

Latitude: 40°12'30" | BOTTOM HOLE 3710'



www.jhacompanies.com
68011 Vineyard Road
St. Clairsville, Ohio 43950
740-695-6100

SURFACE HOLE
Latitude: 40°15'00"

10144'

NOTES ON SURVEY

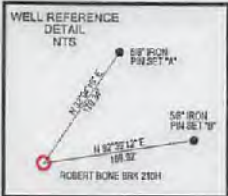
1. COORDINATE SYSTEM IS UTM NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
1. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREIN WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND/OR FIELD LOCATIONS.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREIN.
4. NO DWELLINGS OR BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD
5. NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
6. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF THE LIMITS OF DISTURBANCE.
7. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.

Longitude: -80°34'00" | BOTTOM HOLE 5219'

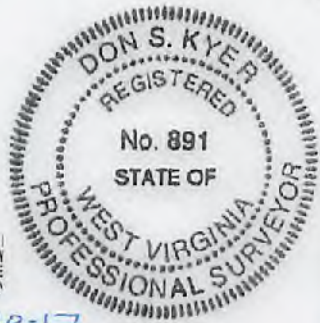
Longitude: -80°34'00" | SURFACE HOLE 11191'



LINE	BEARING	DISTANCE
L1	N 58°33'05" E	868.30'
L2	S 77°36'11" E	2,108.46'



SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4452139.91 EASTING: 533827.70
LANDING POINT (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4452247.39 EASTING: 534600.69
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4449356.24 EASTING: 535778.64



2000 0 2000

GRAPHIC SCALE IN FEET

COMPANY: **SWN** Production Company, LLC

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOW ALL THE INFORMATION REQUIRED BY LAW AND REGULATIONS ISSUE AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.S. 891

Don S. Kyer 4-20-17



(+) 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 SURVEY SOURCE OF GRADE GPS ELEVATION: (NAVD 88, US FT)

OPERATOR'S WELL #:	ROBERT BONE BRK 210H		
API WELL #:	47	009	00201
	STATE	COUNTY	PERMIT

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

WATERSHED: BUFFALO CREEK ELEVATION: 1148.0'

DISTRICT: BUFFALO COUNTY: BROOKE QUADRANGLE: BETHANY, WV

SURFACE OWNER: ROBERT BONE ACREAGE: ±80.99

OIL & GAS ROYALTY OWNER: ROBERT BONE ACREAGE: ±80.99

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: 5,997 TVD 17,031 TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC ADDRESS: P.O. BOX 1300 CITY: JANE LEW STATE: WV ZIP CODE: 2637B


DESIGNATED AGENT: DEE SOUTHALL ADDRESS: P.O. BOX 1300 CITY: JANE LEW STATE: WV ZIP CODE: 26378

LEGEND:	— SURVEYED BOUNDARY	REVISIONS:	DATE: 04-20-2017
○ PROPOSED SURFACE HOLE / BOTTOM HOLE	— DRILLING UNIT		
⊙ EXISTING / PRODUCING WELLHEAD	— LEASE BOUNDARY		
LPL+ LANDING POINT LOCATION	— PROPOSED PATH		
⊙ EXISTING WATER WELL			
⊙ EXISTING SPRING			
			DRAWN BY: C.WEHR,SSU
			SCALE: 1" = 2000'
			DRAWING NO: 2017-219
			WELL LOCATION PLAT

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS			
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	ROBERT O. BONE (S) ROBERT O. BONE (R)	03-0837-0081.0000	81.99
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
2	WILLIAM E. JOHNSTON & HAZEL E. JOHNSTON (SURV.)	03-0837-0050.0000	166.50
3	JOSEPH K. BOWMAN AND GLORIA JEAN BOWMAN, HUSBAND AND WIFE (SURV)	03-0837-0070.0000	3.30
4	JOSEPH K. BOWMAN AND GLORIA JEAN BOWMAN, HUSBAND AND WIFE (SURV)	03-0837-0069.0001	3.40
5	WILDA L. RIPLEY (LIFE ESTATE), JOHN E. RIPLEY AND SHERRILL J. RIPLEY (REMAINDERMEN)	03-0837-0062.0000	95.40
6	THEODORE W. BUNNELL	03-0837-0068.0000	13.10
7	LOTHIE KEITH, SINGLE	03-0837-0067.0000	1.50
8	LPS INVESTMENT PARTNERSHIP	03-0837-0066.0000	55.00
9	ELLEN B. SANFORD	03-0837-0076.0000	55.00
10	LABELLE FARMS INC.	03-0842-0060.0000	349.88
11	ELLEN B. SANFORD	03-0838-0056.0000	203.93
12	WINDSOR POWER HOUSE COAL CO.	03-0842-0048.0000	17.68
13	MARY WELLS CHAMBERS, WIDOW	03-0843-0014.0000	11.25
14	WINDSOR POWER HOUSE COAL CO.	03-0843-0016.0000	10.74
15	JOYCE ANN MCGEEHAN	03-0843-0017.0000	45.47

ADJOINING OWNERS TABLE			
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
A	WILLIAM E. JOHNSTON AND HAZEL E. JOHNSTON, JTWRCS, CAROLE SILVER AND WOODROW W. SILVER, JR. (LIFE ESTATE), PAULA KAY SILVER (LIFE ESTATE)	03-0837-0071.0000	2.36
B	WILLIAM E. JOHNSTON & HAZEL E. BERRY JOHNSTON (SURV.)	03-0837-0074.0001	4.10
C	BENJAMIN M. MOSA & CHRISTINE L. HEISE (SURV.)	03-0837-0074.0000	24.41
D	BENJAMIN M. MOSA & CHRISTINE L. HEISE (SURV.)	03-0837-0079.0000	2.17
E	TERRENCE BONE & SUSAN BONE	03-0837-0080.0000	2.58
F	BRIAN K. HANEY & GINA M. HANEY (SURV.)	03-0837-0077.0000	45.75
G	VEMURI HOME & GARDENS LLC.	03-0837-0082.0000	1.00
H	DEBRA CYPHERT; MATTHEW H. FAIR, SUSAN S. FAIR, RICHARD HENTHORN	03-0837-0088.0000	59.95
I	DEBRA CYPHERT; MATTHEW H. FAIR, SUSAN S. FAIR, RICHARD HENTHORN	03-0837-0091.0000	93.93
J	SCHIAPPA AND COMPANY INC.	03-0837-0023.0000	90.91
K	SCHIAPPA AND COMPANY INC.	03-0837-0022.0000	145.96
L	VIVIAN LUCILLE MAZZELLA	03-0837-0045.0000	110.58
M	VEMURI DWARKA NATH DBA AMERICAN HEART ASSOCIATES	03-0837-0047.0000	16.93
N	BONNIE LEE LUKACENA, SHELBY CARRELL, SHAYNE SCHUETZNER, SHANNON SCHUETZNER, SHEY SCHUETZNER, CHERI SHARPE, JOHN THOMAS RODGERS, PAIGE ELIZABETH ROLLINS	03-0837-0048.0000	81.50
O	WILLIAM E. JOHNSTON & HAZEL E. JOHNSTON	03-0837-0053.0001	1.33
P	BUFFALO CREEK CAMP	03-0837-0051.0000	1.00
Q	MARLUN G. CRAWFORD SR. AND JOY CRAWFORD, HIS WIFE	03-0837-0055.0000	1.33
R	ERWIN COWAN, RICHARD COWAN, DIANE E. OIGHT, JODY TENNANT	03-0837-0056.0000	1.11
S	JEREMY S. PERSINGER	03-0837-0057.0000	1.07
T	TRAVIS POLEN	03-0837-0059.0000	1.84
U	JOHN E. RIPLEY & SHERRILL J. RIPLEY	03-0837-0061.0000	1.30
V	WILDA L. RIPLEY (LIFE ESTATE) JOHN E. RIPLEY & SHERRILL J. RIPLEY (REMAINDERMEN)	03-0837-0062.0000	95.40
W	MELVIN E. PELUCHETTE	03-0837-0063.0000	109.39
X	JOHN B. DAUGHERTY	03-0837-0065.0000	3.20
Y	ESTATE OF SHAWN C. ARACICH, DECEASED	03-0837-0064.0000	8.30
Z	LESLIE ELSON & GAYLENE ELSON	03-0838-0055.0000	0.47
AA	LESLIE ELSON & GAYLENE ELSON	03-0838-0048.0000	0.46
AB	PENNY MARIE STUMPF	03-0838-0057.0000	1.38
AC	MATTHEW T. NICHOLSON	03-0838-0043.0000	0.86
AD	MARK T. NICHOLSON & KIMBERLY J. NICHOLSON	03-0838-0042.0001	1.23
AE	ROY T. NICHOLSON	03-0838-0042.0000	5.08
AF	ROY T. NICHOLSON	03-0838-0041.0000	0.02
AG	AMY LYNNE RICE	03-0838-0040.0000	4.35
AH	GEORGE SCOTT RICE	03-0838-0039.0000	1.00
AJ	TERRY P. THOMPSON & KAREN THOMPSON	03-0838-0038.0000	22.20
AJ	BETHANY COLLEGE	03-0838-0031.0000	822.26
AK	BETTIE BECK LEONETTI (DECEASED)	03-0843-0006.0000	191.25
AL	WINDSOR POWER HOUSE COAL CO.	03-0843-0015.0000	5.74
AM	MARY WELLS CHAMBERS	03-0843-0013.0000	3.77
AN	JOYCE ANN MCGEEHAN	03-0843-0017.0000	45.47
AO	JOYCE ANN MCGEEHAN	03-0843-0017.0001	1.00
AP	THOMAS AND CHERYL FLAHERTY	03-0843-0024.0000	0.98
AQ	HILLARY SAYRE	03-0843-0023.0000	1.29
AR	BRIAN DAVID CORWIN	03-0843-0022.0000	146.20
AS	SILVEA MAZZELLA MAZZELLA	03-0843-0018.0000	1.00
AT	MARION PYLE STONE	03-0843-0018.0000	1.00
AU	MARION PYLE STONE	03-0843-0020.0000	1.96
AV	WILLIAM BRITT COX	03-0843-0021.0000	44.73
AW	THURMAN O. SPEECE JR., & GOLDIE M. STANLEY	03-0842-0044.0000	8.50
AX	THURMAN O. SPEECE JR., & GOLDIE M. STANLEY	03-0842-0045.0000	14.20
AY	THURMAN O. SPEECE JR., & GOLDIE M. STANLEY	03-0842-0047.0000	4.10
AZ	THURMAN O. SPEECE JR., & GOLDIE M. STANLEY	03-0842-0048.0000	89.13
BA	THURMAN O. SPEECE JR., & JASON SPEECE	03-0842-0046.0001	2.00
BB	JEFFREY S. WARD & DAWN J. WARD	03-0842-0059.0004	98.11
BC	AUSTIN WAYNE WARD & JUSTINE ADAH WADE	03-0842-0050.0000	4.94
BD	AUSTIN WAYNE WARD & JUSTINE ADAH WADE	03-0842-0060.0001	0.87
BE	JAMES & JO ELLEN HAZLETT	03-0842-0060.0002	65.47
BF	WILLIAM A. HAZLETT & LYNNETTE G. HAZLETT, JTWRCS	03-0842-0060.0003	1.74
BG	EDGAR S. ERDMAN & CECELIA M. ERDMAN	03-0842-0049.0000	0.83
BH	LINDA REEVES GREATHOUSE & VICKI LYNN HAMILTON	03-0837-0087.0000	322.84
BI	WILLIAM A. SPERRINGER, III & JENNA L. SPERRINGER (SURV.)	03-0837-0078.0000	2.36
BJ	WILLIAM E. JOHNSTON & HAZEL E. JOHNSTON	03-0837-0069.0000	0.30
BK	WILLIAM E. JOHNSTON & HAZEL E. JOHNSTON, JTWRCS	03-0837-0073.0000	1.28
BL	WILLIAM E. JOHNSTON, AND HAZEL E. JOHNSTON, JTWRCS, CAROLE SILVER AND WOODROW W. SILVER, JR. (LIFE ESTATE), PAULA KAY SILVER (LIFE ESTATE)	03-0837-0072.0000	1.40
BM	JAMES & JO ELLEN HAZLETT	03-0843-0064.0000	5.74

47-009-0020146A

REVISIONS:	COMPANY:			DATE: 04-20-2017
	OPERATOR'S	ROBERT BONE		DRAWN BY: C.WEHR,SSU
	WELL #:	BRK 210H		SCALE: N/A
	DISTRICT:	COUNTY:	STATE:	DRAWING NO: 2017-219
	BUFFALO	BROOKE	WV	WELL LOCATION PLAT