

# HOWDERSHELT LEASE WELL NO. 210

**BOTTOM HOLE  
WELL NO. 210  
STATE PLANE COORDINATES  
(NORTH ZONE) NAD 27**  
N. 246,732  
E. 1,896,171

**LAT=(N) 39.176842  
LONG=(W) 79.866246**  
**UTM (NAD83)(METERS)**  
N. 4,337,025  
E. 597,948

**LANDING POINT  
WELL NO. 210  
STATE PLANE COORDINATES  
(NORTH ZONE) NAD 27**  
N. 252,956  
E. 1,893,394

**WELL NO. 210  
STATE PLANE COORDINATES  
(NORTH ZONE) NAD 27**  
N. 254,146  
E. 1,893,619

**LAT=(N) 39.193901  
LONG=(W) 79.876132**  
**UTM (NAD83)(METERS)**  
N. 4,338,907  
E. 597,070

**LAT=(N) 39.197169  
LONG=(W) 79.875357**  
**UTM (NAD83)(METERS)**  
N. 4,339,271  
E. 597,133

### NOTES ON SURVEY

- TIES TO WELLS, CORNERS AND REFERENCES ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD 27.
- LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 219 PAGE 26, ADJOINING DEED AND WELL PLATS.
- SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BARBOUR COUNTY IN JULY, 2013.
- WELL LAT./LONG. (NAD 27) ESTABLISHED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK).
- NO DWELLING OR AGRICULTURAL BUILDINGS WITHIN 625 FEET OF CENTER OF PAD. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL. NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE PAD LIMITS OF DISTURBANCE.
- TAX MAPS IN THIS AREA WERE FOUND TO CONTAIN SIGNIFICANT ERROR. PROPERTY LINES SHOWN HEREON WERE TAKEN FROM DEEDS AND FIELD EVIDENCE.

### REFERENCES



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. 849 *C. Victor Moyers*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE NOVEMBER 21, 20 13  
OPERATORS WELL NO. 210  
API WELL NO. 47-001-03324 H6A  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 7962P210R2  
PROVEN SOURCE OF ELEVATION DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 1000'

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

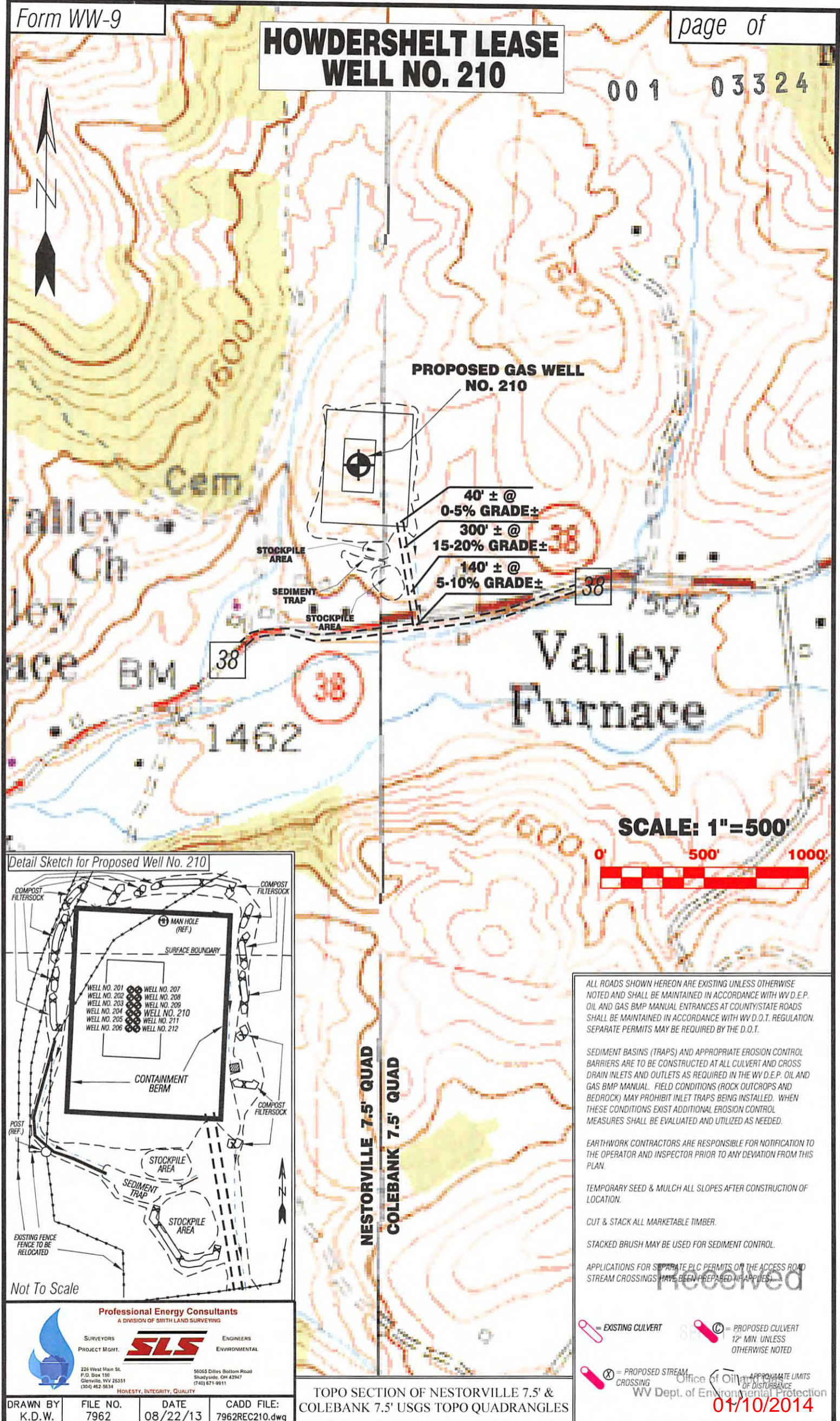
WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW   
LOCATION: ELEVATION 1,564'(GROUND) 1,558'(PROPOSED) WATERSHED BRUSHY FORK OF TETER CREEK  
DISTRICT COVE COUNTY BARBOUR QUADRANGLE NESTORVILLE 7.5'  
SURFACE OWNER MELVIN AND RENEE HOWDERSHELT ACREAGE 158.94±  
ROYALTY OWNER MELVIN & RENEE HOWDERSHELT (158.94 AC.±), JAMES ANCELL (49.46 AC.±)(118 AC.±), ROMMEL FAMILY TRUST (179.02 AC.±)  
PROPOSED WORK: 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 MARCELLUS  
ESTIMATED DEPTH TVD 7,845' / TMD 15,306'

WELL OPERATOR MOUNTAINEER KEYSTONE LLC DESIGNATED AGENT NATHAN SKEEN  
ADDRESS 1111 VAN VOORHIS ROAD, SUITE G ADDRESS 1111 VAN VOORHIS ROAD, SUITE G  
MORGANTOWN, WV 26505 MORGANTOWN, WV 26505 **01/10/2014**

COUNTY NAME  
PERMIT

# HOWDERSHOLT LEASE WELL NO. 210

001 03324



**PROPOSED GAS WELL  
NO. 210**

40' ± @  
0-5% GRADE ±

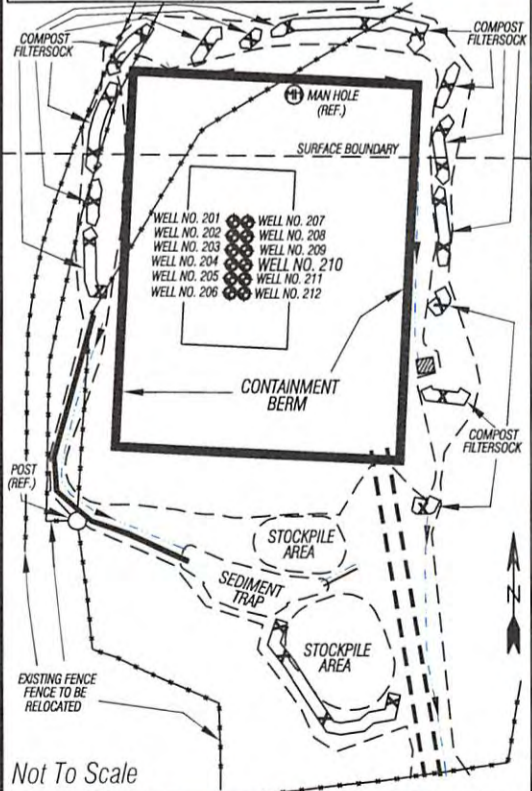
300' ± @  
15-20% GRADE ±

140' ± @  
5-10% GRADE ±

**SCALE: 1"=500'**



Detail Sketch for Proposed Well No. 210



Not To Scale

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.

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

EXISTING CULVERT (pink line with circle) = EXISTING CULVERT  
PROPOSED CULVERT (red line with circle) = PROPOSED CULVERT 12" MIN UNLESS OTHERWISE NOTED

PROPOSED STREAM CROSSING (red line with 'X') = PROPOSED STREAM CROSSING  
APPROXIMATE LIMITS OF DISTURBANCE (dashed line) = APPROXIMATE LIMITS OF DISTURBANCE

**Professional Energy Consultants**  
A DIVISION OF SMITH LAND SURVEYING

SURVEYORS PROJECT MGMT. **SLS** ENGINEERS ENVIRONMENTAL

226 West Main St.  
P.O. Box 150  
Glenville, WV 26351  
(304) 462-9634

56065 Dilles Bottom Road  
Shady Side, OH 43947  
(740) 671-9911

HONESTY, INTEGRITY, QUALITY

TOPO SECTION OF NESTORVILLE 7.5' & COLEBANK 7.5' USGS TOPO QUADRANGLES

DRAWN BY: K.D.W. FILE NO.: 7962 DATE: 08/22/13 CADD FILE: 7962REC210.dwg

Office of Oil and Gas  
WV Dept. of Environmental Protection

01/10/2014