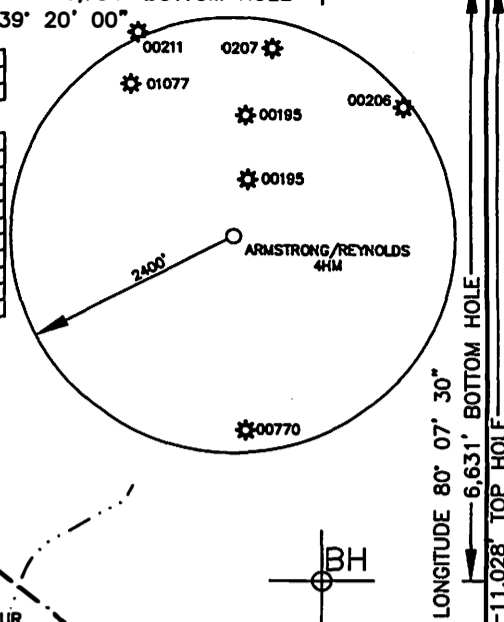


**PDC MOUNTAINEER, LLC.**  
**WELL NO. ARMSTRONG/REYNOLDS 4HM**

L8	S80°15'00"E	300.00'
L9	S38°15'00"E	108.00'
L10	S02°24'00"W	105.00'
L11	S44°13'00"W	138.00'
L12	S25°18'00"W	43.00'
L13	S43°44'00"E	97.00'
L14	S84°27'00"W	123.00'
L15	S51°10'00"E	427.35'
L16	S47°30'00"E	388.46'
L17	S21°45'00"E	228.39'
L18	S35°05'00"W	1505.69'
L19	S87°18'00"W	603.41'
L20	S70°05'00"W	1381.02'
L21	N28°07'00"W	670.07'
L22	N28°57'00"E	399.99'
L23	N21°22'00"W	249.59'
L24	N28°30'00"W	784.22'
L25	N03°00'00"W	843.84'
L26	N58°18'00"W	805.38'
L27	S48°30'00"W	310.53'
L28	N87°09'00"W	980.14'

L29	N10°00'00"W	694.65'
L30	S81°45'00"E	84.02'
L31	N11°00'00"E	855.02'
RW1	S80°15'18"E	279.36'
RW2	N82°00'24"E	337.42'
RW3	N76°21'22"E	412.37'
RW4	N75°09'36"E	36.22'
RW5	N41°49'35"E	155.33'
RW6	N20°53'41"E	94.00'
RW7	N30°29'53"W	158.00'
RW8	N53°28'48"E	158.40'
RW9	N50°35'02"E	259.00'
RW10	N43°11'33"E	207.30'
RW11	N36°54'15"E	201.27'

1,669' TOP HOLE  
 1,794' BOTTOM HOLE  
 LATITUDE 39° 20' 00"

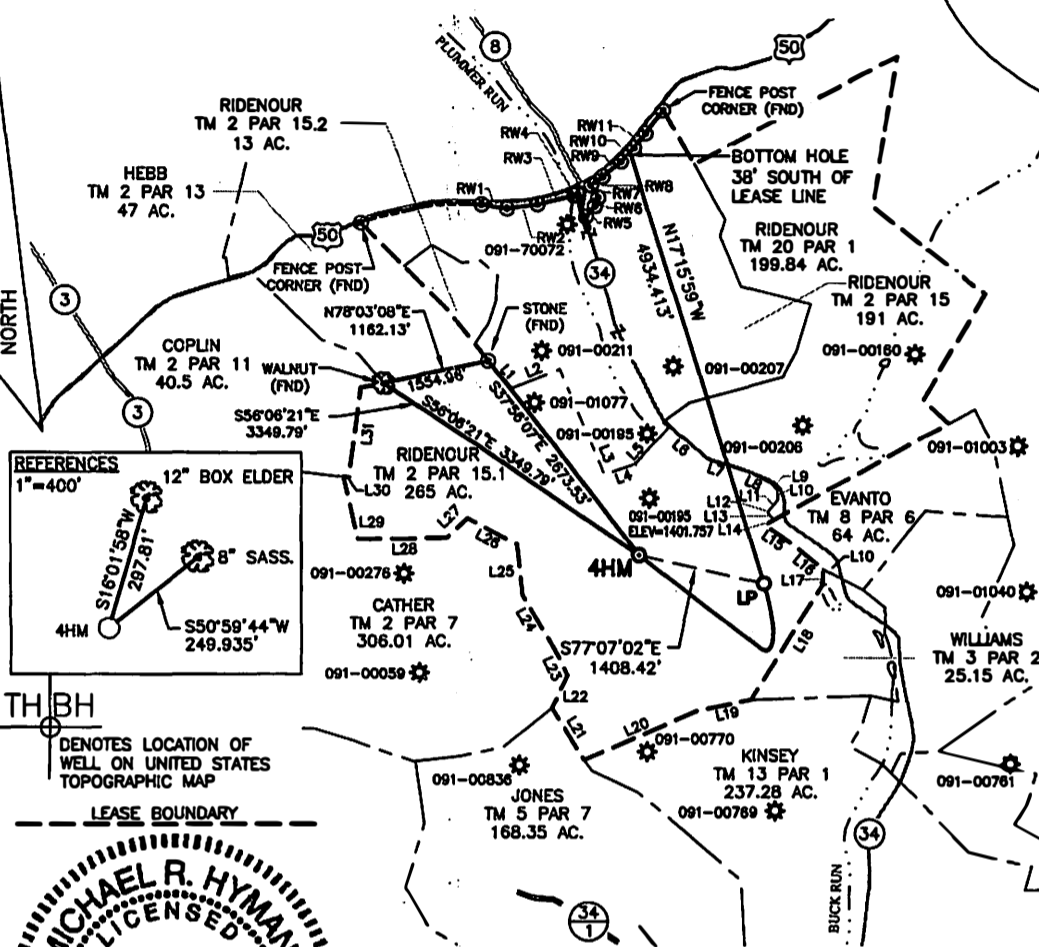


**NOTES:**  
 -PLAT ORIENTATION, CORNERS, AND WELL REFERENCES ARE BASED UPON THE GRID NORTH MERIDIAN FOR THE WV STATE PLANE COORDINATE SYSTEM, NORTH ZONE NAD 83. WELL LOCATION REFERENCE TIES ARE BASED UPON THE MAGNETIC MERIDIAN.

-THERE ARE NO WATER WELLS LOCATED WITHIN 250' OF WELL 4HM.

○ = MONUMENT FOUND IRON REBAR UNLESS NOTED OTHERWISE.

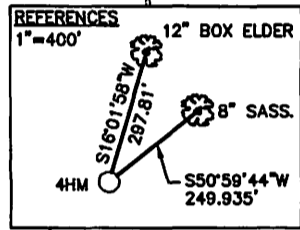
L1	S36°45'00"E	394.00'
L2	N71°57'00"E	567.00'
L3	S19°17'00"E	1243.00'
L4	N74°57'00"E	385.00'
L5	N47°11'00"E	848.00'
L6	S46°55'00"E	548.00'
L7	S70°30'00"E	437.00'



**WELL NO. 4HM TOP HOLE**  
 STATE PLANE COORDINATES (NAD 83 NORTH ZONE)  
 N: 293150.327  
 E: 1790026.579  
 LAT: 39°18'11.2867"  
 LON: 80°07'50.5300"  
 UTM COORDINATES (NAD 83-METER)  
 N: 4350776.873  
 E: 574952.298

**WELL NO. 4HM LAUNCH POINT**  
 STATE PLANE COORDINATES (NAD 83 NORTH ZONE)  
 N: 292836.314  
 E: 1791399.540  
 LAT: 39°18'08.2780"  
 LON: 80°07'33.0360"  
 UTM COORDINATES (NAD 83-METER)  
 N: 4350688.160  
 E: 575372.191

**WELL NO. 4HM BOTTOM HOLE**  
 STATE PLANE COORDINATES (NAD 83 NORTH ZONE)  
 N: 297548.356  
 E: 1789934.928  
 LAT: 39°18'54.7492"  
 LON: 80°07'52.0890"  
 UTM COORDINATES (NAD 83-METER)  
 N: 4352116.361  
 E: 574902.086

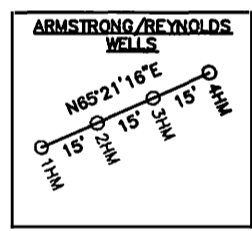


THBH DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAP

--- LEASE BOUNDARY ---



**POINT OF PROVEN ELEVATION**  
 47-091-00195  
 LAT: 39°18'17.3934"  
 LON: 80°07'49.1072"  
 ELEV=1401.757



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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

FILE NO. 030-2175  
 SCALE: 1"=2000'  
 MINIMUM DEGREE OF ACCURACY: 1 in 2500  
 PROVEN SOURCE OF ELEVATION: OPUS SURVEY GRADE GPS

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

DATE NOVEMBER 26, 2012  
 OPERATOR'S WELL NO. ARMSTRONG/REYNOLDS NO. 4HM  
 API WELL NO. 47 - 091 - 01280 HGA  
 STATE COUNTY PERMIT

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  (IF "GAS"), PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION: 1410.42' WATER SHED: BUCK RUN  
 DISTRICT: FLEMINGTON COUNTY: TAYLOR  
 QUADRANGLE: ROSEMONT 7.5' ACREAGE: 265 AC±  
 SURFACE OWNER: PAULINE W. RIDENOUR LEASE ACREAGE: 735 AC+  
 OIL & GAS ROYALTY OWNER: EUGENE ARMSTRONG & T. MARIE REYNOLDS LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PERFORATE NEW FORMATION  PLUG OFF OLD FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_



PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION: MARCELLUS SHALE ESTIMATED DEPTH: 7,912' TVD / 13,760' MD

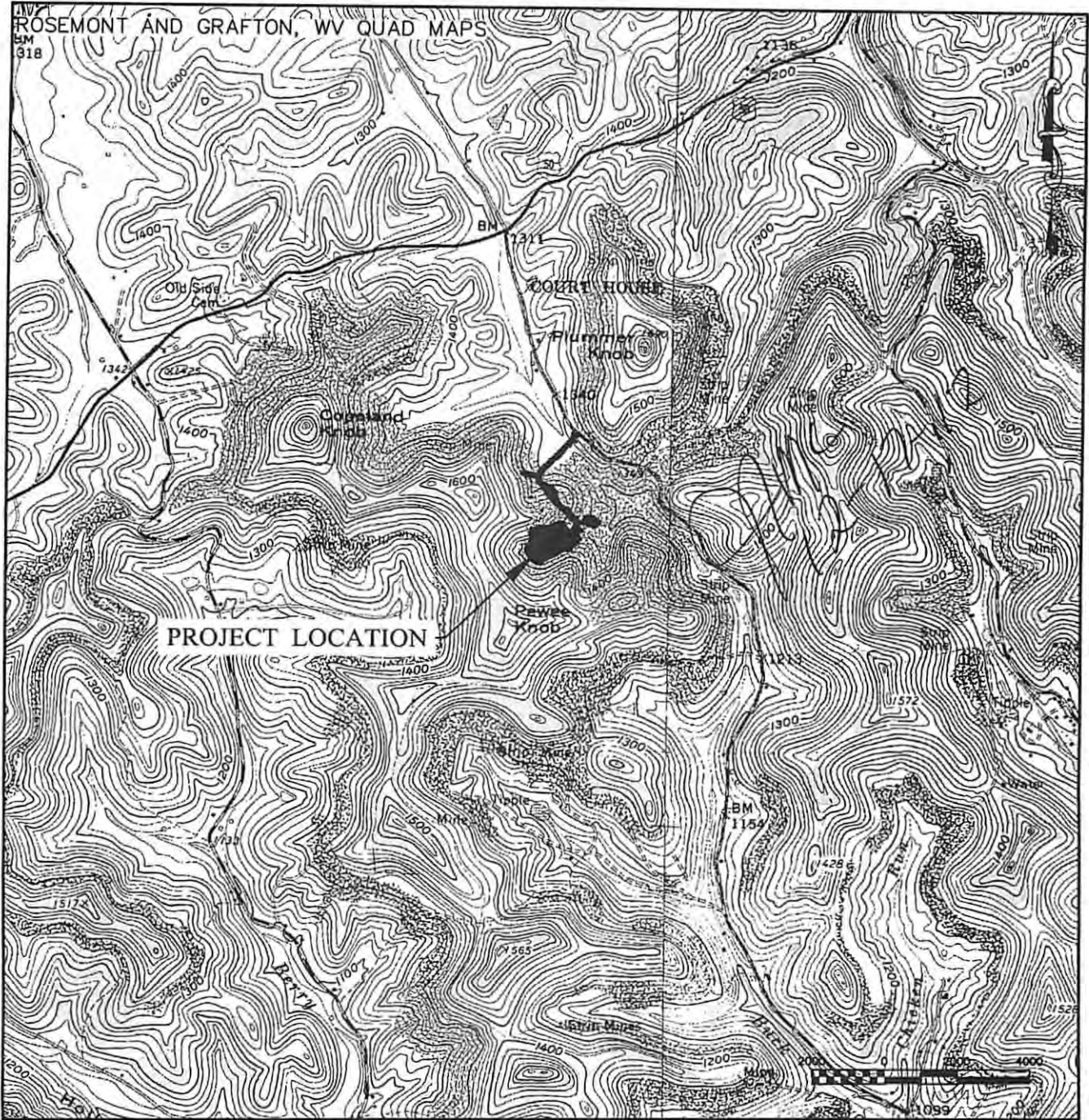
WELL OPERATOR: PDC MOUNTAINEER, LLC. DESIGNATED AGENT: JAMIE HAGA  
 ADDRESS: 120 GENESIS BOULEVARD BRIDGEPORT, WV 26330 ADDRESS: 120 GENESIS BOULEVARD BRIDGEPORT, WV 26330



91-01250 4-29-13

# ARMSTRONG-REYNOLDS 1HM, 2HM, 3HM, AND 4HM

## SITE MAP



PDC MOUNTAINEER

PHONE  
(304) 624-4108

**THRASHER**  
ENGINEERING

(FAX)  
(304) 624-7831

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30 COLUMBIA BOULEVARD - CLARKSBURG, WV 26301