

APPENDIX A-4 Exhibit Maps

Exhibit Map

prepared for

Mountain Valley Pipeline, LLC

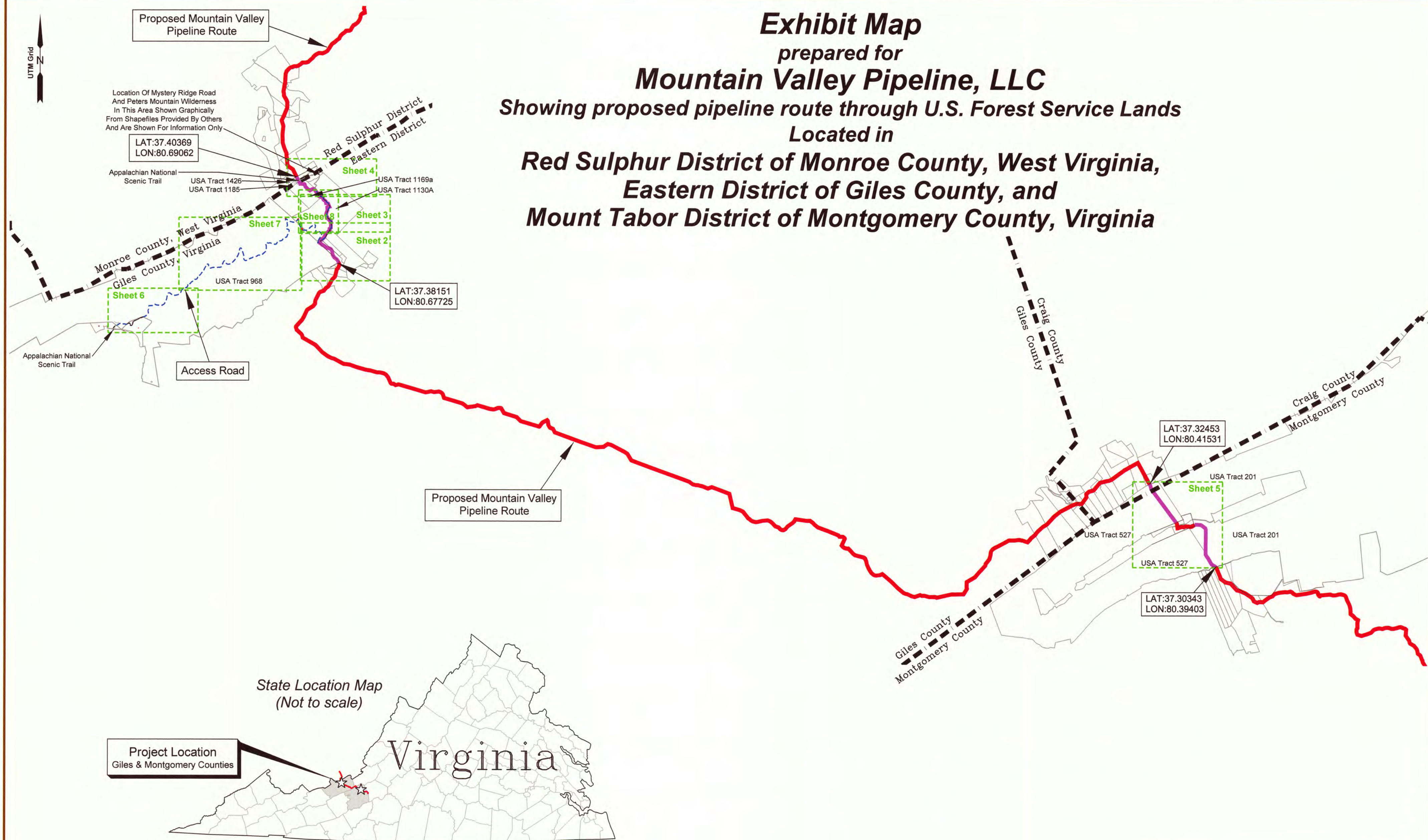
Showing proposed pipeline route through U.S. Forest Service Lands

Located in

Red Sulphur District of Monroe County, West Virginia,

Eastern District of Giles County, and

Mount Tabor District of Montgomery County, Virginia



Proposed Areas	Giles County, VA (Eastern District)			Monroe County, WV (Red Sulphur District)		Montgomery County, VA (Mount Tabor District)	
	Private Lands Road Disturbance	Tract 968	Tract 1130A	Tract 1185	Tract 1426	Tract 201	Tract 527
Pipeline Permanent Easement: (A)		0.93 Ac.	5.88 Ac.	3.43 Ac.	0.24 Ac.	0.33 Ac.	4.16 Ac.
Total Pipeline Construction Disturbance Area: (B)		2.76 Ac.	14.35 Ac.	8.13 Ac.	0.57 Ac.	10.38 Ac.	15.71 Ac.
Access Road Permanent Easement Area: (C)	1.46 Ac.	14.94 Ac.	4.81 Ac.	0.04 Ac.			
Access Road Construction Disturbance Area: (D)	2.31 Ac.	24.05 Ac.	9.22 Ac.	0.06 Ac.			
Additional Temporary Workspace: (E)	0.09 Ac.	0.24 Ac.					0.55 Ac.
Total Area for Construction (Sum of Lines B, D, and E):	2.40 Ac.	27.05 Ac.	23.57 Ac.	8.19 Ac.	0.57 Ac.	10.38 Ac.	16.26 Ac.
Total Area of Permanent Easement (Sum of Lines A and C):	1.46 Ac.	15.87 Ac.	10.69 Ac.	3.47 Ac.	0.24 Ac.	0.33 Ac.	4.16 Ac.

SHEET INDEX	
Sheet No.	Description
1	Cover Sheet (this sheet)
2 - 4	Giles County, Virginia
5	Montgomery County, Virginia
6 - 8	Access Road Areas, Giles County, Virginia

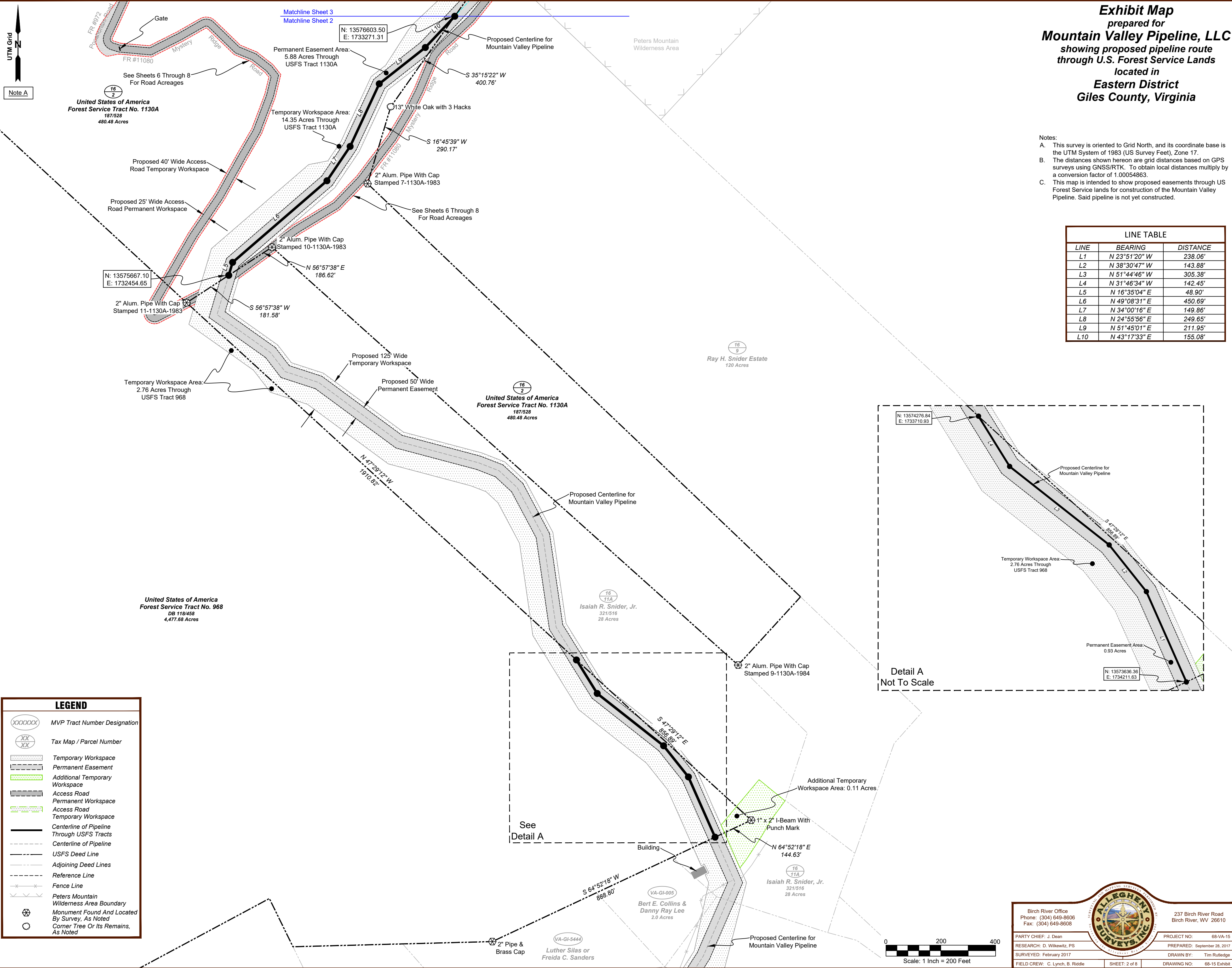


Birch River Office Phone: (304) 649-8606 Fax: (304) 649-8608	237 Birch River Road Birch River, WV 25610
PARTY CHIEF: J. Dean	PROJECT NO: 68-VA-15
RESEARCH: D. Wilkewitz, PS	PREPARED: September 28, 2017
SURVEYED: February 2017	DRAWN BY: Tim Rutledge
FIELD CREW: C. Lynch, B. Riddle	SHEET: 1 of 8
	DRAWING NO: 68-15 Exhibit

Exhibit Map
prepared for
Mountain Valley Pipeline, LLC
showing proposed pipeline route
through U.S. Forest Service Lands
located in
Eastern District
Giles County, Virginia

Notes:
A. This survey is oriented to Grid North, and its coordinate base is the UTM System of 1983 (US Survey Feet), Zone 17.
B. The distances shown hereon are grid distances based on GPS surveys using GNSS/RTK. To obtain local distances multiply by a conversion factor of 1.00054863.
C. This map is intended to show proposed easements through US Forest Service lands for construction of the Mountain Valley Pipeline. Said pipeline is not yet constructed.

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 23°51'20" W	238.06'
L2	N 38°30'47" W	143.88'
L3	N 51°44'46" W	305.38'
L4	N 31°46'34" W	142.45'
L5	N 16°35'04" E	48.90'
L6	N 49°08'31" E	450.69'
L7	N 34°00'16" E	149.86'
L8	N 24°55'56" E	249.65'
L9	N 51°45'01" E	211.95'
L10	N 43°17'33" E	155.08'



LEGEND

- MVP Tract Number Designation
- Tax Map / Parcel Number
- Temporary Workspace
- Permanent Easement
- Additional Temporary Workspace
- Access Road
- Permanent Workspace
- Access Road
- Temporary Workspace
- Centerline of Pipeline Through USFS Tracts
- Centerline of Pipeline
- USFS Deed Line
- Adjoining Deed Lines
- Reference Line
- Fence Line
- Peters Mountain Wilderness Area Boundary
- Monument Found And Located By Survey, As Noted
- Corner Tree Or Its Remains, As Noted

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SURVEYED: February 2017
FIELD CREW: C. Lynch, B. Riddle

PROJECT NO: 68-VA-15
PREPARED: September 28, 2017
DRAWN BY: Tim Rutledge
DRAWING NO: 68-15 Exhibit

ALLEGHENY SURVEYS, INC.
REGISTERED PROFESSIONAL SURVEYORS
STATE OF VIRGINIA

SHEET: 2 of 8

Exhibit Map
prepared for
Mountain Valley Pipeline, LLC
showing proposed pipeline route
through U.S. Forest Service Lands
located in
Eastern District
Giles County, Virginia

- Notes:
- A. This survey is oriented to Grid North, and its coordinate base is the UTM System of 1983 (US Survey Feet), Zone 17.
- B. The distances shown hereon are grid distances based on GPS surveys using GNSS/RTK. To obtain local distances multiply by a conversion factor of 1.00054863.
- C. This map is intended to show proposed easements through US Forest Service lands for construction of the Mountain Valley Pipeline. Said pipeline is not yet constructed.

LINE TABLE		
LINE	BEARING	DISTANCE
L11	N 03°37'58" W	122.92'
L12	N 53°06'24" E	155.45'
L13	N 00°39'12" E	573.38'
L14	N 49°57'13" W	159.60'
L15	N 43°12'14" W	237.65'
L16	N 27°44'15" W	370.34'
L17	N 11°10'59" E	239.85'
L18	N 21°33'38" E	239.73'
L19	N 29°45'33" E	364.56'
Intentionally Left		Blank
L21	N 23°08'30" W	322.09'
L22	N 80°51'53" W	195.76'
L23	N 09°03'26" W	176.75'
L24	N 42°24'52" W	89.45'
L25	N 64°11'19" W	115.54'
L26	N 42°18'53" W	82.61'
L27	N 19°33'16" W	197.33'
L28	N 64°37'26" W	66.80'
L29	N 73°16'22" W	292.03' (Total)
L30	N 55°37'58" W	152.37'

16
2
United States of America
Forest Service Tract No. 1130A
187,528
480.48 Acres

Peters Mountain
Wilderness Area

LEGEND

- XXXXXX MVP Tract Number Designation
- XX
XX Tax Map / Parcel Number
- Temporary Workspace
- Permanent Easement
- Additional Temporary Workspace
- Access Road
- Permanent Workspace
- Access Road
- Temporary Workspace
- Centerline of Pipeline Through USFS Tracts
- Centerline of Pipeline
- USFS Deed Line
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- Reference Line
- Fence Line
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- Monument Found And Located By Survey, As Noted
- Corner Tree Or Its Remains, As Noted

Proposed 40' Wide Access
Road Temporary Workspace

Proposed 25' Wide Access
Road Permanent Workspace

See Sheets 6 Through 8
For Road Acreages

Matchline Sheet 3
Matchline Sheet 2

N: 13576603.50
E: 1733271.31

16
9
Ray H. Snider Estate
120 Acres

0 200 400
Scale: 1 Inch = 200 Feet

Birch River Office
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Fax: (304) 649-8608

237 Birch River Road
Birch River, WV 26610

PARTY CHIEF: J. Dean

RESEARCH: D. Wilkewitz, PS

SURVEYED: February 2017

FIELD CREW: C. Lynch, B. Riddle

PROJECT NO: 68-VA-15

PREPARED: September 28, 2017

DRAWN BY: Tim Rutledge

DRAWING NO: 68-15 Exhibit

ALLEGHENY SURVEYS, INC.

Exhibit Map
prepared for
Mountain Valley Pipeline, LLC
showing proposed pipeline route
through U.S. Forest Service Lands
located in
Eastern District
Giles County, Virginia
and
Red Sulphur District
Monroe County, West Virginia

- Notes:
- A. This survey is oriented to Grid North, and its coordinate base is the UTM System of 1983 (US Survey Feet), Zone 17.
- B. The distances shown hereon are grid distances based on GPS surveys using GNSS/RTK. To obtain local distances multiply by a conversion factor of 1.00054863.
- C. This map is intended to show proposed easements through US Forest Service lands for construction of the Mountain Valley Pipeline. Said pipeline is not yet constructed.

LINE TABLE		
LINE	BEARING	DISTANCE
L31	N 25°37'38" W	132.15'
L32	N 07°56'05" W	110.17'
L33	N 34°39'16" W	440.57'
L34	N 79°27'34" W	74.32'
L35	S 71°29'27" W	200.35'
L36	S 58°34'10" W	173.64'
L37	N 57°17'38" W	258.02'
L38	N 41°24'07" W	308.75'
L39	N 16°39'27" W	216.23'
L40	N 60°48'34" W	51.61'
L41	N 86°39'27" W	387.74'
L42	N 26°28'45" W	732.48' (Total)

LEGEND

XXXXXX MVP Tract Number Designation

XX Tax Map / Parcel Number

Temporary Workspace

Permanent Easement

Additional Temporary Workspace

Access Road

Permanent Workspace

Access Road

Temporary Workspace

Centerline of Pipeline

Through USFS Tracts

Centerline of Pipeline

USFS Deed Line

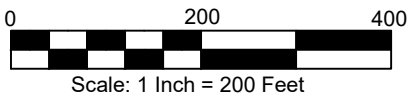
Adjoining Deed Lines

Reference Line

Fence Line

Peters Mountain Wilderness Area Boundary

Monument Found And Located By Survey, As Noted



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Birch River, WV 26610

PARTY CHIEF: J. Dean

RESEARCH: D. Wilkewitz, PS

SURVEYED: February 2017

FIELD CREW: C. Lynch, B. Riddle

PROJECT NO: 68-VA-15

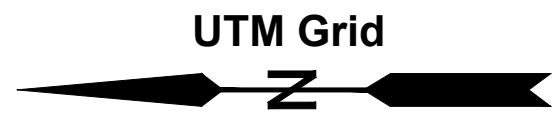
PREPARED: September 28, 2017

DRAWN BY: Tim Rutledge

DRAWING NO: 68-15 Exhibit

SHEET: 4 of 8

APPALACHIAN SURVEYS, INC.



Note A

Sheet Rotated

LEGEND

- XXXXXX MVP Tract Number Designation
- XX Tax Map / Parcel Number
- Temporary Workspace
- Permanent Easement
- Additional Temporary Workspace
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Detail A
Not To Scale

Detail B
Not To Scale

Exhibit Map
prepared for
Mountain Valley Pipeline, LLC
showing proposed pipeline route
through U.S. Forest Service Lands
located in
Mount Tabor District
Montgomery County, Virginia

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- C. This map is intended to show proposed easements through US Forest Service lands for construction of the Mountain Valley Pipeline. Said pipeline is not yet constructed.

LINE TABLE		
LINE	BEARING	DISTANCE
L1	S 27°12'58" E	146.23'
L2	S 15°21'35" E	363.38'
L3	S 37°18'50" E	3861.37'
L4	N 58°09'25" E	50.68'
L5	N 87°28'29" E	201.36'
L6	S 86°54'57" E	379.11'
L7	S 54°29'18" E	486.76'
L8	S 23°35'38" E	151.00'
L9	S 00°27'21" W	2316.72' (Total)
L10	S 30°17'13" E	227.87'
L11	S 42°49'41" E	115.13'
L12	S 30°17'13" E	737.07'
L13	S 59°25'31" E	427.53' (Total)

November 30, 2017

Birch River Office
Phone: (304) 649-8606
Fax: (304) 649-8608

ALLEGANY

SURVEYS, INC.

237 Birch River Road
Birch River, WV 26610

PARTY CHIEF: J. Dean

PROJECT NO: 68-VA-15

RESEARCH: M. Robinson, LS

PREPARED: September 28, 2017

SURVEYED: February 2017

DRAWN BY: Tim Rutledge

FIELD CREW: C. Lynch, B. Riddle

SHEET: 5 of 8

DRAWING NO: 68-15 Exhibit

UTM Grid

N

Note A

N: 13571101.81
E: 1719485.90

Permanent Easement Area:-
14.94 Acres Through
USFS Tract 968

Temporary Workspace Area:
24.05 Acres Through
USFS Tract 968

LINE TABLE			LINE TABLE		
LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L1	N 5° 00' 0" E	119.52'	L43	S 55° 20' 40" E	105.04'
L2	N 47° 11' 57" E	11.32'	L44	S 73° 44' 24" E	41.19'
L3	N 55° 30' 36" E	84.62'	L45	S 80° 47' 40" E	193.94'
L4	N 81° 50' 21" E	52.83'	L46	N 84° 28' 17" E	85.42'
L5	S 87° 49' 03" E	27.00'	L47	N 87° 43' 28" E	65.23'
L6	S 60° 42' 04" E	117.01'	L48	S 79° 57' 47" E	167.94'
L7	N 86° 30' 43" E	281.64'	L49	N 65° 07' 54" E	147.34'
L8	N 81° 03' 06" E	15.53'	L50	S 57° 57' 51" E	92.05'
L9	S 65° 18' 44" E	110.13'	L51	N 36° 26' 29" E	263.52'
L10	N 84° 19' 49" E	80.27'	L52	N 17° 34' 21" E	154.73'
L11	N 61° 50' 34" E	64.22'	L53	N 20° 12' 42" E	193.95'
L12	N 61° 50' 34" E	23.12'	L54	N 64° 03' 03" E	84.55'
L13	N 55° 00' 53" E	77.39'	L55	N 08° 04' 00" E	130.88'
L14	N 55° 00' 53" E	20.14'	L56	N 26° 33' 35" E	166.65'
L15	N 71° 40' 20" E	70.98'	L57	N 07° 29' 51" E	90.65'
L16	N 65° 07' 44" E	61.82'	L58	N 19° 35' 11" E	29.89'
L17	N 53° 40' 09" E	110.52'	L59	S 50° 07' 11" E	19.82'
L18	N 54° 53' 04" E	122.99'	L60	N 71° 04' 38" E	19.67'
L19	N 52° 19' 41" E	45.65'	L61	N 74° 45' 15" E	17.78'
L20	N 33° 21' 00" E	41.80'	L62	N 87° 06' 04" E	29.75'
L21	N 14° 42' 16" E	54.40'	L63	S 84° 29' 39" E	27.15'
L22	N 00° 34' 00" W	50.06'	L64	S 79° 50' 54" E	27.62'
L23	N 09° 09' 23" W	132.41'	L65	S 78° 41' 43" E	37.88'
L24	N 74° 46' 38" E	42.12'	L66	S 72° 07' 07" E	30.74'
L25	N 62° 01' 36" E	42.91'	L67	S 60° 41' 08" E	30.54'
L26	N 28° 01' 40" E	39.24'	L68	S 39° 05' 36" E	84.73'
L27	N 57° 47' 31" E	38.48'	L69	S 52° 51' 22" E	133.90'
L28	N 10° 29' 13" W	38.37'	L70	S 50° 43' 47" E	71.25'
L29	N 00° 38' 29" W	103.36'	L71	S 80° 16' 18" E	94.33'
L30	N 00° 47' 30" E	130.29'	L72	N 80° 45' 08" E	190.41'
L31	N 27° 51' 54" E	38.56'	L73	N 81° 38' 38" E	160.47'
L32	N 47° 55' 41" E	35.33'	L74	N 68° 41' 11" E	171.62'
L33	N 77° 44' 37" E	39.24'	L75	N 41° 27' 08" E	223.49'
L34	S 85° 15' 46" E	63.51'	L76	N 19° 22' 04" E	142.13'
L35	N 82° 51' 37" E	7.28'	L77	N 23° 12' 42" E	127.11'
L36	N 87° 57' 01" E	131.96'			
L37	N 89° 49' 29" E	89.65'			
L38	N 63° 40' 23" E	14.36'			
L39	S 82° 44' 47" E	41.42'			
L40	N 66° 35' 43" E	54.96'			
L41	N 35° 16' 09" E	133.11'			
L42	N 87° 20' 28" E	39.66'			



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PARTY CHIEF: J. Dean

PROJECT NO: 68-VA-15

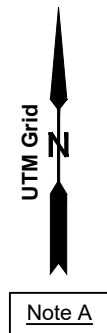
RESEARCH: D. Wilkewitz, PS

PREPARED: September 28, 2017

SURVEYED: February 2017

DRAWN BY: Tim Rutledge

Appendix A-4-6



CURVE TABLE				
CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	155.23'	190.00'	N 47°34'22" E	150.95'
C2	158.35'	79.00'	S 51°35'53" E	133.14'
C3	74.16'	45.00'	N 17°30'37" E	68.05'
C4	81.99'	80.00'	S 85°55'02" E	78.45'
C5	169.58'	75.00'	S 72°51'34" E	135.70'

LINE TABLE		
LINE	BEARING	DISTANCE
L78	N 56°33'24" E	90.85'
L79	N 80°22'00" E	41.53'
L80	N 85°21'44" E	65.30'
L81	N 63°42'44" E	94.70'
L82	N 52°05'46" E	103.58'
L83	N 58°20'00" E	177.39'
L84	N 32°33'31" E	96.03'
L85	N 10°50'51" E	80.06'
L86	N 07°15'49" W	125.08'
L87	N 41°26'04" E	46.60'
L88	S 77°10'33" E	136.69'
L89	N 75°28'34" E	77.44'
L90	N 33°27'24" E	172.83'
L91	N 61°30'33" E	104.96'
L92	N 57°50'49" E	93.99'
L93	N 30°08'01" E	152.15'
L94	N 46°29'59" E	53.26'
L95	S 80°09'30" E	105.04'
L96	N 74°56'35" E	102.74'
L97	N 55°05'03" E	79.08'
L98	N 21°02'05" E	127.90'
L99	N 08°35'43" E	141.32'
L100	N 46°22'55" E	71.86'
L101	N 88°58'07" E	106.67'
L102	N 47°30'51" E	182.30'
L103	N 25°58'52" E	124.36'
L104	N 49°02'10" E	166.02'
L105	N 37°31'53" E	128.07'
L106	N 19°37'08" E	115.16'
L107	N 27°44'00" E	126.43'
L108	N 15°41'27" E	41.74'
L109	N 32°20'38" E	102.82'
L110	N 24°10'02" E	182.49'
L111	N 70°58'42" E	8.63'
L112	S 05°49'32" W	149.01'
L113	S 38°25'06" E	175.28'
L114	S 75°03'25" E	63.78'
L115	N 87°06'44" E	50.71'
L116	N 66°48'44" E	151.52'
L117	N 83°59'42" E	81.11'
L118	N 87°19'59" E	108.21'

LINE TABLE		
LINE	BEARING	DISTANCE
L119	S 80°08'47" E	122.42'
L120	N 88°15'07" E	99.65'
L121	N 79°35'47" E	120.33'
L122	N 82°08'41" E	70.39'
L123	S 89°25'02" E	174.06'
L124	N 73°45'50" E	49.50'
L125	N 38°12'10" E	58.74'
L126	N 24°10'12" E	89.14'
L127	N 26°20'04" E	91.98'
L128	N 17°53'23" E	76.99'
L129	N 20°06'48" E	144.40'
L130	N 22°15'31" E	109.50'
L131	N 34°45'45" E	69.77'
L132	N 74°31'44" E	44.42'
L133	S 69°21'37" E	44.34'
L134	S 46°12'19" E	68.78'
L135	S 20°26'04" E	59.71'
L136	S 22°59'11" E	77.31'
L137	S 32°25'50" E	56.04'
L138	S 40°10'42" E	29.17'
L139	S 54°31'01" E	95.70'
L140	N 88°30'15" E	186.95'
L141	N 80°15'34" E	111.06'
L142	N 62°34'23" E	112.74'
L143	N 43°04'11" E	378.77'
L144	N 37°02'17" E	445.19'
L145	N 30°16'54" E	110.55'
L146	N 23°36'04" E	147.74'
L147	N 20°14'02" E	255.43'
L148	N 05°36'34" E	270.26'
L149	N 38°31'59" E	110.17'
L150	N 72°21'26" E	34.02'
L151	S 80°57'37" E	13.49'
L152	S 45°28'14" E	78.46'
L153	S 22°01'39" E	227.93'
L154	S 18°03'36" E	253.48'
L155	S 14°06'37" E	148.02'
L156	S 09°54'29" E	162.04'
L157	S 01°09'59" W	172.16'
L158	S 06°13'17" E	93.19'
L159	S 32°40'22" E	93.61'

LINE TABLE		
LINE	BEARING	DISTANCE
L160	S 59°43'31" E	42.15'
L161	S 72°59'30" E	78.70'
L162	S 85°43'59" E	30.91'
L163	N 78°26'51" E	41.10'
L164	N 62°49'58" E	213.93'
L165	N 59°05'46" E	54.89'
L166	N 58°23'03" E	91.43'
L167	N 67°28'47" E	97.49'
L168	N 72°43'44" E	144.83'
L169	N 70°22'14" E	80.34'
L170	N 59°09'01" E	42.88'
L171	N 76°23'52" E	62.55'
L172	N 80°29'04" E	123.76'
L173	N 76°56'56" E	99.59'
L174	N 66°00'47" E	62.16'
L175	N 57°08'13" E	65.99'
L176	N 54°14'19" E	64.01'
L177	N 70°11'52" E	69.54'
L178	N 80°54'03" E	59.00'
L179	S 81°17'49" E	49.76'
L180	S 71°22'01" E	71.27'
L181	S 88°33'33" E	36.59'
L182	N 75°00'44" E	23.47'
L183	N 55°50'16" E	110.96'
L184	N 47°36'40" E	220.27'
L185	N 46°02'35" E	87.74'
L186	N 49°40'05" E	146.94'
L187	N 38°16'50" E	47.90'
L188	N 18°07'39" E	44.85'
L189	N 04°56'57" W	29.20'
L190	N 10°04'30" W	73.80'
L191	N 11°00'42" E	142.04'
L192	N 04°25'13" W	74.72'
L193	N 03°15'30" E	138.50'
L194	N 15°33'43" W	54.00'
L195	N 29°19'39" W	82.85'
L196	N 15°13'21" W	37.91'
L197	N 17°55'18" E	62.37'
L198	N 43°11'31" E	43.21'
L199	N 57°32'24" E	18.67'
L200	N 70°59'18" E	51.23'

LINE TABLE		
LINE	BEARING	DISTANCE
L201	S 78°15'30" E	32.43'
L202	S 71°33'34" E	114.00'
L203	N 84°30'33" E	43.48'
L204	N 71°00'34" E	64.21'
L205	N 79°13'25" E	29.23'
L206	S 80°31'47" E	47.95'
L207	S 71°18'05" E	148.98'
L208	S 72°22'49" E	109.68'
L209	S 74°25'39" E	131.34'
L210	S 77°19'08" E	61.72'
L211	N 89°47'05" E	53.25'
L212	N 73°05'54" E	70.06'
L213	N 46°15'49" E	86.28'
L214	N 21°03'30" E	156.72'
L215	N 28°33'55" E	49.40'
L216	N 54°47'50" E	42.15'
L217	N 80°01'20" E	71.28'
L218	N 84°53'26" E	215.36'
L219	N 66°59'43" E	75.43'
L220	N 45°05'23" E	75.33'
L221	N 30°51'18" E	111.99'
L222	N 47°45'41" E	167.10'
L223	N 81°26'48" E	54.73'
L224	N 70°11'56" E	159.35'
L225	N 41°55'22" E	55.56'
L226	N 18°10'12" E	127.07'
L227	N 26°30'02" E	125.78'
L228	N 16°40'17" E	147.44'
L229	N 25°12'05" E	163.64'
L230	N 14°15'42" E	21.57'
L231	N 09°17'59" W	54.46'
L232	N 37°21'55" W	90.94'
L233	N 79°26'58" W	53.90'
L234	N 71°43'57" W	73.79'
L235	N 75°09'59" W	57.73'
L236	N 36°17'01" W	47.72'
L237	N 23°14'11" W	58.92'
L238	N 15°48'24" E	48.76'
L239	N 21°18'58" E	38.69'
L240	N 36°03'24" E	79.93'
L241	N 46°14'34" E	71.60'

LINE TABLE		
LINE	BEARING	DISTANCE
L242	N 23°43'26" E	43.20'
L243	N 12°21'19" W	27.73'
L244	N 27°23'58" W	75.54'
L245	N 04°25'47" W	47.67'
L246	N 07°34'10" E	73.83'
L247	N 09°20'32" W	61.91'
L248	N 25°08'40" W	77.32'
L249	N 38°33'47" W	73.42'
L250	N 43°51'43" W	88.36'
L251	N 29°42'02" W	39.82'
L252	N 64°43'15" E	8.24'
L253	S 56°33'20" E	61.96'
L254	S 61°36'00" E	87.59'
L255	S 62°29'15" E	72.41'
L256	S 58°43'43" E	71.91'
L257	S 54°59'39" E	71.96'
L258	S 58°09'51" E	47.45'
L259	S 76°33'33" E	37.90'
L260	S 84°06'53" E	57.05'
L261	S 76°08'40" E	209.08'
L262	S 88°42'30" E	48.36'
L263	N 74°18'10" E	46.13'
L264	N 62°54'02" E	149.21'
L265	N 58°11'45" E	20.18'
L266	N 58°11'45" E	44.91'
L267	N 47°51'52" E	65.30'
L268	N 42°21'55" E	71.45'
L269	S 08°05'03" E	169.44'

Exhibit Map
prepared for
Mountain Valley Pipeline, LLC
showing proposed pipeline route
through U.S. Forest Service Lands
located in
Eastern District
Giles County, Virginia

- Notes:
- A. This survey is oriented to Grid North, and its coordinate base is the UTM System of 1983 (US Survey Feet), Zone 17.
- B. The distances shown hereon are grid distances based on GPS surveys using GNSS/RTK. To obtain local distances multiply by a conversion factor of 1.00054863.
- C. This map is intended to show proposed easements through US Forest Service lands for construction of the Mountain Valley Pipeline. Said pipeline is not yet constructed.

LEGEND

XXXXXX MVP Tract Number Designation

XX Tax Map / Parcel Number

Temporary Workspace

Permanent Easement

Additional Temporary Workspace

Access Road

Permanent Workspace

Access Road

Temporary Workspace

Centerline of Access Road Through USFS Tracts

Centerline of Pipeline

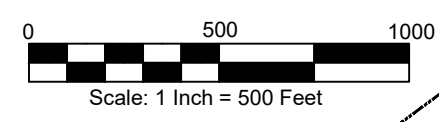
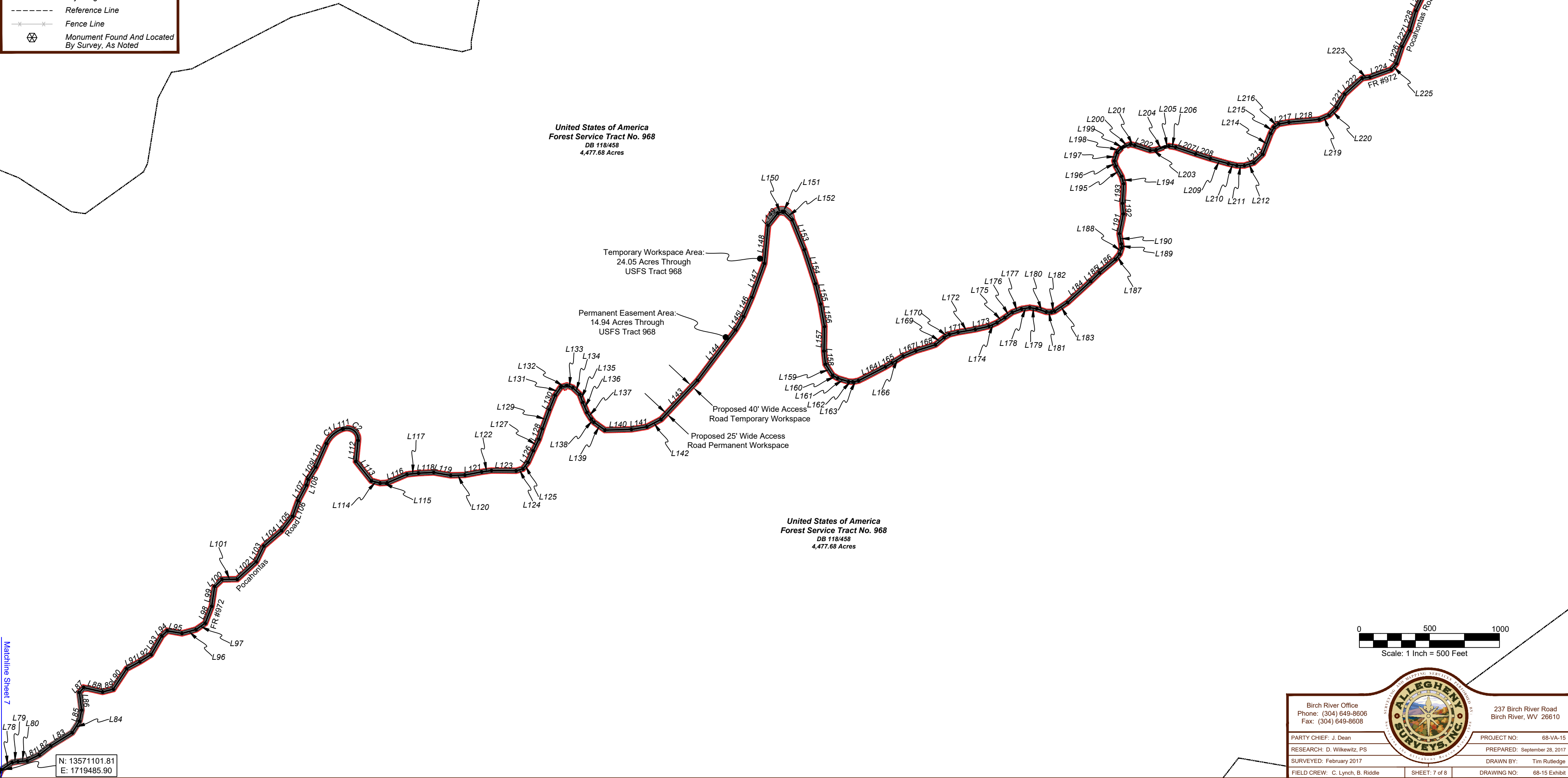
USFS Deed Line

Adjoining Deed Lines

Reference Line

Fence Line

Monument Found And Located By Survey, As Noted



Birch River Office
Phone: (304) 649-8606
Fax: (304) 649-8608

237 Birch River Road
Birch River, WV 26610

PARTY CHIEF: J. Dean
RESEARCH: D. Wilkewitz, PS
SURVEYED: February 2017
FIELD CREW: C. Lynch, B. Riddle

PROJECT NO: 68-VA-15
PREPARED: September 28, 2017
DRAWN BY: Tim Rutledge
DRAWING NO: 68-15 Exhibit

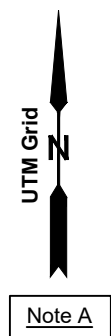
ALLEGHENY SURVEYS, INC.
REGISTERED PROFESSIONAL SURVEYORS
WEST VIRGINIA

Exhibit Map
prepared for
Mountain Valley Pipeline, LLC
showing proposed pipeline route
through U.S. Forest Service Lands
located in
**Eastern District
Giles County, Virginia**

- Notes:
- A. This survey is oriented to Grid North, and its coordinate base is the UTM System of 1983 (US Survey Feet), Zone 17.
- B. The distances shown hereon are grid distances based on GPS surveys using GNSS/RTK. To obtain local distances multiply by a conversion factor of 1.00054863.
- C. This map is intended to show proposed easements through US Forest Service lands for construction of the Mountain Valley Pipeline. Said pipeline is not yet constructed.

LINE TABLE			LINE TABLE			LINE TABLE		
LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L270	S 11°08'29" E	222.44'	L310	S 30°03'23" W	100.99'	L350	N 19°17'47" E	42.30'
L271	S 11°08'29" E	19.32'	L311	S 29°10'38" W	171.86'	L351	N 21°27'16" E	61.95'
L272	S 20°41'30" E	124.45'	L312	S 34°01'54" W	171.60'	L352	N 15°33'33" E	47.37'
L273	S 34°31'13" E	235.46'	L313	S 29°58'37" W	195.75'	L353	N 19°00'40" E	74.56'
L274	S 35°34'59" E	159.86'	L314	S 29°58'37" W	114.47'	L354	N 21°27'07" E	72.45'
L275	S 50°57'56" E	63.58'	L315	N 62°28'14" E	162.73'	L355	N 31°22'03" E	70.34'
L276	S 66°00'47" E	55.50'	L316	N 53°49'55" E	109.28'	L356	N 27°53'12" E	39.07'
L277	S 80°57'49" E	28.50'	L317	N 58°41'17" E	169.23'	L357	N 31°15'24" E	45.76'
L278	N 81°26'56" E	65.14'	L318	N 43°48'38" E	130.65'	L358	N 24°54'55" E	69.89'
L279	N 84°22'56" E	50.33'	L319	N 36°53'19" E	76.55'	L359	N 40°43'11" E	80.24'
L280	S 85°24'56" E	34.51'	L320	N 07°19'38" W	43.05'	L360	N 17°44'51" E	43.50'
L281	S 81°37'55" E	7.47'	L321	N 53°06'24" E	29.51'	L361	N 21°39'53" W	86.57'
L282	S 81°37'55" E	44.73'	L322	N 75°24'34" E	86.31'	L362	N 32°18'36" W	65.46'
L283	S 89°35'58" E	26.07'	L323	N 27°45'28" E	65.75'	L363	N 20°03'14" W	31.90'
L284	N 78°41'15" E	27.89'	L324	N 04°38'06" W	58.61'	L364	N 21°13'47" W	106.20'
L285	N 67°24'10" E	27.92'	L325	N 06°57'40" E	75.16'	L365	N 30°05'18" W	52.50'
L286	N 47°27'57" E	63.89'	L326	N 05°03'47" W	92.30'	L366	N 45°26'49" W	55.71'
L287	N 59°39'35" E	120.24'	L327	N 06°46'05" W	84.84'	L367	N 52°49'42" W	55.71'
L288	N 53°50'51" E	168.82'	L328	N 02°27'12" E	154.77'	L368	N 54°54'22" W	63.10'
L289	N 42°28'32" E	150.52'	L329	N 13°13'28" E	124.45'	L369	N 51°15'39" W	41.07'
L290	N 60°17'24" E	100.12'	L330	N 34°06'52" W	42.77'	L370	N 34°48'38" W	35.80'
L291	N 55°52'14" E	147.84'	L331	N 55°17'35" W	39.90'	L371	N 37°01'50" W	41.73'
L292	S 15°35'36" W	195.41'	L332	N 44°32'03" W	36.95'	L372	N 36°17'45" W	40.59'
L293	S 00°43'27" W	26.26'	L333	N 59°56'15" W	51.67'	L373	N 41°25'11" W	47.79'
L294	S 10°43'09" E	36.72'	L334	N 55°22'03" W	47.38'	L374	N 51°24'52" W	56.07'
L295	S 21°12'32" E	21.02'	L335	N 38°38'51" W	52.93'	L375	N 66°58'01" W	89.34'
L296	S 44°37'34" E	90.56'	L336	N 41°39'27" W	50.51'	L376	N 43°52'35" W	54.02'
L297	S 22°07'43" E	42.31'	L337	N 46°59'43" W	83.98'	L377	N 36°22'27" W	9.37'
L298	S 07°58'56" E	48.32'	L338	N 33°07'28" W	68.28'	L378	N 22°43'48" W	86.24'
L299	S 24°43'18" W	141.11'	L339	N 26°25'18" W	62.90'	L379	N 08°11'28" W	45.80'
L300	S 72°58'09" E	28.19'	L340	N 30°24'14" W	41.86'	L380	N 23°15'24" W	77.81'
L301	S 84°57'18" E	111.73'	L341	N 26°43'35" W	67.03'	L381	N 64°37'26" W	85.95'
L302	N 63°12'41" E	118.81'	L342	N 25°39'19" W	66.71'	L382	N 72°58'44" W	84.49'
L303	N 60°18'01" E	95.51'	L343	N 34°43'29" W	40.76'	L383	S 43°51'57" W	20.13'
L304	S 45°53'40" E	131.79'	L344	N 24°14'16" W	28.31'			
L305	S 67°44'57" E	65.31'	L345	N 10°13'58" W	29.42'			
L306	S 51°54'59" E	68.84'	L346	N 14°09'02" E	36.70'			
L307	S 38°26'55" E	34.11'	L347	N 10°27'40" E	56.99'			
L308	S 13°38'44" W	75.24'	L348	N 13°23'47" E	51.34'			
L309	S 20°38'56" W	134.90'	L349	N 16°18'45" E	37.03'			

CURVE TABLE				
CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C6	145.79'	243.26'	N 73°02'23" E	143.62'
C7	156.34'	85.00'	S 37°05'56" E	135.22'
C8	47.74'	28.00'	S 24°07'26" E	42.16'
C9	32.20'	25.00'	S 82°47'50" E	30.02'
C10	48.91'	19.00'	S 43°46'34" E	36.48'



LEGEND

XXXXXX MVP Tract Number Designation

XX Tax Map / Parcel Number

Temporary Workspace

Permanent Easement

Additional Temporary Workspace

Access Road

Permanent Workspace

Access Road

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Centerline of Pipeline Through USFS Tracts

Centerline of Pipeline

USFS Deed Line

Adjoining Deed Lines

Reference Line

Fence Line

Peters Mountain Wilderness Area Boundary

Monument Found And Located By Survey, As Noted

Matchline Sheet 7

Matchline Sheet 8

Matchline Sheet 9

Matchline Sheet 10

Matchline Sheet 11

Matchline Sheet 12

Matchline Sheet 13

Matchline Sheet 14

Matchline Sheet 15

Matchline Sheet 16

Matchline Sheet 17

Matchline Sheet 18

Matchline Sheet 19

Matchline Sheet 20

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Matchline Sheet 22

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