

GEARY LEASE

189.93 of 341.89 ACRES ±

A.P.I. #47-023-0034

WELL NO. 1 ST

**WELL NO. 1 ST
STATE PLANE COORDINATES
(NORTH ZONE)**

N. 251,562
E. 2,071,774

LAT=(N) 39.19041
LONG=(W) 79.24678

UTM, NAD83

N. 4,339,383
E. 651,432

**MOUNT
STORM
LAKE**

SUNDIAL
DEVELOPERS,
LLC.
18.91 ACRES ±

**WELL NO. 1 ST
LANDING POINT
STATE PLANE COORDINATES
(NORTH ZONE)**

N. 251,047
E. 2,071,830

LAT=(N) 39.18899
LONG=(W) 79.24659

UTM, NAD83

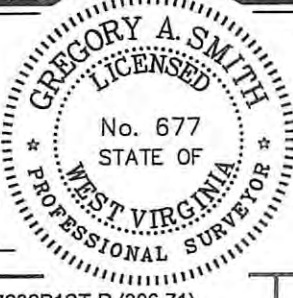
N. 4,339,226
E. 651,452

NORTH



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.


P.S. 677 *Gregory A. Smith*



MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 7232P1ST-R (306-71)
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 800'

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE JULY 26, 20 10
OPERATORS WELL NO. J.P. GEARY #1 ST
API WELL NO. 47-023-00034
STATE COUNTY PERMIT

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 3,427' WATERSHED LAUREL RUN
DISTRICT UNION COUNTY GRANT QUADRANGLE GREENLAND GAP 7.5'

SURFACE OWNER JAMES PAUL GEARY & JAMES PAUL GEARY, II ACREAGE 212.46 ±
ROYALTY OWNER JAMES PAUL GEARY, ET AL LEASE ACREAGE 189.93 of 341.89 ±
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) DRILL & COMPLETE AS HORIZONTAL TARGET FORMATION MARCELLUS
ESTIMATED DEPTH 10,200' (TVD) 11,750' (MD)

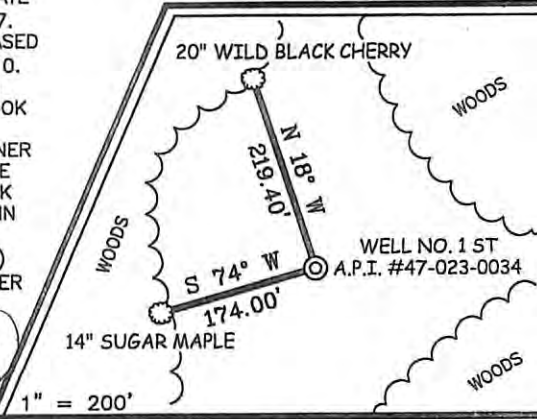
WELL OPERATOR CARRIZO (MARCELLUS), LLC. DESIGNATED AGENT SHARON BARTH
ADDRESS 1000 LOUISIANA, SUITE 1500 HOUSTON, TX 77002 ADDRESS 707 VIRGINIA STREET, EAST CHARLESTON, WV 25301

575

NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 07/01/10.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 170 PAGE 380.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF GRANT COUNTY IN JULY, 2010.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS (SUBMETER MAPPING GRADE).
6. PROPOSED WELL J.P. GEARY #1 ST IS OVER 400' FROM ANY LEASE BOUNDARY.

REFERENCES



LATITUDE 39°12'30"
LONGITUDE 79°12'30"
BERNARD LEE EVANS, JR., ET AL 2.10 ACRES ±
DAVID B. KLINE, ET AL 25.19 ACRES ±
DONNALIE M. HOPE 2.66 ACRES ±
NICOL FARMS, INC. 253.11 ACRES ±
WELL NO. 1 ST BOTTOM HOLE STATE PLANE COORDINATES (NORTH ZONE)
N. 249,756
E. 2,071,898
LAT=(N) 39.18545
LONG=(W) 79.24636
UTM, NAD83
N. 4,338,833
E. 651,479

23-00034P

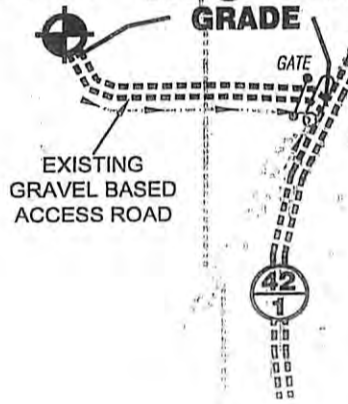
GEARY LEASE WELL NO. 1 ST

GREENLAND GAP 7.5' QUAD
MOUNT STORM LAKE 7.5' QUAD



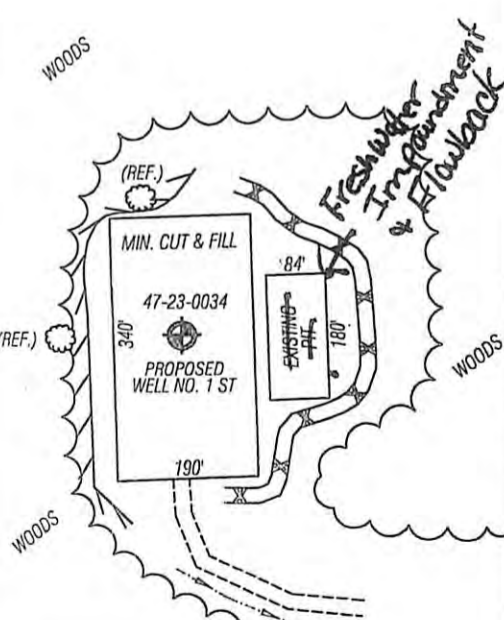
**PROPOSED GAS
WELL NO. 1 ST 610' @ 5-10%
GRADE**

*Bill Hatfield
8-12-2010*



Detail Sketch for Proposed Well No. 1 ST

NOT TO SCALE



SCALE: 1" = 500'



TOPO SECTION OF USGS
GREENLAND GAP 7.5' QUADRANGLE

PROPOSED CULVERT INVENTORY
(FOR BID PURPOSES ONLY)

15" (MINIMUM) CULVERTS	0 CUL.
------------------------	--------

ADDITIONAL CULVERTS AND/OR OTHER DRAINAGE STRUCTURES & SEDIMENT CONTROL DEVICES MAY BE REQUIRED BY THE WV D.E.P. OIL & GAS INSPECTOR. OPERATOR IS RESPONSIBLE FOR COORDINATION WITH CONTRACTOR AND SLS REGARDING ANY CHANGES OR ADDITIONS THE STATE MAY REQUIRE.

Projected Earthen Disturbance Area

Well Location Site	0.00 ac. +/-
Access Road	0.00 ac. +/-
Approximate Total Disturbance	0.00 ac. +/-

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATION. 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 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 AS NEEDED.

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

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER.

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL (IF AVAILABLE)

APPLICATIONS FOR SEPARATE PLC PERMITS ON THE ACCESS ROAD STREAM CROSSINGS HAVE BEEN PREPARED (IF APPLIES).

= EXISTING CULVERT = PROPOSED CULVERT 12" MIN. UNLESS OTHERWISE NOTED

= PROPOSED STREAM CROSSING (IF APPLIES)
*SEE TABLE FOR CULVERT DETAIL



SMITH LAND SURVEYING, INC.
P.O. BOX 150 GLENVILLE, WV. 26351

PH: (304)462-5634 FAX: (304)462-5656 E-MAIL: sls@sissurveys.com

DRAWN BY K.E.S.	FILE NO. 7232	DATE 07/26/10	CADD FILE: 7232REC1ST.DWG
--------------------	------------------	------------------	------------------------------