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

November 09, 2015

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-3906375, issued to RESERVE OIL & GAS, INC., 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: HARMON 1
Farm Name: MARKER, GARCIE
API Well Number: 47-3906375
Permit Type: Vertical Well
Date Issued: 11/09/2015

Promoting a healthy environment.

3906375

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 with 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. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced, drilling ceased, completion of any other permitted well work and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

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6500

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: Reserve Oil & Gas, Inc.

310-324	Kanawha	Jefferson 5 Sprin Hill Corp.	290 Charleston West
Operator ID	County	District	Quadrangle

2) Operator's Well Number: Harmon #1 3) Elevation: 614

4) Well Type: (a) Oil_____ or Gas x

(b) If Gas: Production x / Underground Storage _____

Deep _____ / Shallow x

5) Proposed Target Formation(s): Base of Lower Huron/Rhinestreet Proposed Target Depth: 4300
6) Proposed Total Depth: 4350 Feet Formation at Proposed Total Depth: Lower Huron/Rhinestreet
7) Approximate fresh water strata depths: 200
8) Approximate salt water depths: 1200

9) Approximate coal seam depths: None

10) Approximate void depths,(coal, Karst, other): N/A

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

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12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
Drill and complete a new Devonian Shale well with 2 stage nitrogen frac.

10-18-15

13) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS Size	Grade	Weight per ft	FOOTAGE INTERVALS For Drilling	Left in Well	CEMENT Fill -up (Cu. Ft.)
Conductor	13 3/8"			20'		CTS
Fresh Water	9 5/8"			~~270'~~ 336		CTS x 40% excess
Coal						
Intermediate	7"			1800'		CTS x 30% excess in hole
Production	4 1/2"			4300'		120 sks
Tubing						
Liners						

Packers: Kind: _____
Sizes: _____
Depths Set _____

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WW-2A1
(Rev. 1/11)

Operator's Well Number Harmon #1

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
Garcie R. Marker & Geraldine Marker	Reserve Oil & Gas, Inc.	1/8	Not yet recorded See attached

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

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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: Reserve Oil & Gas, Inc.
By: Its: Vice President

3906375

OIL AND GAS LEASE

THIS LEASE, made and entered into this 20 day of October, 2015, by and between:

Garcie R Marker & Geraldine Marker
420 Champion Drive
South Charleston, WV 25309

hereinafter called Lessor(s) and **Reserve Oil & Gas, Inc. 929 Charleston Road, Spencer, WV 25276,** herein after called Lessee.

WITNESSETH:

1. That the Lessor for and in consideration of the sum of ONE DOLLAR ($1.00) and other good and valuable considerations in hand paid by the Lessee, the receipt of which is hereby acknowledged, and the covenants and agreements herein contained, hereby grants demises, leases and lets exclusively unto the Lessee the lands hereafter described for the purposes of prospecting, exploring by geophysical and other methods, drilling, operating for, producing oil and gas, or both, and the constituents thereof, including coal bed methane gas, together with the right of way and easement to construct, install, operate, repair, maintain and remove pipelines, telephone, power and electric lines, tanks, ponds, roadways, plants, equipment and structures thereon to access, produce, save, store, transport, and take care of any such substances produced from the leasehold or produced from adjoining and neighboring lands, provided that any such easements shall survive the term of this agreement for so long thereafter as operations are continued and the exclusive right to inject air, gas, water, brine and other fluids into the subsurface strata, and any and all other rights privileges necessary, incident to, or convenient for the economical operation of the lands for these purposes, said lands being situated in the Districts of Spring Hill, Counties Kanawha, State of WEST VIRGINIA, and being bounded now or formerly substantially as follows, to wit:

Tax Map 30 Parcel(s) 7.2 More fully described in Deed Book **2285** Page **93**.

WATERS OF: Davis Creek

ON THE NORTH BY: Dopplewood Estates

ON THE EAST BY : WV Regional Technology Park

ON THE SOUTH BY: EE Moore

ON THE WEST BY: James Q. Hull

hereinafter called "premises" being the same land conveyed in whole or in part to Lessor by Deed dated **December 17, 1991** from **Guthrie Fence &Supply Co**. and recorded in **Deed Book 2285 at page 93**. For all purposes of this lease, the premises shall be deemed to contain **3.81** acres, whether more or less. This lease covers all of the land above, and in addition thereto, it covers and is hereby leased, let and demised to the same extent as if they were described herein specifically, all lands owned or claimed by Lessor adjacent or continguous to, or a part of the tract or tracts described hereinabove. For all purposes of this lease references to oil and gas or either or both of them shall mean oil, or gas, or both and all substances which are constituents of or produced with oil or gas, including coal bed methane gas, whether similar or dissimilar or produced in a gaseous, liquid, or solid state.

2. This lease shall remain in force for a term of Six (6) months from the date hereof and as long thereafter as oil or gas is produced in paying quantities or this lease is maintained in force by any subsequent provision hereof.

3 –Lessee shall pay Lessor a One Thousand ($1,000.00) Dollar bonus upon signing of the lease.

4. All money due under this lease shall be paid or tendered to the Lessor by check made payable the order of and mailed to:

LESSOR at address above and the said named person shall continue as Lessor's agent to receive any and all sums payable under this lease regardless of changes in ownership in the premises, or in the oil and gas or their constituents, or in rentals or royalties accruing hereunder until delivery to the Lessee of notice of change of ownership as hereinafter provided.

5. Lessee shall pay Lessor as royalty for all oil and the constituents thereof, produced and saved from any well or wells drilled on the leased premises, an amount equal to one eighth (1/8th) or 12.5% of net proceeds received by Lessee from the sale of such oil in the tanks, pipelines or other facilities, to which the Lessee may connect its wells, and shall pay Lessor as royalty for all gas, coalbed methane gas and the constituents and related by-products therefrom, including all liquid, solid or gaseous substances produced and saved from any sand or sands on the leased premises, an amount equal to one-eighth (1/8th) or 12.5% of the net proceeds received by Lessee from the sale of such gas, coalbed methane gas, or the constituents and related by-products therefrom, at the point of sale to an unrelated third party in an arms length transaction.

6. The consideration, land rentals, well rentals or royalties paid and to be paid, as herein provided, are and will be accepted by the Lessor as adequate and full consideration for all rights herein granted to the Lessee and further right of drilling or not drilling on the leased premise, whether to offset producing wells on adjacent lands or otherwise, as the Lessee may elect.

7. No well shall be drilled within 200 feet of the present buildings unless both parties consent thereto. The lessee shall bury all pipelines, except necessary above ground appurtenances, below plow depth. The Lessee shall pay all damages relating to growing crops, buildings, fences and trees caused by its operations under this lease. All reclamation of well sites, tank sites and other surface damage shall be completed in accordance with the rules and regulations of the Department of Energy, Division of Oil And Gas, of the state in which the well is drilled. Any damages if not mutually agreed upon, to be ascertained and determined by three disinterested persons, one thereof to be appointed by the Lessor, one to be appointed by the Lessee and the third to be appointed by the two so appointed, and the award of the three persons shall be final and conclusive. Each party shall pay any and all cost of the appraiser they have appointed and shall share the cost of the third appraiser.

8. If LESSORS own the surface, where the well is located, Lessee shall allow the Lessor, at Lessor's sole risk and cost lay a pipeline to any one gas well on the premises, and take gas produced from said well for domestic use on the leased premises, at Lessor's own risk, subject to the use and the right of abandonment of the well by the Lessee. The first three hundred thousand (300,000) cubic feet of gas shall be taken free of cost, but all gas in excess of three hundred thousand (300,000) cubic feet of gas taken in each year shall be paid for at 90% of the last published rates of the gas utility in the town or area nearest to the leased premises or the field market rate, whichever is higher. Lessor shall lay and maintain the said pipeline and furnish regulators and other necessary equipment at Lessor's expense. Lessor shall maintain the said pipeline, regulators and equipment in good repair and free of all leaks and operate the same so as not to cause waste or unnecessary leakage. If the Lessor shall take excess gas as aforesaid in any year and fail to pay for the same, the Lessee may deduct payment for such excess gas from any rentals or royalties accruing the Lessor hereunder. Lessor agrees to hold Lessee and the well operator and all parties in

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interest in any well on the leasehold premises harmless from any claims of any nature whatsoever which may arise from the usage of gas from any such well by the Lessor his heirs, executors, administrators and assigns.

~~8a. IF LESSORS do not own any part of the surface, Lessee may, at their option and free of any charge from Lessors, allow the parties owning said surface to use said 150,000 cubic feet of gas per annum for domestic use in one dwelling house on said land. Said gas shall be taken and used wholly at user's own risk free of charge in safe and proper pipes and appliances, and said domestic gas user shall furnish and install, at their expense, the necessary regulating equipment and pipeline for the safe use of same. Lessee shall provide a connection for said pipeline at a producing gas well on said premises, or, at Lessee's option, at a point on Lessee's pipeline leading from said well. All gas used in excess of the above stated amount in any one calendar year shall be paid for by the user of same at a fair domestic rate. All gas so taken and used shall be subject to the use, operation and right of abandonment of the well and pipeline by Lessee, and Lessee shall not be held liable for any accident or damage caused by the use of such gas, nor shall Lessee be liable for any shortage or failure in the supply of gas for said domestic use. If, in Lessee's opinion, this right is being abused in any way, then Lessee has the right to discontinue said privilege by disconnecting the free gas pipeline from said well or from pipeline leading therefrom.~~

9. If during the primary term hereof, a well is drilled and is a dry hole and is plugged according to law, the Lessee may continue the primary term in effect by either commencing operations for the drilling of a subsequent well, or by resuming payment of said delay rentals, before the expiration of ninety (90) days from the said plugging date. In the event a well is commenced during the primary term hereof, but is a dry hole and is plugged following the expiration of the primary term, then the primary term shall be extended for ninety (90) days from said plugging date.

10. Lessee shall upon the completion of the first productive well upon said premises, or upon lands pooled therewith, make a diligent effort to obtain a pipeline connection but delay shall not be cause for cancellation of this agreement, provided that Lessee shall resume delay rental payments for quarterly periods, beginning one year from the date that the first productive well is completed until said first well is connected to a pipeline. Likewise, in the event such a well is shut-in for any reason after having produced in paying quantities, Lessee shall make shut-in royalty payments in the amount of five hundred dollars ($500.00) per acre, per year, beginning one year from the date such well is shut-in, provided that the well has not produced during that year, and continuing until said well is returned to production. During the time the well is shut in, if gas is still present, the Lessee shall continue to receive its free gas allotment from the wellhead.

11. No change of ownership in the leases premises or in any interest therein hereunder, shall be binding upon the Lessee until thirty (30) days after written notice, by registered U.S. Mail, of such change and a certified copy or original instrument is presented to the Lessee demonstrating such change. The rights of either party hereunder may be assigned, in whole or in part, and the provisions hereof shall extend to their heirs, successors and assigns of the parties hereto.

12. The respective amounts of delay rentals, royalties and other payments are to be calculated in proportion to Lessor's interest in such rights with respect to which each such payment is made that is, in case the Lessor owns less of an interest in any such rights than the full and entire interest therein, then the payments in respect to such rights shall be paid to the Lessor in the proportion which Lessor's interest in such rights bears to the entire interest in such rights.

13. Lessor grants unto Lessee the right to pool into separate drilling or production unit(s), as to any one or more formation(s) all of said land with the leasehold estates contiguous to said lands held by Lessee when in Lessee's judgment it is necessary or advisable to create such pool to develop and operate efficiently such land. Any such unit may not exceed Three Hundred Twenty (320) acres.

Neither the pooling nor the provision hereof shall operate as a transfer of title of any interest in the leased premises. The commencement of a well, the conduct of other drilling operations, the completion of a well or of a dry hole, or the operation of a producing well on the pooled area, shall be considered for all purposes (except as to royalties) as if said well were located on, or such drilling operations were conducted upon, the lands covered by this lease whether or not such well is located upon, or drilling operations are conducted upon, said lands. The royalties provided for in Paragraph 5 hereof shall be tendered or paid to Lessor in the proportion that Lessor's acreage in the pooled area(s) bears to the total pooled area . The royalties and such other payments tendered or paid thereafter shall then be based on the proportionate acreage and interest in the pool. At any time the pool is not being operated as aforesaid, the declaration of pooling may be surrendered and canceled of record. Such cancellation or surrender shall not affect a surrender or cancellation of the lease.

14. The Lessee shall have the privilege of using sufficient oil, gas and water, except water from Lessor's wells, for operating the premises and the right at any times during or after the expiration of this lease to remove all pipe, well casing, machinery, equipment or fixtures placed on the premises. The injection of water, brine or other fluids into subsurface strata shall be made only by Lessee's operations. The Lessee shall have the right of surrender of this lease or any portion thereof by written notice to the Lessor describing the portion which it elects to surrender, or by recording the surrender or partial surrender of this lease, any of which shall be a full and legal surrender of this lease as to all of the premises or such portion thereof as the surrender shall indicate and a cancellation of all liabilities under the same and all parties hereto relating in any way to the portion or all the premises indicated on said surrender, and the delay rental hereinbefore set forth shall be reduced in proportion to the acreage surrendered.

15. In the event the Lessee is unable to perform any of the acts to be performed by the Lessee by reason of force majeure including but not limited to acts of God, strike, riots, and governmental restrictions including but not limited to restrictions on the use of roads, this lease shall nevertheless remain in full force and effect until the Lessee can perform said act and no event shall the lease expire for a period of ninety (90) days after the termination of any force majeure. Lessee to provide written notice to Lessor of invocation of force majeure.

~~16. Lessor hereby warrants and agrees to defend title to the said lands and interest into the leasehold estate created by this instrument. Lessor further warrants that the lands hereby leased are not subject to any valid prior oil and gas leases. Lessee may purchase or lease the rights of any party claiming any interest in said land and exercise such rights as may be obtained thereby and Lessee shall not suffer any forfeiture nor incur any liability to Lessor by reason thereof. Lessee shall have the right at any time to pay for Lessor any mortgage, taxes or other lien on said lands, in the event of default of payment by Lessor, and then be subrogated to the rights of the holder thereof. Any such payments made by Lessee for the Lessor may be deducted from any amounts of money which may become due to Lessor under this lease.~~

17. In the event Lessor considers that the Lessee has not complied with all its obligations hereunder, both express and implied, Lessor shall notify Lessee in writing setting out specifically in what respects Lessee has breached this contract. Lessee shall have thirty (30) days after receipt of said notice within to meet or commence to meet all or any part of the breaches alleged by the Lessor. The service of such notice shall be precedent to bringing of any action by Lessor on said lease for any cause, and no action shall be brought until the lapse of thirty (30) days after service of such notice on Lessee. Neither the service of said notice nor the doing of any acts by Lessee aimed to meet all or any of the alleged breaches shall be deemed an admission or presumption that Lessee has failed to perform all its obligations hereunder.

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18. It is mutually agreed that this instrument contains and expresses all of the agreements and understandings of the parties in regard to the subject matter thereof, and no covenant, agreement or obligation shall be read into this agreement or imposed upon the parties or either of them.

19. It is hereby understood and agreed that, if any abandoned well or wells of any kind exist on any part of this tract, any such abandoned well or wells, together with a twenty-five foot radius around the well bore, are excepted and reserved from this lease down to its original depth. It is further expressly understood and agreed that any such abandoned well or wells shall be

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and remain the sole responsibility of the original owners of said well or wells and that the Lessee shall have no duty to plug or reclaim said wells.

20. Any well site will be placed only at location mutually acceptable to both Lessor and Lessee, with such consent not being unreasonably withheld by either party.

21. Lessee shall indemnify the Lessor for all reasonable costs and expenses, including reasonable attorney fees incurred in successfully enforcing or pursuing any obligation of or claim against the Lessee.

22. The Lessee shall bury pipelines and utility lines to a depth of not less than thirty-six (36) inches below the surface. Lessee shall pay for all damages caused by its operations on said land.

23. Lessee shall use the most effective and modern materials, methods, equipment, facilities and technologies available to minimize sounds and noises resulting from and being produced by machinery and equipment that are permanent fixtures for Lessee's operations.

24. Said land may not be used by Lessee for underground storage of gas or oil.

25. Lessee shall comply, at all times, with all federal, state and local rules, regulations, guidelines, statutes, laws, ordinances and directives, which may now or hereafter be applicable including, but not limited to, hazardous or toxic materials, pollution control and environmental and conservation matters including, but not limited to: any laws and regulations governing water use, surface waters, groundwater, wetlands, waterways and watersheds associated with Leased Premises.

26. During the term of this Lease, Lessee shall carry and maintain the following insurance in an amount no less than specified:

(A) Lessee shall maintain Worker's Compensation insurance as shall be required by West Virginia State law and any other similar state or federal law applicable to such employees, including employer's liability insurance for accident and occupational disease, in an amount not less than $1,000,000.00 per each accident.

(B) Lessee shall procure and maintain Comprehensive General Liability and Property Damage inclusive of Automobile General Liability, Contractual Liability totaling the following amounts:

1. Bodily Injury $2,000,000 each occurrence
2. Property Damage $2,000,000 each occurrence

(C) Lessee shall furnish to Lessor prior to commencement of Lessee's operations hereunder certificates of insurance with respect to the coverages, which are specified in subparagraphs 26(A) and 26(B) and any other insurance coverage which is or will be required by West Virginia or federal law in connection with Lessee's operations conducted hereunder. Such certificates of insurance shall name Lessor as an additional named insured and provide that the coverage shall not be canceled unless thirty (30) days written notice prior to such cancellation shall be given by insurance company to Lessor. Upon written request from Lessor, Lessee shall provide Lessor with copies of the policies referenced in the certificates required herein.

27. ~~Lessee hereby releases and discharges Lessor and their respective regents, members, officers, employees, and agents from any and all actions and causes of action of every nature, or other harm, including environmental harm, for which recovery of damages is sought, including but not limited to, all losses and expenses which arise out of, are incidental to, or result from, the operations of or on behalf of Lessee on the Premises, or that may arise out of or be occasioned by Lessee's breach of any of the terms or provisions of this Lease, or by any other negligent action or omission of Lessee for which Lessee may be held strictly liable. Further, Lessee hereby agrees to be liable for, exonerate, indemnify, defend and hold harmless Lessor and their respective regents, members, officers, employees and agents, and their successors or assigns, against any and all claims, liabilities, losses, damages, actions, personal injury (including death), costs and expenses, or other harm for which recovery of damages is sought, including attorneys' fees and other legal expenses, including those related to environmental hazards on the Premises or in any way related to Lessee's operation or any other of Lessee's activities on the Premises; those arising from Lessee's use of the surface of the Premises; and those that may arise out of or occasioned by Lessee's breach of any of the terms or provisions of its Lease or any other action or omission of Lessee, its directors, officers, employees, agents, contractors, guests or invitees. Each assignee of this Lease, or an interest therein, agrees to be liable for, exonerate, indemnify, defend and hold harmless Lessor.~~ Deleted GM GM

28. Any well drilled by Lessee or its assignees shall not exceed the limits and conditions prescribed by West Virginia Code 22C-9-1 et. Seq.

29. No well or subsurface formation or cavity on the premises shall be used by Lessee or its Assignees for storage of oil, methane gas, or by products thereof.

30. This agreement and the lease shall be governed by the laws of the State of West Virginia.

IN WITNESS WHEREOF, and intending to be legally bound, the Lessors have set their hands and seals the day and year first above written. Signed and acknowledged in the presence of:

WITNESS:

BY: Garcie R. Marker
Garcie R. Marker

BY: Geraldine Marker
Geraldine Marker

ACKNOWLEDGEMENT

STATE OF West Virginia
COUNTY OF Kanawha, } To-wit:
I, Kevin D. Sfax, a Notary Public of said County, do hereby certify that , whose name(s) are signed to the within writing have this day acknowledged the same before me in my said county.

Given under my hand this 20 day of October, 20 15.

Notary Public

My Commission expires: March 5, 2021

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Notary Public, State of West Virginia
KEVIN DEAN SFAX
407 Penna Ave
Charleston, WV 25302
My Commission Expires March 5, 2021

3906375

WW-2B1
(5-12)

Well No. Harmon #1

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 ALS Environmental Lab
Sampling Contractor

Well Operator Reserve Oil & Gas, Inc.
Address 929 Charleston Road
Spencer, WV 25276
Telephone 304-927-5228

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.

No Known water well within 2000 feet
Only water source(s) are Davis Creek

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WW-2A
(Rev. 6-14)

1). Date: _____

2.) Operator's Well Number Harmon #1

3.) API Well No.: State 47- County _____ - 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 Garcie Marker WAIVER
Address 420 Champion Drive
South Charleston, WV 25309

(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 _____

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

x 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:

x Personal Service (Affidavit attached)
___ 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.

RECEIVED
Office of Oil and Gas
OCT 27 2015
WV Department of
Environmental Protection

Well Operator Reserve Oil & Gas, Inc.
By: _____
Its: Vice President
Address: 929 Charleston Road
Spencer, WV 25276
Telephone: 304-927-5228
Email: ddouglass@reserveoilandgas.com

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
David N. Brannon
HC 75 Box 410
Chloe, WV 25235
My Commission Expires December 10, 2017

Subscribed and sworn before me this 18th day of June, 2015

David N. Brannon
Notary Public

My Commission Expires December 10, 2017

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

3906375

WW-2A Surface Waiver

SURFACE OWNER WAIVER

County Kanawha

Operator Reserve Oil & Gas, Inc.

Operator well number Harmon #1

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIFTEEN (15) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

1) The proposed well work will constitute a hazard to the safety of persons.
2) The soil erosion and sediment control plan is not adequate or effective;
3) Damage would occur to publicly owned lands or resources;
4) The proposed well work fails to protect fresh water sources or supplies;
5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation.".

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OCT 27 2015
WV Department of
Environmental Protection

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

List of Water Testing Laboratories. The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through ___ including a work order on Form WW2-B, a survey plat, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

Garcie R. Marker Date _____
Signature
Geraldine Marker
Garcie R. Marker
Print Name

FOR EXECUTION BY A CORPORATION, ETC.

Company Name _____
By _____
Its _____ Date
_____
_____
Signature Date

3906375

WW-2A Coal Waiver

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Kanawha
Operator Reserve Oil & Gas, Inc. Operator's Well Number Harmon #1

INSTRUCTIONS TO COAL OPERATOR, OWNER, OR LESSEE

To the coal operator, owner, or lessee named on page WW2-A. You are hereby notified that any objection you wish to make or are required to make by WV Code 22-6-15, 16 or 17, must be filed with the Chief of the Office of Oil and Gas within fifteen (15) days after the receipt of this application by the Office. Mail objections to:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0499 extension 1654

WAIVER

The undersigned coal operator _____/ owner _____/ lessee _____/ of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

FOR EXECUTION BY A NATURAL PERSON

_____ Date _____
Signature

FOR EXECUTION BY A CORPORATION, ETC.

Company Name _____
By _____
Its _____ Date
_____
Signature Date

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OCT 27 2015
WV Department of
Environmental Protection

No Known owner, operator, or lessee of workable coalbed/seam on this tract.

3906375

WW-9
(2/15)

API Number 47 - _____ - _____
Operator's Well No. Harmon #1

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Reserve Oil & Gas, Inc. OP Code _____

Watershed (HUC 10) Davis Creek Quadrangle Charleston West

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

Will a pit be used? Yes ☑ No ☐

If so, please describe anticipated pit waste: brine water, drill cuttings, fresh water

Will a synthetic liner be used in the pit? Yes ☑ No ☐ If so, what ml.? 20

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_____

Will closed loop system be used? If so, describe: N/A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air, gel, brinewater

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

Additives to be used in drilling medium? Gilsonite, Mil-Flake, Airfoam HD

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

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) Soil/Dirt

-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

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.

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Office of Oil and Gas
OCT 27 2015
WV Department of
Environmental Protection

Company Official Signature _____

Company Official (Typed Name) J. Scott Freshwater

Company Official Title Vice President

Subscribed and sworn before me this 18th day of June, 2015

David N. Brannon Notary Public

My commission expires December 10, 2017

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
David N. Brannon
HC 75 Box 410
Chloe, WV 25235
My Commission Expires December 10, 2017

3906375

Form WW-9

Operator's Well No. Harmon #1

Reserve Oil & Gas, Inc.

Proposed Revegetation Treatment: Acres Disturbed 2 Prevegetation pH 5.5

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type

Fertilizer amount 0.25 lbs/acre

Mulch Hay 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	25	Ladino Clover	5
Red Top Clover	15	KY 31	40

Attach:
Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [signature]

Comments: AT Pond Sand / Mulch

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Office of Oil and Gas
OCT 27 2015
WV Department of
Environmental Protection

Title: Field Inspector Oil & Gas Date: 6-18-15

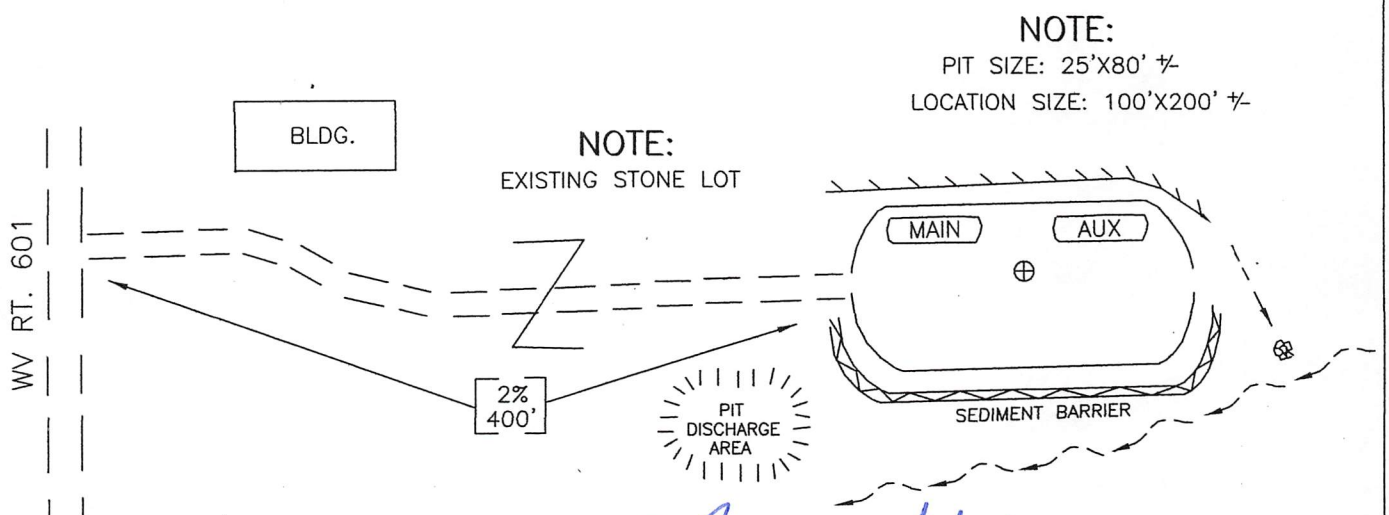
Field Reviewed? (✓) Yes ( ) No

3906375

HARMON
#1

NOTE:

Any Trees 6" or larger in Diameter will be cut and piled. Brush will be used as Sediment Barriers.
Tempory seed and mulch all slopes upon construction.
Stone over all Culverts and entrance off existing roadway.



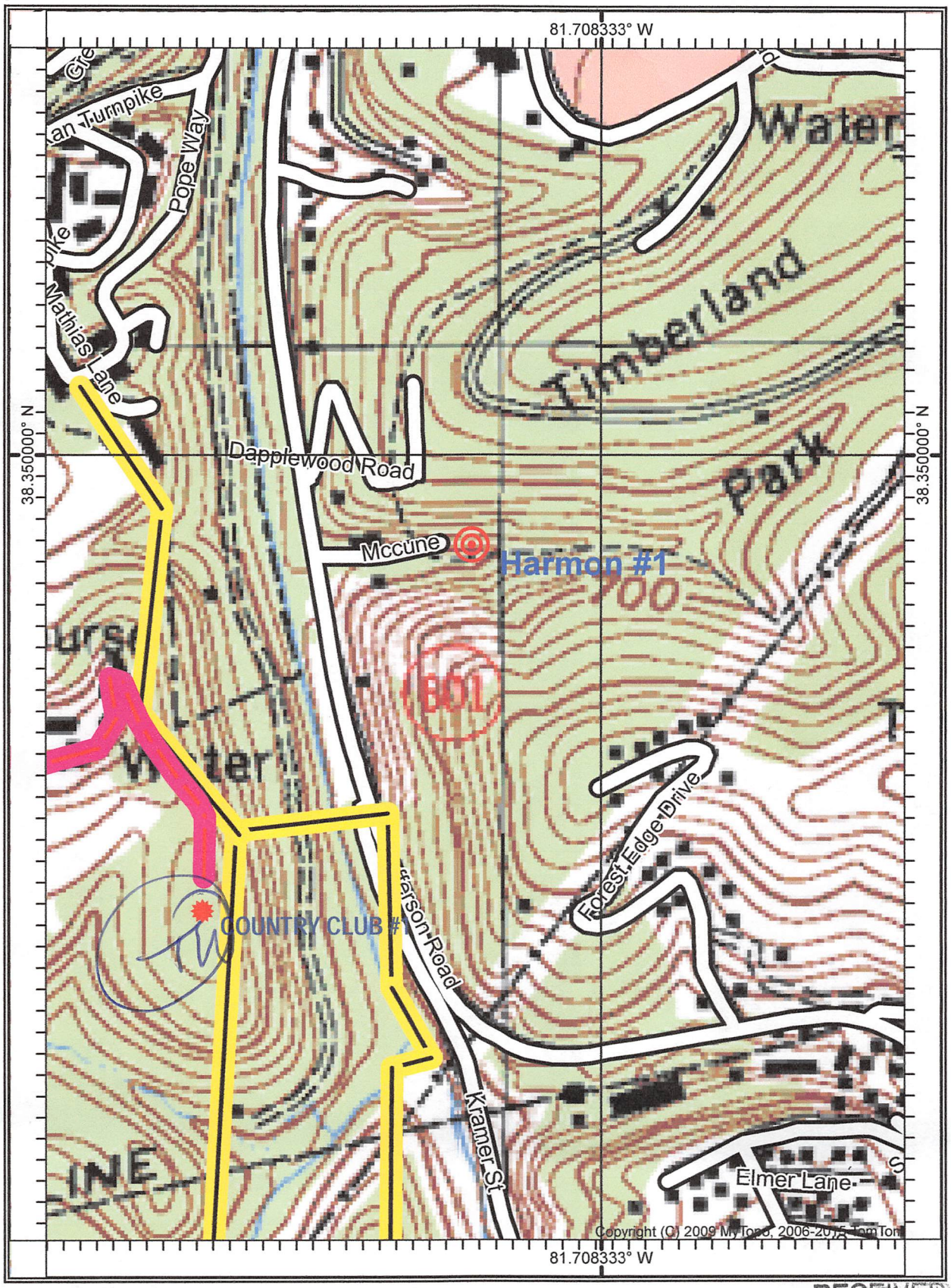
6-18-15

RECEIVED
Office of Oil and Gas

OCT 27 2015

WV Department of
Environmental Protection

3906375



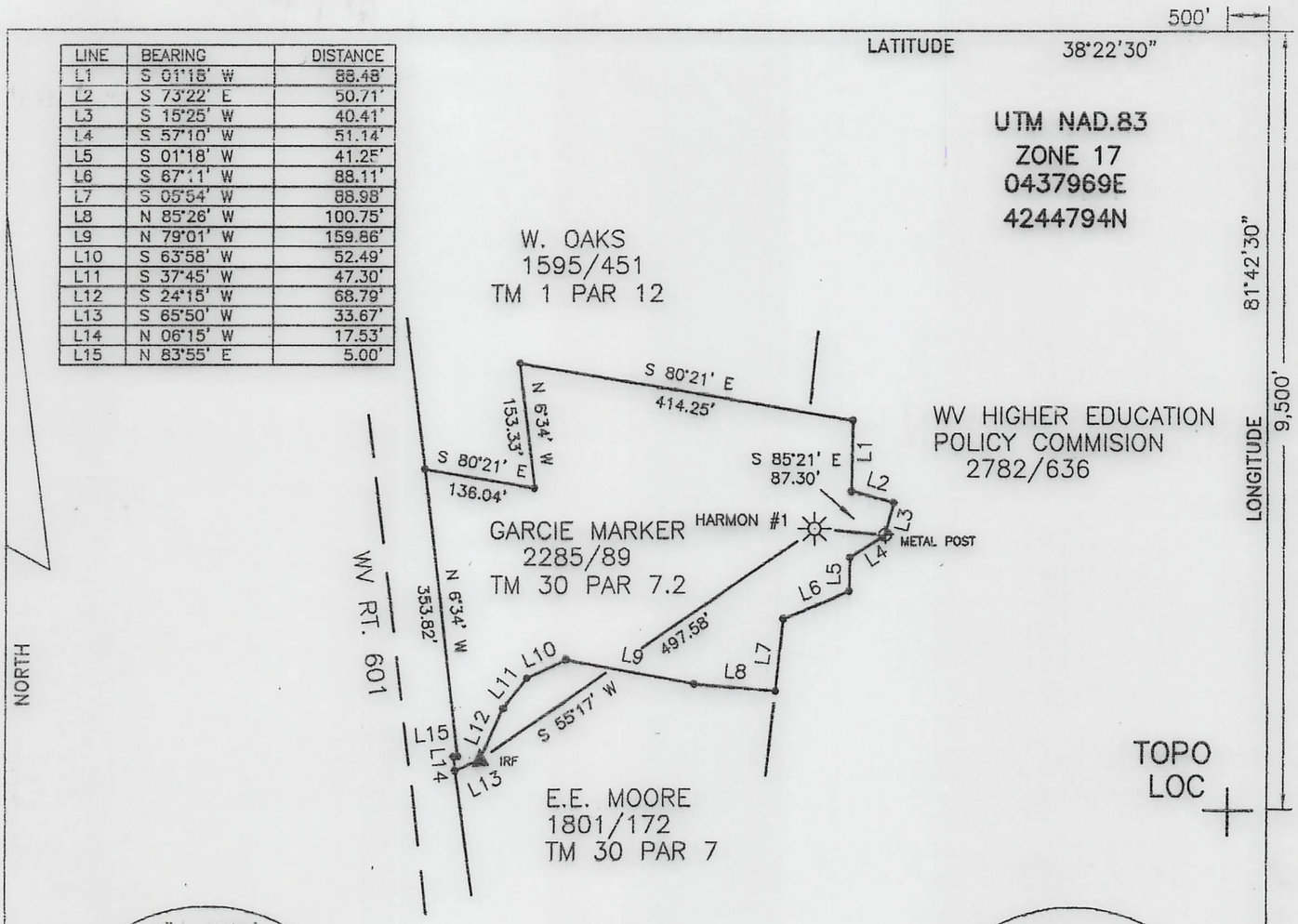
SCALE 1:6000

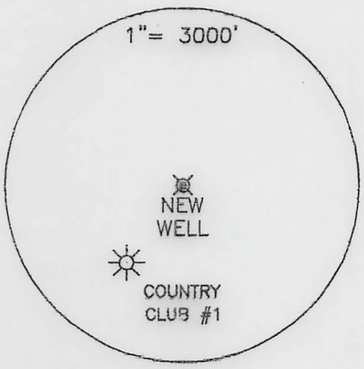
0 1000

FEET

RECEIVED
Office of Oil and Gas

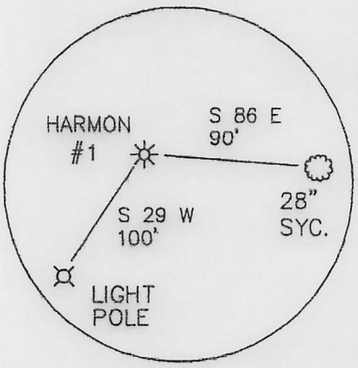
LINE	BEARING	DISTANCE
L1	S 01°18' W	88.48'
L2	S 73°22' E	50.71'
L3	S 15°25' W	40.41'
L4	S 57°10' W	51.14'
L5	S 01°18' W	41.25'
L6	S 67°11' W	88.11'
L7	S 05°54' W	88.98'
L8	N 85°26' W	100.75'
L9	N 79°01' W	159.86'
L10	S 63°58' W	52.49'
L11	S 37°45' W	47.30'
L12	S 24°15' W	68.79'
L13	S 65°50' W	33.67'
L14	N 06°15' W	17.53'
L15	N 83°55' E	5.00'





NAD 83
LAT. 38.349155N
LONG. 81.709895W

STATE PLANE COOR.
NAD 83
N 492,055
E 1,764,923



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

FILE NO. _____
DRAWING NO. 15-07
SCALE 1"=200'
MINIMUM DEGREE OF ACCURACY 1 IN 200
PROVEN SOURCE OF ELEVATION GPS

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 ENERGY.

(SIGNED) _____
R.P.E. _____ P.S. 851

RICHARD J. PRINE LICENSED No 851 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

PLACE SEAL HERE

STATE OF WEST VIRGINIA
Department of Environmental Protection
OFFICE OF OIL AND GAS

DATE 6/16, 20 15
OPERATOR'S WELL NO. HARMON #1
API WELL NO.
47 - 039 - 06375
STATE COUNTY PERMIT

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

LOCATION: ELEVATION 614 WATER SHED DAVIS CREEK
DISTRICT SPRING HILL CORP. COUNTY KANAWHA
QUANDRANGLE CHARLESTON WEST

SURFACE OWNER GARCIE MARKER ACREAGE 3.81
OIL & GAS ROYALTY OWNER GARCIE MARKER LEASE ACREAGE 3.81
LEASE NO. _____

PROPOSED WORK: DRILL X CONVERT ____ DRILL DEEPER ____ REDRILL ____ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ____ PERFORATE NEW FORMATION ____ OTHER PHSYSICAL CHANGE IN WELL (SPECIFY): _____

PLUG AND ABANDON ____ CLEAN OUT AND REPLUG ____

TARGET FORMATION BASE OF LOWER HURON/RHINESTREET ESTIMATED DEPTH 5500
WELL OPERATOR RESERVE OIL & GAS INC. DESIGNATED AGENT J. SCOTT FRESHWATER
ADDRESS 929 CHARLESTON ROAD ADDRESS 929 CHARLESTON ROAD
SPENCER, WV 25276 SPENCER, WV 25276

Operator: RESERVE OIL & GAS, INC. API: 3906375

WELL No: HARMON 1

Reviewed by: CJW Date: 11/03/2015

15 Day End of Comment: 11/11/15 -WAIVER

CHECKLIST FOR FILING A PERMIT

Vertical Well

Ck # 1006
$650.00

- [x] WW-2B
- [x] Inspector signature on WW-2B
- [x] WW-2A (Notarized)
- [x] Certified Mail Receipts, Waivers, or Affidavits of Personal Service
- [x] Surface Owner Waiver
- [ ] Coal Owner / Lessee /Operator Waiver N/A
- [x] WW-2A-1 (Signed) Showing Book/Page Number and Royalty Percentage
- [x] WW-2B-1 (Names, addresses, and spot on topographical map listed as water testing)
- [x] WW-9 (Page 1 & 2) (Notarized)
- [No] More than 5,000 bbls
- [x] Inspector Signature on WW-9
- [x] Reclamation plan
- [x] Topographic Map of location of well
- [x] Mylar Plat (Signed and Sealed) (Surface owner on plat matches WW-2A)
- [–] Bond
- [x] Company is Registered with the SOS
- [x] Worker's Compensation / Unemployment Insurance account is OK
- [x] $650.00 check (~~$550.00 if no pit~~)
- [x] Mine Data
- [ ] Addendum
- [ ] Flow Distance to Nearest Intake
- [ ] Horizontal Rule Series 8 Effective August 30, 2011-Well Sites Greater Than 3 Acres
  - [ ] Erosion and Sediment Control Plan
  - [ ] Site Construction Plan
  - [ ] Well Site Safety Plan
- [ ] Water Management Plan (Plan to withdraw 210,000 gallons or more during any one month period)
- [ ] Within a Municipality
  - [ ] Class I Legal Advertisement in Newspaper for first permit on well pad
- [ ] Professional Engineer/Company has COA