

HOFFMAN ASSOCIATES INC
 320 O'Bryan Lane • Van Buren, AR 72956
 Office: 479.474.7916 • Fax: 479.474.2450
 Surveying • handa-inc.com

LINE	DESCRIPTION	DISTANCE	DESCRIPTION	MONUMENT
L1	N 20°25'36" E	1978.61'	SHL TO LANDMARK	
L2	S 30°45'34" W	410.62'	SHL TO LANDMARK	
L3	N 87°21'50" W	170.75'	SHL TO REF. PNT.	SET NAIL
L4	N 12°15'51" W	27.69'	SHL TO REF. PNT.	RAYLE COAL OH 6H WELL HEAD (069-00117)

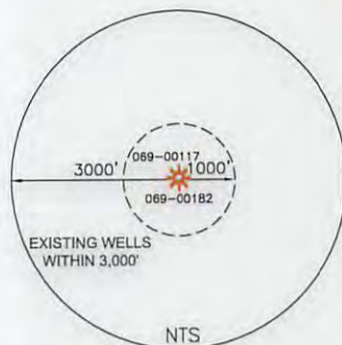
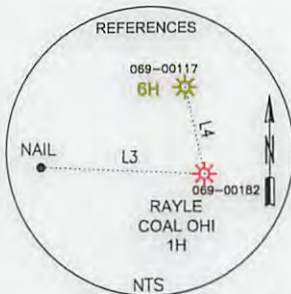
ASDRILLED



Longitude: 80°37'30" 1916'

NOTES ON SURVEY

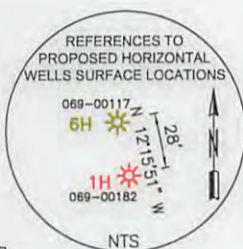
- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED 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 1000 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.



GRID NORTH
 UTM, NAD83 DATUM, ZONE 17, US FT

WW-6A1 LEGEND

(S)	SURFACE OWNER
(R)	ROYALTY OWNER
(TMP)	TAX MAP PARCEL NUMBER
(L)	LEASE NUMBER



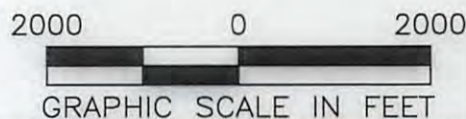
DIRECTIONAL PATH

LINE	CHORD BEARING	CHORD DIST
L5	S 62°07'56" W	120.79'
L6	N 84°49'14" W	694.83'
L7	N 54°51'24" W	532.79'
L8	N 17°54'31" W	1290.57'
L9	N 20°32'06" W	379.82'
L10	N 21°07'53" W	283.58'
L11	N 18°59'49" W	851.69'
L12	N 18°40'35" W	942.95'
L13	N 19°06'20" W	656.30'
L14	N 16°20'16" W	283.56'
L15	N 18°22'40" W	366.78'

SURFACE HOLE LOCATION (SHL):
GEOGRAPHIC (NAD83): LATITUDE: 40.161411' LONGITUDE: -80.626831'
UTM (NAD83, ZONE 17, FEET): NORTHING: 14,585,729.445 EASTING: 1,744,676.759
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,445,739.226 EASTING: 531,778.540
BOTTOM HOLE LOCATION (BHL):
GEOGRAPHIC (NAD83): LATITUDE: 40.175449' LONGITUDE: -80.636979'
UTM (NAD83, ZONE 17, FEET): NORTHING: 14,590,829.583 EASTING: 1,741,820.584
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,447,293.752 EASTING: 530,907.976

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 2315



COMPANY: **SWN** Production Company, LLC

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

WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25034

MINIMUM DEGREE OF ACCURACY:	1/200
PROVEN SOURCE OF ELEVATION:	SURVEY GRADE GPS (NAVD 88, US FT)

RAYLE COAL OHI		
OPERATOR'S WELL #:	1H	
API WELL #:	47	69 00182H64
	STATE	COUNTY PERMIT

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

WATERSHED: OHIO RIVER DIRECT DRAINS ELEVATION: 1064.1'

DISTRICT: RICHLAND COUNTY: OHIO QUADRANGLE: TILTONSVILLE, WV

SURFACE OWNER: SHORT CREEK COAL CO. C/O RAYLE COAL ACREAGE: ±61.53

OIL & GAS ROYALTY OWNER: SHORT CREEK COAL CO. C/O RAYLE COAL ACREAGE: ±394.05

DRILL DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION

CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 5,783' TVD 11,766' TMD

07/15/2016

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	DESIGNATED AGENT: DEE SOUTHALL
ADDRESS: P.O. BOX 1300	ADDRESS: P.O. BOX 1300
CITY: JANE LEW STATE: WV ZIP CODE: 26378	CITY: JANE LEW STATE: WV ZIP CODE: 26378

LEGEND:	REVISIONS:	DATE: 05-07-2015
○ PROPOSED SURFACE HOLE / BOTTOM HOLE		
⊙ EXISTING / PRODUCING WELLHEAD	--- LEASE BOUNDARY	DRAWN BY: S. HUTSON
⊘ ABANDONED WELL	--- 500' DHP BUFFER	SCALE: 1" = 2000'
⊗ PLUGGED & ABANDONED WELL	- MAR 1 > - MARCELLUS DHP	DRAWING NO: 58659
△ CUT CONDUCTOR	--- ABANDONED PATH	WELL LOCATION PLAT