: 200'
8) Approximate salt water depths: 1,200' - 1,700'

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)
PERFORM A SINGLE STAGE WATER FRAC ON THE WEIR FORMATION OF AN EXISTING WELL

11.25.13

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	13 3/8"	J55	42LBS	40	EXISTING	CTS
Fresh Water	9 5/8"	LS	17LBS	350'	EXISTING	CTS
Coal						
Intermediate	7"	J55	23LBS	1,850'	EXISTING	CTS
Production	4 1/2"	J55	10.5LBS	2250'	EXISTING	CTS
Tubing						
Liners						

Packers: Kind: _____
Sizes: _____
Depths Set _____

3906347R

WW-2A
(Rev. 6-07)

1). Date: NOVEMBER 25, 2013

2.) Operator's Well Number OSBORNE 1A

3.) API Well No.: 47- (State) 39 (County) - 6347 (Permit)

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

6) Inspector TERRY URBAN
Address P.O. BOX 1207
CLENDENIN, WV 25045
Telephone (304) 549-5915

5) (a) Coal Operator
Name
Address

(b) Coal Owner(s) with Declaration
Name
Address

Name
Address

(c) Coal Lessee with Declaration
Name
Address

TU

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.

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DANIELLE N. BAYS
Cunningham Energy, LLC
3230 Pennsylvania Avenue, Charleston, WV 25302
My Commission Expires February 10, 2015

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

Subscribed and sworn before me this 25 day of NOVEMBER, 2013

Danielle N. Bays
Notary Public

My Commission Expires 2/10/2015

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

Received
NOV 25 2013
Office of Oil and Gas
WV Dept. of Environmental Protection

3906347R

7012 2920 0001 2086 1799

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

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

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

Postmark Here

Sent To: Daniel & Laura Burdiens
Street, Apt. No., or PO Box No.: P.O. Box 847
City, State, ZIP+4: Clendenin, WV 25045

PS Form 3800, August 2006 See Reverse for Instructions

Received
NOV 25 2013
Office of Oil and Gas
WV Dept. of Environmental Protection

3906347R

WW-2A1
(Rev. 1/11)

Operator's Well Number OSBORNE 1A

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	1/2 OF 1/8	260/431
LINDA OSBORNE	CUNNINGHAM ENERGY, LLC	1/2 OF 1/8	260/775
EMMA JEAN LADD	CUNNINGHAM ENERGY, LLC	1/2 OF 1/8	260/80
	SEE ATTACHED AGREEMENT		

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: RAVEN RIDGE ENERGY, LLC
By: RYAN E. M. CUNNINGHAM
Its: OFFICER

Received

NOV 25

Office of Oil and Gas
WV Dept. of Environmental Protection

3906347R

AGREEMENT

This agreement is made and entered into this 16th day of February, 2012 by and between Cunningham Energy, LLC, a West Virginia limited liability company and Raven Ridge Energy, LLC, a West Virginia limited liability company.

This agreement gives permission to Raven Ridge Energy to operate any leases (owned property or otherwise leased) maintained by Cunningham Energy, LLC for any and all past, current or future projects to be developed by or for Cunningham Energy, LLC.

CUNNINGHAM ENERGY, LLC

Owner

RAVEN RIDGE ENERGY

Officer

State of West Virginia
County of Kanawha

The foregoing instrument was acknowledged before me this 16th day of February, 2012 by Ryan E. M. Cunningham, Officer of Raven Ridge Energy, LLC., a West Virginia Limited Liability Company, on behalf of the company.

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DANELLE N. BAYS
Cunningham Energy, LLC
3000 Pennsylvania Avenue, Charleston, WV 25302
My Commission Expires February 10, 2015

Notary Public

2/10/2015
My Commission Expires

State of West Virginia
County of Kanawha

The foregoing instrument was acknowledged before me this 16th day of February, 2012 by Ryan E. M. Cunningham, Owner of Cunningham Energy, LLC., a West Virginia Limited Liability Company, on behalf of the company.

OFFICIAL SEAL
NOTARY PUBLIC

Notary Public

2/10/2015
My Commission Expires

Received

NOV 25 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

3906347R

WW-9
(5/13)

Page _____ of _____
API Number 47 -39 -6347
Operator's Well No. OSBORNE 1A

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name RAVEN RIDGE ENERGY, LLC OP Code 49445865

Watershed (HUC 10) SAND BRANCH OF BIG SANDY CREEK Quadrangle CLENDENIN

Elevation 980' County KANAWHA District BIG SANDY

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

Will a pit be used for drill cuttings? Yes _____ No X

If so, please describe anticipated pit waste: WE INTEND TO USE FRAC TANKS - NO PIT

Will a synthetic liner be used in the pit? Yes _____ No _____ If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

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

Will closed loop system be used? NO

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. N/A

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

Additives to be used in drilling medium? N/A

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

-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 _____

Company Official (Typed Name) RYAN E. M. CUNNINGHAM

Company Official Title OFFICER

Subscribed and sworn before me this 25TH day of NOVEMBER, 20 13

Danielle N. Bays Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
DANIELLE N. BAYS
Cunningham Energy, LLC
3230 Pennsylvania Avenue, Charleston, WV 25302
My Commission Expires February 10, 2015

My commission expires 02/10/2015

Received

NOV 25 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

3906347R

Form WW-9

Operator's Well No. OSBORNE 1A

Proposed Revegetation Treatment: Acres Disturbed 1.5 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

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

Mulch HAY 2 Tons/acre

Seed Mixtures

Area I Seed Type	lbs/acre	Area II 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: _____

Comments: _____

Title: Inspector Oil & Gas Date: 11-25-13

Field Reviewed? (✓) Yes ( ) No

Received

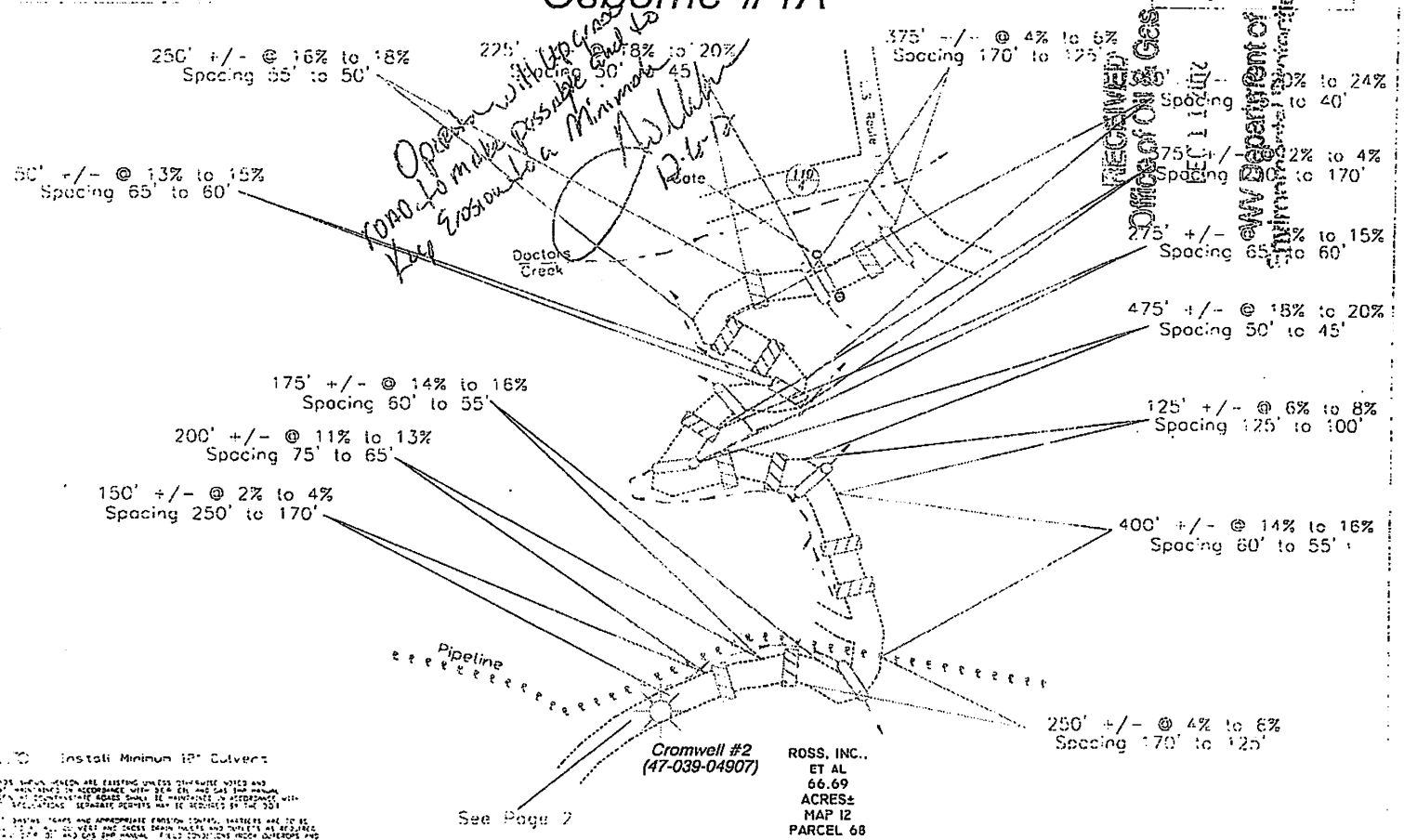
NOV 25 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

3906347R

Form W-9

RAVEN RIDGE ENERGY, LLC.
Osborne #1A



Operator will have road to make passable and to keep Erosion to a Minimum

HUPP Surveying & Mapping	Drafted BY:	Date Drafted	Job Number
P.O. BOX 647 GRANTSVILLE, WV 26147 Ph: (304) 354-7859	JB	[illegible]	[illegible]

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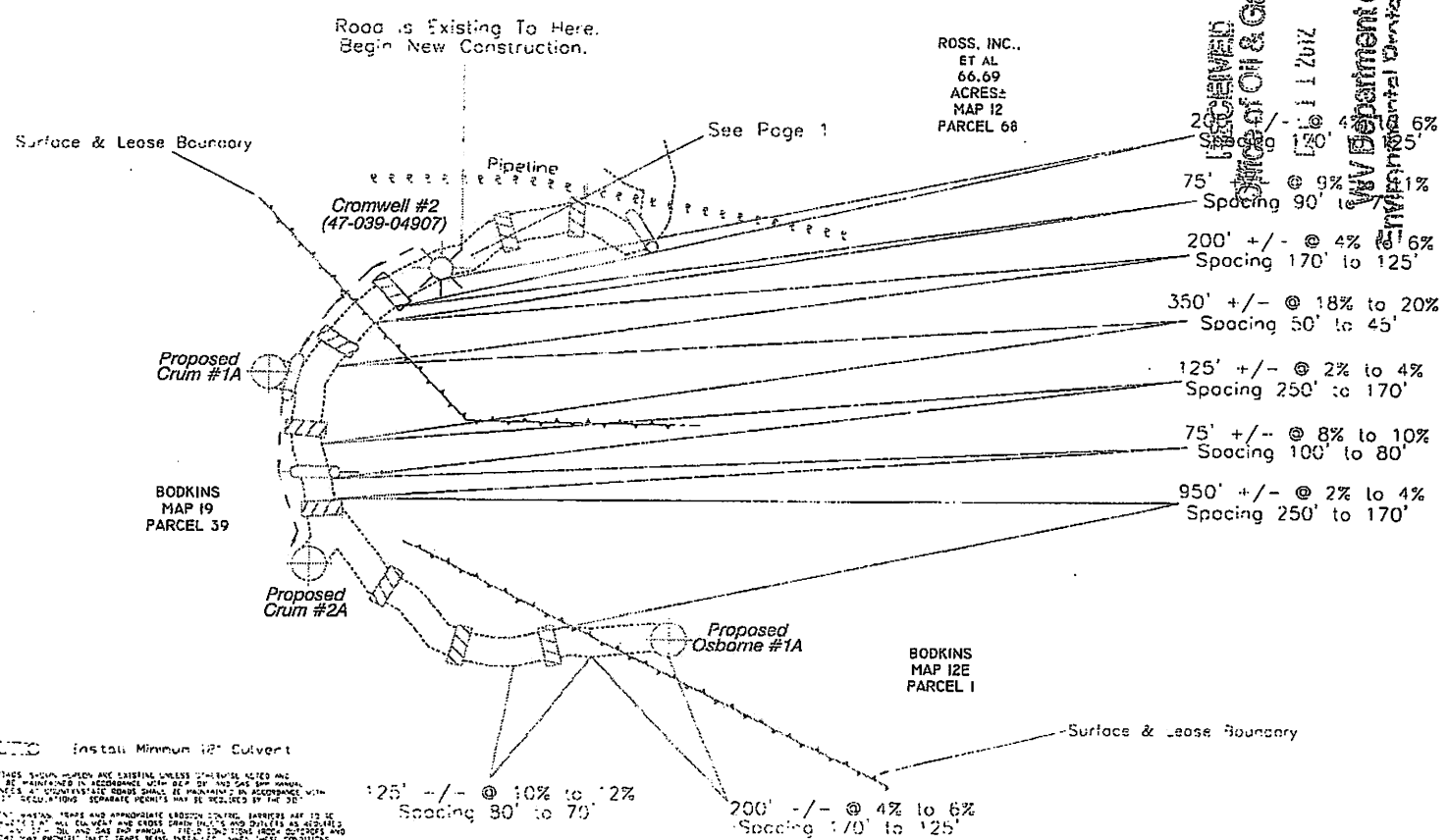
Office of Oil & Gas
DEC 1 1 2012
WV Department of Environmental Protection

Received
NOV 2 5 2013
Office of Oil and Gas
WV Dept. of Environmental Protection

3906347R

Form W-9

RAVEN RIDGE ENERGY, LLC.
Osborne #1A

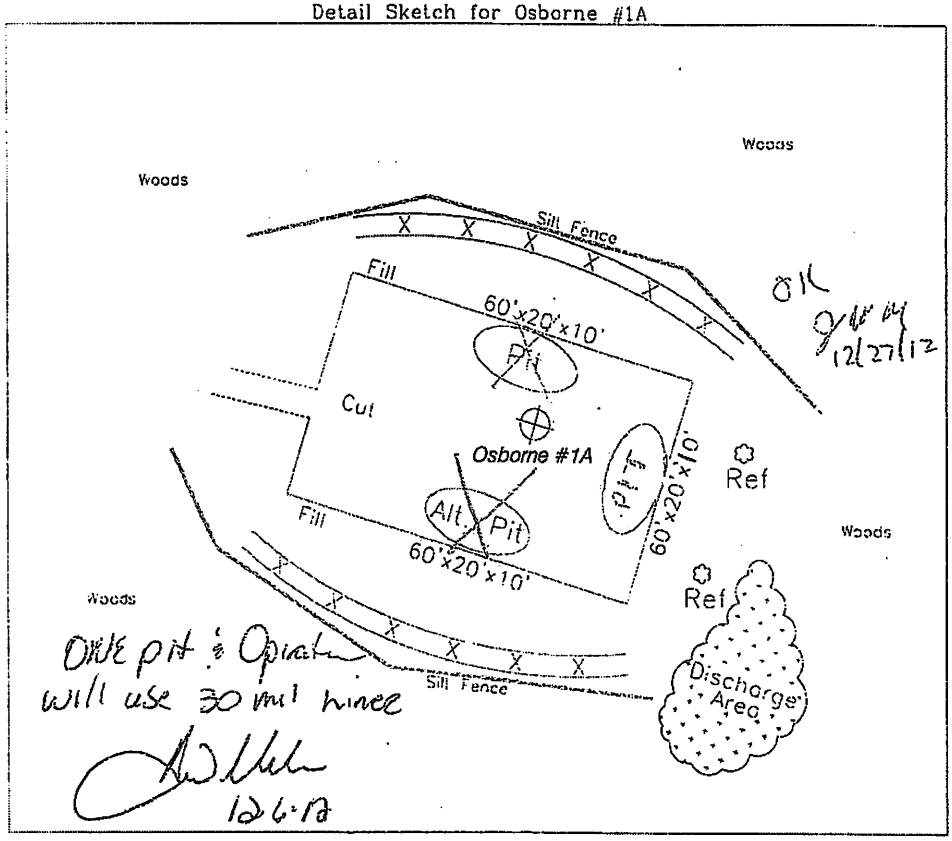


HUPP Surveying & Mapping	Drafted BY:	Date Drafted:	Job Number:
P.O. BOX 647 GRANTSVILLE, WV 26147	[illegible]	[illegible]	[illegible]

Form W-9

RAVEN RIDGE ENERGY, LLC.
Osborne #1A

Detail Sketch for Osborne #1A



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 DOT REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE DOT

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

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

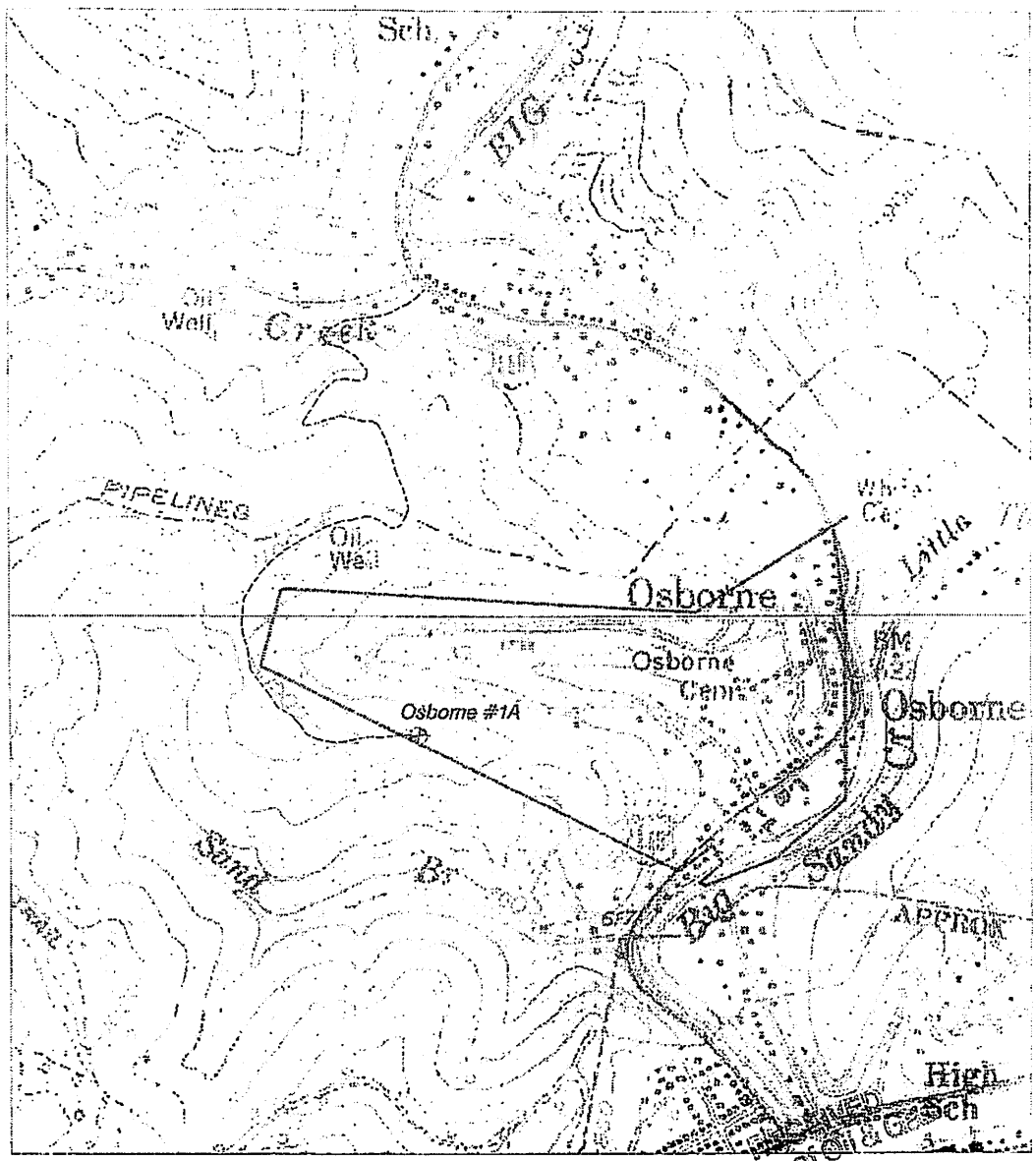
STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

HUPP Surveying & Mapping	Drafted BY:	Date Drafted:	Job Number:
P.O. BOX 647 GRANTSVILLE, WV 26147	DB	11/15/12	W20122143

3906347R

Form W-9

RAVEN RIDGE ENERGY, LLC.
OSBORNE #1A



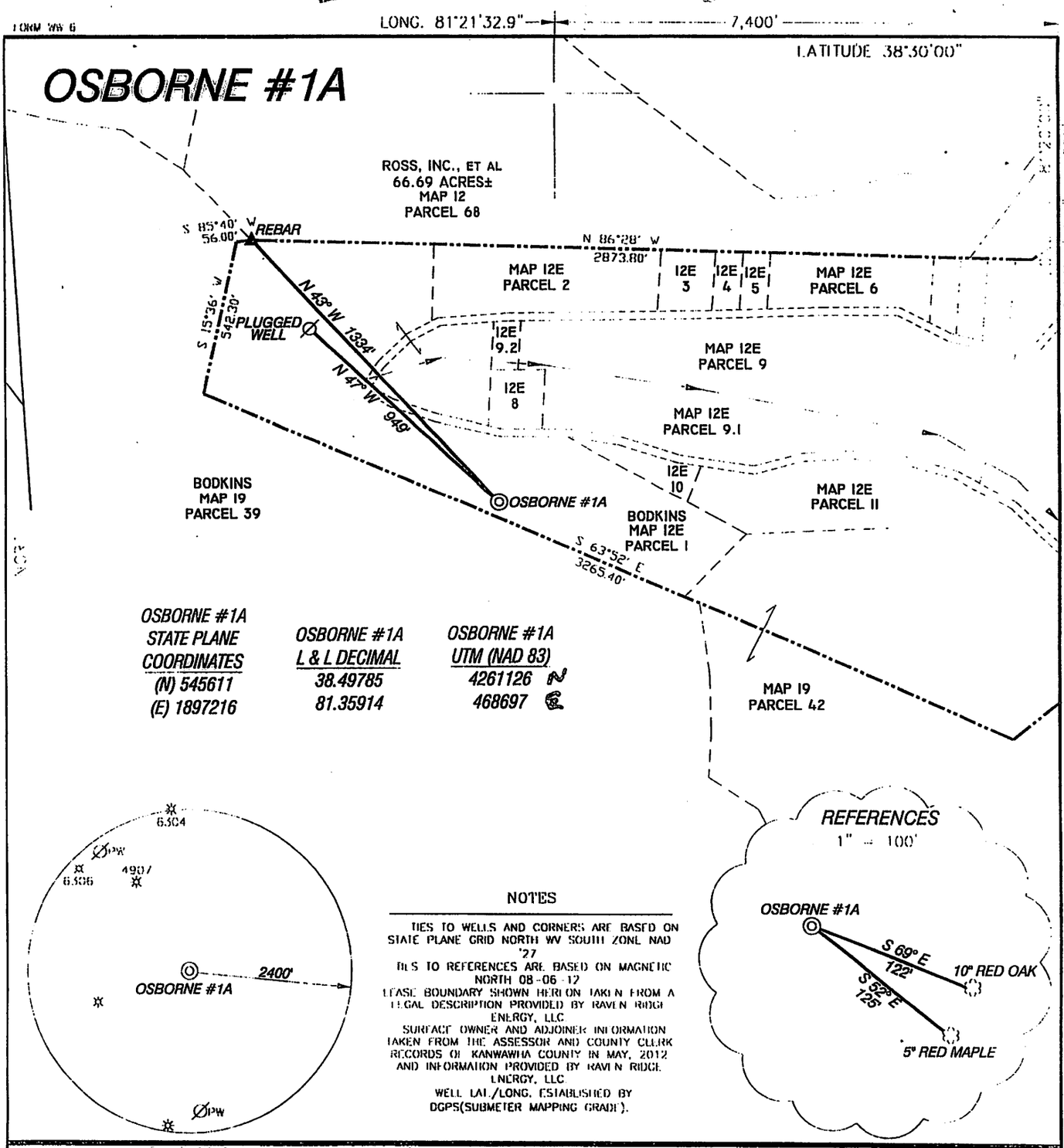
HUPP Surveying & Mapping
P.O. BOX 647 GRANTSVILLE, WV 26147
PH: (304)354-7035 E-MAIL: hupp@frontiernet.net

1" = 1000'
Clendenin Quad

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

FORM WW 6

OSBORNE #1A



OSBORNE #1A STATE PLANE COORDINATES	OSBORNE #1A L & L DECIMAL	OSBORNE #1A UTM (NAD 83)
(N) 545611	38.49785	4261126 N
(E) 1897216	81.35914	468697 E

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 08-06-12

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 KANAWAHA 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

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

DOYLE HUPP JR. LICENSED No. 834 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

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

DATE NOVEMBER 15, 20 12

OPERATORS WELL NO. OSBORNE #1A

API WELL NO. 47 - 039 - 06347R
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. W2143 (BK 60-1)

SCALE 1" = 500'

PROVEN SOURCE OF ELEVATION DGPS (SUBMETER GRADE)

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

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

LOCATION:

ELEVATION 980' 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 X CONVERT ___ DRILL DEEPER ___ REDRILL FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) ___

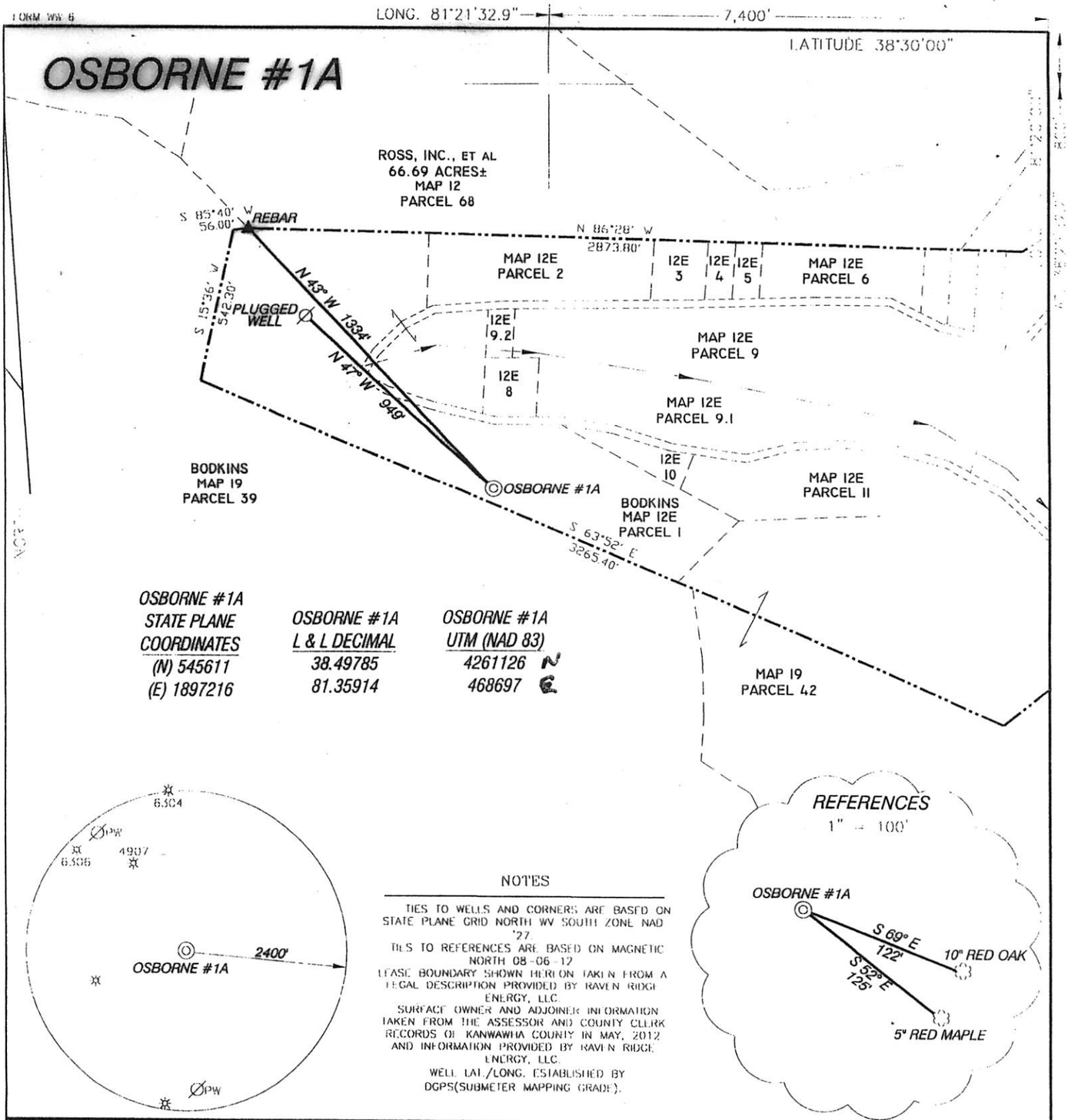
TARGET FORMATION BEREA

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

FORM WW 6



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 08-06-12
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 KANWAWHA 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

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

DOYLE HUPP JR. LICENSED No. 834 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

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

DATE NOVEMBER 15, 20 12
OPERATORS WELL NO. OSBORNE #1A
API WELL NO. 47 — 039 — 06347R
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. W2143 (BK 60-1)
SCALE 1" = 500'
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER GRADE)

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

WELL TYPE: OIL X GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION X STORAGE DEEP SHALLOW X
LOCATION:
ELEVATION 980' 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 X CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION
PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
TARGET FORMATION BEREA
ESTIMATED DEPTH 3,000'

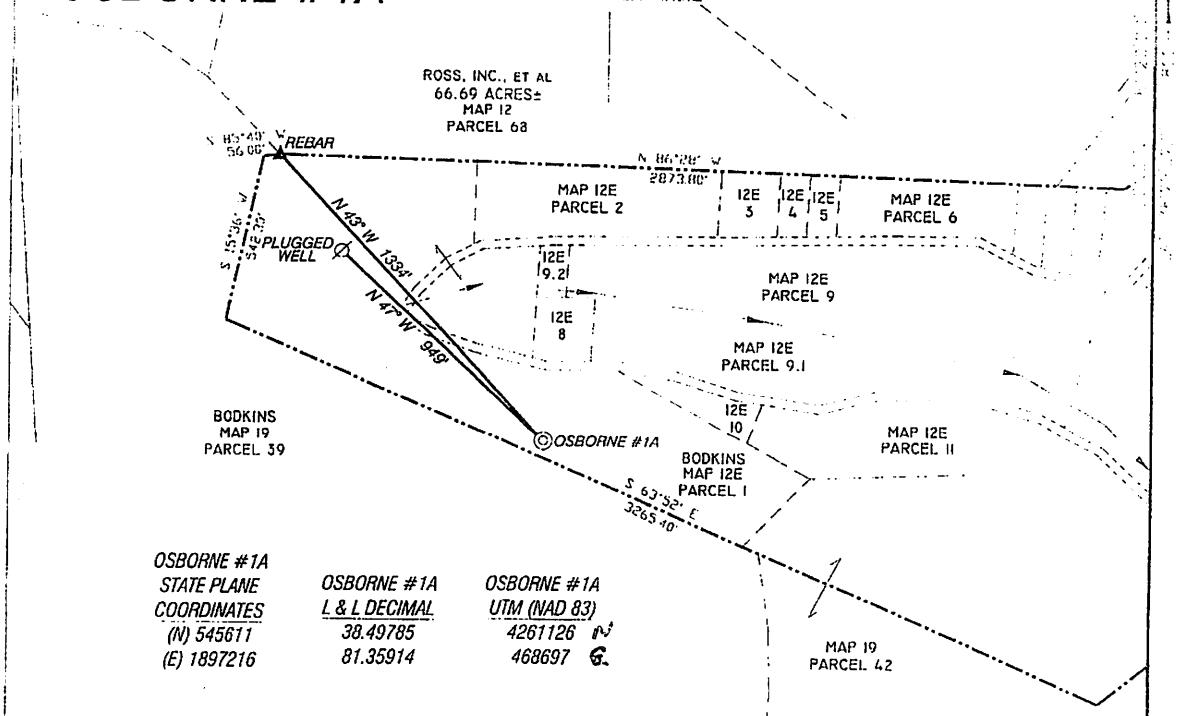
WELL OPERATOR RAVEN RIDGE ENERGY, LLC. DESIGNATED AGENT RYAN CUNNINGHAM
ADDRESS 3230 PENNSYLVANIA AVE. CHARLESTON, WV 25302 ADDRESS 3230 PENNSYLVANIA AVE. CHARLESTON, WV 25302

39 06347R

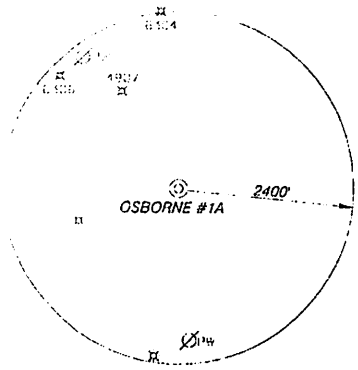
LONG. 81°21'32.9" — 7,400'

LATITUDE 38°30'00"

OSBORNE #1A



OSBORNE #1A STATE PLANE COORDINATES	OSBORNE #1A L & L DECIMAL	OSBORNE #1A UTM (NAD 83)
(N) 545611	38.49785	4261126 N
(E) 1897216	81.35914	468697 E



NOTES

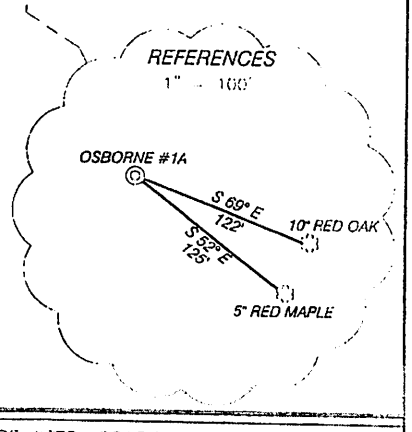
TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27

TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 08-06-12

LEASE BOUNDARY SHOWN HERE ON 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).



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.

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

DOYLE HUPP, JR. LICENSED No. 834 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

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

DATE NOVEMBER 15, 20__

OPERATORS WELL NO. OSBORNE #1A

API WELL NO. 47 - 039 - 06347R
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. W2143 (BK. 60-1)
SCALE 1" = 500'
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER GRADE)

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

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

PROPOSED WELL WORK: X CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

ELEVATION 980' 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 ENGLEKE AGENT, et al LEASE ACREAGE 124.8±
LEASE NO.
TARGET FORMATION BEREA
ESTIMATED DEPTH 3,000'

WELL OPERATOR RAVEN RIDGE ENERGY, LLC. DESIGNATED AGENT RYAN CUNNINGHAM
ADDRESS 4230 PENNSYLVANIA AVE. CHARLESTON, WV 25302 ADDRESS 4230 PENNSYLVANIA AVE. CHARLESTON, WV 25302

Received
NOV 25
Office of Oil and Gas
Dept. of Environmental Protection

3906347 R

WW-2B1
(5-12)

Well No. OSBORNE 1A

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 STRUM ENVIRONMENTAL
Sampling Contractor HUPP SURVEYING

Well Operator RAVE 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.

Already performed.

Received

NOV 25 [illegible]

Office of Oil and Gas
WV Dept. of Environmental Protection

3906347R

Nottingham, Justin E

From: Danielle Boggs <dani.bays@cunninghamenergy.com>
Sent: Monday, November 25, 2013 1:52 PM
To: Nottingham, Justin E
Subject: Osborne 1A / 47-3906347
Attachments: SKMBT_C35131125143200.pdf

Please see attached the application to re-permit the Osborne 1A (API 47-3906347). I am also forwarding the check for the fee for both this well and the Osborne 2A (API 47-390638) and mylars today via regular mail.

Please let me know if you need anything further.

Thank you,

Danielle N. Boggs
Cunningham Energy
3230 Pennsylvania Ave
Charleston, WV 25302
Direct: (304) 344-9291
Cell: (304) 553-5850
Fax: (304) 344-9290
www.cunninghamenergy.com

CUNNINGHAM ENERGY

Received
NOV 25 2013
Office of Oil and Gas
WV Dept. of Environmental Protection