

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

RECEIVED
Office Of Oil and Gas

OCT 02 2024

WV Department of
Environmental Protection

API 47 - 103 - 03505 County Wetzel District Proctor
Quad Glen Easton 7.5' Pad Name Elmer Field/Pool Name N/A
Farm name Elnora Tuttle HRS. Well Number Elmer N-17HU (L022049)
Operator (as registered with the OOG) EQT Production Company
Address 400 Woodcliff Drive City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,393,813.81 Easting 522,502.51
Landing Point of Curve Northing 4,393,848.35 Easting 523,023.43
Bottom Hole Northing 4,396,524.90 Easting 521,465.87

Elevation (ft) 1277' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)

Synthetic Oil Based Mud 14.66 ppg barium sulfate, sodium chloride, xanthan gum, polyanionic cellulose, modified starch, sodium hydroxide, phosphonates and alkyl phosphates, glutaraldehyde solution, calcium hydroxide, partially hydrolyzed polyacrylamide/polyacrylate, potassium chloride, sodium carbonate, ground walnut shells, alcohol and modified fatty acid, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 07/22/2022 Date drilling commenced 08/06/2022 Date drilling ceased 10/10/2023
Date completion activities began 04/18/2024 Date completion activities ceased 07/03/2024
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 1003' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1857' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 563', 906', 999' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: SMC
11/17/24
12/13/2024

API 47-103 - 03505 Farm name Elnora Tuttle HRS. Well number Elmer N-17HU (L022049)

CASING STRINGS	Hole Size	Casing Size	Depth (GL)	New or Used	Grade wt/ft	Basket Depth(s) (GL)	Did cement circulate (Y/N) * Provide details below*
Conductor	38"	30"	120'	NEW	A-500 118.65#	N/A	Y
Surface	26"	20"	1122'	NEW	J-55 106.5#	N/A	Y
Coal							
Intermediate 1	17-1/2"	13-3/8"	2927'	NEW	J-55 54.5#	N/A	Y
Intermediate 2	12-3/8"; 12-1/4"	9-5/8"	10,840'	NEW	P-110-IC 47#	N/A	Y
Intermediate 3							
Production	8-1/2"	5-1/2"	22,692'	NEW	P-110 23#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production cmt has calculated TOC of 4703'GL, which is greater than 500'TVD above the producing formation. No issues during cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (GL)	WOC (hrs)
Conductor	CLASS A	324	15.6	1.21	392	0	8+
Surface	CLASS A	2034	15.6	1.18	2400	0	8
Coal							
Intermediate 1	CLASS A	2380	15.6	1.18	2808	0	8
Intermediate 2	CLASS A	4188	14.5	1.33	5570	0	8
Intermediate 3							
Production	CLASS A	3904	16.5	1.10	4294	4703'	8+
Tubing							

Drillers TD (ft) 22,750' Loggers TD (ft) N/A
 Deepest formation penetrated POINT PLEASANT Plug back to (ft) N/A
 Plug back procedure 5/24/2023:Pump Balance Plug,25bbls Eco Spacer @11# (y2.714 w16.42), Pump 80 bbl Cmt @ 14.5# (y1.33 w5.98), Pump 2.5 bbls EcoSpacer, Displace Brine calc. @ 108 bbls

Kick off depth (ft) 3,195'

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____
 CONDUCTOR- NONE _____
 SURFACE- ON SHOE TRACK AND EVERY 500' TO SURFACE _____
 INTERMEDIATE: ON SHOE TRACK AND EVERY 500' FEET TO SURFACE _____
 PRODUCTION: ON SHOE TRACK AND EVERY OTHER JOINT TO 12,432, EVERY JOINT TO 10,941' AND EVERY OTHER JOINT TO 327' _____

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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Sonic
Department of
Environmental Protection

API 47- 103 - 03505 Farm name Elnora Tuttle HRS. Well number Elmer N-17HU (L022049)

Drilling Contractor Falcon (Rig 29)
Address 1120 US-119 City Indiana State PA Zip 15701

Logging Company Nzone Guidance, LLC
Address 140 Falcon Lane City Liberty Hill State TX Zip 78642

Cement Company Lightning Energy Services
Address 104 Heliport Loop City Bridgeport State WV Zip 26330

Drilling Contractor _____
Address _____ City _____ State _____ Zip _____

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Well # ELMER N-17HU (L022049) Final Formations API# 47-103-03505				
Formation Name	Drill Top MD (ftGRD)	Drill Top (TVD) (ftGRD)	Drill Btm MD (ftGRD)	Drill Btm (TVD) (ftGRD)
Sand/Shale	1	1	564	563
Washington Coal	564	563	566	565
Sand/Shale	566	565	907	906
Sewickley Coal	907	906	910	909
Sand/Shale	910	909	1,000	999
Pittsburgh Coal	1,000	999	1,004	1,003
Sand/Shale	1,004	1,003	2,343	2,342
Big Lime	2,343	2,342	2,474	2,473
Big Injun	2,474	2,473	2,620	2,619
Sand/Shale	2,620	2,619	2,788	2,787
Weir	2,788	2,787	2,976	2,975
Sand/Shale	2,976	2,975	3,178	3,177
Gordon	3,178	3,177	3,309	3,308
Sand/Shale	3,309	3,308	5,632	5,597
Alexander	5,632	5,597	6,224	6,179
Rhinestreet	6,224	6,179	6,651	6,599
Middlesex	6,651	6,599	6,706	6,653
Sand/Shale	6,706	6,653	6,726	6,673
Geneseo	6,726	6,673	6,753	6,699
Tully	6,753	6,699	6,787	6,733
Hamilton	6,787	6,733	6,831	6,776
Marcellus	6,831	6,776	6,883	6,827
Onondaga	6,883	6,827	7,114	7,056
Oriskany	7,114	7,056	7,221	7,162
Helderberg	7,221	7,162	7,585	7,514
Sand/Shale	7,585	7,514	7,565	7,495
Salina	7,565	7,495	8,412	8,282
Sand/Shale	8,412	8,282	8,645	8,499
Lockport	8,645	8,499	9,001	8,834
Rose Hill	9,001	8,834	9,277	9,093
Packer Shell	9,277	9,093	9,479	9,275
Clinton	9,479	9,275	9,795	9,560
Queenston	9,795	9,560	10,362	10,086
Sand/Shale	10,362	10,086	10,700	10,398
Reedsville	10,700	10,398	12,037	11,590
Utica	12,037	11,590	12,256	11,699
Point Pleasant	12,256	11,699	22,750	11,744

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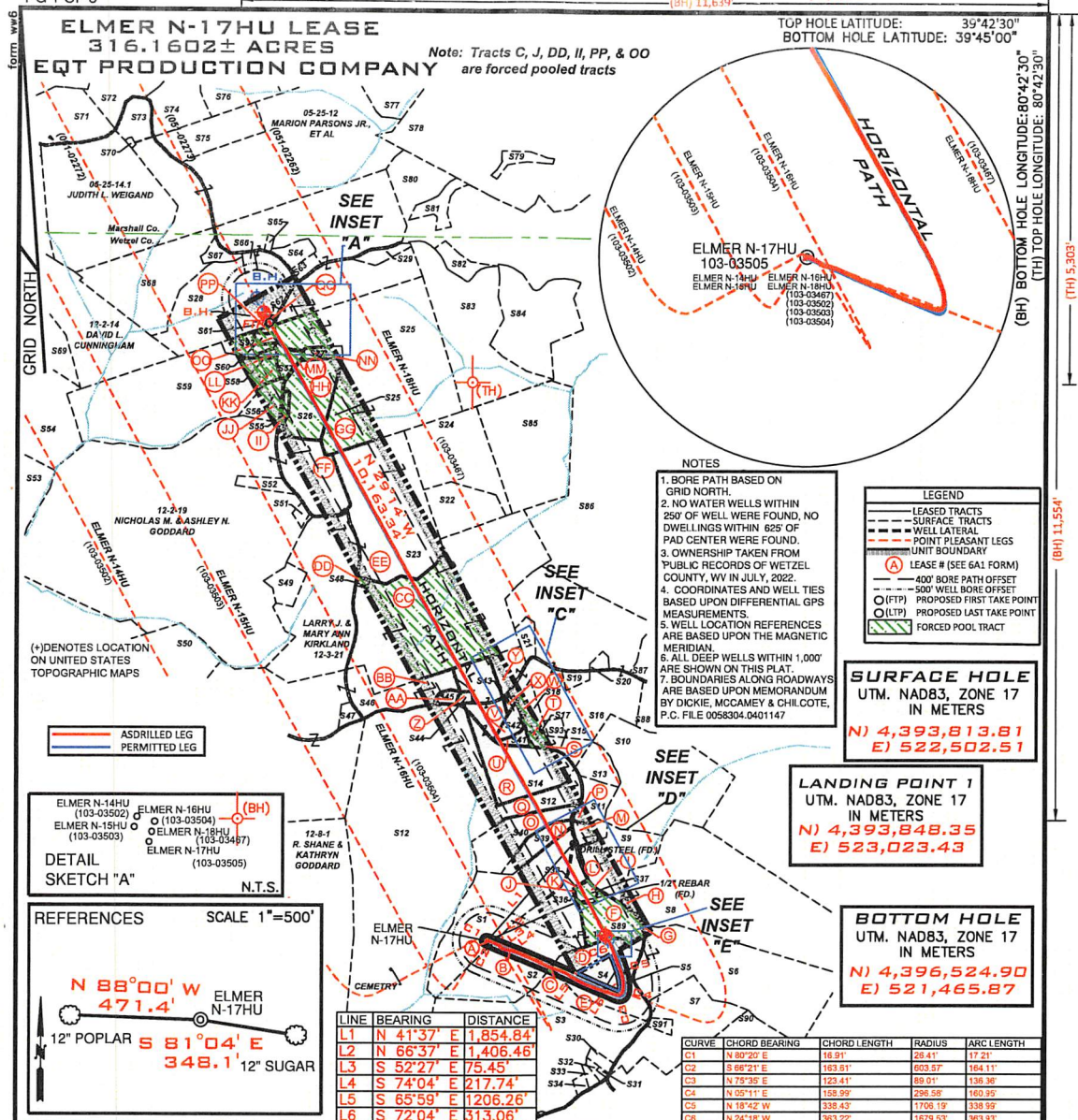
WV Department of
Environmental Protection

12/13/2024

ELMER N-17HU LEASE 316.1602± ACRES EQT PRODUCTION COMPANY

Note: Tracts C, J, DD, II, PP, & OO are forced pooled tracts

TOP HOLE LATITUDE: 39°42'30"
BOTTOM HOLE LATITUDE: 39°45'00"



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FILE NUMBER _____
DRAWING NUMBER ELMER_N-17HU_REV1
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
304-673-5851



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

DATE: OCTOBER 27, 2023
OPERATORS WELL NO. ELMER N-17HU
API WELL NO. 47-103-03505
STATE WV COUNTY WETZEL PERMIT _____

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
LOCATION ELEVATION 1276.50' WATERSHED (HUC 10) PROCTOR CREEK OF FRENCH CREEK - OHIO RIVER (HUC-10)
DISTRICT PROCTOR COUNTY WETZEL
QUADRANGLE WILEYVILLE 7.5' LEASE NUMBER SEE WW-6A1 FORM

SURFACE OWNER ELNORA TUTTLE HRS. ACREAGE 39.19
OIL & GAS ROYALTY OWNER HENRY & NANCY GARNER - SEE WW-6A1 LEASE ACREAGE 39.19
PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE (SPECIFY) ASDRILLED
PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD: 11,777' TMD: 22,783'

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT JOSEPH C. MALLOW
ADDRESS 400 WOODCLIFF DRIVE ADDRESS 427 MIDSTATE DRIVE
CANONSBURG, PA 15317 CLARKSBURG, WV 25301

12/13/2024

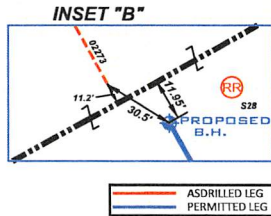
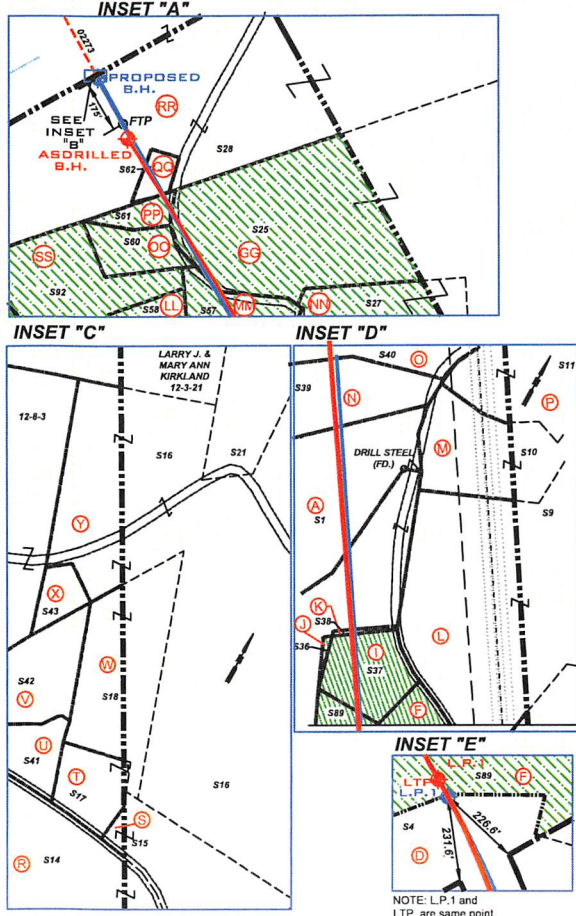
form wvc

**ELMER N-17HU LEASE
316.1602± ACRES
EQT PRODUCTION COMPANY**

* FORCED POOLED TRACTS ARE HIGHLIGHTED

Tags	Number	Tax Map - Parcel	Surface Owner	Acres
A	S1	12-8-15	ELNDRA TUTTLE HRS.	39.19
B	S2	12-8-16	CHARLES & BETTY HUGGINS	39.13
C	S3	12-8-20	NANCY D. TRUEX	95.35
D	S4	12-8-21.1	LINDA M. STOUT	15.26
E	S5	12-8-22.1	BARRY C. KIRKLAND	7.401
G	S6	12-8-23	JACOB WOODROW & MARY JOSEPHINE NICE	59
	S7	12-8-32	DAVID TODD & CINDY L. BATES & CHARLES M. THOMAS	27.287
H	S8	12-8-17	JACOB WOODROW & MARY JOSEPHINE NICE	85.69
L	S9	12-8-4	JACOB WOODROW & MARY JOSEPHINE NICE	20.893
M	S10	12-8-4.5	JACOB WOODROW & MARY JOSEPHINE NICE	51.107
P	S11	12-8-4.1	JACOB WOODROW & MARY JOSEPHINE NICE	6.171
Q	S12	12-8-2	R. SHANE & KATHRYN GODDARD	178
	S13	12-8-4.3	BRADY G. & SHARON L. HOWELL	5.59
R	S14	12-8-3	R. SHANE & KATHRYN GODDARD	31.13
S	S15	12-3-31	DOUGLAS & SUZANNE ESTEP	3.25
Y	S16	12-3-30.4	FRIEND V. ESTEP, MICHAEL & JOAN ESTEP & DOUGLAS & SUZANNE ESTEP (RAYMOND ESTEP - L/E)	81.82
T	S17	12-3-39.1	WILLIAM NICE	1.31
W	S18	12-3-39	FRIEND V. ESTEP, MICHAEL & JOAN ESTEP & DOUGLAS & SUZANNE ESTEP (RAYMOND ESTEP - L/E)	4.69
	S19	12-3-30.2	APRIL ROSE & DONALD ALLEN POSTLETHWAIT	1.67
	S20	12-3-30	MARY ROSE YOHO - L/E; APRIL ROSE POSTLETHWAIT	0.48
	S21	12-3-29	FRIEND V. ESTEP (RAYMOND F. ESTEP - L/E)	2.9
	S22	12-3-14.1	MATTHEW D. HALL	13
EE	S23	12-3-13	LARRY J. & MARY ANN KIRKLAND	95
	S24	12-3-14	ROBERT W. BAXTER, FREDERICK J. BAXTER & ANN C. LINGER	27
GG	S25	12-3-4	MARY HOHMAN ET AL	85
HH	S26	12-3-3.1	DIANA & ROBERT L. SMITH	15.78
NN	S27	12-3-02	ROBERT LEE & DIANA G. SMITH	2.48
RR	S28	5-25-11.2	JAMES W. KLUG	110.491
	S29	12-3-42	J. M. KLUG	2.617
	S30	12-8-20.1	PAUL J. BLAKE	1.5
	S31	12-8-20.3	PAUL J. BLAKE	0.25
	S32	12-8-20.9	JOSHUA M. & COURTNEY R. NEFF	0.4
	S33	12-8-20.8	JOSHUA M. & COURTNEY R. NEFF	0.99
	S34	12-8-20.6	JOHN G. & DEBRA D. THROCKMORTON	1.046
	S35	12-8-20.5	JOE B. MILLER & GERALD & SUE YEATER	44.85
J	S36	12-8-4.4	CHARLES & BETTY HUGGINS	0.69
I	S37	12-8-4.2	BRENT A. & KIMBERLY J. EDDY	1.861
K	S38	12-8-16.1	BRENT A. & KIMBERLY J. EDDY	0.06
N	S39	12-8-14	EDWARD C. & SANDRA K. MURRINER	5.33
O	S40	12-8-13	EDWARD C. & SANDRA K. MURRINER	15
U	S41	12-3-32.1	TIMOTHY L. & LEA ANN SUMMERS	1.78
V	S42	12-3-32	TIMOTHY L. SUMMERS	2.32
X	S43	12-3-30.3	TIMOTHY L. SUMMERS	0.61
Z	S44	12-3-45	ANTIOCH CHURCH	0.774
AA	S45	12-3-28	ANTIOCH CHURCH	1
BB	S46	12-8-1.1	R. SHANE & KATHRYN GODDARD	92.69
	S47	12-8-1.2	JOSH GODDARD	1.81
DD	S48	12-3-21.1	LARRY J. & MARY ANN KIRKLAND	0.47
	S49	12-3-13.1	ZACHARY J. KIRKLAND	5
	S50	12-2-22.1	DAVID A. NICE	54.66
	S51	12-3-48	RONALD W. & JULIANA NICE	1
	S52	12-3-12	RODNEY DEAN JACKSON	3.625
	S53	12-2-12	BERYL E. MASON	99.9
	S54	12-2-13	JAY S. BOOTH; DANIEL T. BOOTH & DIANE BETH OVERDORFF	100
II	S55	12-3-3	ANITA LARELL SLOUGH	1.12
JJ	S56	12-3-4.2	DEREK L. BAKER	5.21
MM	S57	12-3-4.3	JOSEPH P. & BARBARA A. CAIN	3.619
LL	S58	12-3-4.8	ERIN HUBBS	0.621
KK	S59	12-3-4.7	JOSEPH P. & BARBARA A. CAIN	67.3
OO	S60	12-3-4.6	STEVEN P. WAYMAN	1.009
PP	S61	12-3-4.5	HAZEL M. BLAIR	0.451
QQ	S62	12-3-1	JAMES W. KLUG	0.375
	S63	12-3-43	ADAM W. FERRELL & BRITTANY M. LOY	1.97
	S64	12-3-49	LOGAN & AMY TAYLOR	3.814

Tags	Number	Tax Map - Parcel	Surface Owner	Acres
	S65	12-3-47	WETZEL CO. EMERGENCY AMBULANCE	0.5
	S66	12-3-44	JAMES A. & JO C. ESTEP	1.1
	S67	05-25-11.1	EDWARD W. & DIANNA KLUG	2.343
	S68	05-25-11.4	EDWARD W. KLUG, ET UX	32.787
	S69	12-2-14.2	JOHN G. JR. & GERALDINE W. ROGERS	22.0007
	S70	05-25-13.4	PARSONS CEMETERY	0.382
	S71	05-25-14	ROY F. YOHO	23
	S72	05-25-1	MICHAEL L. MASON	35.43
	S73	05-25-13.2	DAVID A. KLUG	5.89
	S74	05-25-13	WILLIAM M. FERDA, JR. & STEPHANIE L. PAUCKA	16.014
	S75	05-25-12.1	KENT & BETTY MASON	15
	S76	05-25-1.5	RYAN J. BRATTON	21.35
	S77	05-25-2	JAMES W. KLUG	122.3
	S78	05-25-3	S.D. FERITTA, ET UX	181.548
	S79	05-25-3.1	S.D. FERITTA, ET UX	3.022
	S80	05-25-10	TERRY L. & TAMMY J. KIRKLAND, AS TRUSTEES OF THE TERRY & TAMMY KIRKLAND LIVING TRUST	18.75
	S81	05-25-10.1	TERRY L. & TAMMY J. KIRKLAND, AS TRUSTEES OF THE TERRY & TAMMY KIRKLAND LIVING TRUST	5.25
	S82	12-3-41	TERRY L. & TAMMY J. KIRKLAND, AS TRUSTEES OF THE TERRY & TAMMY KIRKLAND LIVING TRUST	4.102
	S83	12-3-41.1	TERRY L. & TAMMY J. KIRKLAND, AS TRUSTEES OF THE TERRY & TAMMY KIRKLAND LIVING TRUST	74.138
	S84	12-3-4.1	TERRY L. & TAMMY J. KIRKLAND, AS TRUSTEES OF THE TERRY & TAMMY KIRKLAND LIVING TRUST	10.5
	S85	12-3-15	ROBERT W. BAXTER, FREDERICK J. BAXTER & ANN C. LINGER	38
	S86	12-3-22	FRIEND V. ESTEP, MICHAEL & JOAN ESTEP & DOUGLAS & JOAN ESTEP (RAYMOND ESTEP - L/E)	22.5
	S87	12-3-30.1	JOAN & MICHAEL J. ESTEP	1.75
	S88	12-3-33	FRIEND V. ESTEP, MICHAEL & JOAN ESTEP & DOUGLAS & JOAN ESTEP (RAYMOND ESTEP - L/E)	58.32
F	S89	12-8-21	EDUARDO C. & SONYA R. DEGUZMAN	11.51
	S90	12-8-32.8	DAVID TODD & CINDY L. BATES	36.425
	S91	12-8-32.6	CHARLES W. THOMAS, JR.	1.309
SS	S92	p/o 12-3-4.7 & 4.3	JOSHUA D. LEMASTERS & ERIN LEMASTERS	3.602
	S93	p/o 12-3-39 & 30.4	DOUGLAS & SUZANNE ESTEP	0.145



P.S. 708 *David L. Jackson*

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OPERATOR'S
WELL #: ELMER N-17HU
DISTRICT: Proctor
COUNTY: Wetzel
STATE: WV
API #: 47-103-03505

WELL PLAT
PAGE 2 OF 3
DATE: 10/27/2023

12/13/2024

form wwg

**ELMER N-17HU LEASE
316.1602± ACRES
EQT PRODUCTION COMPANY**

Lease ID	TMP	Tag	Granor, Lessor, Etc.	Deed Book/Page	
10*31435	12-8-15	A	HENRY AND NANCY GARNER	55	394
10*31435	12-8-16	B	HENRY AND NANCY GARNER	55	394
FORCE POOL	12-8-20	C	BRC MINERALS LP, ET AL	102A	501
10*31435	12-8-21.1	D	HENRY AND NANCY GARNER	55	394
10*31435	12-8-22.1	E	HENRY AND NANCY GARNER	55	394
10*31435	12-8-21	F	HENRY AND NANCY GARNER	55	394
10*31435	12-8-23	G	HENRY AND NANCY GARNER	55	394
10*40155	12-8-17	H	ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD	47A	197
10*40155	12-8-4.2	I	ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD	47A	197
10*40155	12-8-4.4	J	ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD	47A	197
10*31435	12-8-16.1	K	HENRY AND NANCY GARNER	55	394
10*40155	12-8-4	L	ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD	47A	197
10*40155	12-8-4.5	M	ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD	47A	197
10*31435	12-8-14	N	HENRY AND NANCY GARNER	55	394
10*31435	12-8-13	O	HENRY AND NANCY GARNER	55	394
	12-8-4.1	P	ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD	47A	197
10*31435	12-8-2	Q	HENRY AND NANCY GARNER	55	394
10*31435	12-8-3	R	HENRY AND NANCY GARNER	55	394
10*31435	12-3-31	S	HENRY AND NANCY GARNER	55	394
10*24010	12-3-39.1	T	JOHN ROBINSON DAVIS, ET AL	215A	419
10*24010	12-3-32.1	U	JOHN ROBINSON DAVIS, ET AL	215A	419
10*24010	12-3-32	V	JOHN ROBINSON DAVIS, ET AL	215A	419
10*24010	12-3-39	W	JOHN ROBINSON DAVIS, ET AL	215A	419
10*31435	12-3-30.3	X	HENRY AND NANCY GARNER	55	394
10*31435	12-3-30.4	Y	HENRY AND NANCY GARNER	55	394
10*31435	12-3-45	Z	HENRY AND NANCY GARNER	55	394
10*31435	12-3-28	AA	HENRY AND NANCY GARNER, ET AL	55	394
10*31435	12-8-1.1	BB	HENRY AND NANCY GARNER	55	394
FORCE POOL	12-3-21	CC	RACHEL AND JACOB COFFIELD, ET AL	55	329
10*39463	12-3-4	GG	J P COOPER ET AL	56	245
10*39463	12-3-3.1	HH	J P COOPER ET AL	56	245
10*39463	12-3-3	II	J P COOPER ET AL	56	245
10*39463	12-3-4.2	JJ	J P COOPER ET AL	56	245
10*39463	12-3-4.7	KK	J P COOPER ET AL	56	245
10*39463	12-3-4.8	LL	J P COOPER ET AL	56	245
10*39463	12-3-4.3	MM	J P COOPER ET AL	56	245
10*39463	12-3-2	NN	J P COOPER ET AL	56	245
10*39463	12-3-4.6	OO	J P COOPER ET AL	56	245
10*39463	12-3-4.5	PP	J P COOPER ET AL	56	245
10*22496	12-3-1	QQ	JAMES W KLUG	923	543
10*22496	5-25-11.2	RR	JAMES W KLUG	923	543

DEEP WELLS WITHIN 2400' OF PROPOSED WELL'S SURFACE LOCATION AND/OR WITHIN 500' OF WELL LATERAL

API	OPERATOR
47-051-02273	Tug Hill Operating, LLC
47-103-03467	Tug Hill Operating, LLC
47-103-03502	Tug Hill Operating, LLC
47-103-03503	Tug Hill Operating, LLC
47-103-03504	Tug Hill Operating, LLC

SURFACE HOLE UTM. NAD83, ZONE 17 IN METERS N) 4,393,813.81 E) 522,502.51
LANDING POINT 1 UTM. NAD83, ZONE 17 IN METERS N) 4,393,833.68 E) 523,033.87
BOTTOM HOLE UTM. NAD83, ZONE 17 IN METERS N) 4,396,585.19 E) 521,432.94

RECEIVED
Office Of Oil and Gas
OCT 02 2024
WV Department of
Environmental Protection



P.S.
708

David L Jackson



OPERATOR'S
WELL #: ELMER N-17HU
DISTRICT: Proctor
COUNTY: Wetzel
STATE: WV
API #: 47-103-03505

WELL PLAT
PAGE 3 OF 3
DATE: 10/27/2023

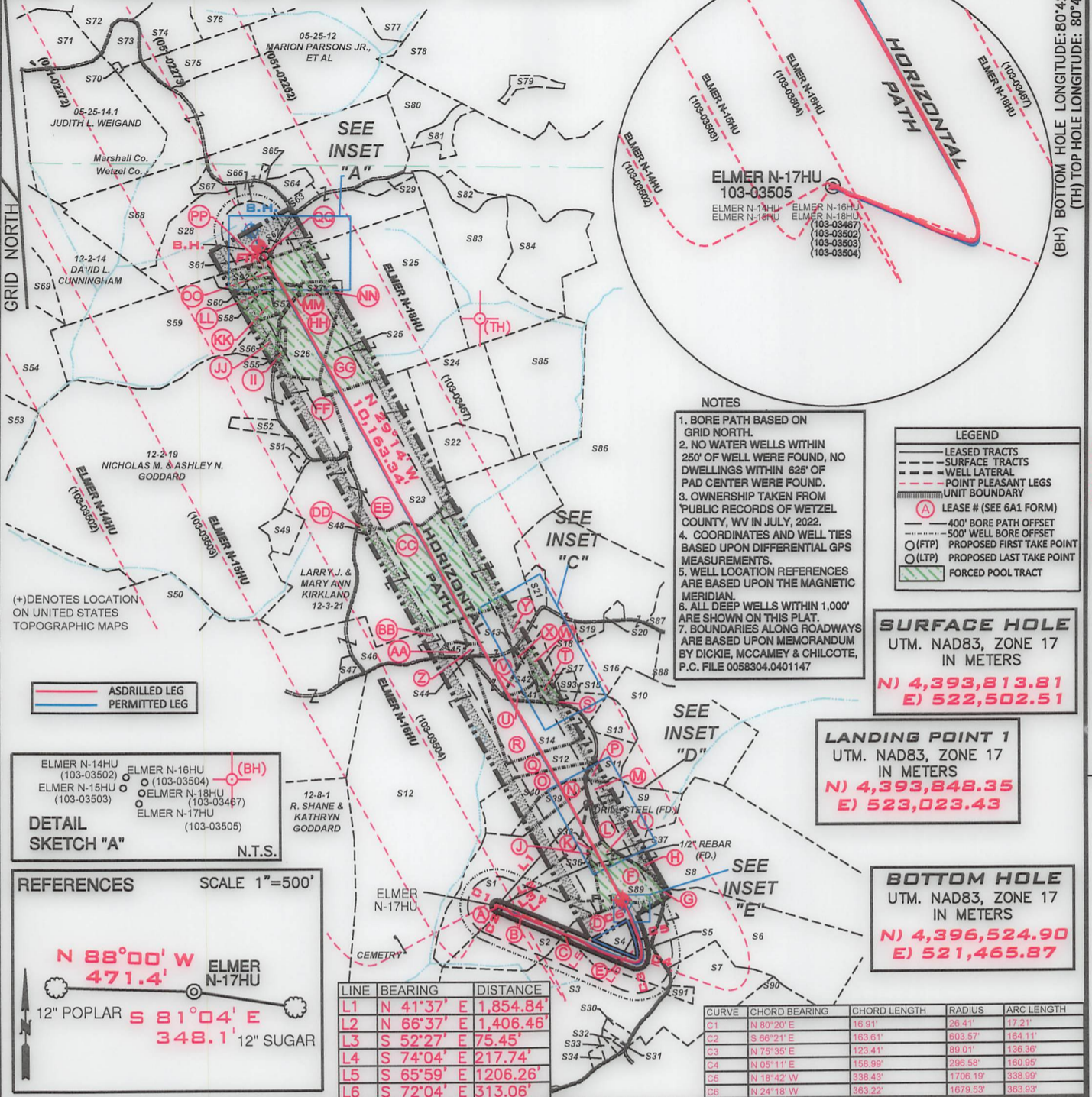
12/13/2024

ELMER N-17HU LEASE 316.1602± ACRES EQT PRODUCTION COMPANY

Note: Tracts C, J, DD, II, PP, & OO are forced pooled tracts

TOP HOLE LATITUDE: 39°42'30"
BOTTOM HOLE LATITUDE: 39°45'00"

(BH) BOTTOM HOLE LONGITUDE: 80°42'30"
(TH) TOP HOLE LONGITUDE: 80°42'30"



- NOTES**
- BORE PATH BASED ON GRID NORTH.
 - NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
 - OWNERSHIP TAKEN FROM PUBLIC RECORDS OF WETZEL COUNTY, WV IN JULY, 2022.
 - COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
 - WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
 - ALL DEEP WELLS WITHIN 1,000' ARE SHOWN ON THIS PLAT.
 - BOUNDARIES ALONG ROADWAYS ARE BASED UPON MEMORANDUM BY DICKIE, MCCAMEY & CHILCOTE, P.C. FILE 0058304.0401147

LEGEND

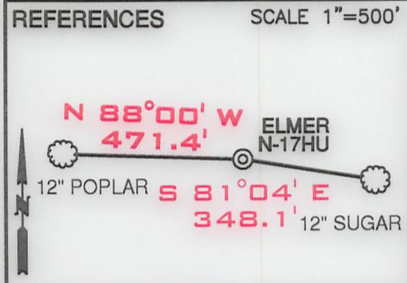
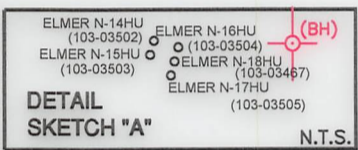
- LEASED TRACTS
- SURFACE TRACTS
- WELL LATERAL
- POINT PLEASANT LEGS
- UNIT BOUNDARY
- LEASE # (SEE 6A1 FORM)
- 400' BORE PATH OFFSET
- 500' WELL BORE OFFSET
- (FTP) PROPOSED FIRST TAKE POINT
- (LTP) PROPOSED LAST TAKE POINT
- FORCED POOL TRACT

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,393,813.81
E) 522,502.51

LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,393,848.35
E) 523,023.43

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,396,524.90
E) 521,465.87

ASDRILLED LEG
PERMITTED LEG



LINE	BEARING	DISTANCE
L1	N 41°37' E	1,854.84'
L2	N 66°37' E	1,406.46'
L3	S 52°27' E	75.45'
L4	S 74°04' E	217.74'
L5	S 65°59' E	1,206.26'
L6	S 72°04' E	313.06'

CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	N 80°20' E	16.91'	26.41'	17.21'
C2	S 66°21' E	163.61'	603.57'	164.11'
C3	N 75°36' E	123.41'	89.01'	136.36'
C4	N 05°11' E	158.99'	296.58'	160.95'
C5	N 18°42' W	338.43'	1706.19'	338.99'
C6	N 24°18' W	363.22'	1679.53'	363.93'

FILE NUMBER _____

DRAWING NUMBER ELMER_N-17HU_REV1

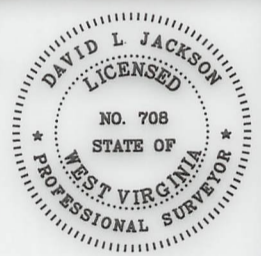
SCALE 1" = 2000'

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

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

LOCATION ELEVATION 1276.50' WATERSHED (HUC 10) PROCTOR CREEK OF FRENCH CREEK - OHIO RIVER (HUC-10)

DISTRICT PROCTOR COUNTY WETZEL

QUADRANGLE WILEYVILLE 7.5' LEASE NUMBER SEE WW-6A1 FORM

SURFACE OWNER ELNORA TUTTLE HRS. ACREAGE 39.19

OIL & GAS ROYALTY OWNER HENRY & NANCY GARNER - SEE WW-6A1 LEASE ACREAGE 39.19

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

TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD: 11,777' TMD: 22,783'

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT JOSEPH C. MALLOW

ADDRESS 400 WOODCLIFF DRIVE CANONSBURG, PA 15317 ADDRESS 427 MIDSTATE DRIVE CLARKSBURG, WV 25301

COUNTY NAME
PERMIT

12/13/2024

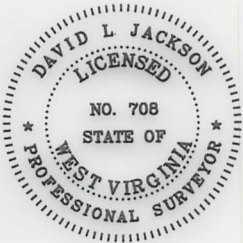
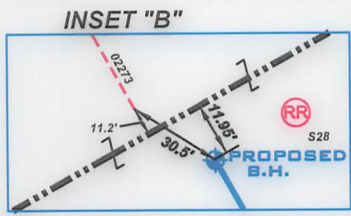
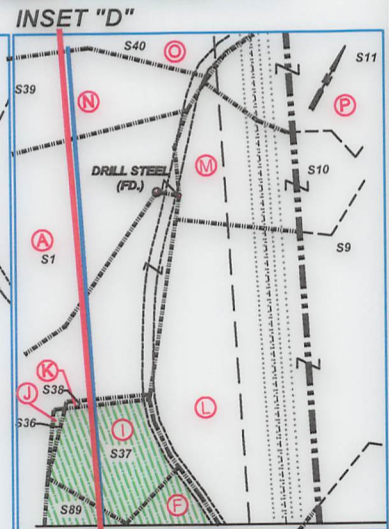
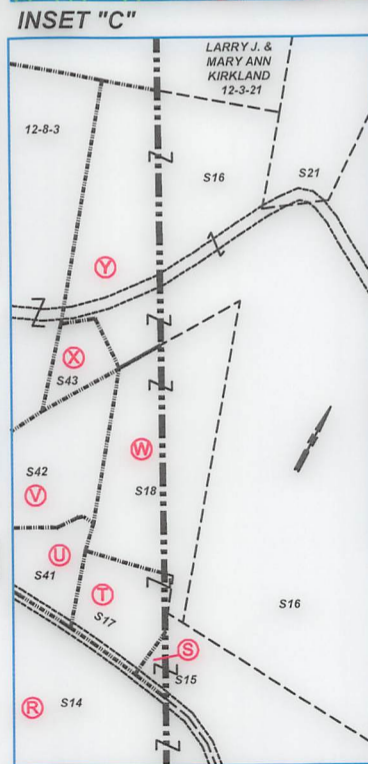
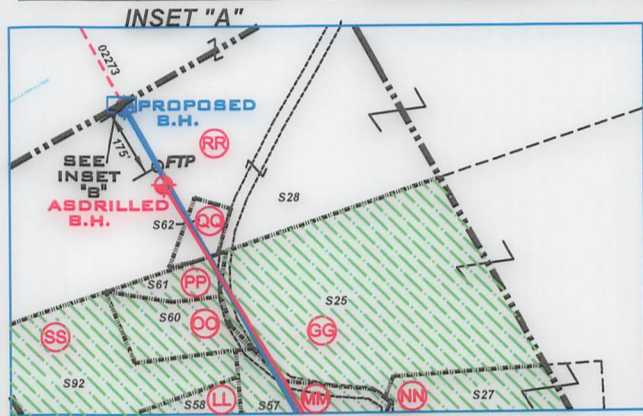
form wv6

**ELMER N-17HU LEASE
316.1602± ACRES
EQT PRODUCTION COMPANY**

* FORCED POOLED TRACTS ARE HIGHLIGHTED

Tags	Number	Tax Map -Parcel	Surface Owner	Acres
A	S1	12-8-15	ELNORA TUTTLE HRS.	39.19
B	S2	12-8-16	CHARLES & BETTY HUGGINS	39.13
C	S3	12-8-20	NANCY D. TRUEX	95.35
D	S4	12-8-21.1	LINDA M. STOUT	15.26
E	S5	12-8-22.1	BARRY C. KIRKLAND	7.401
G	S6	12-8-23	JACOB WOODROW & MARY JOSEPHINE NICE	59
	S7	12-8-32	DAVID TODD & CINDY L. BATES & CHARLES M. THOMAS	27.287
H	S8	12-8-17	JACOB WOODROW & MARY JOSEPHINE NICE	85.69
L	S9	12-8-4	JACOB WOODROW & MARY JOSEPHINE NICE	20.893
M	S10	12-8-4.5	JACOB WOODROW & MARY JOSEPHINE NICE	51.107
P	S11	12-8-4.1	JACOB WOODROW & MARY JOSEPHINE NICE	6.171
Q	S12	12-8-2	R. SHANE & KATHRYN GODDARD	178
	S13	12-8-4.3	BRADY G. & SHARON L. HOWELL	5.59
R	S14	12-8-3	R. SHANE & KATHRYN GODDARD	31.13
S	S15	12-3-31	DOUGLAS & SUZANNE ESTEP	3.25
Y	S16	12-3-30.4	FRIEND V. ESTEP, MICHAEL & JOAN ESTEP & DOUGLAS & SUZANNE ESTEP (RAYMOND ESTEP- L/E)	81.82
T	S17	12-3-39.1	WILLIAM NICE	1.31
W	S18	12-3-39	FRIEND V. ESTEP, MICHAEL & JOAN ESTEP & DOUGLAS & SUZANNE ESTEP (RAYMOND ESTEP- L/E)	4.69
	S19	12-3-30.2	APRIL ROSE & DONALD ALLEN POSTLETHWAIT	1.67
	S20	12-3-30	MARY ROSE YOHO - L/E; APRIL ROSE POSTLETHWAIT	0.48
	S21	12-3-29	FRIEND V. ESTEP (RAYMOND F. ESTEP- L/E)	2.9
	S22	12-3-14.1	MATTHEW D. HALL	13
EE	S23	12-3-13	LARRY J. & MARY ANN KIRKLAND	95
	S24	12-3-14	ROBERT W. BAXTER, FREDERICK J. BAXTER & ANN C. LINGER	27
GG	S25	12-3-4	MARY HOHMAN ET AL	85
HH	S26	12-3-3.1	DIANA & ROBERT L. SMITH	15.78
NN	S27	12-3-02	ROBERT LEE & DIANA G. SMITH	2.48
RR	S28	5-25-11.2	JAMES W. KLUG	110.491
	S29	12-3-4.2	J. M. KLUG	2.617
	S30	12-8-20.1	PAUL J. BLAKE	1.5
	S31	12-8-20.3	PAUL J. BLAKE	0.25
	S32	12-8-20.9	JOSHUA M. & COURTNEY R. NEFF	0.4
	S33	12-8-20.8	JOSHUA M. & COURTNEY R. NEFF	0.99
	S34	12-8-20.6	JOHN G. & DEBRA D. THROCKMORTON	1.046
	S35	12-8-20.5	JOE B. MILLER & GERALD & SUE YEATER	44.85
J	S36	12-8-4.4	CHARLES & BETTY HUGGINS	0.69
I	S37	12-8-4.2	BRENT A. & KIMBERLY J. EDDY	1.861
K	S38	12-8-16.1	BRENT A. & KIMBERLY J. EDDY	0.06
N	S39	12-8-14	EDWARD C. & SANDRA K. MURRINER	5.33
O	S40	12-8-13	EDWARD C. & SANDRA K. MURRINER	15
U	S41	12-3-32.1	TIMOTHY L. & LEA ANN SUMMERS	1.78
V	S42	12-3-32	TIMOTHY L. SUMMERS	2.32
X	S43	12-3-30.3	TIMOTHY L. SUMMERS	0.61
Z	S44	12-3-45	ANTIOCH CHURCH	0.774
AA	S45	12-3-28	ANTIOCH CHURCH	1
BB	S46	12-8-1.1	R. SHANE & KATHRYN GODDARD	92.69
	S47	12-8-1.2	JOSH GODDARD	1.81
DD	S48	12-3-21.1	LARRY J. & MARY ANN KIRKLAND	0.47
	S49	12-3-13.1	ZACHARY J. KIRKLAND	5
	S50	12-2-22.1	DAVID A. NICE	54.66
	S51	12-3-48	RONALD W. & JULIANA NICE	1
	S52	12-3-12	RODNEY DEAN JACKSON	3.625
	S53	12-2-12	BERYL E. MASON	59.9
	S54	12-2-13	JAY S. BOOTH; DANIEL T. BOOTH & DIANE BETH OVERDORFF	100
II	S55	12-3-3	ANITA LARELL SLOUGH	1.12
JJ	S56	12-3-4.2	DEREK L. BAKER	5.21
MM	S57	12-3-4.3	JOSEPH P. & BARBARA A. CAIN	3.619
LL	S58	12-3-4.8	ERIN HUBBS	0.621
KK	S59	12-3-4.7	JOSEPH P. & BARBARA A. CAIN	67.3
OO	S60	12-3-4.6	STEVEN P. WAYMAN	1.009
PP	S61	12-3-4.5	HAZEL M. BLAIR	0.451
QQ	S62	12-3-1	JAMES W. KLUG	0.375
	S63	12-3-43	ADAM W. FERRELL & BRITTANY M. LOY	1.97
	S64	12-3-49	LOGAN & AMY TAYLOR	3.814

Tags	Number	Tax Map -Parcel	Surface Owner	Acres
	S65	12-3-47	WETZEL CO. EMERGENCY AMBULANCE	0.5
	S66	12-3-44	JAMES A. & JO C. ESTEP	1.1
	S67	05-25-11.1	EDWARD W. & DIANNA KLUG	2.343
	S68	05-25-11.4	EDWARD W. KLUG, ET UX	32.787
	S69	12-2-14.2	JOHN G. JR. & GERALDINE W. ROGERS	22.0007
	S70	05-25-13.4	PARSONS CEMETERY	0.382
	S71	05-25-14	ROY F. YOHO	23
	S72	05-25-1	MICHAEL L. MASON	35.43
	S73	05-25-13.2	DAVID A. KLUG	5.89
	S74	05-25-13	WILLIAM M. FERDA, JR. & STEPHANIE L. PALICKA	16.014
	S75	05-25-12.1	KENT & BETTY MASON	15
	S76	05-25-1.5	RYAN J. BRATTON	21.35
	S77	05-25-2	JAMES W. KLUG	122.3
	S78	05-25-3	S.D. FERTITTA, ET UX	181.548
	S79	05-25-3.1	S.D. FERTITTA, ET UX	3.022
	S80	05-25-10	TERRY L. & TAMMY J. KIRKLAND, AS TRUSTEES OF THE TERRY & TAMMY KIRKLAND LIVING TRUST	18.75
	S81	05-25-10.1	TERRY L. & TAMMY J. KIRKLAND, AS TRUSTEES OF THE TERRY & TAMMY KIRKLAND LIVING TRUST	5.25
	S82	12-3-41	TERRY L. & TAMMY J. KIRKLAND, AS TRUSTEES OF THE TERRY & TAMMY KIRKLAND LIVING TRUST	4.102
	S83	12-3-41.1	TERRY L. & TAMMY J. KIRKLAND, AS TRUSTEES OF THE TERRY & TAMMY KIRKLAND LIVING TRUST	74.138
	S84	12-3-4.1	TERRY L. & TAMMY J. KIRKLAND, AS TRUSTEES OF THE TERRY & TAMMY KIRKLAND LIVING TRUST	10.5
	S85	12-3-15	ROBERT W. BAXTER, FREDERICK J. BAXTER & ANN C. LINGER	38
	S86	12-3-22	FRIEND V. ESTEP, MICHAEL & JOAN ESTEP & DOUGLAS & JOAN ESTEP (RAYMOND ESTEP - L/E)	22.5
	S87	12-3-30.1	JOAN & MICHAEL J. ESTEP	1.75
	S88	12-3-33	FRIEND V. ESTEP, MICHAEL & JOAN ESTEP & DOUGLAS & JOAN ESTEP (RAYMOND ESTEP - L/E)	58.32
F	S89	12-8-21	EDUARDO C. & SONYA R. DEGUZMAN	11.51
	S90	12-8-32.8	DAVID TODD & CINDY L. BATES	36.425
	S91	12-8-32.6	CHARLES W. THOMAS, JR.	1.309
SS	S92	p/o 12-3-4.7 & 4.3	JOSHUA D. LEMASTERS & ERIN LEMASTERS	3.602
	S93	p/o 12-3-39 & 30.4	DOUGLAS & SUZANNE ESTEP	0.145



P.S. 708 *David L Jackson*

12/13/2024
NOTE: LTP are same point.

OPERATOR'S WELL #: ELMER N-17HU
DISTRICT: Proctor
COUNTY: Wetzel
STATE: WV
API #: 47-103-03505

WELL PLAT
PAGE 2 OF 3
DATE: 10/27/2023



**ELMER N-17HU LEASE
316.1602± ACRES
EQT PRODUCTION COMPANY**

Lease ID	TMP	Tag	Granor, Lessor, Etc.	Deed Book/Page	
10*31435	12-8-15	A	HENRY AND NANCY GARNER	55	394
10*31435	12-8-16	B	HENRY AND NANCY GARNER	55	394
FORCE POOL					
	12-8-20	C	BRC MINERALS LP, ET AL	102A	501
10*31435	12-8-21.1	D	HENRY AND NANCY GARNER	55	394
10*31435	12-8-22.1	E	HENRY AND NANCY GARNER	55	394
10*31435	12-8-21	F	HENRY AND NANCY GARNER	55	394
10*31435	12-8-23	G	HENRY AND NANCY GARNER	55	394
			ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD		
10*40155	12-8-17	H	ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD	47A	197
			ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD		
10*40155	12-8-4.2	I	ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD	47A	197
			ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD		
10*40155	12-8-4.4	J	ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD	47A	197
10*31435	12-8-16.1	K	HENRY AND NANCY GARNER	55	394
			ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD		
10*40155	12-8-4	L	ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD	47A	197
			ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD		
10*40155	12-8-4.5	M	ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD	47A	197
10*31435	12-8-14	N	HENRY AND NANCY GARNER	55	394
10*31435	12-8-13	O	HENRY AND NANCY GARNER	55	394
			ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD		
	12-8-4.1	P	ROY J GODDARD AND DOROTHY GODDARD, ROY O GODDARD	47A	197
10*31435	12-8-2	Q	HENRY AND NANCY GARNER	55	394
10*31435	12-8-3	R	HENRY AND NANCY GARNER	55	394
10*31435	12-3-31	S	HENRY AND NANCY GARNER	55	394
10*24010	12-3-39.1	T	JOHN ROBINSON DAVIS, ET AL	215A	419
10*24010	12-3-32.1	U	JOHN ROBINSON DAVIS, ET AL	215A	419
10*24010	12-3-32	V	JOHN ROBINSON DAVIS, ET AL	215A	419
10*24010	12-3-39	W	JOHN ROBINSON DAVIS, ET AL	215A	419
10*31435	12-3-30.3	X	HENRY AND NANCY GARNER	55	394
10*31435	12-3-30.4	Y	HENRY AND NANCY GARNER	55	394
10*31435	12-3-45	Z	HENRY AND NANCY GARNER	55	394
10*31435	12-3-28	AA	HENRY AND NANCY GARNER, ET AL	55	394
10*31435	12-8-1.1	BB	HENRY AND NANCY GARNER	55	394
FORCE POOL					
	12-3-21	CC	RACHEL AND JACOB COFFIELD, ET AL	55	329
10*39463	12-3-4	GG	J P COOPER ET AL	56	245
10*39463	12-3-3.1	HH	J P COOPER ET AL	56	245
10*39463	12-3-3	II	J P COOPER ET AL	56	245
10*39463	12-3-4.2	JJ	J P COOPER ET AL	56	245
10*39463	12-3-4.7	KK	J P COOPER ET AL	56	245
10*39463	12-3-4.8	LL	J P COOPER ET AL	56	245
10*39463	12-3-4.3	MM	J P COOPER ET AL	56	245
10*39463	12-3-2	NN	J P COOPER ET AL	56	245
10*39463	12-3-4.6	OO	J P COOPER ET AL	56	245
10*39463	12-3-4.5	PP	J P COOPER ET AL	56	245
10*22496	12-3-1	QQ	JAMES W KLUG	923	543
10*22496	5-25-11.2	RR	JAMES W KLUG	923	543

DEEP WELLS WITHIN 2400' OF PROPOSED WELL'S SURFACE LOCATION AND/OR WITHIN 500' OF WELL LATERAL

API	OPERATOR
47-051-02273	Tug Hill Operating, LLC
47-103-03467	Tug Hill Operating, LLC
47-103-03502	Tug Hill Operating, LLC
47-103-03503	Tug Hill Operating, LLC
47-103-03504	Tug Hill Operating, LLC

SURFACE HOLE

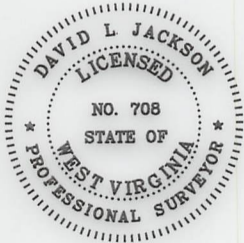
UTM. NAD83, ZONE 17
IN METERS
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E) 522,502.51

LANDING POINT 1

UTM. NAD83, ZONE 17
IN METERS
N) 4,393,833.68
E) 523,033.87

BOTTOM HOLE

UTM. NAD83, ZONE 17
IN METERS
N) 4,396,585.19
E) 521,432.94



P.S. 708

David L Jackson

12/13/2024



OPERATOR'S
WELL #: ELMER N-17HU
DISTRICT: Proctor
COUNTY: Wetzel
STATE: WV
API #: 47-103-03505

WELL PLAT
PAGE 3 OF 3
DATE: 10/27/2023

Perforation Data

RECEIVED
Office Of Oil and Gas
OCT 02 2024
WV Department of
Environmental Protection

12/13/2024

Stage No.	Perforation Date	Stage Perforated From TMD Ft.	Stage Perforated To TMD Ft.	# of Perforations/Stage	Formation(s)
2	04/19/2024	22604	22426	48	Utica
3	04/20/2024	22402	22224	48	Utica
4	04/20/2024	22200	22022	48	Utica
5	04/21/2024	21998	21820	48	Utica
6	04/21/2024	21796	21618	48	Utica
7	04/22/2024	21594	21416	48	Utica
8	04/22/2024	21392	21214	48	Utica
9	04/23/2024	21190	21012	48	Utica
10	04/24/2024	20988	20810	48	Utica
11	04/24/2024	20786	20608	48	Utica
12	04/25/2024	20584	20406	48	Utica
13	04/29/2024	20382	20204	48	Utica
14	04/29/2024	20180	20002	48	Utica
15	04/29/2024	19978	19800	48	Utica
16	04/30/2024	19776	19598	48	Utica
17	04/30/2024	19574	19396	48	Utica
18	04/30/2024	19372	19194	48	Utica
19	05/01/2024	19170	18992	48	Utica
20	05/01/2024	18968	18790	48	Utica
21	05/01/2024	18766	18588	48	Utica
22	05/01/2024	18564	18386	48	Utica
23	05/02/2024	18362	18184	48	Utica
24	05/02/2024	18160	17982	48	Utica
25	05/02/2024	17958	17780	48	Utica
26	05/02/2024	17756	17578	48	Utica
27	05/03/2024	17554	17376	48	Utica
28	05/03/2024	17352	17174	48	Utica
29	05/03/2024	17150	16972	48	Utica
30	05/04/2024	16948	16770	48	Utica
31	05/04/2024	16746	16568	48	Utica
32	05/05/2024	16544	16366	48	Utica
33	05/06/2024	16342	16164	48	Utica
34	05/06/2024	16140	15962	48	Utica
35	05/07/2024	15938	15760	48	Utica
36	05/07/2024	15736	15558	48	Utica
37	05/09/2024	15534	15356	48	Utica
38	05/09/2024	15332	15154	48	Utica
39	05/10/2024	15130	14952	48	Utica
40	05/10/2024	14928	14750	48	Utica
41	05/10/2024	14726	14548	48	Utica
42	05/10/2024	14524	14346	48	Utica
43	05/11/2024	14322	14144	48	Utica

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44	05/11/2024	14120	13942	48	Utica
45	05/11/2024	13918	13740	48	Utica
46	05/12/2024	13716	13538	48	Utica
47	05/13/2024	13514	13336	48	Utica
48	05/14/2024	13312	13134	48	Utica
49	05/15/2024	13110	12932	48	Utica
50	05/16/2024	12908	12730	48	Utica
51	05/16/2024	12706	12528	48	Utica
52	05/17/2024	12504	12376	36	Utica

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Stimulation Data

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Stage #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	04/18/2024	77	11417	10577	7189	250016	7000.000	
2	04/20/2024	82	11512	8249	8089	500373	10253.000	
3	04/21/2024	83	11528	9274	8702	500094	13498.000	
4	04/21/2024	89	11519	8073	8346	500667	10177.000	
5	04/21/2024	94	11586	8438	8298	500104	9938.000	
6	04/22/2024	99	11657	10513	8217	500797	9788.358	
7	04/23/2024	101	11417	10510	8377	500137	9895.000	
8	04/23/2024	88	11504	11155	8151	500336	9866.000	
9	04/24/2024	93	11540	8800	8348	500021	9818.000	
10	04/24/2024	87	11500	11488	8268	499965	9836.425	
11	04/25/2024	92	11494	10032	8142	500379	9886.000	
12	04/29/2024	100	11476	8476	8262	500641	9788.000	
13	04/29/2024	97	11467	8794	8184	500589	10047.000	
14	04/30/2024	99	11519	10785	8519	500666	9941.000	
15	04/30/2024	97	11429	11139	8010	500211	9816.000	
16	04/30/2024	97	11470	11085	8249	500240	9917.000	
17	05/01/2024	99	11509	9408	8638	500315	10077.000	
18	05/01/2024	100	11524	10537	8375	500368	9895.000	
19	05/01/2024	95	11455	10530	8495	500307	9899.000	
20	05/01/2024	84	10810	8562	8459	500320	9861.000	
21	05/02/2024	98	11501	10903	8579	500321	10480.000	
22	05/02/2024	97	11229	10571	8526	500161	10330.000	
23	05/02/2024	100	11438	9683	8456	500351	10117.000	
24	05/02/2024	99	11507	9201	8397	499952	9828.000	
25	05/03/2024	99	11384	9324	8526	500690	9845.000	
26	05/03/2024	100	11449	11324	8561	500983	10075.000	
27	05/03/2024	99	11469	9386	8572	500636	9823.000	
28	05/04/2024	100	11399	9255	8415	500131	9818.000	
29	05/04/2024	100	11453	11404	8594	500560	10070.000	
30	05/05/2024	100	11229	8109	8553	499976	9800.000	
31	05/05/2024	93	11067	8530	8384	500616	10037.000	
32	05/06/2024	99	11311	11736	8657	500175	9809.000	
33	05/06/2024	99	11466	11043	8562	500557	10174.000	
34	05/07/2024	100	11175	8042	8527	500624	9787.000	
35	05/07/2024	100	11456	10788	8559	501087	9975.000	
36	05/08/2024	100	11038	11298	8961	395618	11443.000	
37	05/09/2024	100	11176	11193	8749	500433	9758.000	
38	05/10/2024	100	11200	9354	8558	499805	9748.000	
39	05/10/2024	100	11193	8999	8809	500344	10022.000	
40	05/10/2024	100	11218	10436	8422	500371	9880.000	
41	05/11/2024	99	11169	9822	8797	500416	9733.000	
42	05/11/2024	100	11050	9615	8932	500368	9713.000	

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43	05/11/2024	100	11054	8672	8861	500079	9820.000
44	05/11/2024	100	11129	8432	8494	500539	9833.000
45	05/12/2024	100	10925	11472	8841	500435	10037.000
46	05/13/2024	100	11090	10113	8516	500331	9768.000
47	05/14/2024	100	10748	8856	8344	500246	9784.000
48	05/14/2024	100	10841	9507	8292	500195	9680.000
49	05/16/2024	100	10929	8988	8847	500383	9663.000
50	05/16/2024	99	11571	8405	8830	500969	9668.000
51	05/17/2024	100	11152	11463	8944	501118	9691.000
52	05/17/2024	100	11399	9601	8454	375474	7240.000

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	04/18/2024
Job End Date:	05/17/2024
State:	West Virginia
County:	Wetzel
API Number:	47-103-03505-00-00
Operator Name:	EQT Production
Well Name and Number:	Elmer N-17HU
Latitude:	39.693872
Longitude:	-80.737549
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11744
Total Base Water Volume (gal)*:	21615122.886
Total Base Non Water Volume:	0



Water Source	Percent
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Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	EQT	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	87.40256	None
Sand (Proppant)	EQT	Proppant					
			Silica Substrate	14808-60-7	100.00000	12.37569	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Copolymer of 2-propenamide	Proprietary	30.00000	0.01442	None
Clearal 268	ChemStream	Biocide					
			Non-hazardous substances	Proprietary	80.00000	0.00878	None
StimSTREAM SC-398	ChemStream	Scale Inhibitor					
			Non-hazardous substances	Proprietary	90.00000	0.00741	None
StimSTREAM	ChemStream	Friction					

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FR 9800		Reducer					
			Petroleum Distillate	64742-47-8	20.00000	0.00641	None
Enviro-Syn HCR-7000-WL	Fluid Energy Group Ltd.	Synthetic Acid					
			Proprietary	Proprietary	20.00000	0.00147	None
Clearal 268	ChemStream	Biocide					
			Glutaraldehyde	111-30-8	20.00000	0.00055	None
Enviro-Syn HCR-7000-WL	Fluid Energy Group Ltd.	Synthetic Acid					
			Proprietary	Proprietary	10.00000	0.00037	None
StimSTREAM FR 2800	ChemStream	Friction Reducer					
			Distillates (petroleum), hydrated light	64742-47-8	25.00000	0.00012	None
StimSTREAM SC-398	ChemStream	Scale Inhibitor					
			Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid) (BHMT)	34690-00-1	10.00000	0.00009	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00006	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00006	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Ammonium chloride (NH4)Cl	12125-02-9	1.00000	0.00002	None
Clearal 268	ChemStream	Biocide					
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00001	None
Clearal 268	ChemStream	Biocide					
			Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00001	None
StimSTREAM FR 2800	ChemStream	Friction Reducer					
			Alcohols, C11-14-iso, C13-rich, ethoxylated	78330-21-9	5.00000	0.00000	None
Clearal 268 RECEIVED	ChemStream	Biocide					
Office Of Oil and Gas	Gas		Ethanol	64-17-5	1.50000	0.00000	None

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Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS

- * Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
- ** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided. Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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