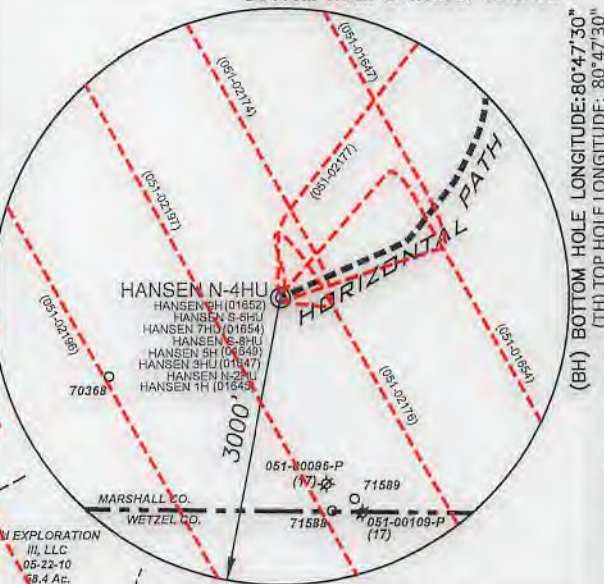


HANSEN LEASE WELL N-4HU 451.4284 ACRES

- NOTES**
1. BORE PATH BASED ON GRID NORTH.
 2. NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
 3. OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN MARCH, 2017. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
 4. WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
 5. ALL DEEP WELLS WITHIN 3,000' OF LATERAL ARE SHOWN ON PLAT.

TOP HOLE LATITUDE: 39°45'00"
BOTTOM HOLE LATITUDE: 39°47'30"



LEGEND

- LEASED TRACTS
- - - SURFACE TRACTS
- - - WELL LATERAL
- - - POINT PLEASANT LEGS
- - - 400' BORE PATH OFFSET
- - - 500' WELL BORE OFFSET
- UNIT BOUNDARY
- (A) LEASE # (SEE 6A1 FORM)

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,397,442.05
E) 515,916.41

LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,398,267.70
E) 516,509.78

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,401,135.62
E) 514,845.78

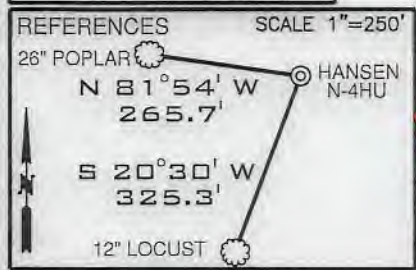
LINE	BEARING	DISTANCE
L1	N 59°17' W	1089.71'
L2	S 67°48' W	771.29'
L3	N 65°57' E	1392.18'
L4	N 38°57' E	659.78'

NUMBER	CHORD DIRECTION	CHORD LENGTH	RADIUS	ARC LENGTH
C1	N 51°14' E	112.69'	234.45'	113.50'
C2	N 33°13' E	97.91'	733.35'	97.95'
C3	N 27°59' E	238.16'	3347.72'	238.21'
C4	N 25°23' E	222.43'	6696.03'	222.44'
C5	N 12°39' E	469.22'	1146.97'	472.58'
C6	N 14°10' W	593.06'	1145.88'	599.89'

(+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

DETAIL SKETCH "A"
SCALE 1"=200'

- HANSEN 9H (01652)
- HANSEN S-6HU
- HANSEN 7HU (01654)
- HANSEN S-8HU
- HANSEN 6H (01549)
- HANSEN N-4HU
- HANSEN 5HU (01647)
- HANSEN N-2HU
- HANSEN 1H (01645)



FILE NUMBER _____

DRAWING NUMBER HANSEN_N-4HU_REV3

SCALE 1" = 2000'

MINIMUM DEGREE OF ACCURACY 1/200

PROVEN SOURCE OF ELEVATION SUBMETER MAPPING
GRADE GPS

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

David L Jackson



JACKSON SURVEYING INC.
P.O. Box 1460
Clarksburg, WV 26302
304-623-5851

WVDEP
OFFICE OF OIL & GAS
601 57TH STREET, SE
CHARLESTON, WV 25304

DATE: MARCH 06, 2019

REVISED DATE: AUGUST 09, 2019

OPERATORS WELL NO. HANSEN N-4HU

API WELL NO. 47-051-02175

STATE WV COUNTY MARSHALL PERMIT H6A

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___

LOCATION ELEVATION 1247.0' WATERSHED (HUC 10) FRENCH CREEK - OHIO RIVER

DISTRICT FRANKLIN COUNTY MARSHALL

QUADRANGLE NEW MARTINSVILLE 7.5' LEASE NUMBER SEE WW-6A1 FORM

SURFACE OWNER COVESTRO, LLC ACREAGE 172.79

OIL & GAS ROYALTY OWNER PPG INDUSTRIES, INC. LEASE ACREAGE 172.79

PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___
PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE (SPECIFY) _____

TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD: 11,391' TMD: 23,780'

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER
CT CORPORATION SYSTEM

ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS 5400 D BIG TYLER ROAD
FORT WORTH, TX 76107 CHARLESTON, WV 25313

COUNTY NAME
PERMIT

**HANSEN LEASE
WELL N-4HU
451.4284 ACRES**

4705102175 H6A

Number	TAX MAP -PARCEL	SURFACE OWNER	ACRES
S1 B	05-27-21	COVESTRO, LLC	22.67
S2 A	05-27-22	COVESTRO, LLC	172.79
S3	05-28-10	CAROL MARTIN	100.0
S4 H	05-28-9	COVESTRO, LLC	93.4
S5	05-28-2	COVESTRO, LLC	99.5
S6 J	05-28-3	TH EXPLORATION III, LLC	53.44
S7	05-22-13	JOHN M. MOORE , TERESA R. MOORE & ANDREA S. MOORE	40.57
S8	05-21-18	JOHN M. MOORE , TERESA R. MOORE & ANDREA S. MOORE	51.44
S9	05-21-20	JOHN M. MOORE , TERESA R. MOORE & ANDREA S. MOORE	31.0
S10	05-21-19.1	JOHN G. MOORE , ETAL	0.92
S11	05-21-22	PEGGY LEE BOWEN, ETAL	18.29
S12 P	05-21-24	TH EXPLORATION III, LLC	132.5
S13	05-20-34	TH EXPLORATION III, LLC	116.7
S14	05-20-33	TH EXPLORATION III, LLC	42.186
S15	05-27-20.1	APPALACHIAN POWER CO.	43.973
S16	05-27-20	COVESTRO, LLC.	93.027
S17	05-27-19	COVESTRO, LLC.	33.786
S18	05-28-11	CAROL A. MARTIN	24.681
S19	05-21-15	TH EXPLORATION III, LLC	52.97
S20	05-21-16	TH EXPLORATION III, LLC	38.38
S21	05-21-17	TH EXPLORATION III, LLC	31.68
S22	05-21-8	TH EXPLORATION III, LLC	38.94
S23	05-21-3	TH EXPLORATION III, LLC	146.0
S24	05-20-32	TH EXPLORATION III, LLC	28.8
S25	05-20-29	TH EXPLORATION III, LLC	30.08
S26	05-19-23	WSD PROPERTIES, LLC	28.4
S27	05-22-1	MARY P. MASON, EST.	2.0
S28 Q	05-22-2	TH EXPLORATION III, LLC	30.0
S29 N	05-22-18	EDWARD R. YOHO, JR.	77.13
S30 M	05-22-15	EDWARD R. YOHO, JR.	25.5
S31 L	05-22-16	EDWARD R. YOHO, JR.	57.0
S32	05-22-17	CNX GAS COMPANY, LLC.	37.5
S33 I	05-22-11	TH EXPLORATION III, LLC	55.65
S34 G	05-28-4	TH EXPLORATION III, LLC	48.44
S35	05-28-9	TH EXPLORATION III, LLC	63.44
S36	05-26-1	EDWIN BOOTH ANDERSON & MARK W. ANDERSON	12.94
S37	05-26-2	EDWIN BOOTH ANDERSON & MARK W. ANDERSON	67.5
S38	05-26-19	ERIC JAY & KARROLL S. BOOTH	50.0
S39	05-27-24	ROBERT F. ROTHLSBERGER	60.10
S40 C	05-27-23	ROBERT F. ROTHLSBERGER	35.77
S41	05-27-26	COVESTRO, LLC.	39.32
S42	05-27-27	JAMES ANDREW & KAREN R. LYNNE RICHMOND	8.9353
S43 F	05-28-8	COVESTRO, LLC.	56.32
S44	05-22-14	CNX LAND RESOURCES, INC.	0.30
S45	05-21-21	CNX LAND RESOURCES, INC.	4.0
S46 O	05-21-23	PEGGY LEE BROWN, ETAL	42.62
S47	05-20-28	TH EXPLORATION III, LLC	15.34
S48 K	05-22-12	TH EXPLORATION III, LLC	61.49



P.S. 708 *David L Jackson*



**TUG HILL
OPERATING**

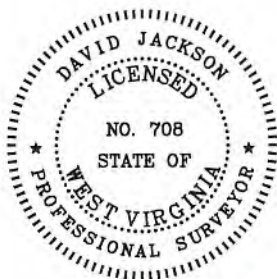
OPERATOR'S
WELL #: HANSEN N-4HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: 47-051-02175

WELL PLAT
PAGE 2 OF 3
DATE: 03/06/2019
REVISED DATE:
08/09/2019

HANSEN LEASE
WELL N-4HU
451.4284 ACRES

4705102175 H6A

Lease ID	Tags	Parcel	Grantor, Lessor, Etc.	Deed Book	Page
10*14418	A	5-27-22	PPG INDUSTRIES, INC.	878	610
10*14500	B	5-27-21	BAYER MATERIAL SCIENCE LLC	826	305
10*14609	C	5-27-23	PATRICIA HADDIX	700	113
10*14610	C	5-27-23	SUZANNE HILL	699	45
10*14611	C	5-27-23	LILLIAN PRISCILLA GRIMM	699	41
10*14065	D	5-28-7	CARL L COFFIELD SR	665	363
10*14572	E	5-28-6	VICKI LYNN WOOD	681	326
10*14573	E	5-28-6	AARON D LITMAN	681	317
10*14574	E	5-28-6	KLOVA ANN MORRIS	681	320
10*14575	E	5-28-6	REVA JUNE ICARD	681	323
10*14576	E	5-28-6	WILLIAM L LITMAN	681	329
10*14577	E	5-28-6	ULA NELSON	681	332
10*14578	E	5-28-6	BETTY KNOWLES	767	36
10*14418	F	5-28-8	PPG INDUSTRIES, INC.	878	610
10*14418	G	5-28-4	PPG INDUSTRIES, INC.	878	610
10*14418	H	5-28-9	PPG INDUSTRIES, INC.	878	610
10*14418	I	5-22-11	PPG INDUSTRIES, INC.	878	610
10*14418	J	5-28-3	PPG INDUSTRIES, INC.	878	610
10*14482	J	5-28-3	RALPH E EARNEST	745	578
10*14483	J	5-28-3	CHARLES H EARNEST	746	319
10*14484	J	5-28-3	ARTHUR L JOSEPH	748	474
10*14485	J	5-28-3	LINDA K HASSLEN	748	476
10*14486	J	5-28-3	THOMAS ATKINSON	754	248
10*14487	J	5-28-3	DOUGLAS ATKINSON	754	577
10*14488	J	5-28-3	HEATHER GUIDRY	754	244
10*14489	J	5-28-3	AUGUSTA L SPIHER	754	246
10*14490	J	5-28-3	JAMES WELCH JR	752	445
10*14491	J	5-28-3	CHRISTOPHER PRICE	752	208
10*14492	J	5-28-3	MARJORIE A MCLAUGHLIN	749	526
10*14418	K	5-22-12	PPG INDUSTRIES, INC.	878	610
10*14457	L	5-22-16	HARRY LEE GOUDY	731	140
10*14457	M	5-22-15	HARRY LEE GOUDY	731	140
10*14457	N	5-22-18	HARRY LEE GOUDY	731	140
10*14947	O	5-21-23	DANA NEAL SMALLWOOD	850	520
10*14948	O	5-21-23	PEGGY BOWEN BROWN	850	522
10*14418	P	5-21-24	PPG INDUSTRIES, INC.	878	610
10*14418	Q	5-22-2	PPG INDUSTRIES, INC.	878	610
10*14307	R	5-20-27	SALLY CYNTHIA HOPKINS	777	572
10*14308	R	5-20-27	MARY E. BASSETT	779	492
10*14309	R	5-20-27	ROBERT B. THOMAS	779	484
10*14310	R	5-20-27	JEAN C. THOMAS	781	614
10*14324	R	5-20-27	RUTH E. BASSETT MEADOWS	792	100
10*14325	R	5-20-27	ELIZABETH ANN STRAUSBAUGH	792	104
10*14326	R	5-20-27	JANET LEA BLANKENSHIP	792	580
10*14418	R	5-20-27	PPG INDUSTRIES, INC.	878	610



P.S. 708

David L Jackson



TUG HILL
OPERATING

OPERATOR'S
WELL #: HANSEN N-4HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: 47-051-02175

WELL PLAT
PAGE 3 OF 3
DATE: 03/06/2019
REVISED DATE:
08/09/2019