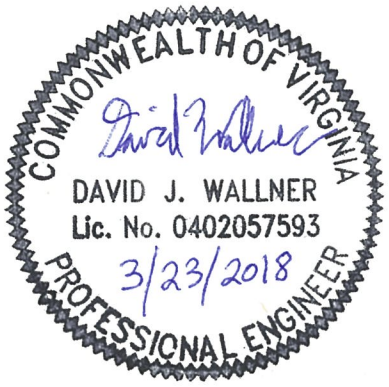
By virtue of this seal and signature, all supporting documents included in this package are accurate and support the design presented herein.



EXISTING TEMPORARY ACCESS ROAD MVP–CR–258.02
EXISTING TEMPORARY ACCESS ROAD MVP–CR–258.01
EXISTING TEMPORARY ACCESS ROAD MVP–GI–256.01
EXISTING PERMANENT ACCESS ROAD MVP–GI–253.01
EXISTING TEMPORARY ACCESS ROAD MVP–GI–243.01
EXISTING TEMPORARY ACCESS ROAD MVP–GI–242.01
EXISTING TEMPORARY ACCESS ROAD MVP–GI–242
EXISTING TEMPORARY ACCESS ROAD MVP–GI–244
EXISTING TEMPORARY ACCESS ROAD MVP–GI–245.01
EXISTING TEMPORARY ACCESS ROAD MVP–GI–245.02
EXISTING PERMANENT ACCESS ROAD MVP–GI–253.01
EXISTING TEMPORARY ACCESS ROAD MVP–GI–249.02
EXISTING TEMPORARY ACCESS ROAD MVP–GI–249.01
EXISTING PERMANENT ACCESS ROAD MVP–GI–249.03
EXISTING PERMANENT ACCESS ROAD MVP–GI–249
EXISTING PERMANENT ACCESS ROAD MVP–GI–256.02
EXISTING TEMPORARY ACCESS ROAD MVP–GI–253.02
EXISTING TEMPORARY ACCESS ROAD MVP–GI–253.01
EXISTING PERMANENT ACCESS ROAD MVP–MLV–AR–25
EXISTING TEMPORARY ACCESS ROAD MVP–MN–258.05
EXISTING TEMPORARY ACCESS ROAD MVP–MN–258.04
EXISTING TEMPORARY ACCESS ROAD MVP–MN–258.03
EXISTING TEMPORARY ACCESS ROAD MVP–MN–266.02
EXISTING PERMANENT ACCESS ROAD MVP–MN–266.03
EXISTING TEMPORARY ACCESS ROAD MVP–MN–266
EXISTING TEMPORARY ACCESS ROAD MVP–MN–268
EXISTING TEMPORARY ACCESS ROAD MVP–MN–270
MATCHLINE SHEET 13.02ES

ALL SHEETS IN THIS SPREAD DEVELOPED USING THE FOLLOWING DATA SOURCES: IMAGERY FROM ESRI STREAMING DATA 2014, DELINEATED STREAMS SURVEYED BY TETRA TECH INC. 2014 TO 2017, ELEVATION DATA DERIVED FROM LIDAR PROVIDED BY EQT 2016, SOILS FROM NRCS GRIDDED SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE 2014, FOREST COVER LAND USE FROM THE VGIN LAND COVER DATASET, TRANSPORTATION DATA FROM VITA MAP LAYER 2016, EXISTING AND PROPOSED ROADS WERE SURVEYED BY EQT

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/12/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

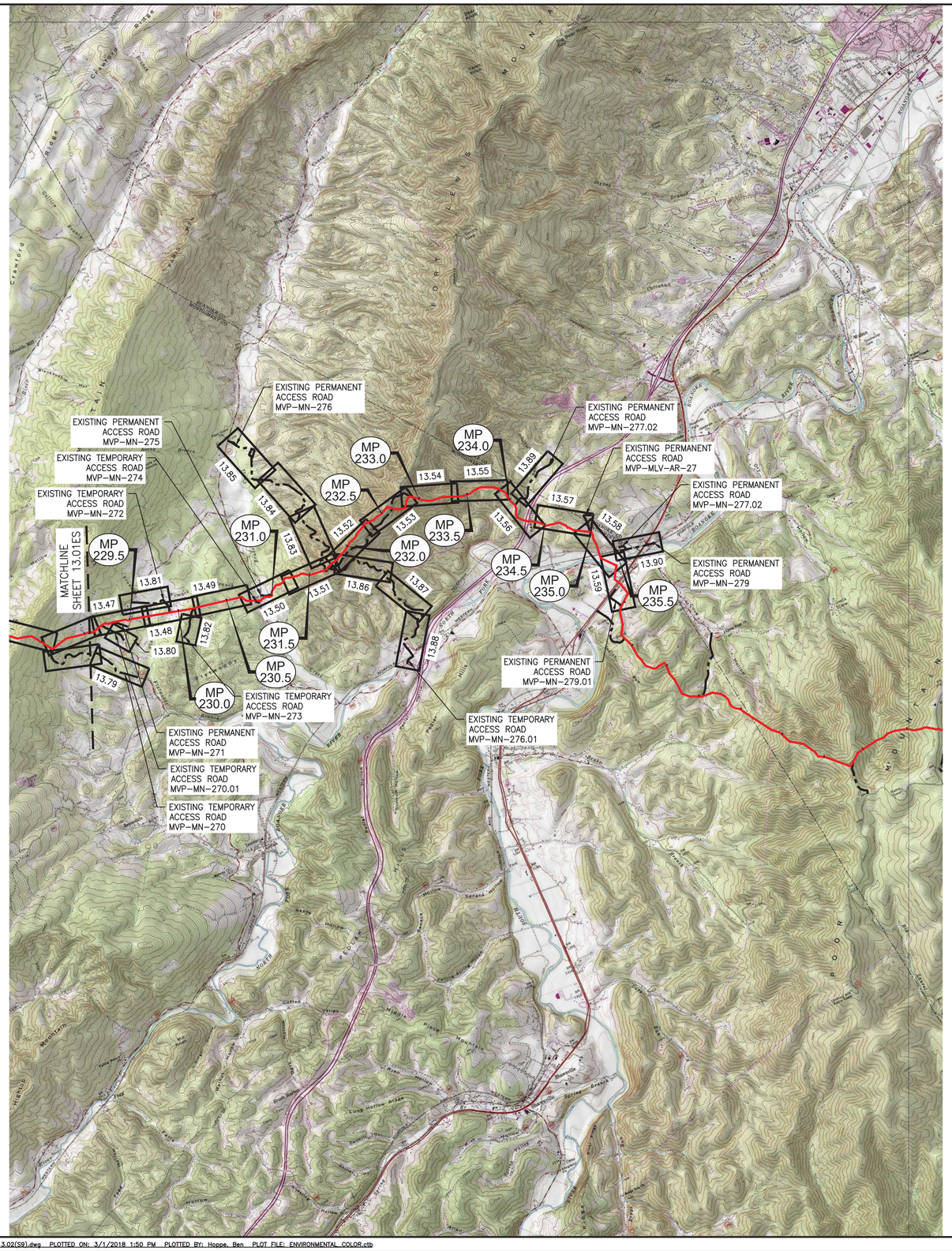
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5
SHT. NO.	13.01ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.01(S9).dwg PLOTTED ON: 3/1/2018 1:47 PM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



N

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

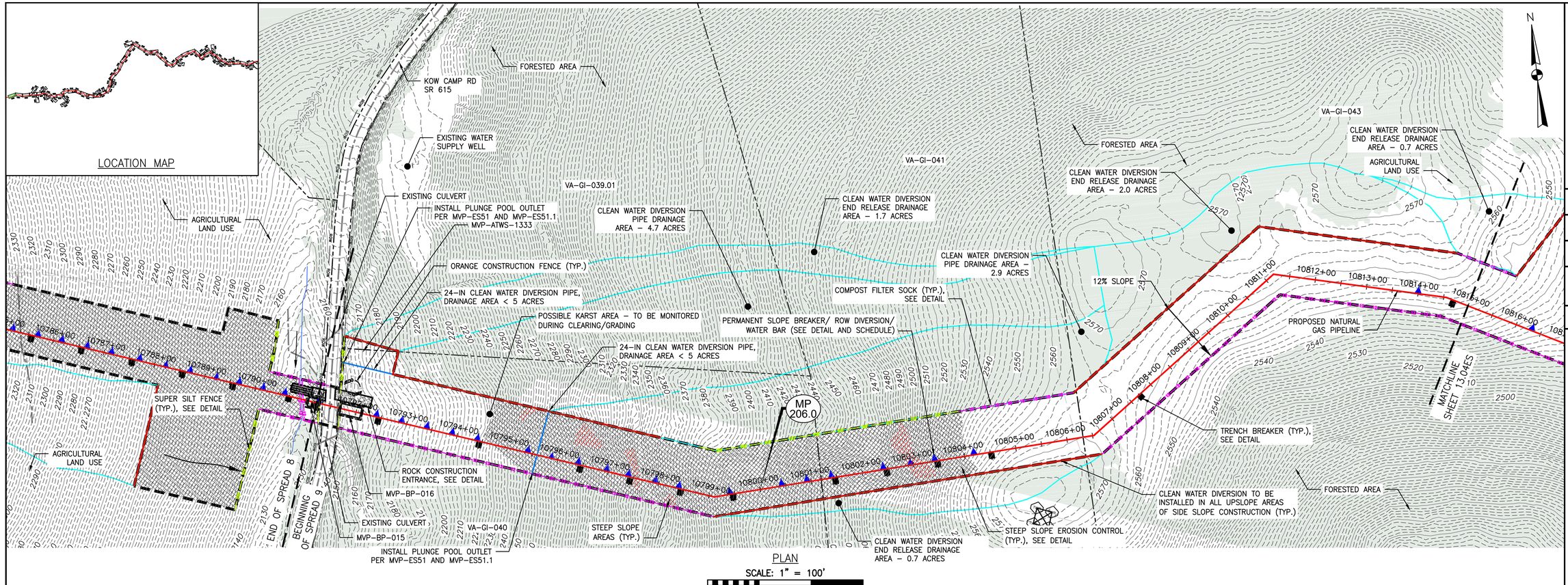
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

ALL SHEETS IN THIS SPREAD DEVELOPED USING THE FOLLOWING DATA SOURCES: IMAGERY FROM ESRI STREAMING DATA 2014, DELINEATED STREAMS SURVEYED BY TETRA TECH INC. 2014 TO 2017, ELEVATION DATA DERIVED FROM LIDAR PROVIDED BY EQT 2016, SOILS FROM NRCS GRIDDED SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE 2014, FOREST COVER LAND USE FROM THE VGIN LAND COVER DATASET, TRANSPORTATION DATA FROM VITA MAP LAYER 2016, EXISTING AND PROPOSED ROADS WERE SURVEYED BY EQT

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	
SHT. NO.	13.02ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.02(S9).dwg PLOTTED ON: 3/1/2018 1:50 PM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

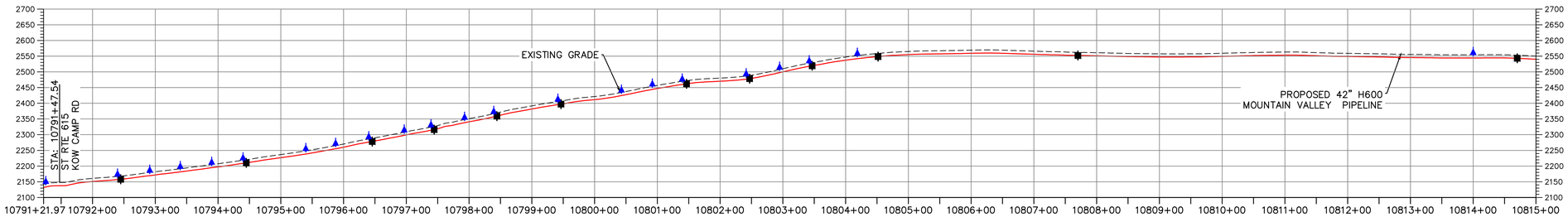
LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

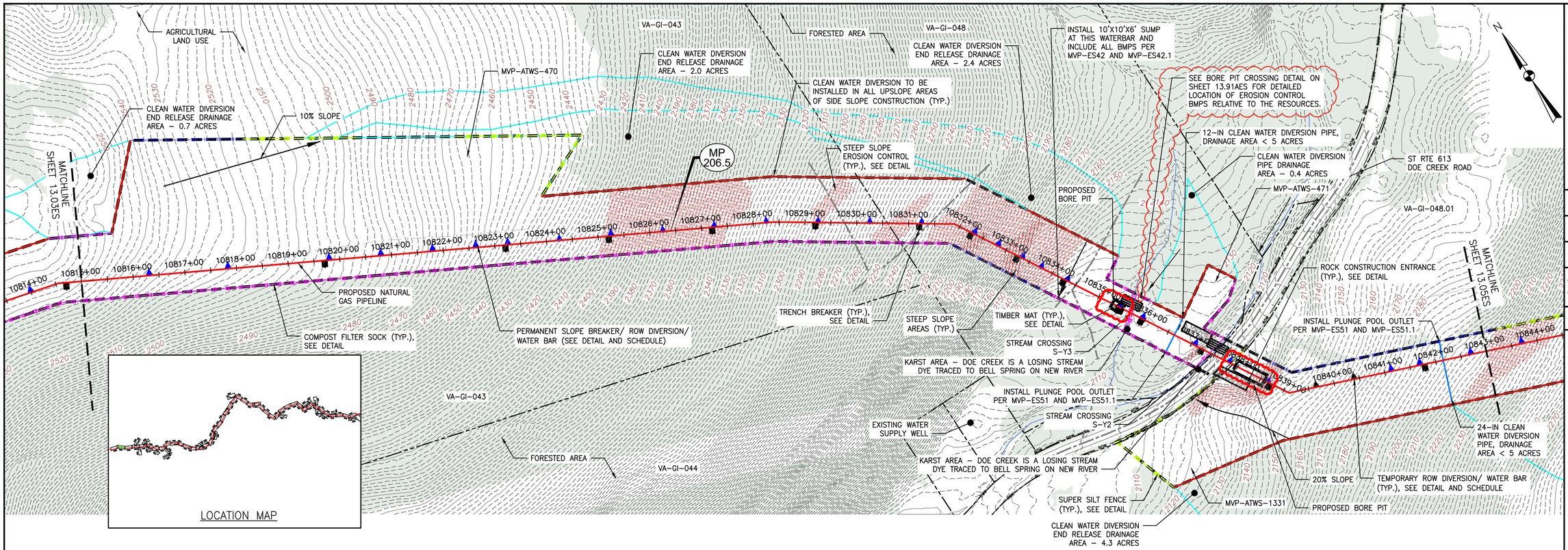
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.03ES OF 13.91ES

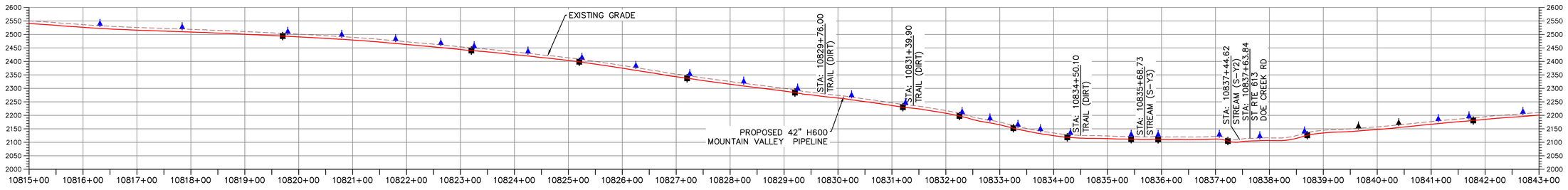
TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\7157ES13.03(S9).dwg PLOTTED ON: 8/31/2018 7:12 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
4/7/23
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER

THIS SEAL APPLIES ONLY TO REVISIONS DATED 04-07-23

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	04/07/23	JZ	TD	DCW	ADDRESS DEQ COMMENTS ON CROSSING CHANGE METHOD
–	5/12/21	ZM	JRE	DJW	CROSSING METHOD CHANGE FROM OPEN CUT TO BORE
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

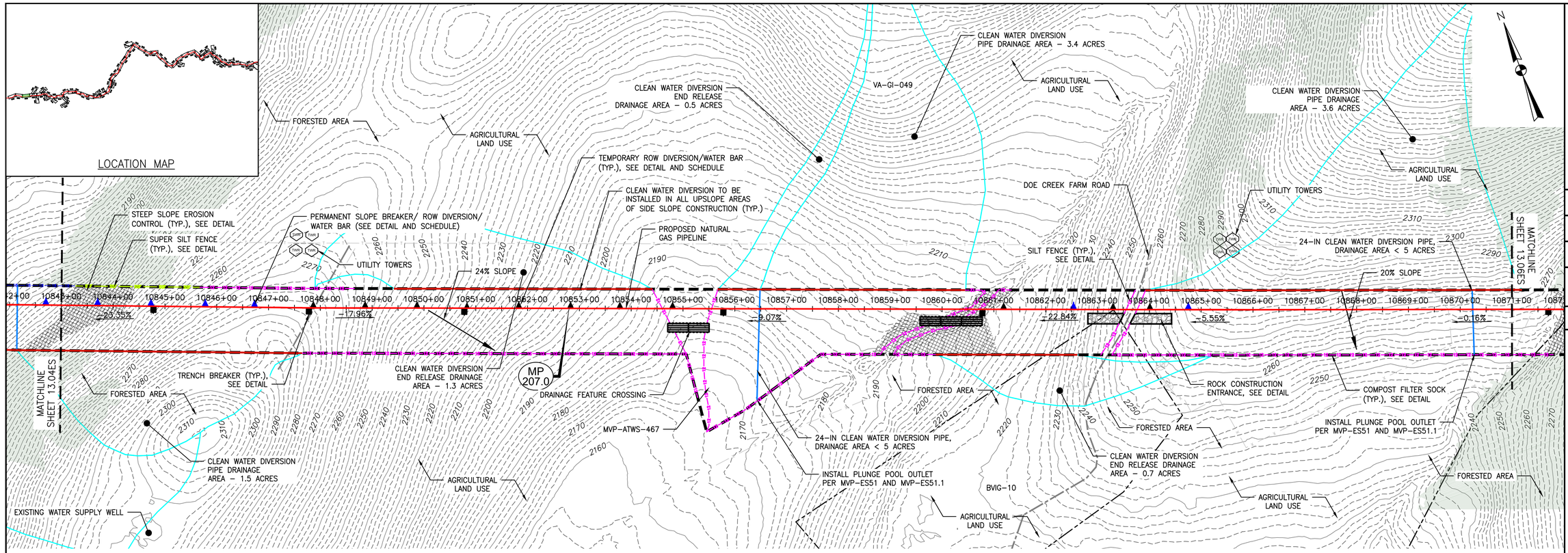
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 57593
5/12/2021
PROFESSIONAL ENGINEER

DRAWN BY:	JJZ
CHECKED BY:	TD
APPROVED BY:	DCW
DATE:	04/07/2023
SCALE:	AS SHOWN
SHT. NO.	13.04ES OF 13.91ES

REVISION

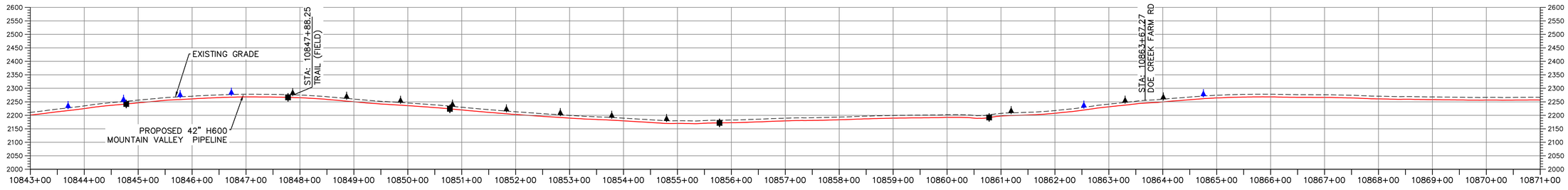
TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.04(S9).dwg PLOTTED ON: 3/29/2023 12:48 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.05(S9).dwg PLOTTED ON: 3/14/2018 7:48 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

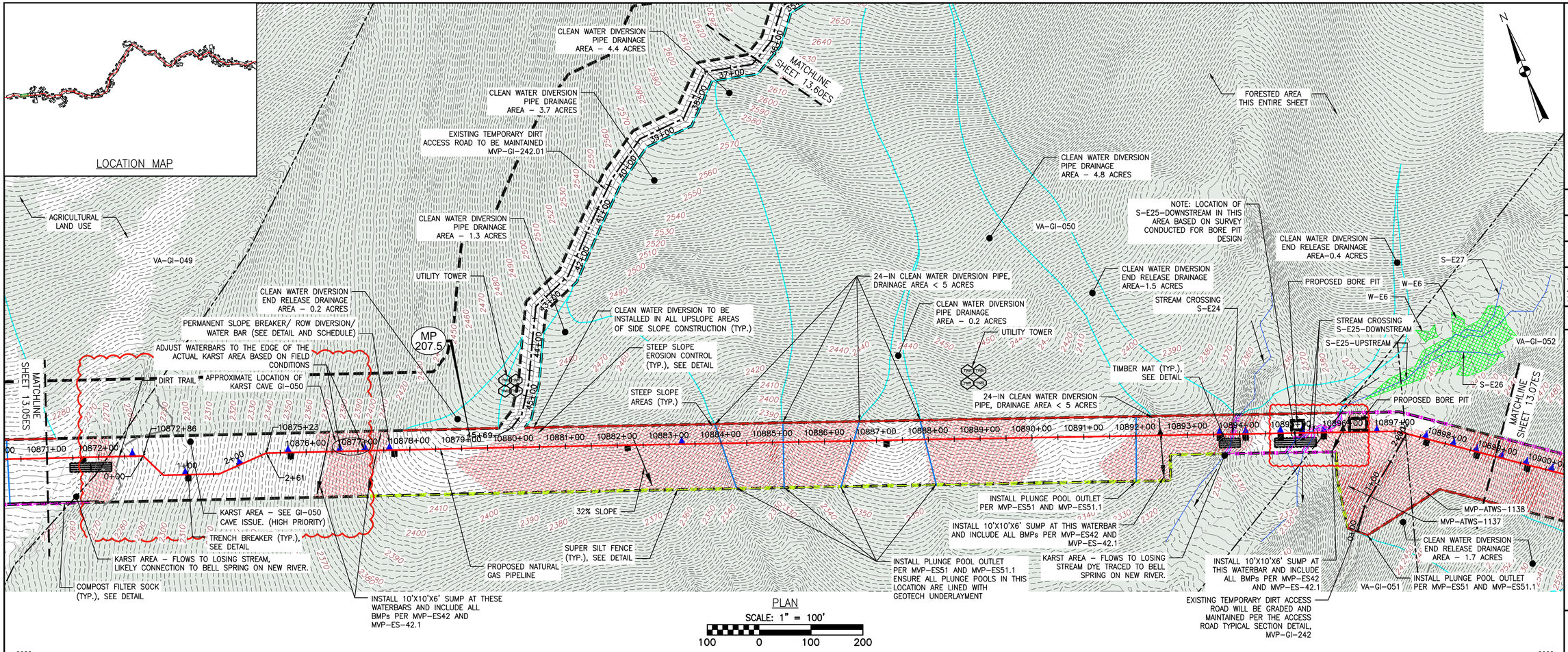
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

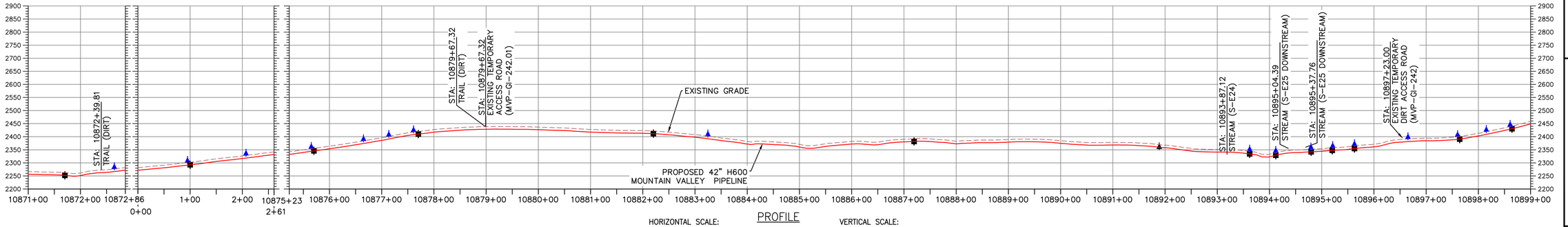
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5

SHT. NO. 13.05ES OF 13.91ES



PLAN

SCALE: 1" = 100'



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER
2/1/2023

THIS SEAL APPLIES ONLY TO REVISIONS DATED 02-01-23

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPLELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.06(S9).dwg PLOTTED ON: 9/15/2022 12:13 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	02/01/23	JJZ	DCW	TD	ADDRESS VADEQ COMMENTS ON CROSSING METHOD CHANGE
–	8/11/22	JJZ	DCW	TD	FIELD MODIFICATIONS
8	2/02/22	JJZ	JRE	TD	FIELD MODIFICATIONS
7	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
6	4/30/18	KAL	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

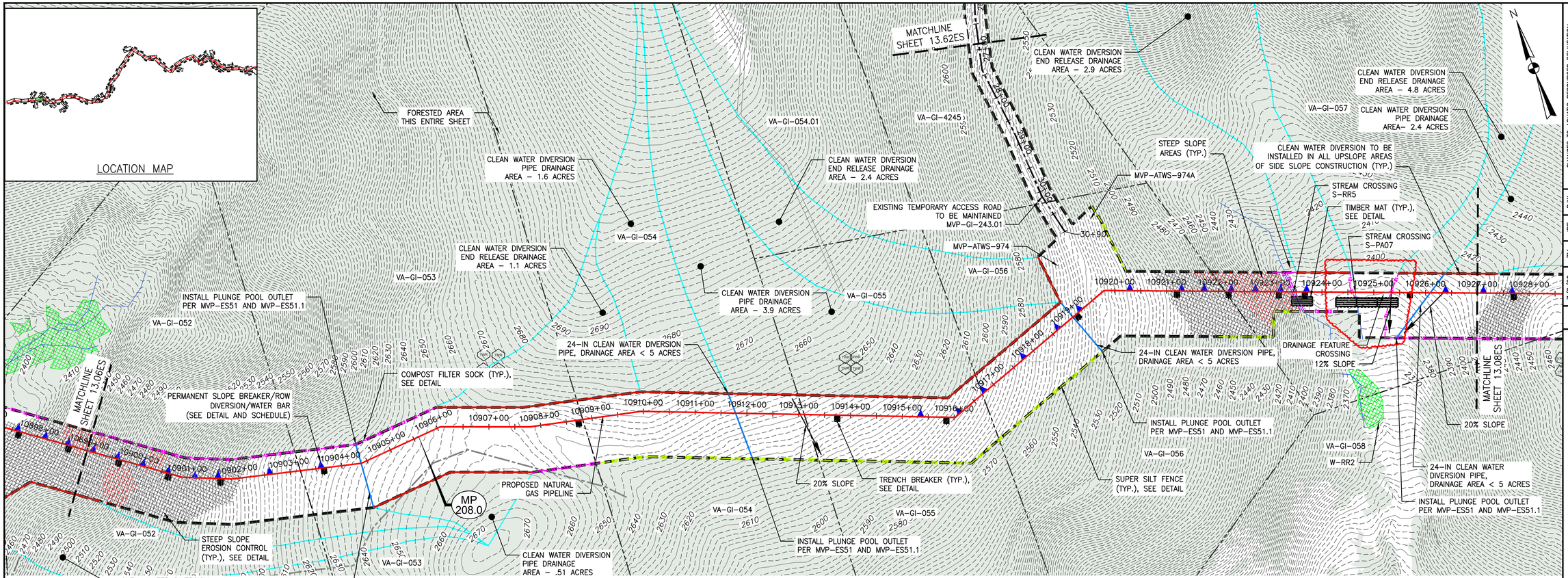
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

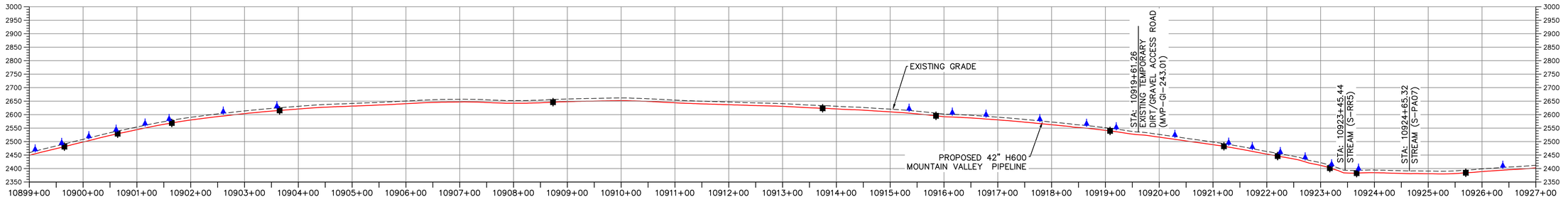
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	JJZ
CHECKED BY:	DCW
APPROVED BY:	TD
DATE:	02/01/2023
SCALE:	AS SHOWN
REVISION	4

SHT. NO. 13.06ES OF 13.91ES



PLAN
SCALE: 1" = 100'
100 0 100 200



PROFILE
HORIZONTAL SCALE: SCALE: 1" = 100'
100 0 100 200
VERTICAL SCALE: SCALE: 1" = 200'
200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPLELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	7/2/20	ZM	JRE	DJW	CHANGES TO AQUATIC RESOURCES DELINEATION
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/12/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

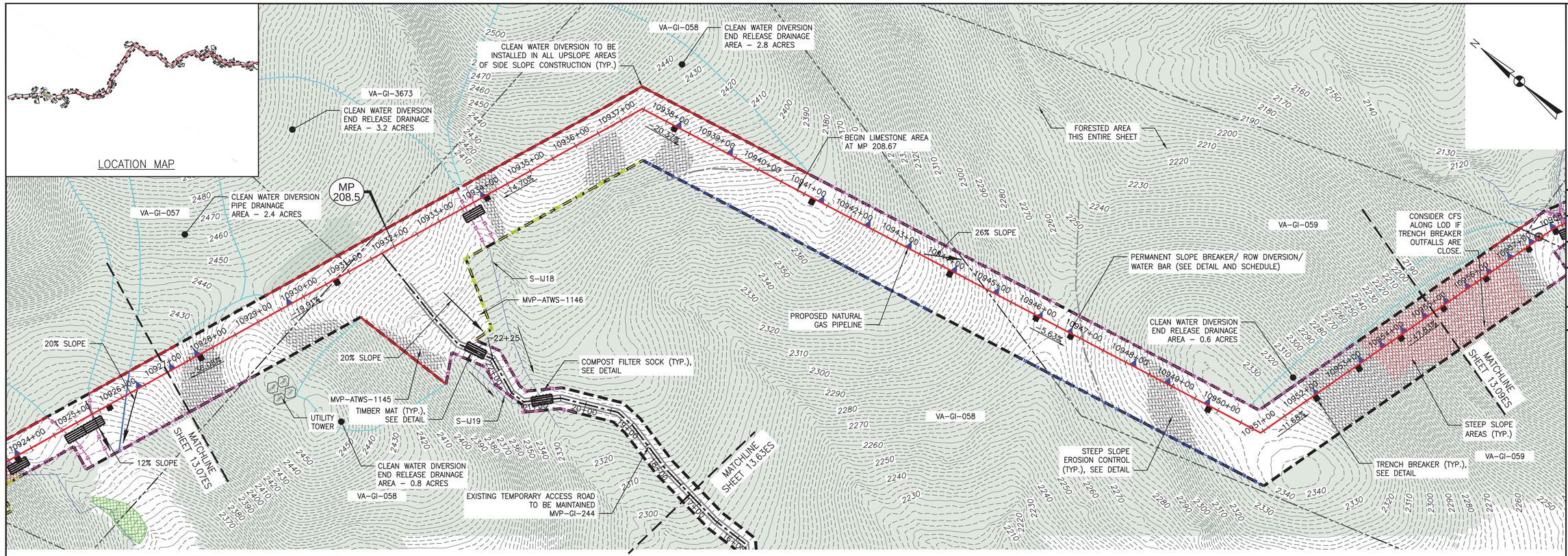
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	7/2/20
SCALE:	AS SHOWN
REVISION	

SHT. NO. 13.07ES OF 13.91ES

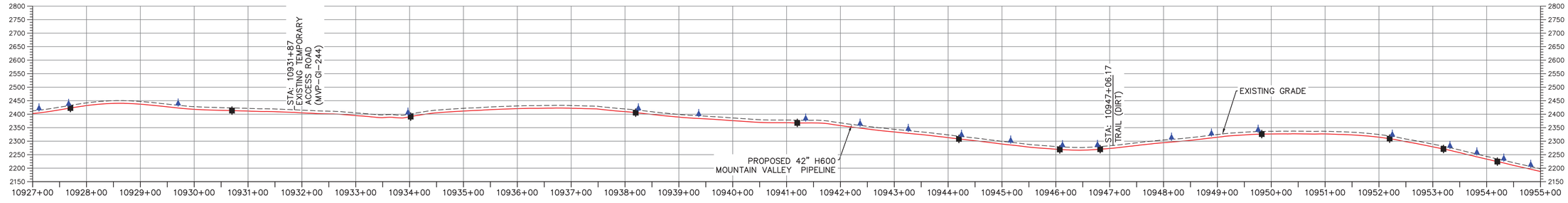
TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.07(S9).dwg PLOTTED ON: 7/10/2020 9:20 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

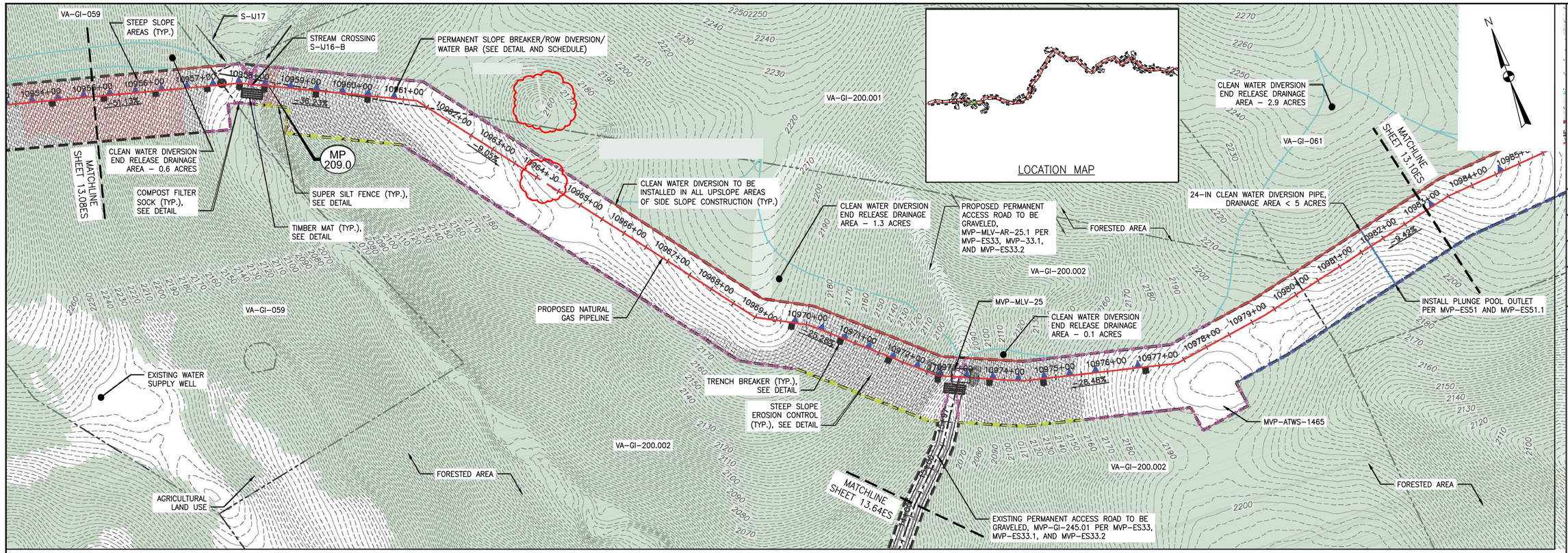
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5
SHT. NO.	13.08ES OF 13.91ES

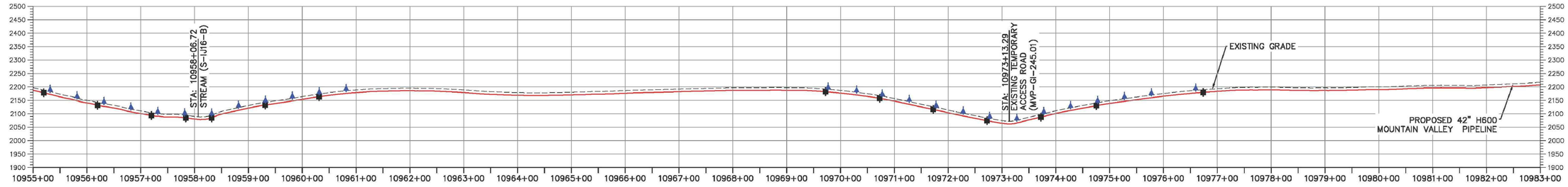
TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.08(S9).dwg PLOTTED ON: 3/1/2018 1:56 PM PLOTTED BY: Scabilloni, Joy PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\Approved Karst E&S sheets\E&S SHEETS\7157-13.09(S9).dwg PLOTTED ON: 8/31/2018 10:12 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APP'D.:	DESCRIPTION:
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	6

SHT. NO. 13.09ES OF 13.91ES

CLEAN WATER DIVERSION END RELEASE DRAINAGE AREA – 2.1 ACRES

CLEAN WATER DIVERSION TO BE INSTALLED IN ALL UPSLOPE AREAS OF SIDE SLOPE CONSTRUCTION (TYP.)

CLEAN WATER DIVERSION END RELEASE DRAINAGE AREA – 0.7 ACRES

FORESTED AREA

AGRICULTURAL LAND USE

MP 209.5

MATCHLINE SHEET 13.09ES

MATCHLINE SHEET 13.11ES

PERMANENT SLOPE BREAKER/ ROW DIVERSION/ WATER BAR (SEE DETAIL AND SCHEDULE)

VA-GI-200.003

MVP-ATWS-1366

THIS AREA TO BE BRIDGED USING TIMBER MATS SUPPORTED USING PIPE BUNDLES, JERSEY BARRIERS, OR SIMILAR TO ALLOW SURFACE WATER TO FLOW ACROSS THE AREA

CLEAN WATER DIVERSION PIPE DRAINAGE AREA – 1.6 ACRES

VA-GI-061

28% SLOPE

COMPOST FILTER SOCK (TYP.), SEE DETAIL

SUPER SILT FENCE (TYP.), SEE DETAIL

FORESTED AREA

VA-GI-066

16% SLOPE

30% SLOPE

PROPOSED NATURAL GAS PIPELINE

TRENCH BREAKER (TYP.), SEE DETAIL

STEEP SLOPE EROSION CONTROL (TYP.), SEE DETAIL

KARST AREA

AGRICULTURAL LAND USE

VA-GI-200.003

CLEAN WATER DIVERSION END RELEASE DRAINAGE AREA – 0.6 ACRES

TIMBER MATS (TYP.)

EXISTING TEMPORARY ACCESS ROAD TO BE MAINTAINED MVP-GI-245.02

MATCHLINE SHEET 13.65ES

FORESTED AREA

AGRICULTURAL LAND USE

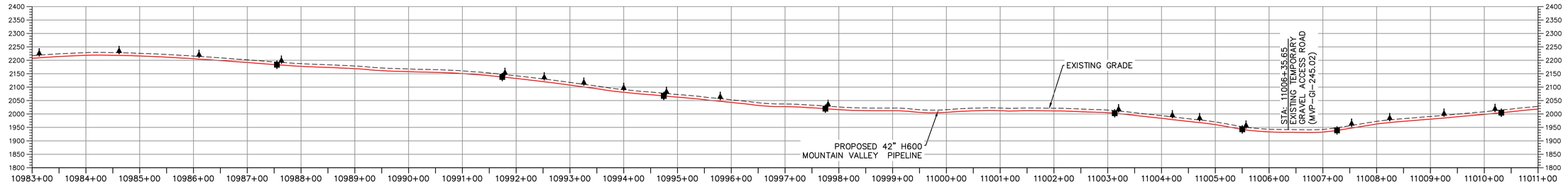
KARST AREA

LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.10(S9).dwg PLOTTED ON: 11/8/2018 10:54 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
7	10/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

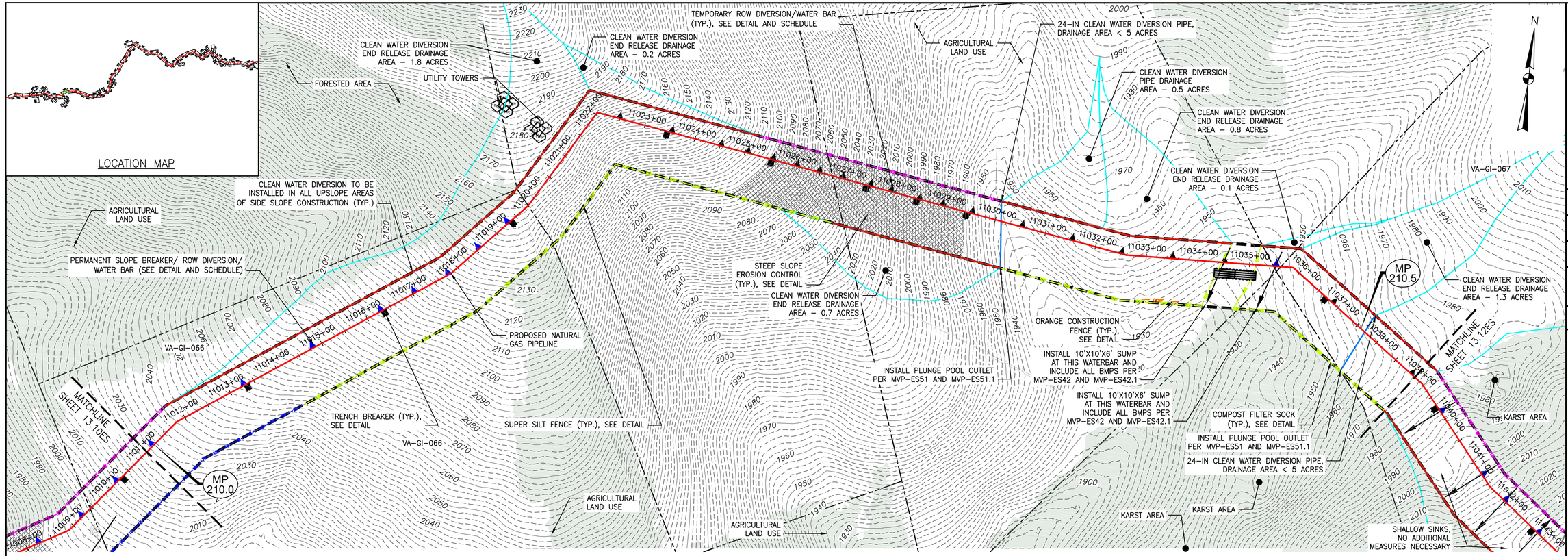
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	10/23/18
SCALE:	AS SHOWN
REVISION	7

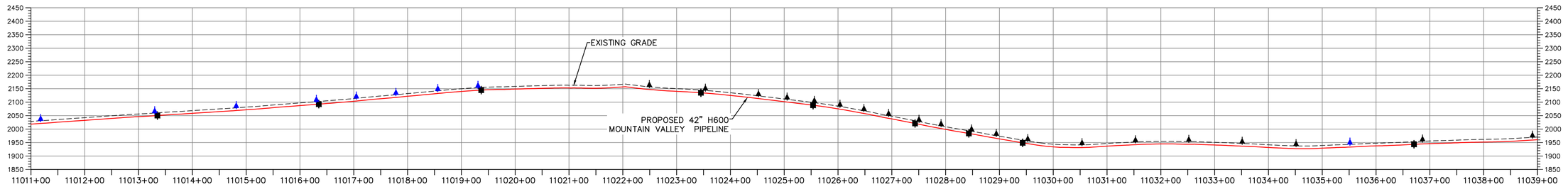
SHT. NO. 13.10ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.11(S9).dwg PLOTTED ON: 8/31/2018 7:45 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

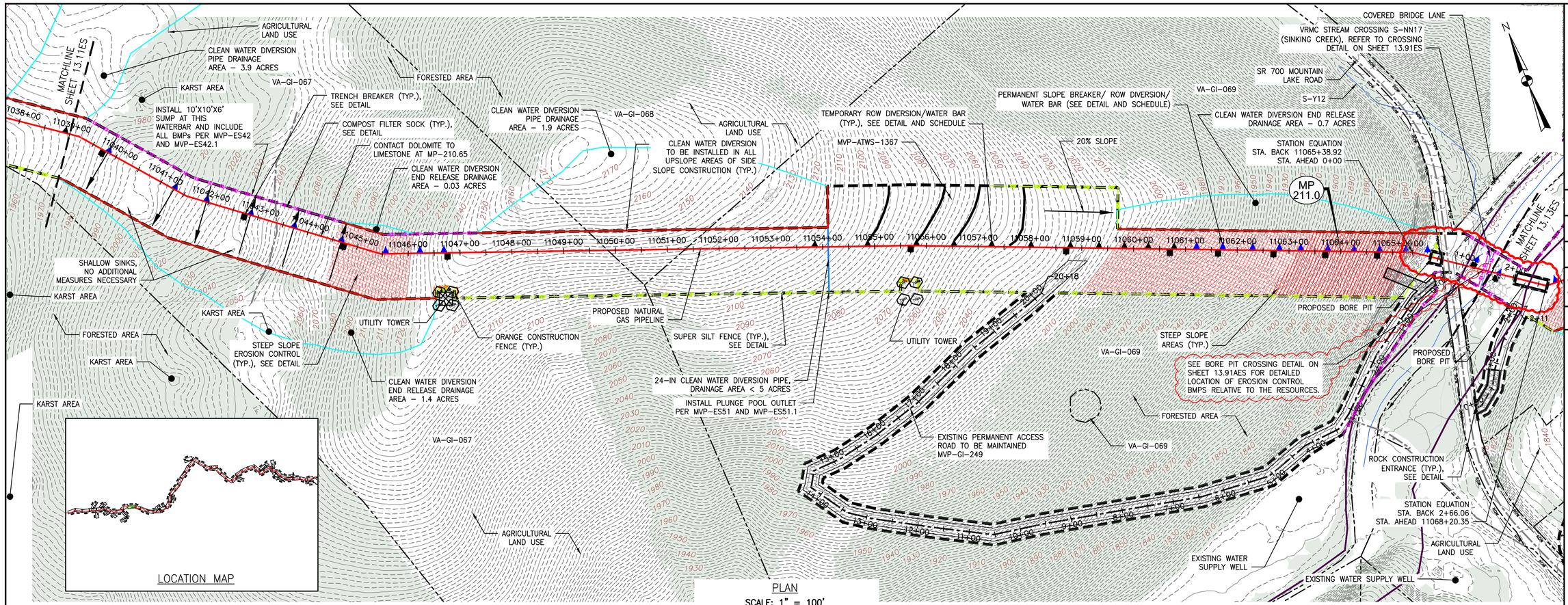
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

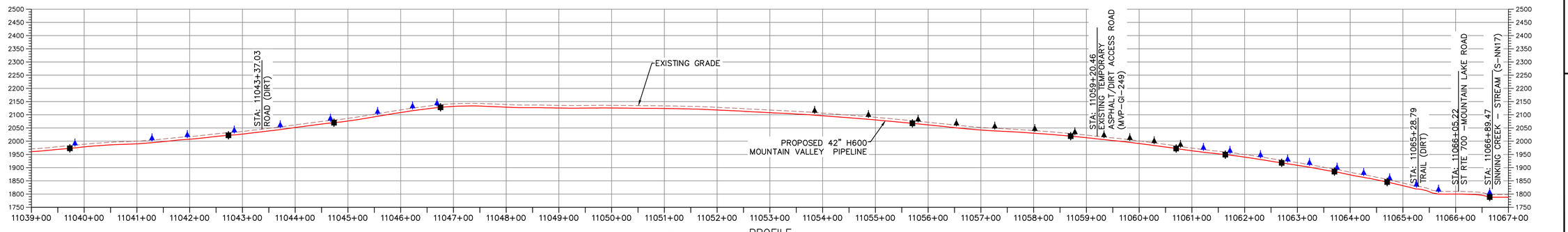
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.11ES OF 13.91ES



PLAN
SCALE: 1" = 100'
100 0 100 200



PROFILE
HORIZONTAL SCALE: SCALE: 1" = 100'
100 0 100 200
VERTICAL SCALE: SCALE: 1" = 200'
200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER
4/7/23
THIS SEAL APPLIES ONLY TO REVISIONS DATED 04-07-23

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	04/07/23	JZ	TD	DCW	ADDRESS DEQ COMMENTS ON CROSSING CHANGE METHOD
–	1/13/21	ZM	JRE	DJW	REMOVED ACCESS ROAD TIMBER MAT CROSSING WITHIN FLOOD ZONE
–	11/2/20	ZM	JRE	DJW	VMRC CROSSING METHOD CHANGE FROM OPEN CUT TO BORE
8	12/10/18	BH	JRE	DJW	FIELD MODIFICATIONS
7	11/30/18	BH	JRE	DJW	FIELD MODIFICATIONS
6	8/23/18	BH	JRE	DJW	
5	3/22/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

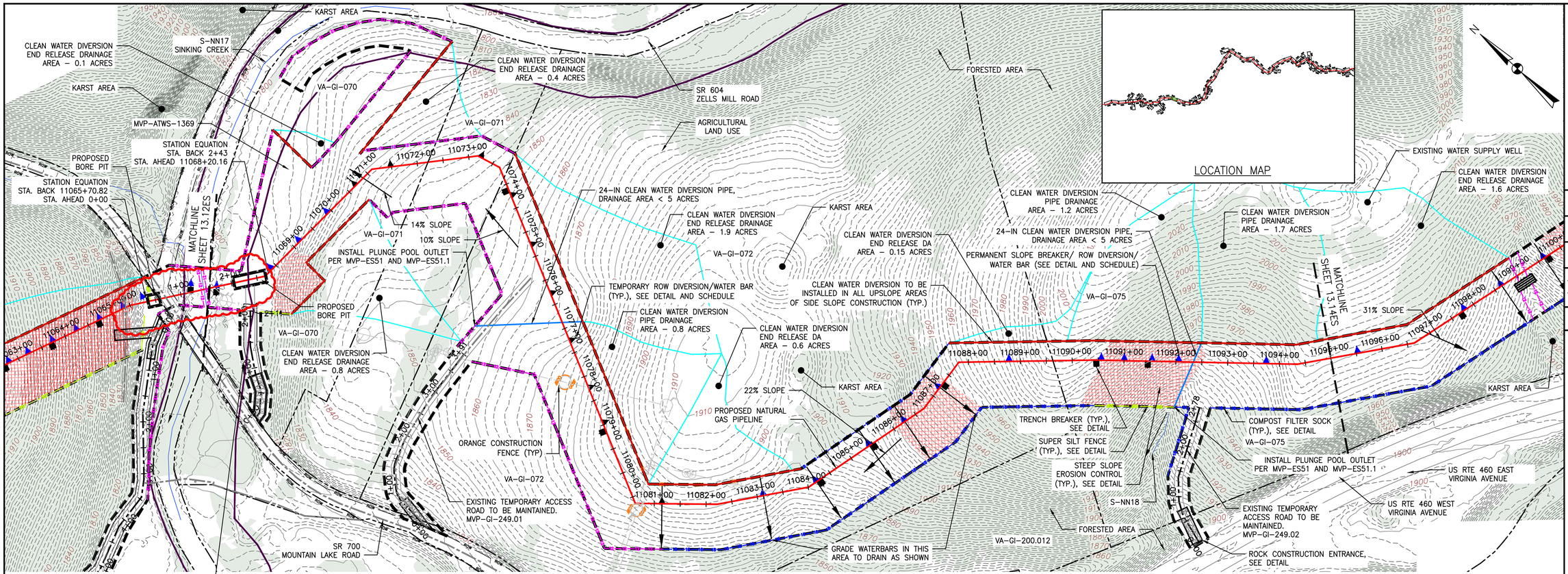
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 57593
PROFESSIONAL ENGINEER
5/12/2023

DRAWN BY:	JJZ
CHECKED BY:	TD
APPROVED BY:	DWC
DATE:	04/07/23
SCALE:	AS SHOWN
SHT. NO.	13.12ES OF 13.91ES

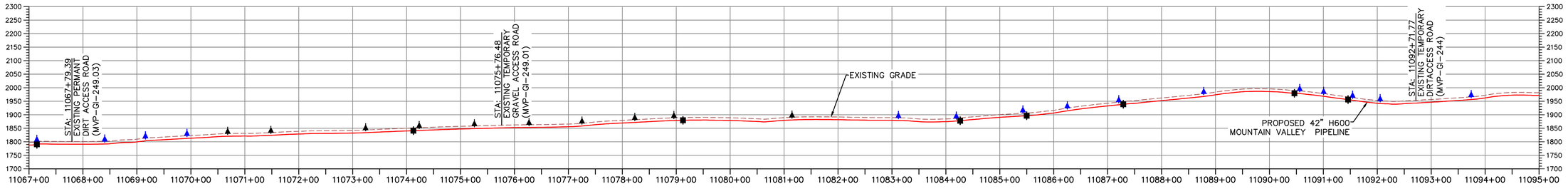
REVISION

TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157_-_MVP_Construction_Spread_9\12_-_Giles\E&S\7157ES13.12(S9).dwg PLOTTED ON: 4/12/2023 9:29 AM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER
2/1/2023

THIS SEAL APPLIES ONLY TO REVISIONS DATED 02-01-23

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157_-_MVP_Construction_Spread_9\12_-_Giles\E&S\7157ES13.13(S9).dwg PLOTTED ON: 2/6/2023 10:08 AM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	02/01/23	JZ	DCW	TD	ADDRESS DEQ COMMENTS ON CROSSING CHANGE METHOD
–	12/21/22	JZ	DCW	TD	CORRECT MISSING LOD LINE WORK AROUND CPCB-22 ANODE BED
–	1/13/21	ZM	JRE	DJW	REMOVED ACCESS ROAD TIMBER MAT CROSSING WITHIN FLOOD ZONE
–	11/2/20	ZM	JRE	DJW	VMRC CROSSING METHOD CHANGE FROM OPEN CUT TO BORE
8	12/10/18	BH	JRE	DJW	FIELD MODIFICATIONS
7	11/30/18	BH	JRE	DJW	FIELD MODIFICATIONS
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

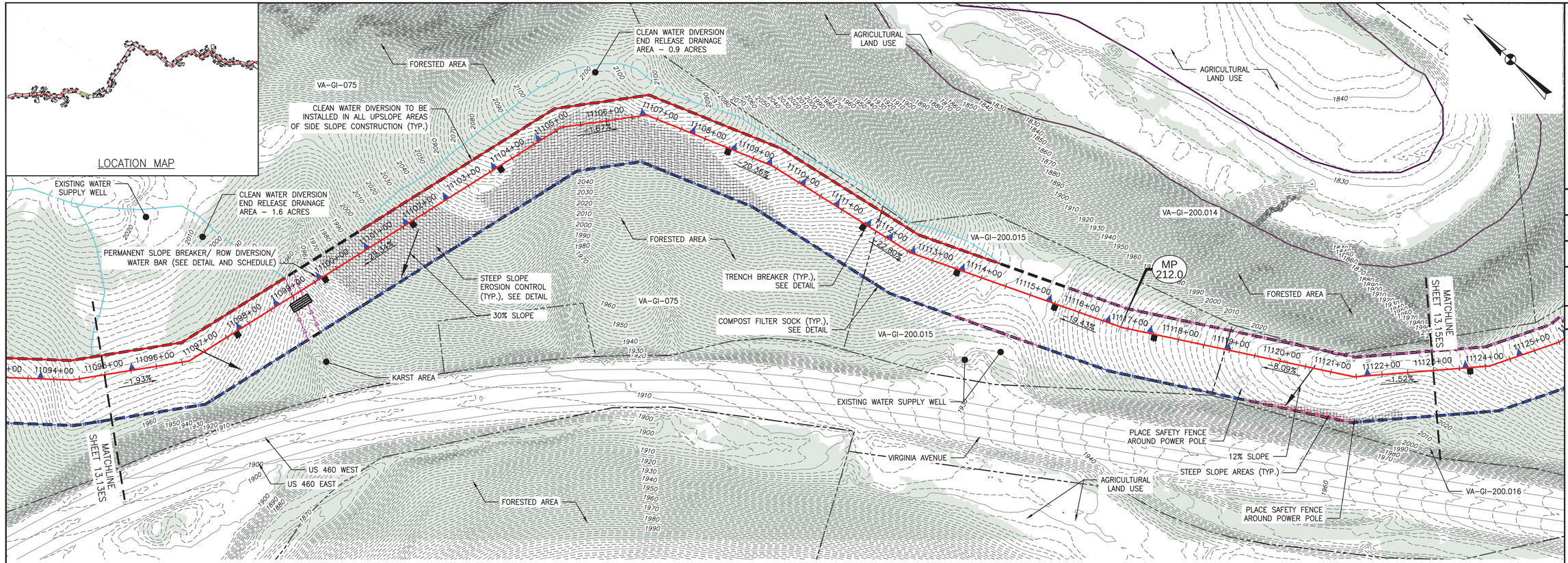
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 57593
PROFESSIONAL ENGINEER
2/1/2023

DRAWN BY:	JJZ
CHECKED BY:	DCW
APPROVED BY:	DW
DATE:	02/01/23
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.13ES OF 13.91ES



LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHK'D.:	APP'D.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

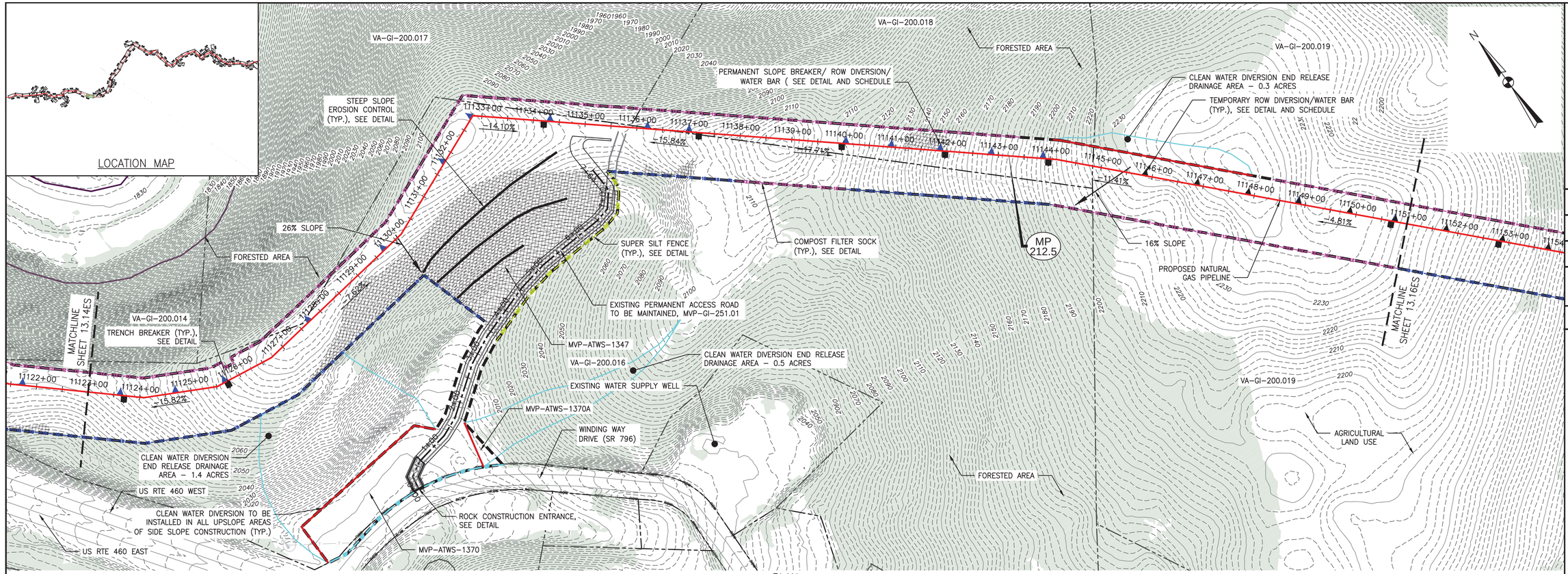
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5

SHT. NO. 13.14ES OF 13.91ES

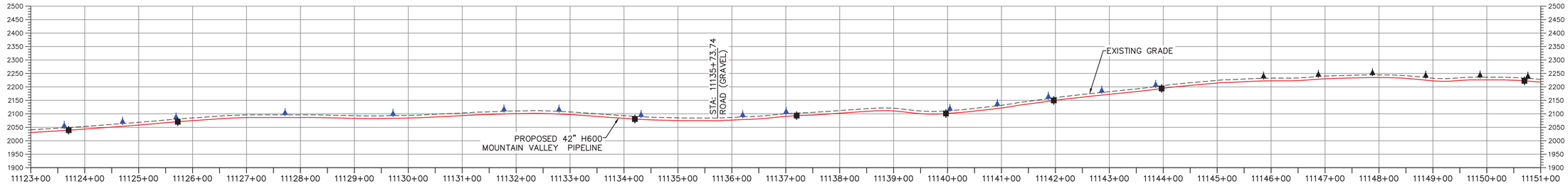
TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.14(S9).dwg PLOTTED ON: 3/2/2018 8:51 AM PLOTTED BY: Scabilloni, Joy PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.15(S9).dwg PLOTTED ON: 3/2/2018 8:58 AM PLOTTED BY: Scobilloni, Joy PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

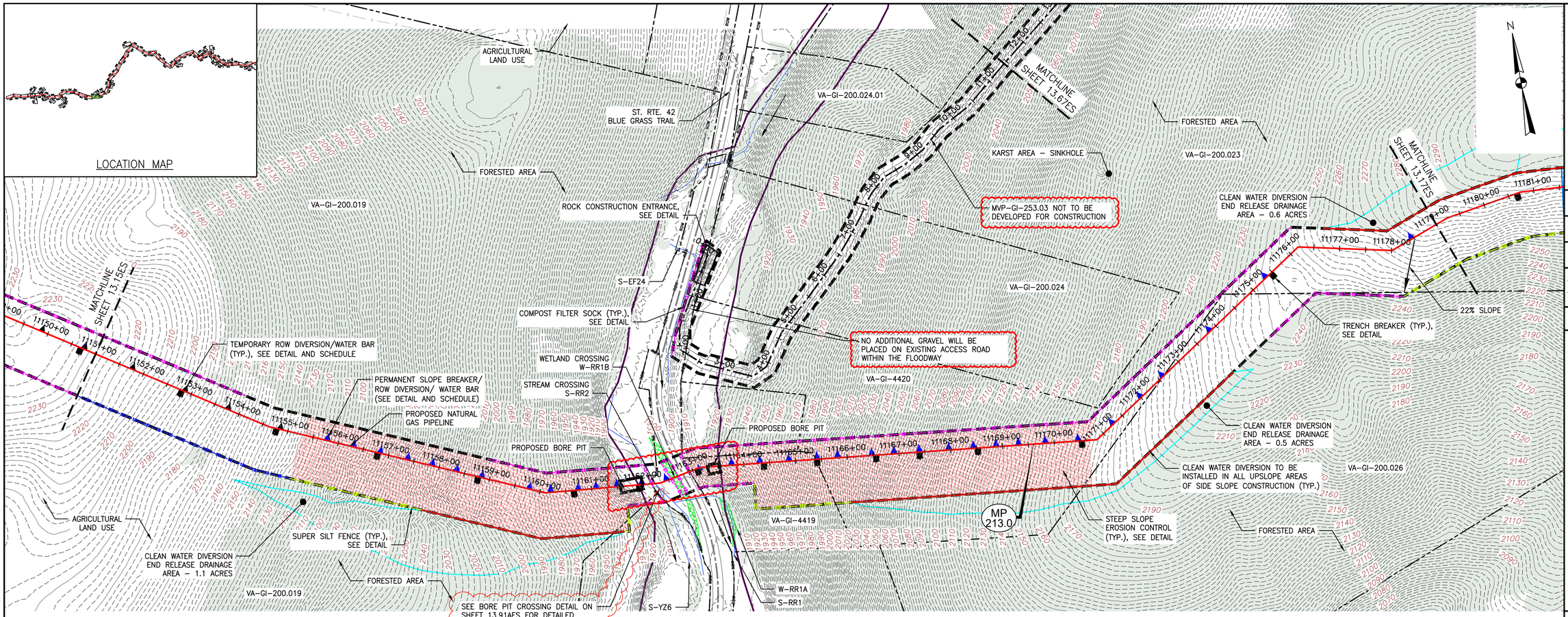
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.15ES OF 13.91ES

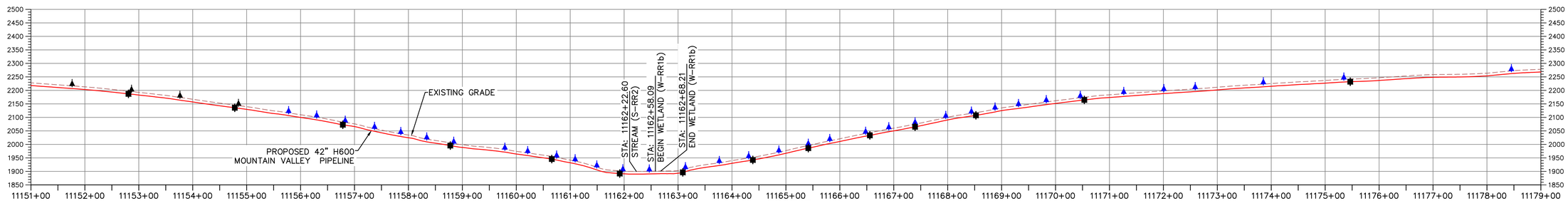
LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
6/16/23
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER

THIS SEAL APPLIES ONLY TO REVISIONS DATED 06-16-23

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPLELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157_-_MVP_Construction_Spread_9\12_-_Giles\E&S\7157ES13.16(S9).dwg PLOTTED ON: 6/19/2023 1:58 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
5	3/22/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
–	1/13/21	ZM	JRE	DJW	REMOVED ACCESS ROAD TIMBER MAT CROSSING WITHIN FLOOD ZONE
–	3/8/21	ZM	JRE	DJW	ADDED RCE WITHIN FLOODPLAIN OF GREENBRIAR BRANCH
–	04/07/23	JZ	TD	DCW	ADDRESS DEQ COMMENTS ON CROSSING CHANGE METHOD
–	06/16/23	JZ	HH	DCW	ADDRESS VADEQ COMMENTS ON BORE PITS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

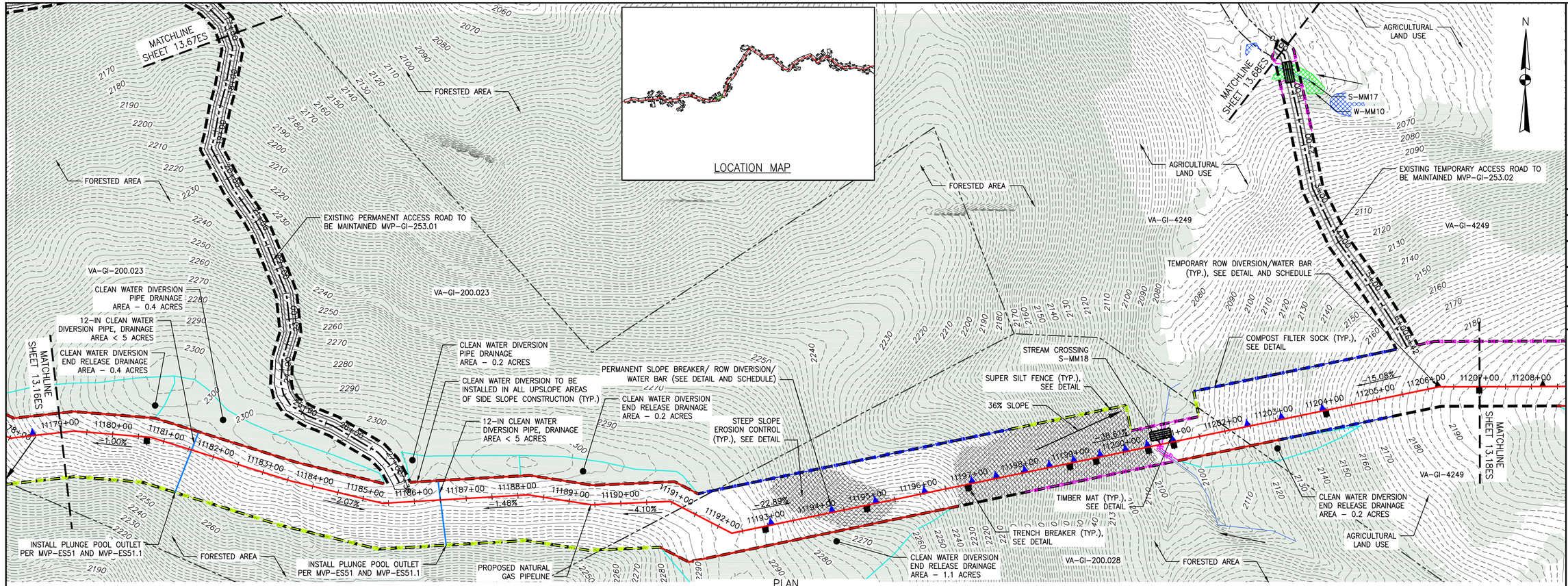
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 57593
PROFESSIONAL ENGINEER
05/12/2020

DRAWN BY:	JJZ
CHECKED BY:	IHH
APPROVED BY:	DCW
DATE:	06/16/2023
SCALE:	AS SHOWN

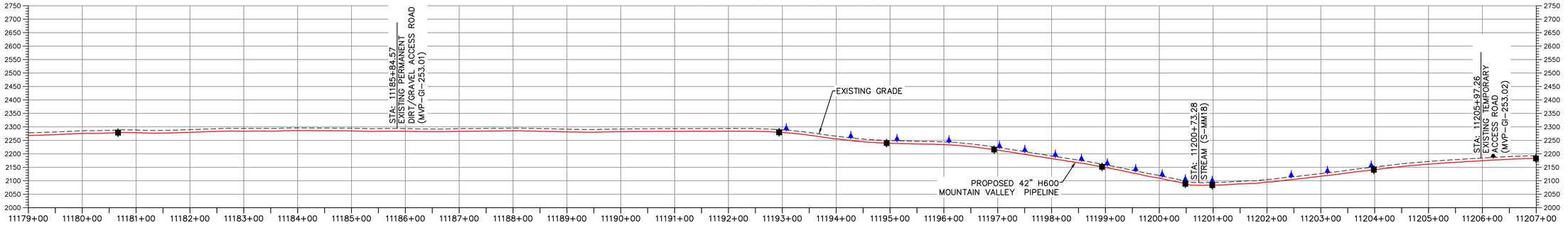
REVISION

SHT. NO. 13.16ES OF 13.91ES



PLAN

SCALE: 1" = 100'



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VWRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.17(S9).dwg PLOTTED ON: 3/14/2018 9:41 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

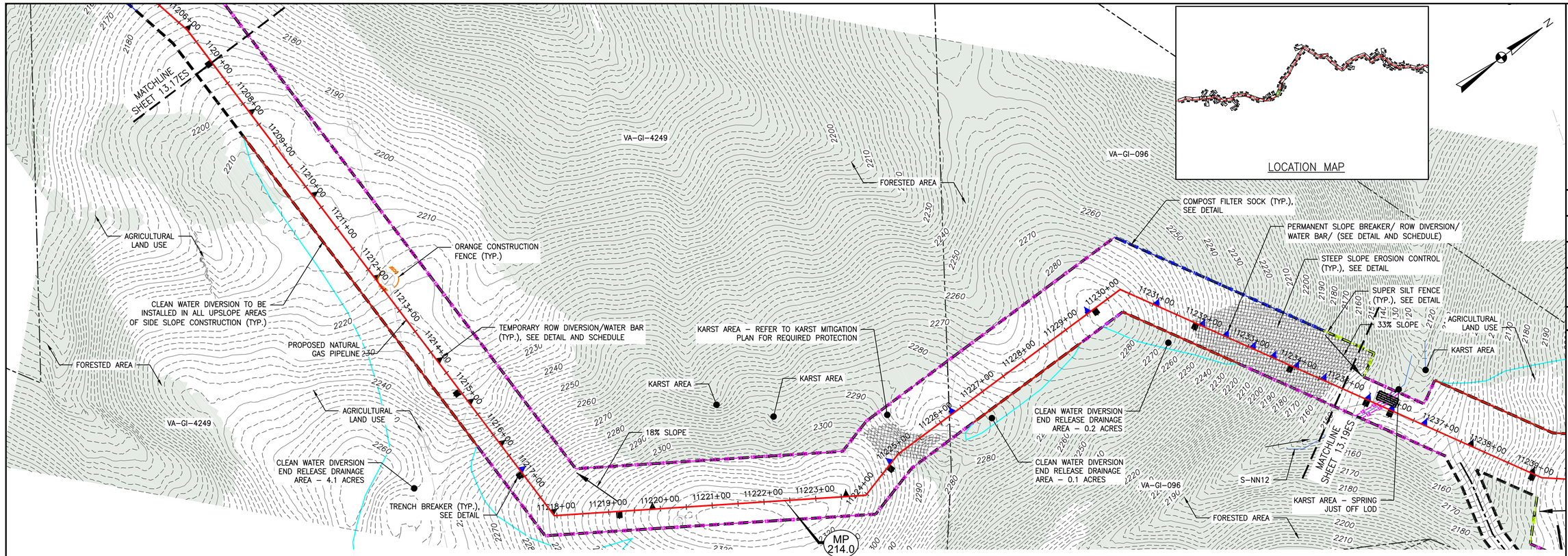
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

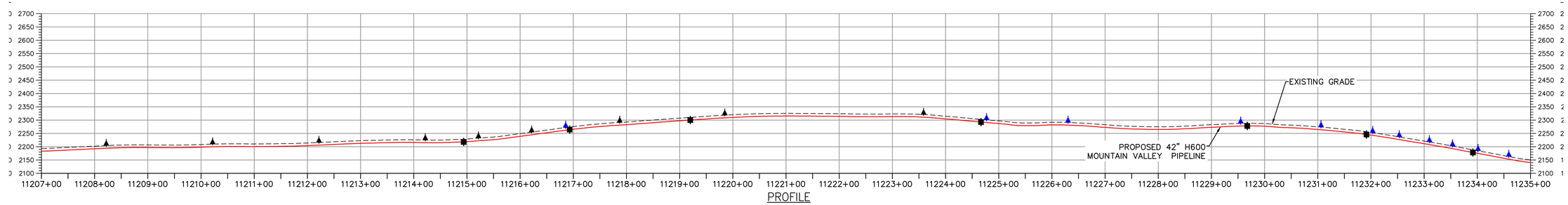
SHT. NO. 13.17ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

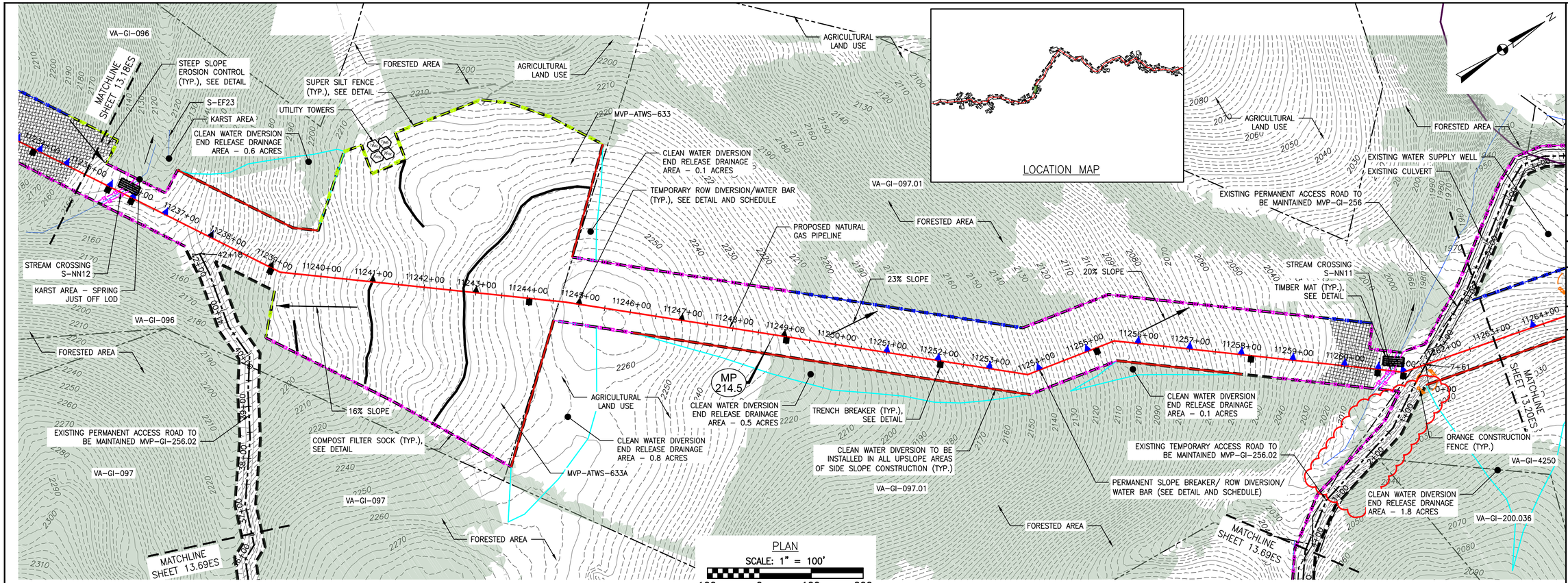
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

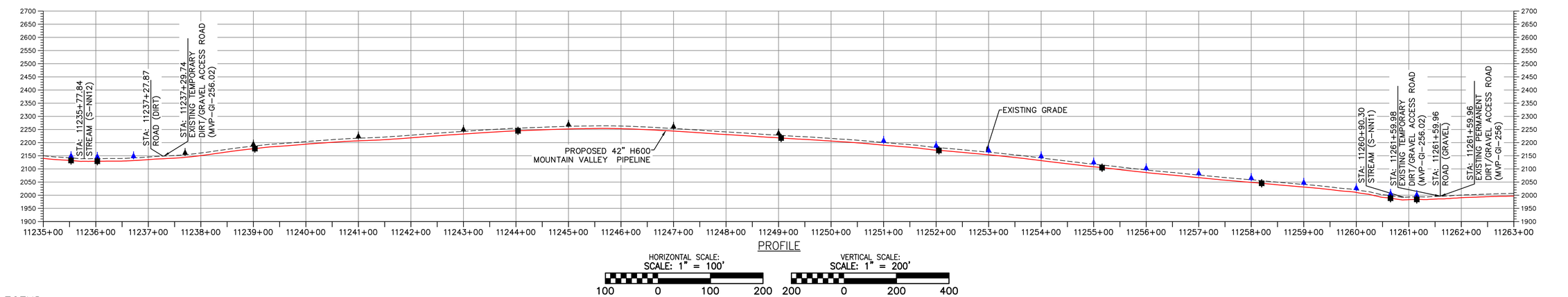
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	
SHT. NO.	13.18ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.18(S9).dwg PLOTTED ON: 8/15/2018 1:06 PM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb





LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	4/30/18	KAL	JRE	DJW	FIELD MODIFICATION
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

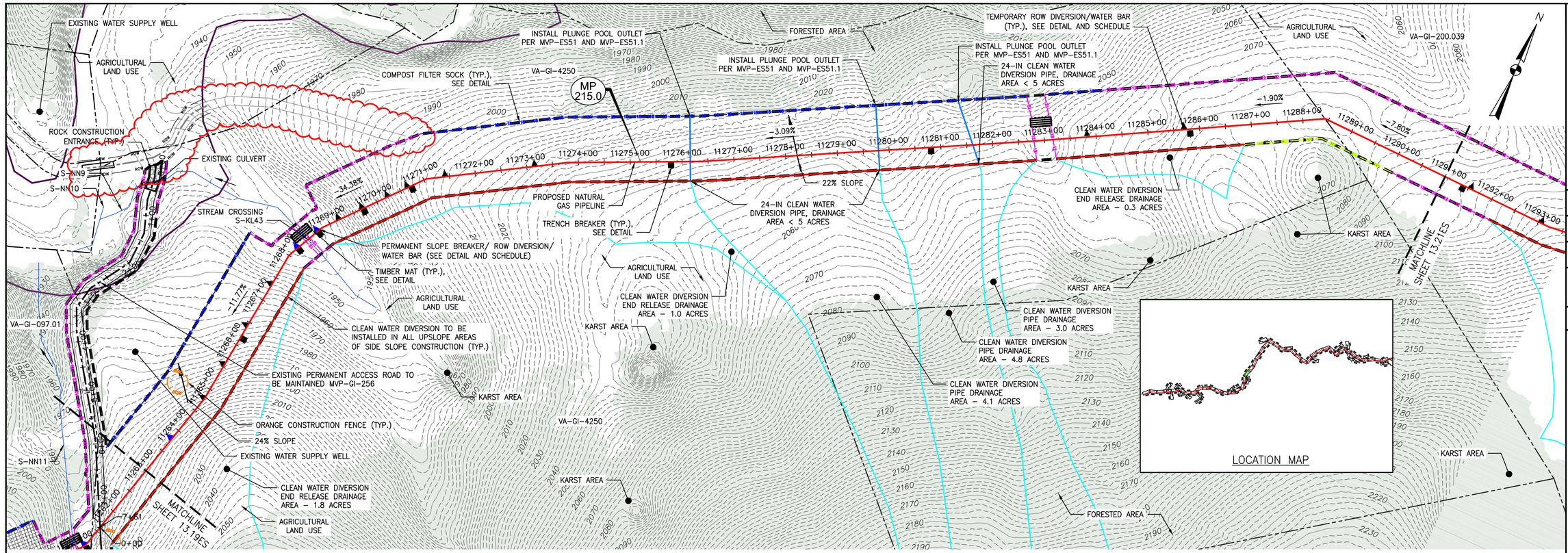
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
SHT. NO.	13.19ES OF 13.91ES

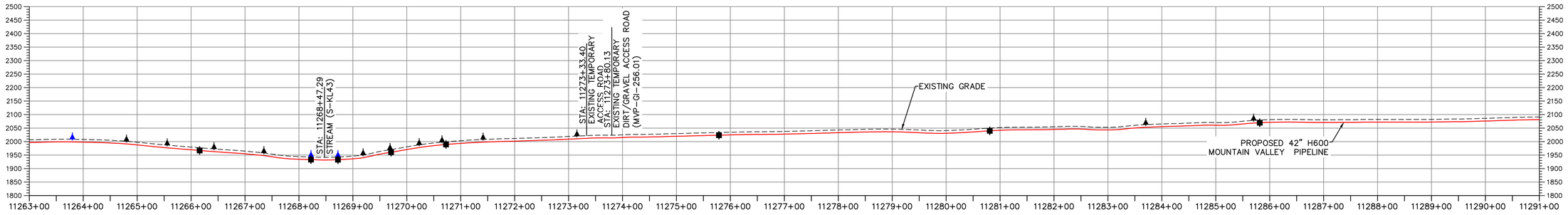
REVISION

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.19(S9).dwg PLOTTED ON: 8/15/2018 1:04 PM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\7157ES13.20(S9).dwg PLOTTED ON: 8/28/2018 8:17 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
7	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
6	4/30/18	KAL	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

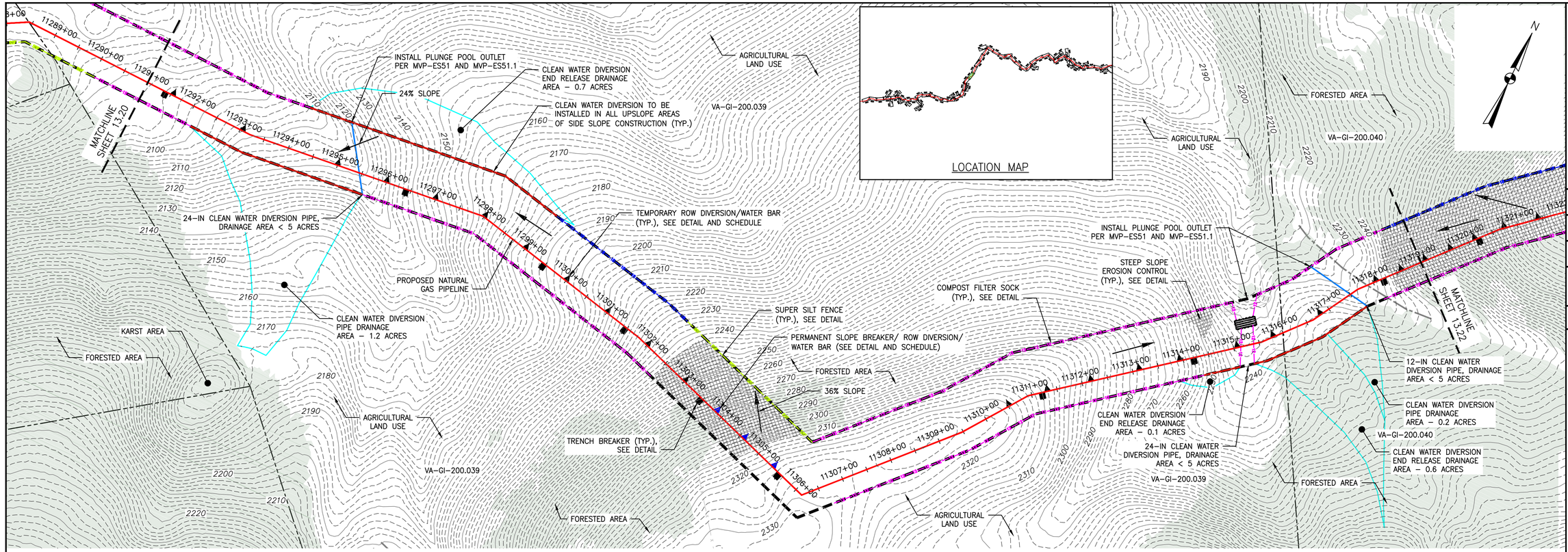
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	7

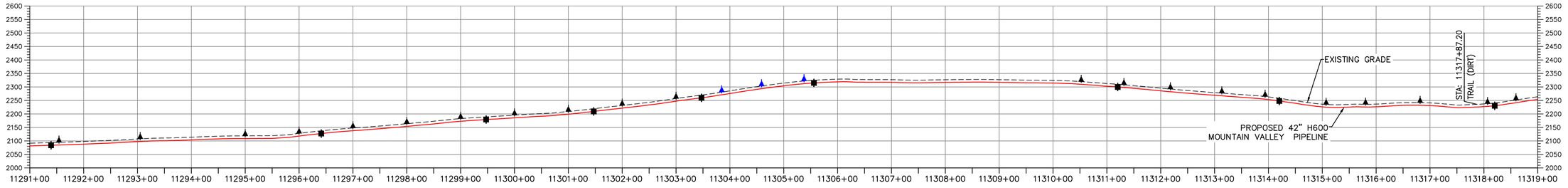
SHT. NO. 13.20ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\E&S Version 5.0.0\7157ES13.21(S9).dwg PLOTTED ON: 3/14/2018 7:36 AM PLOTTED BY: Scabillani, Joy PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

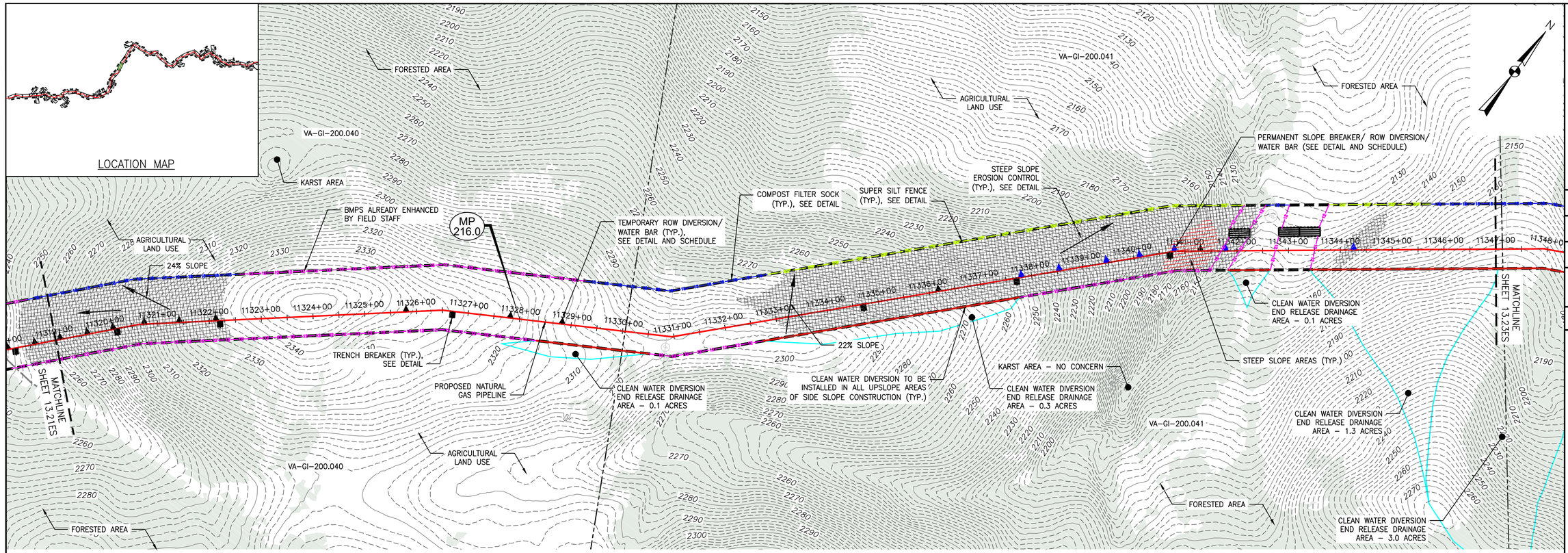
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.21ES OF 13.91ES

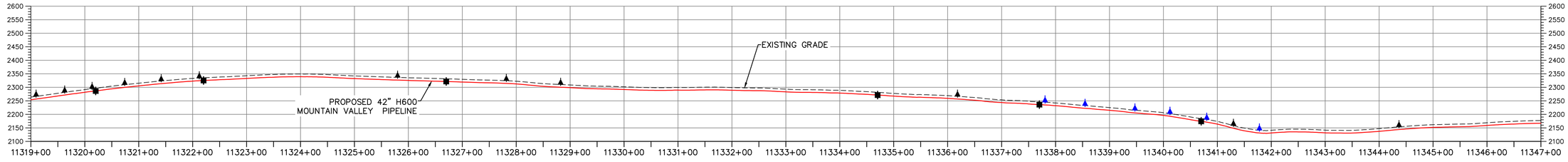
LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- AMST — AMST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- OCSF — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.22(S9).dwg PLOTTED ON: 8/31/2018 8:05 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	6

SHT. NO. 13.22ES OF 13.91ES

LOCATION MAP

PLAN
SCALE: 1" = 100'

PROFILE
HORIZONTAL SCALE: SCALE: 1" = 100'
VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\7157ES13.23(S9).dwg PLOTTED ON: 8/15/2018 1:10 PM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	4/30/18	KAL	JRE	DJW	FIELD MODIFICATION
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

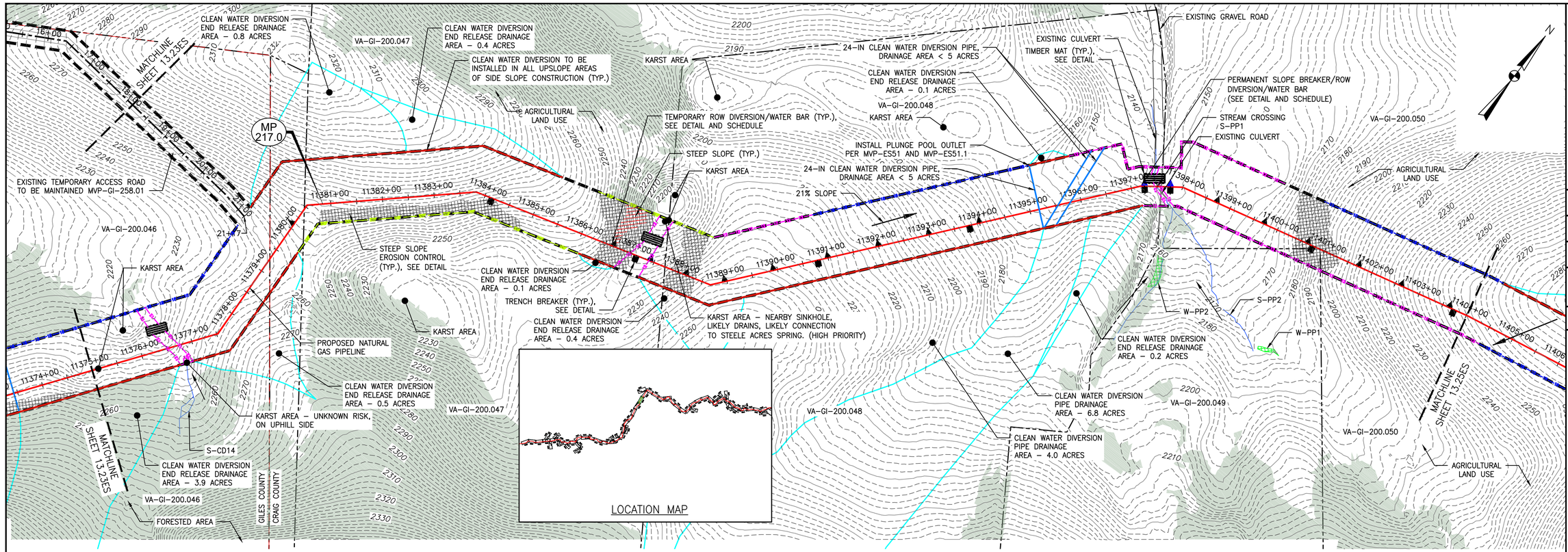
MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

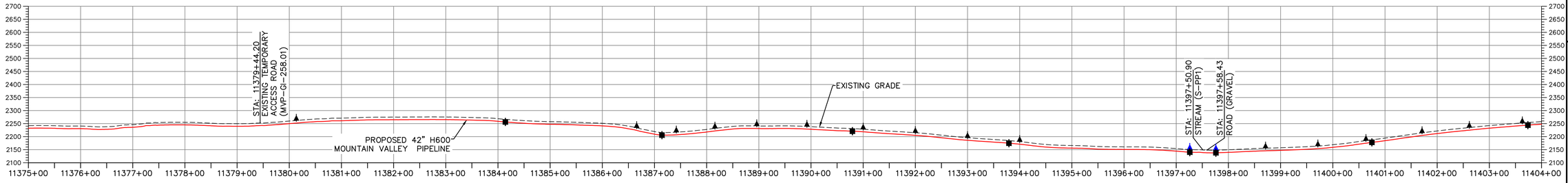
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	
SHT. NO.	13.23ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.24(S9).dwg PLOTTED ON: 8/15/2018 1:13 PM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

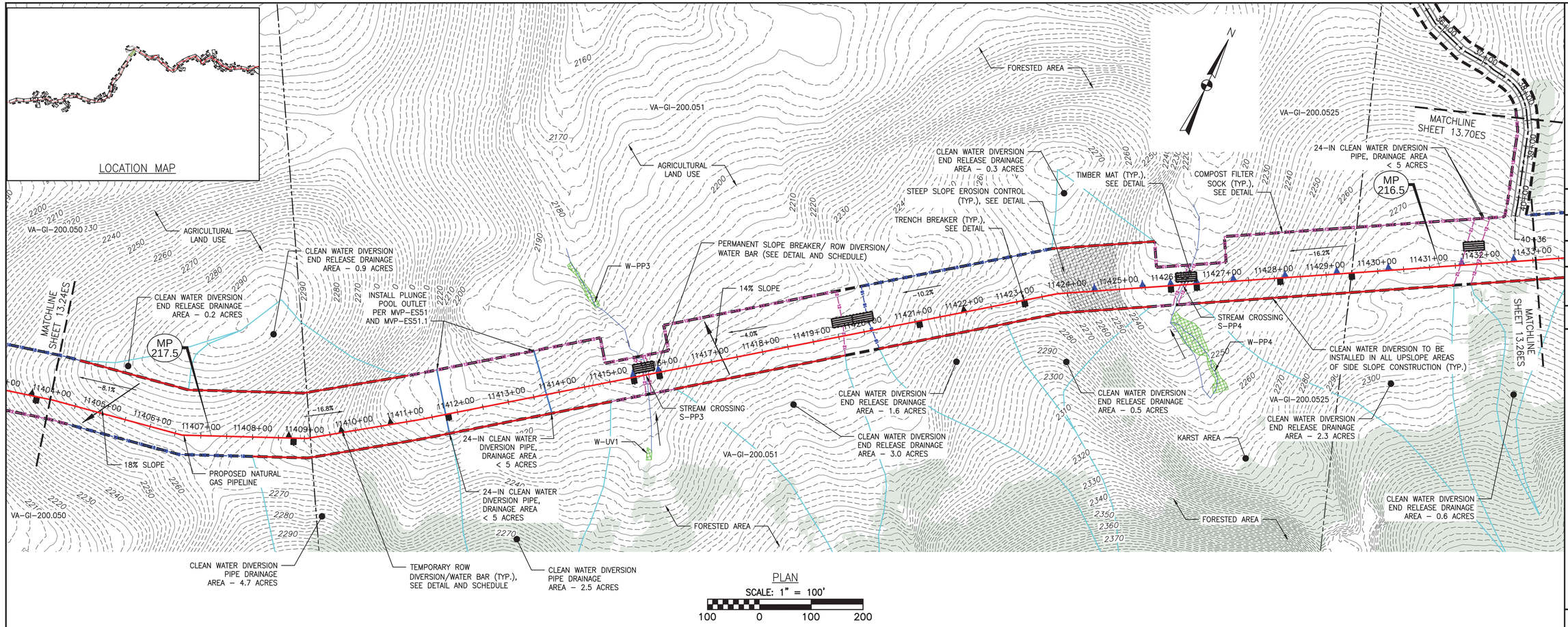
complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

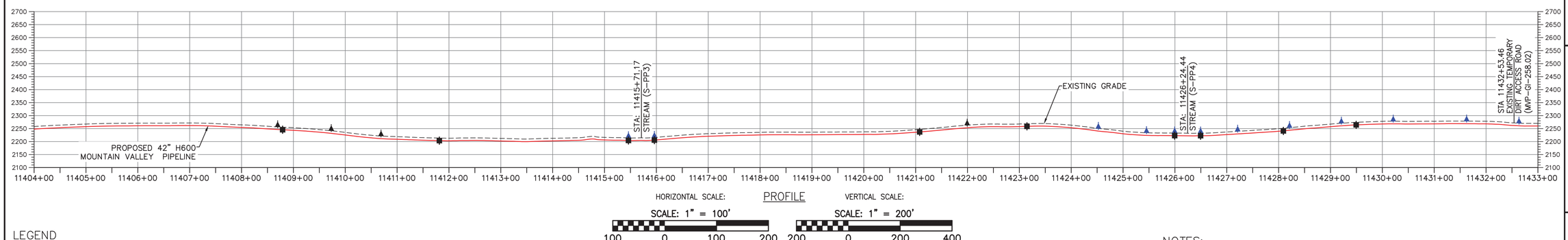
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5
SHT. NO.	13.24ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

PROFILE

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL (ANST)
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL (AFM)
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SF) (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SSF) (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (RFD) (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE (OCSF)
- PROPOSED COMPOST FILTER SOCK (12) (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (18) (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (24) (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

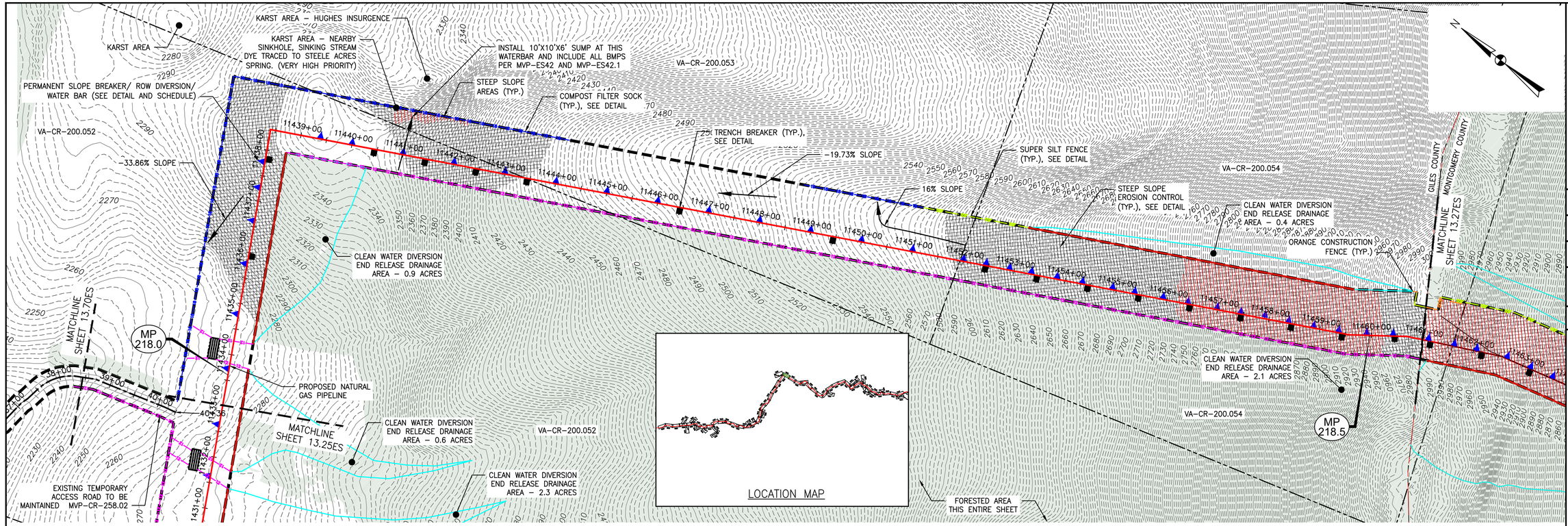
complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

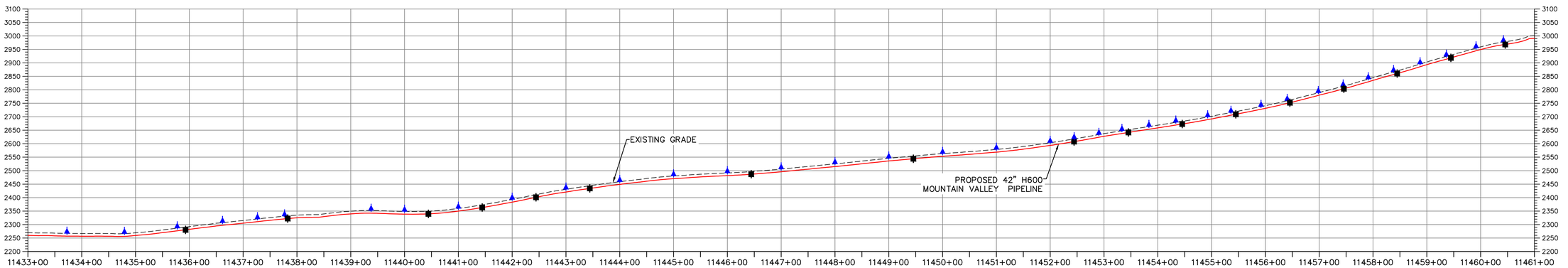
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5
SHT. NO.	13.25ES OF 13.91ES



PLAN

SCALE: 1" = 100'



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.26(S9).dwg PLOTTED ON: 8/31/2018 8:16 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.	DATE:	BH	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	KAL	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	KAL	JRE	DJW	PLANS SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

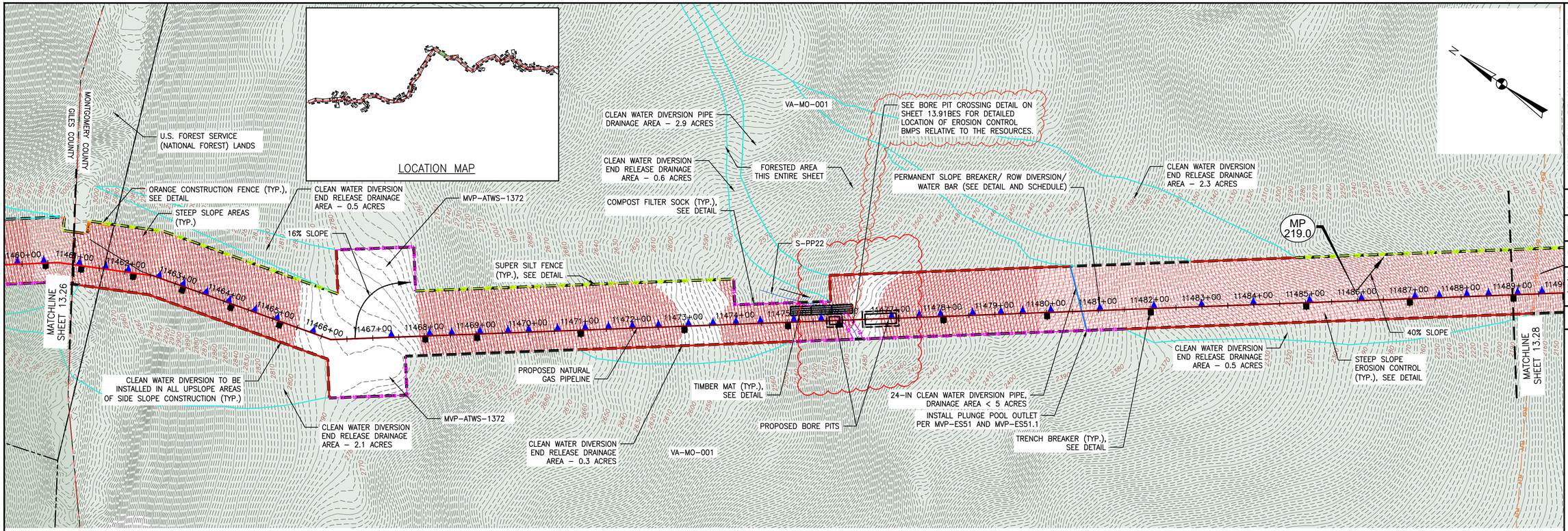
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

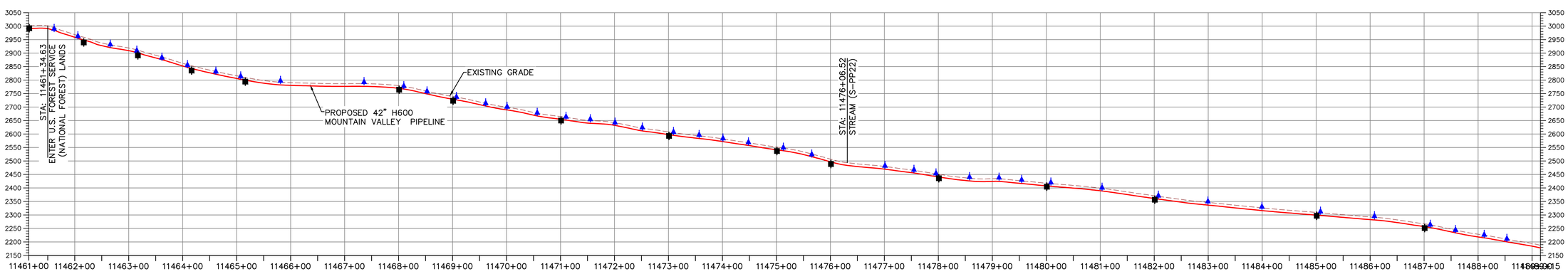
REVISION

SHT. NO. 13.26ES OF 13.91ES



PLAN

SCALE: 1" = 100'



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
4/7/23
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER

THIS SEAL APPLIES TO REVISIONS DATED 04/07/2023

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PILEUP CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	04/07/23	JZ	TD	DCW	ADDRESS DEQ COMMENTS CROSSING CHANGE METHOD
–	7/7/20	BH	JRE	DJW	CHANGES TO AQUATIC RESOURCES DELINEATIONS
5	3/12/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

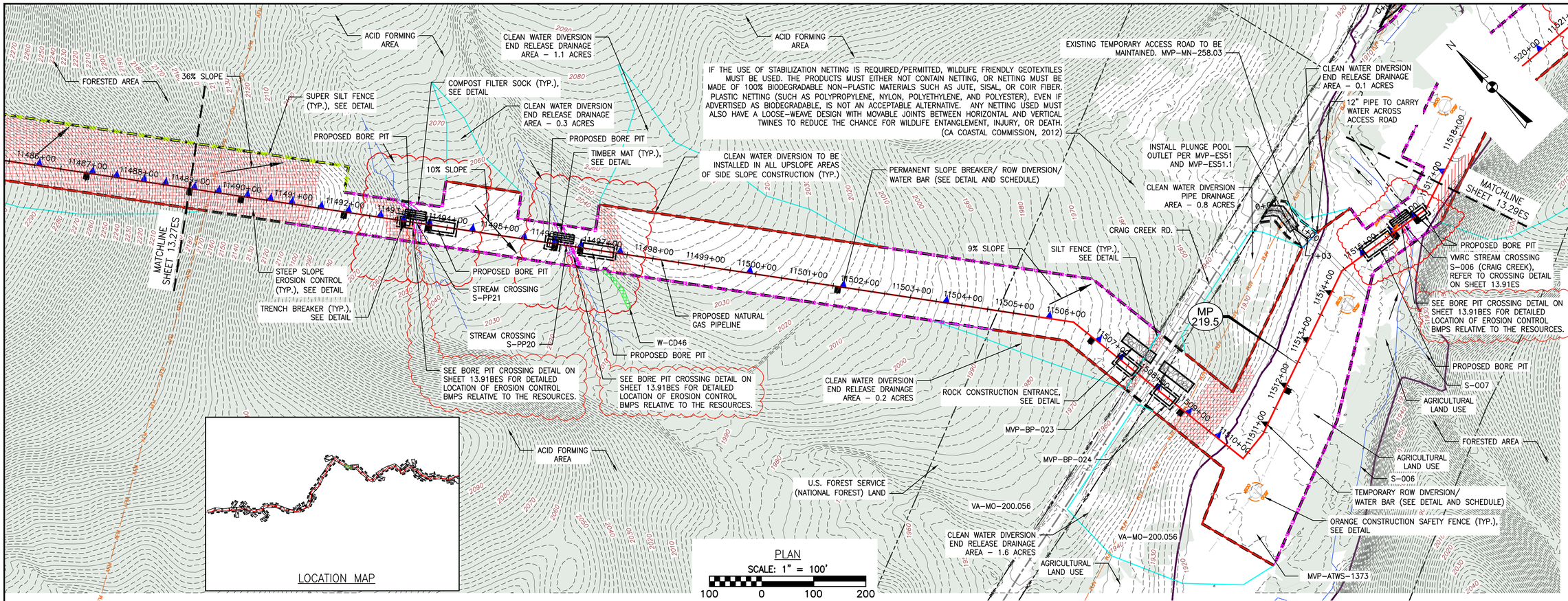
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

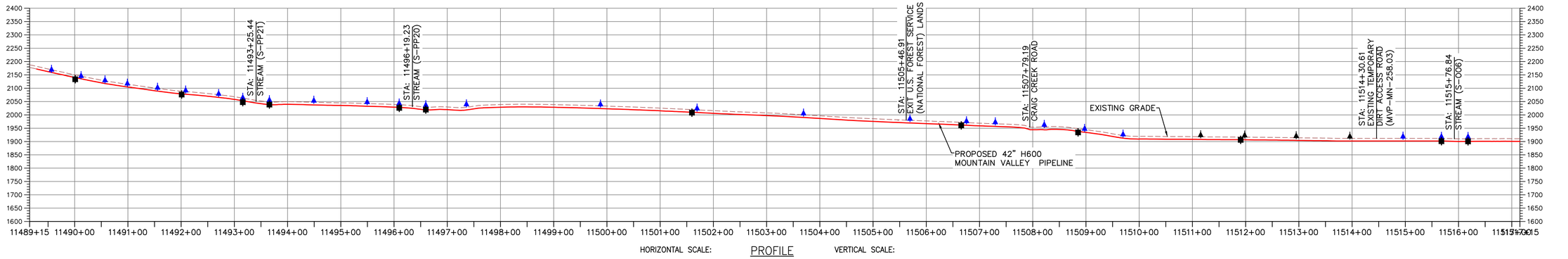
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	JJZ
CHECKED BY:	TD
APPROVED BY:	DCW
DATE:	04/07/23
SCALE:	AS SHOWN
REVISION	1
SHT. NO.	13.27ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157_–_MVP_Construction_Spread_9\13_–_Montgomery\E&S\7157ES13.27(S9).dwg PLOTTED ON: 3/29/2023 1:24 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb





LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
4/7/23
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER
THIS SEAL APPLIES ONLY TO REVISIONS DATED 04-07-23

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPLELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
5	3/5/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
6	8/23/18	BH	JRE	DJW	VMRC CROSSING METHOD CHANGE FROM OPEN CUT TO BORE
–	1/11/21	ZM	JRE	DJW	ADDRESS VADEQ COMMENTS
–	–	MJP	JRE	DJW	FIELD MODIFICATIONS
7	04/07/23	JZ	TD	DCW	ADDRESS DEQ COMMENTS ON CROSSING CHANGE METHOD

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

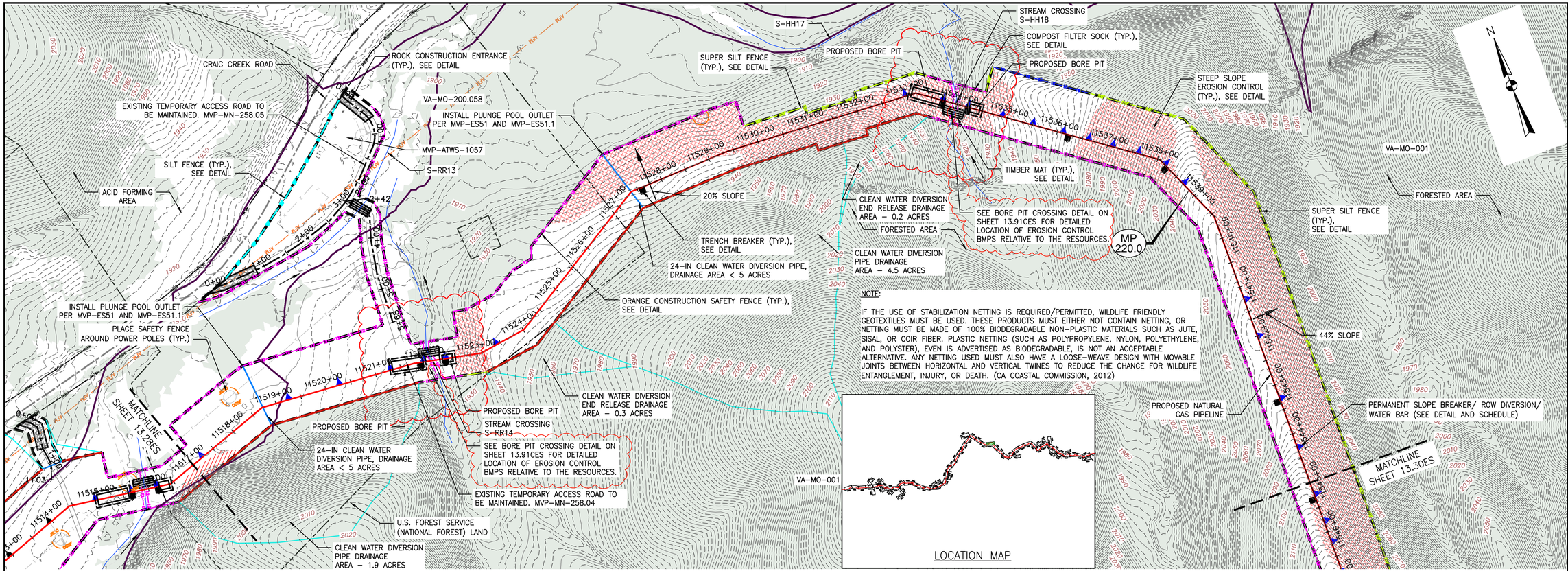
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	JJZ
CHECKED BY:	TD
APPROVED BY:	DCW
DATE:	04/07/23
SCALE:	AS SHOWN
SHT. NO.	13.28ES OF 13.91ES

REVISION

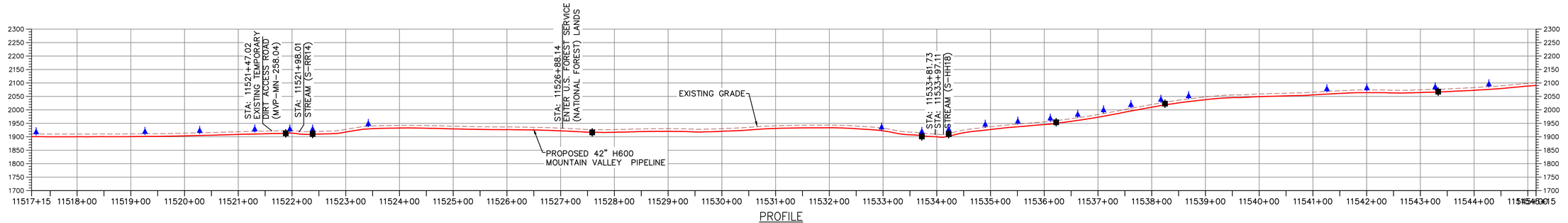
TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157_-_MVP_Construction_Spread_9\13_-_Montgomery\E&S\7157ES13.28(S9).dwg PLOTTED ON: 3/29/2023 1:36 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

100 0 100 200 200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
4/7/23
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER

THIS SEAL APPLIES TO REVISIONS DATED 04/07/2023

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	04/07/23	JZ	TD	DCW	ADDRESS DEQ COMMENTS ON CROSSING CHANGE METHOD
–	–	MJP	JRE	DJW	FIELD MODIFICATIONS
–	1/11/21	ZM	JRE	DJW	ADDRESS VADEQ COMMENTS
6	8/23/18	BH	JRE	DJW	VMRC CROSSING METHOD CHANGE FROM OPEN CUT TO BORE
5	3/12/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	JJZ
CHECKED BY:	TD
APPROVED BY:	DCW
DATE:	04/07/23
SCALE:	AS SHOWN

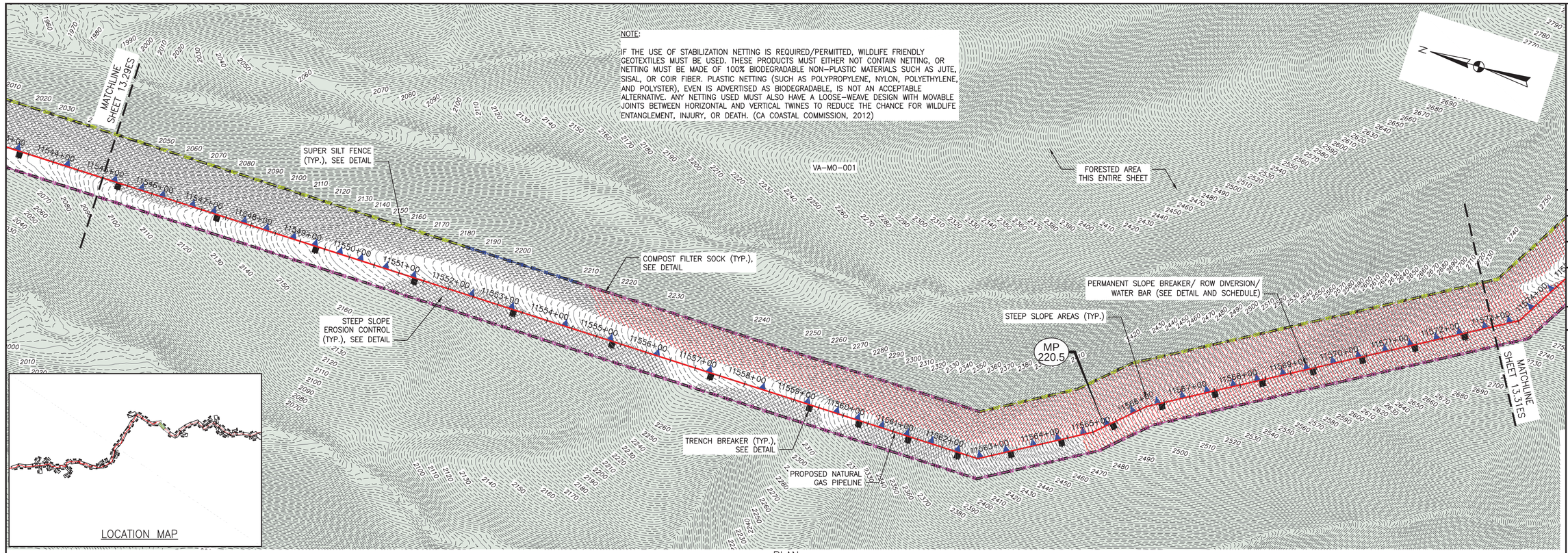
REVISION

SHT. NO. 13.29ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.29(S9).dwg PLOTTED ON: 3/29/2023 1:43 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NOTE:

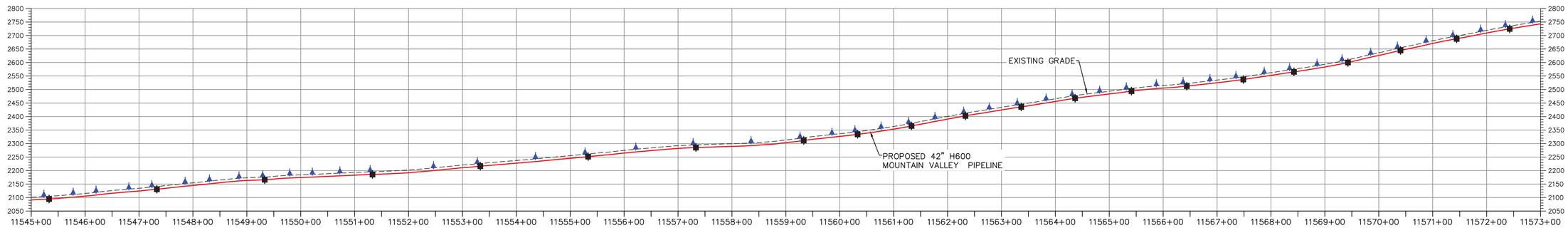
IF THE USE OF STABILIZATION NETTING IS REQUIRED/PERMITTED, WILDLIFE FRIENDLY GEOTEXTILES MUST BE USED. THESE PRODUCTS MUST EITHER NOT CONTAIN NETTING, OR NETTING MUST BE MADE OF 100% BIODEGRADABLE NON-PLASTIC MATERIALS SUCH AS JUTE, SISAL, OR COIR FIBER. PLASTIC NETTING (SUCH AS POLYPROPYLENE, NYLON, POLYETHYLENE, AND POLYSTER), EVEN IS ADVERTISED AS BIODEGRADABLE, IS NOT AN ACCEPTABLE ALTERNATIVE. ANY NETTING USED MUST ALSO HAVE A LOOSE-WEAVE DESIGN WITH MOVABLE JOINTS BETWEEN HORIZONTAL AND VERTICAL TWINES TO REDUCE THE CHANCE FOR WILDLIFE ENTANGLEMENT, INJURY, OR DEATH. (CA COASTAL COMMISSION, 2012)



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- ANST — ANST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- OCSF — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPLELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

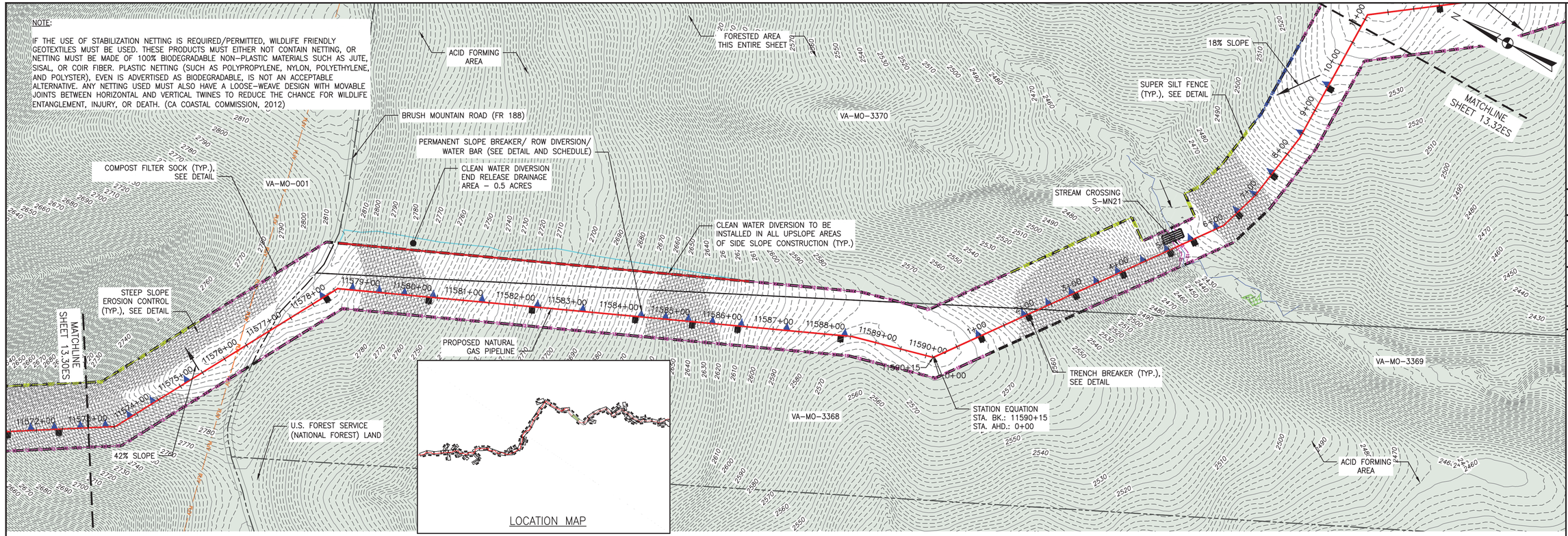
REVISION

SHT. NO. 13.30ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.30(S9).dwg PLOTTED ON: 3/2/2018 8:33 AM PLOTTED BY: Schreibeis, Carly PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NOTE:

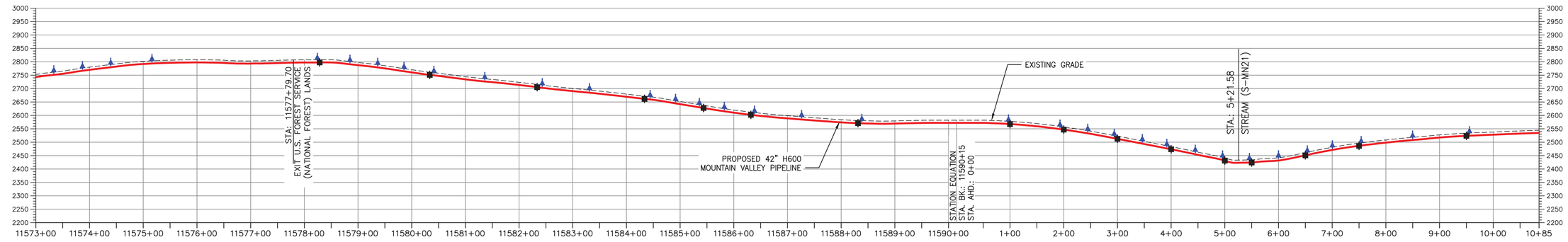
IF THE USE OF STABILIZATION NETTING IS REQUIRED/PERMITTED, WILDLIFE FRIENDLY GEOTEXTILES MUST BE USED. THESE PRODUCTS MUST EITHER NOT CONTAIN NETTING, OR NETTING MUST BE MADE OF 100% BIODEGRADABLE NON-PLASTIC MATERIALS SUCH AS JUTE, SISAL, OR COIR FIBER. PLASTIC NETTING (SUCH AS POLYPROPYLENE, NYLON, POLYETHYLENE, AND POLYSTER), EVEN IS ADVERTISED AS BIODEGRADABLE, IS NOT AN ACCEPTABLE ALTERNATIVE. ANY NETTING USED MUST ALSO HAVE A LOOSE-WEAVE DESIGN WITH MOVABLE JOINTS BETWEEN HORIZONTAL AND VERTICAL TWINES TO REDUCE THE CHANCE FOR WILDLIFE ENTANGLEMENT, INJURY, OR DEATH. (CA COASTAL COMMISSION, 2012)



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30% OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.31(S9).dwg PLOTTED ON: 3/2/2018 8:34 AM PLOTTED BY: Schreibeis, Carly PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

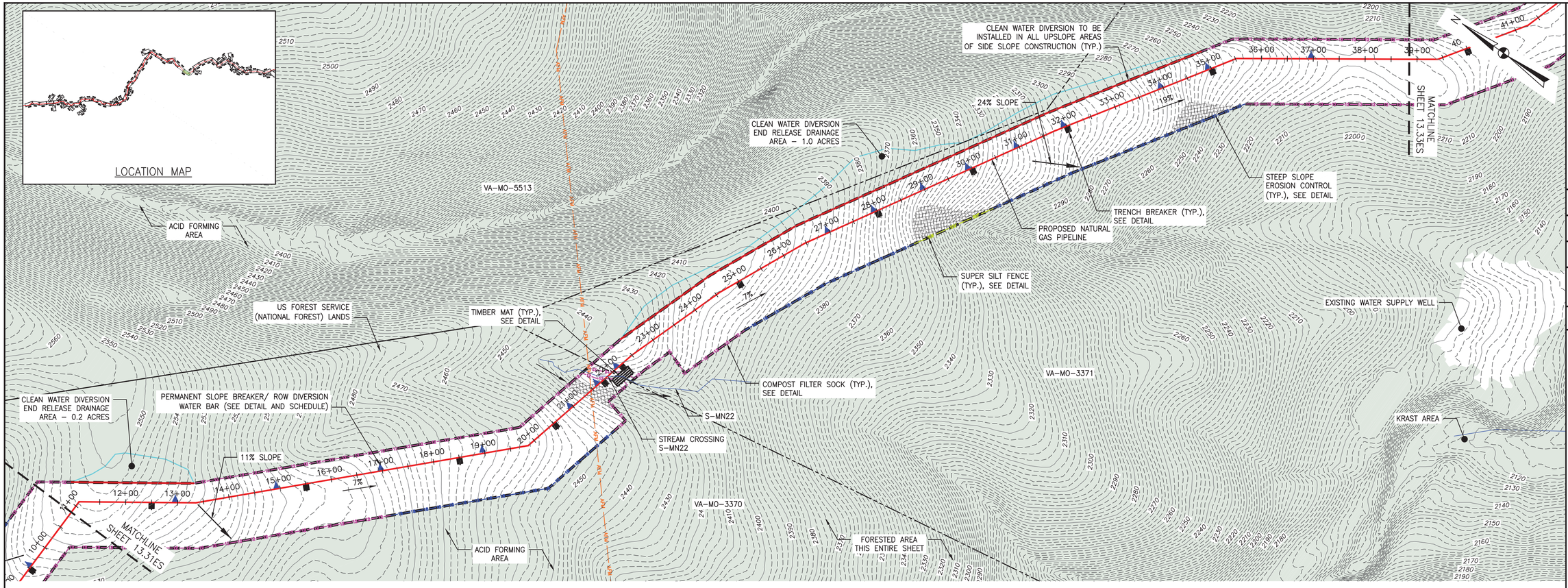
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

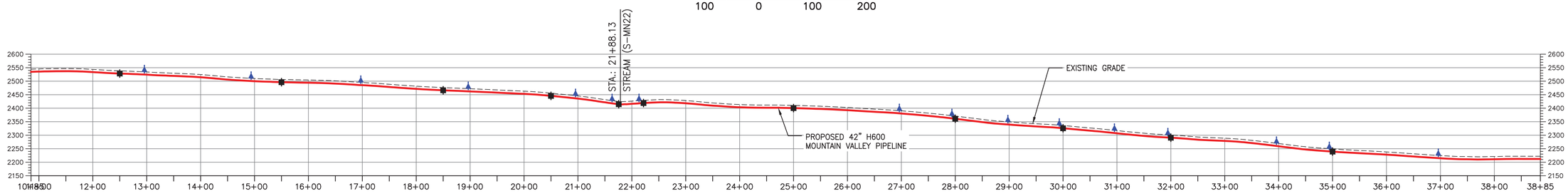
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.31ES OF 13.91ES



PLAN
SCALE: 1" = 100'
100 0 100 200



PROFILE
HORIZONTAL SCALE: SCALE: 1" = 100'
100 0 100 200
VERTICAL SCALE: SCALE: 1" = 200'
200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.32(S9).dwg PLOTTED ON: 3/2/2018 8:51 AM PLOTTED BY: Schreibeis, Carly PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

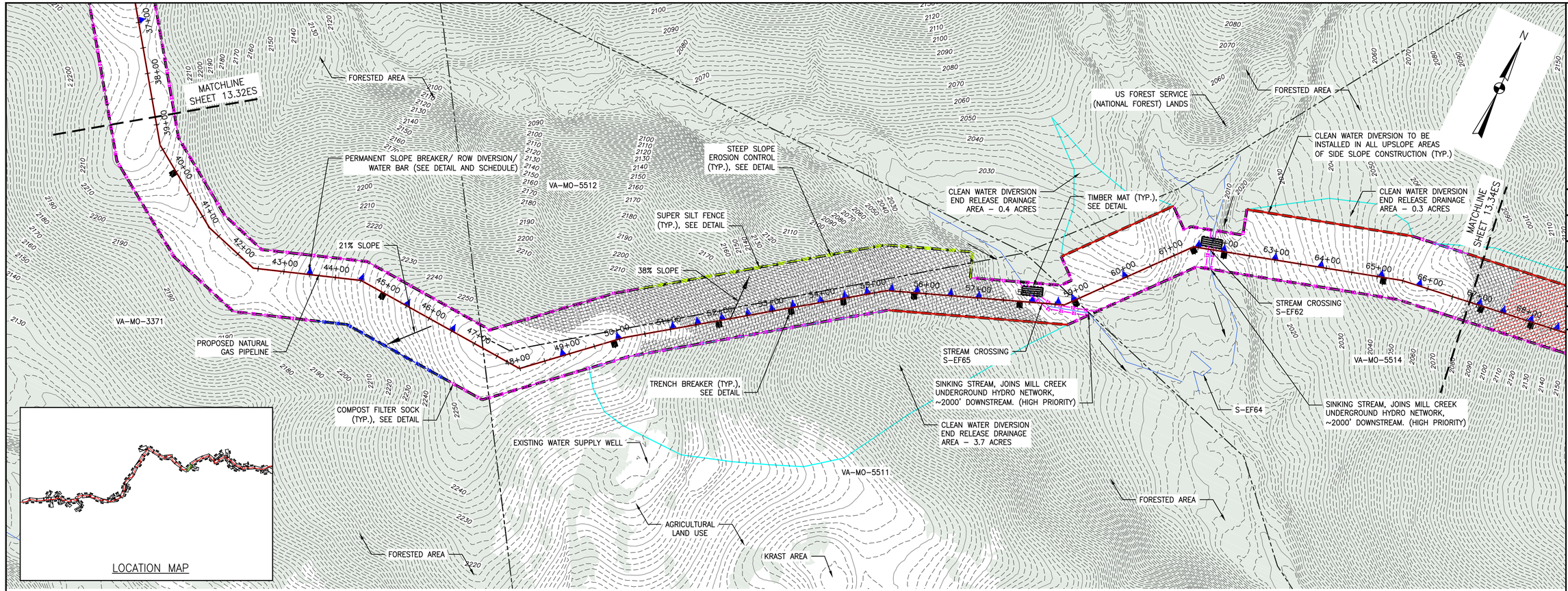
MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5
SHT. NO.	13.32ES OF 13.91ES

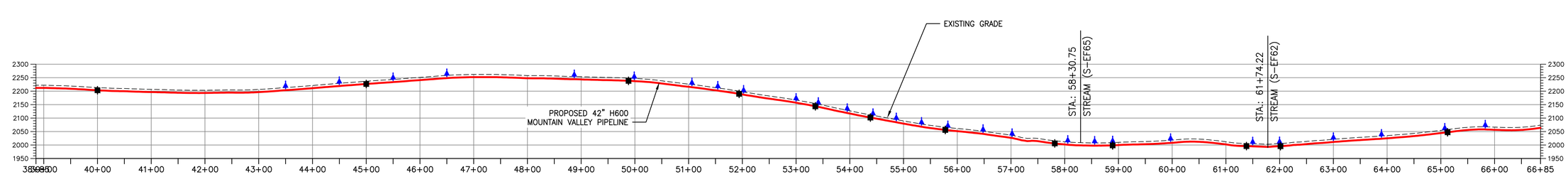


LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- ANST — ANST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ocsf — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

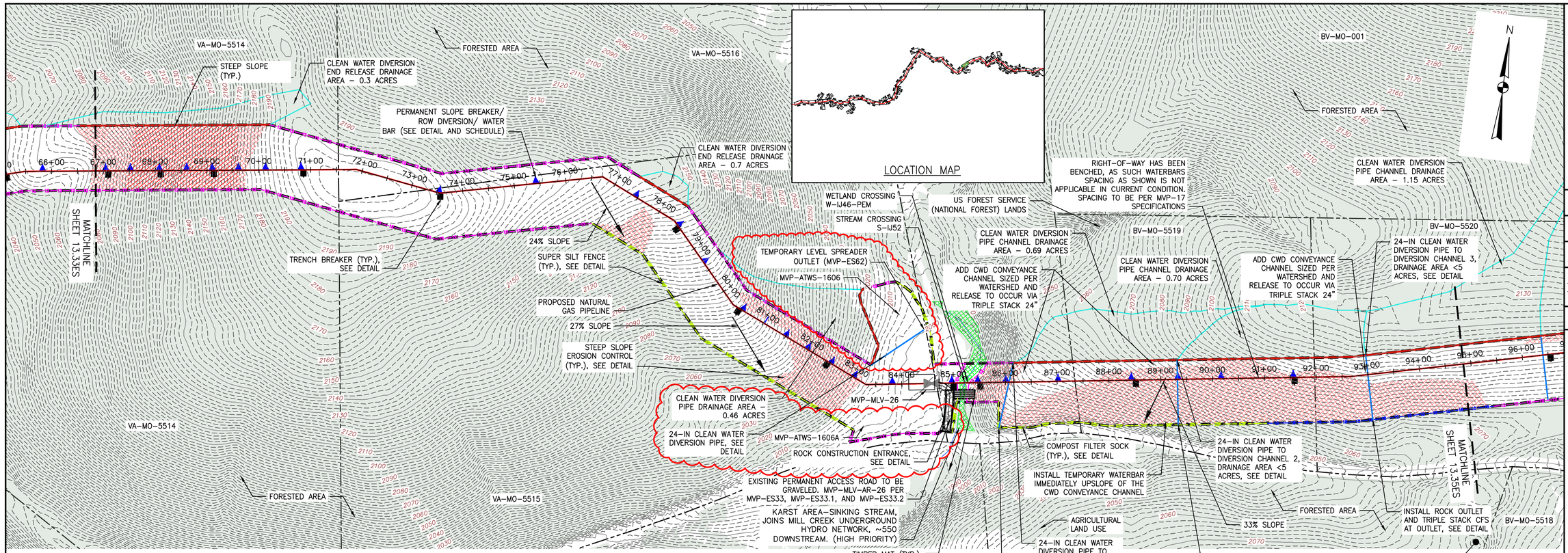
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA — DAVID J. WALLNER — Lic. No. 0402057593 — PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
SHT. NO.	13.33ES OF 13.91ES

REVISION

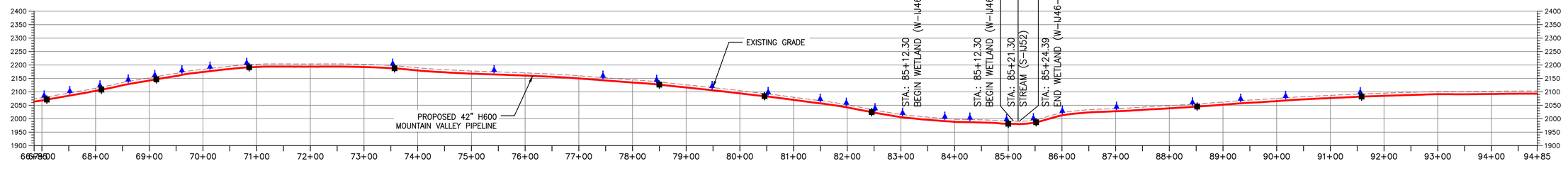
TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.33(S9).dwg PLOTTED ON: 8/31/2018 8:28 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

NOTE:

THE ROW HAS BEEN BENCHED FROM STA 86+00 TO 93+00 (SEE GENERAL DETAILS MVP-ES56.4 THROUGH MVP-ES56.7) WHERE CLEAN WATER DIVERSIONS WITH CLEAN WATER DIVERSION PIPES AND CHANNELS ARE NOW PROPOSED. AS SUCH, THE WATERBAR SPACING AS SHOWN ON THIS PLAN IS NOT APPLICABLE GIVEN THE CURRENT CONDITION. SPACING TO BE IN ACCORDANCE WITH GENERAL DETAIL MVP-17.

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	5/3/21	ZM	JRE	DJW	ADDRESS VADEQ COMMENTS
–	3/25/20	BH	JRE	DJW	FIELD MOD MP 222.7 (ATWS-1606 AND ATWS-1606A)
7	4/30/18	BH	JRE	DJW	FIELD MODIFICATION
6	2/12/19	BH	JRE	DJW	FIELD MODIFICATION - MP 226.3 (ACCESS ROAD MVP-MH-286)
5	3/5/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

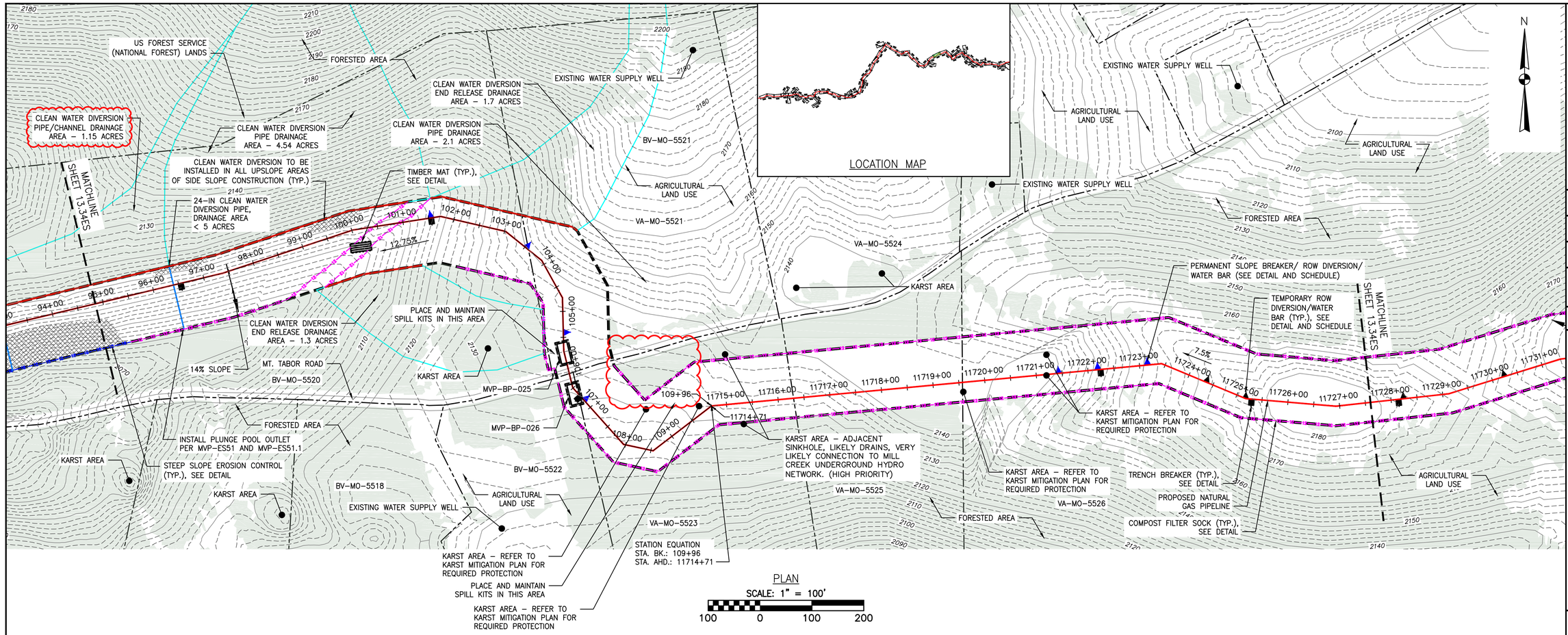
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 57593
5/3/2021
PROFESSIONAL ENGINEER

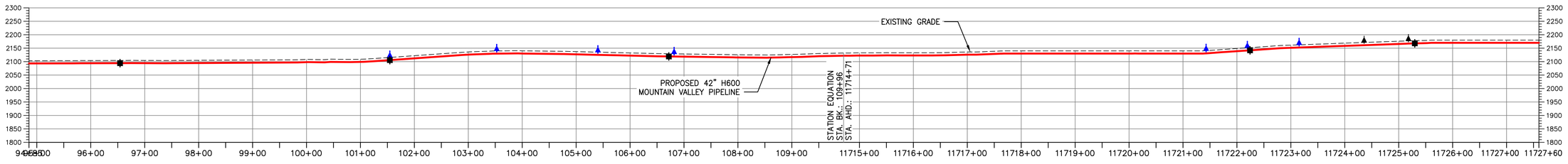
DRAWN BY:	BH
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	5/3/21
SCALE:	AS SHOWN
REVISION	7
SHT. NO.	13.34ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157_-_MVP_Construction_Spread_9\13_-_Montgomery\E&S\7157ES13.34(S9).dwg PLOTTED ON: 5/3/2021 11:57 AM PLOTTED BY: Rickabaugh, Greg PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200



PROFILE
HORIZONTAL SCALE: SCALE: 1" = 100'
VERTICAL SCALE: SCALE: 1" = 200'
100 0 100 200
200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
7	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
6	4/30/18	KAL	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

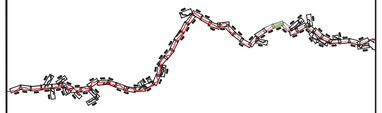
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

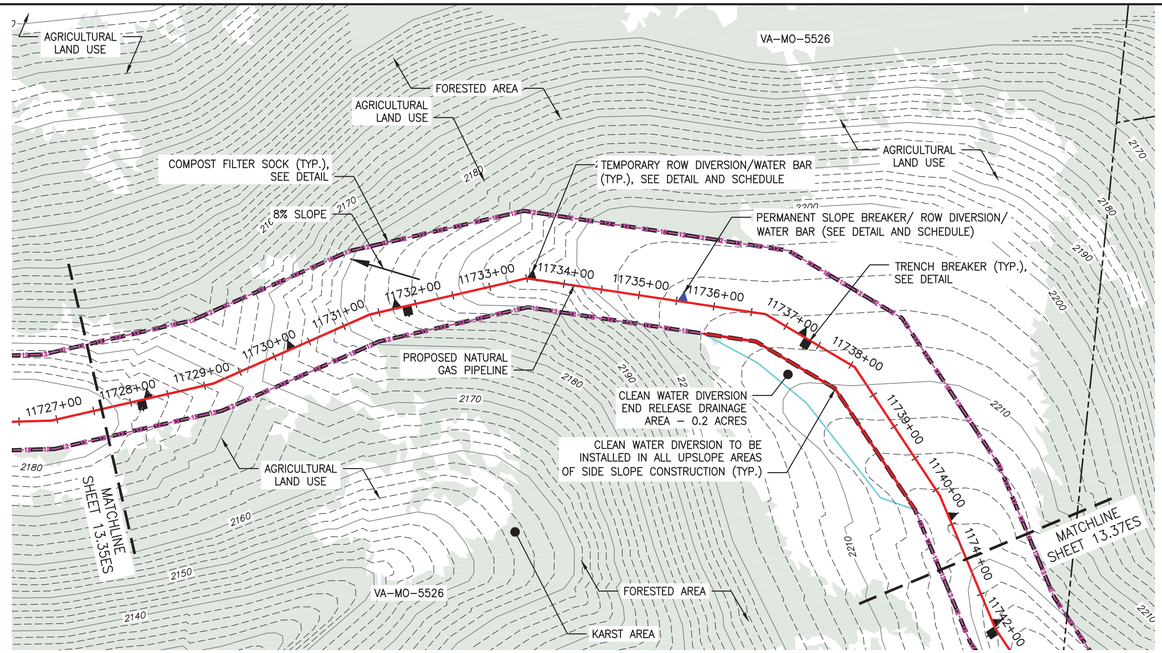
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	
SHT. NO.	13.35ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.35(S9).dwg PLOTTED ON: 8/29/2018 10:45 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb



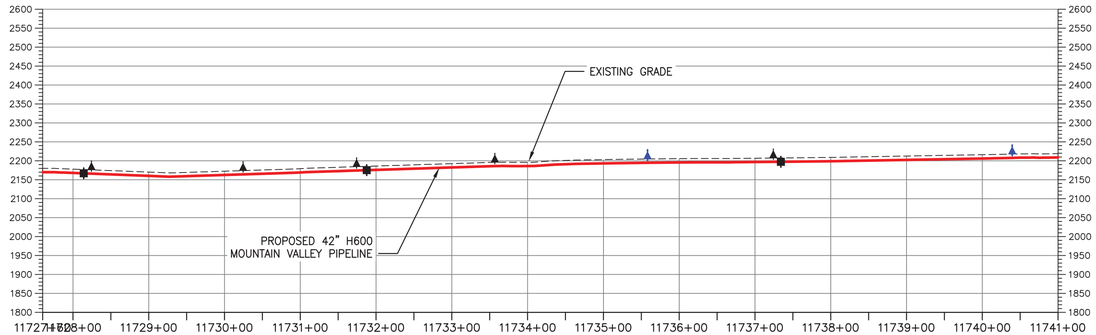
LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE:

SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE:

SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.36(S9).dwg PLOTTED ON: 3/2/2018 9:02 AM PLOTTED BY: Schreibeis, Carly PLOT FILE: ENVIRONMENTAL_COLOR.ctb

N

REVISIONS:

NO.	DATE:	DWN.:	CHKD.:	APP'D.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

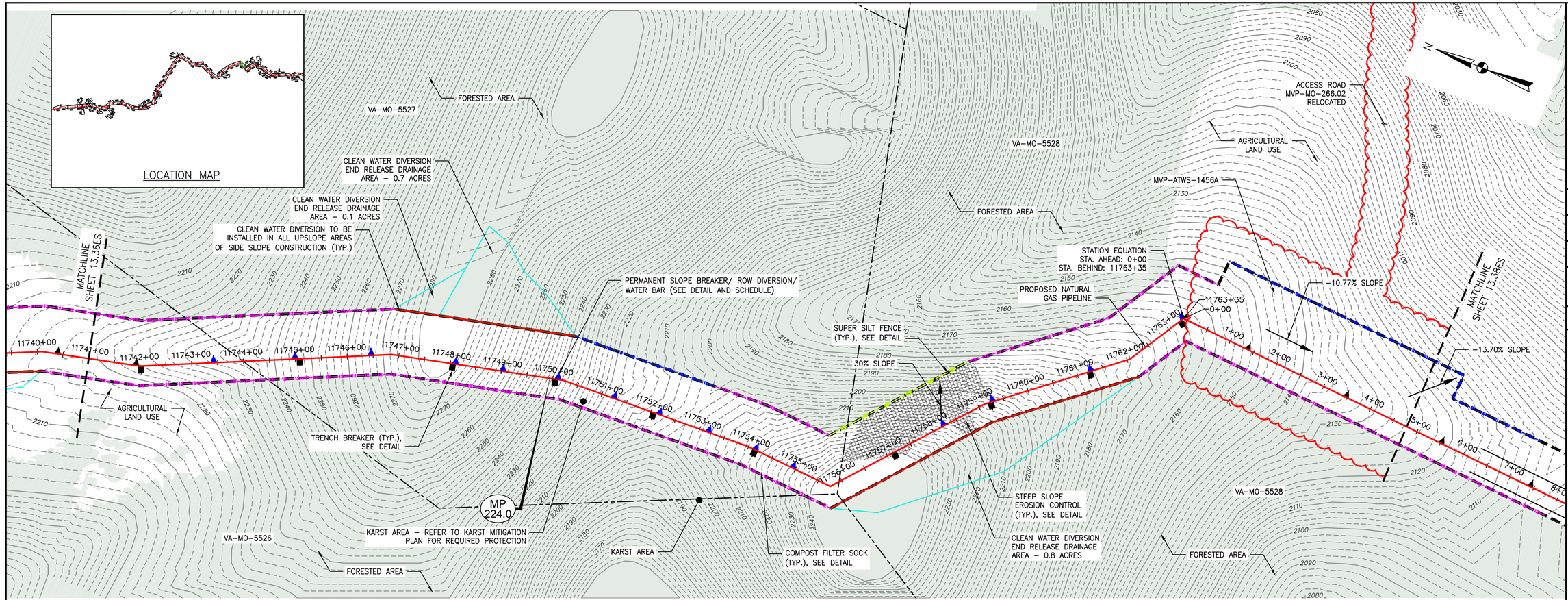
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF PENNSYLVANIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

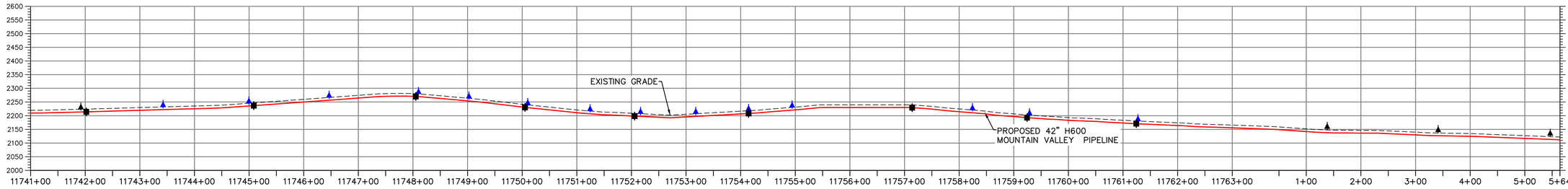
SHT. NO. 13.36ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.37(S9).dwg PLOTTED ON: 7/19/2018 10:19 AM PLOTTED BY: Zindren, Dan PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	4/30/18	KAL	JRE	DJW	FIELD MODIFICATION
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
SHT. NO.	13.37ES OF 13.91ES

REVISION

MATCHLINE SHEET 13.37ES

MATCHLINE SHEET 13.73ES

MATCHLINE SHEET 13.39ES

MVP-ATWS-1456A

AGRICULTURAL LAND USE

VA-MO-5528

-13.70% SLOPE

FORESTED AREA

PERMANENT SLOPE BREAKER/ ROW DIVERSION/ WATER BAR (SEE DETAIL AND SCHEDULE)

16% SLOPE

TRENCH BREAKER (TYP.), SEE DETAIL

KARST AREA

FORESTED AREA

MP 224.5

11+36

11774+71

15% SLOPE

POND CROSSING P-KL2

TIMBER MAT (TYP.), SEE DETAIL

STEEP SLOPE EROSION CONTROL (TYP.), SEE DETAIL

CLEAN WATER DIVERSION TO BE INSTALLED IN ALL UPSLOPE AREAS OF SIDE SLOPE CONSTRUCTION (TYP.)

CLEAN WATER DIVERSION END RELEASE DRAINAGE AREA – 0.1 ACRES

PROPOSED NATURAL GAS PIPELINE

VA-MO-5529

COMPOST FILTER SOCK (TYP.), SEE DETAIL

KARST AREA – REFER TO KARST MITIGATION PLAN FOR REQUIRED PROTECTION

KARST AREA

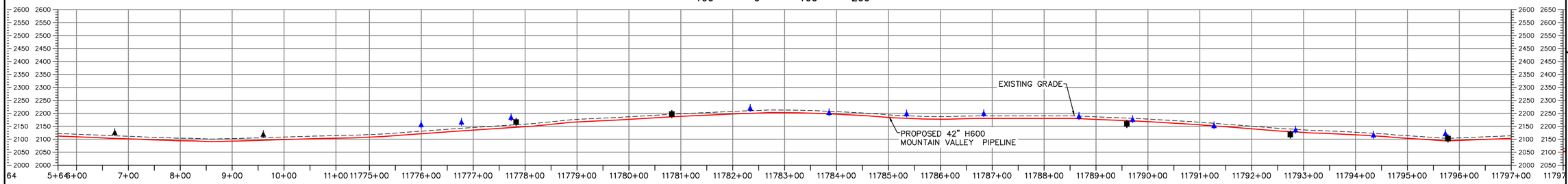
CLEAN WATER DIVERSION END RELEASE DRAINAGE AREA – 0.7 ACRES

LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VWRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	4/30/18	KAL	JRE	DJW	FIELD MODIFICATION
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

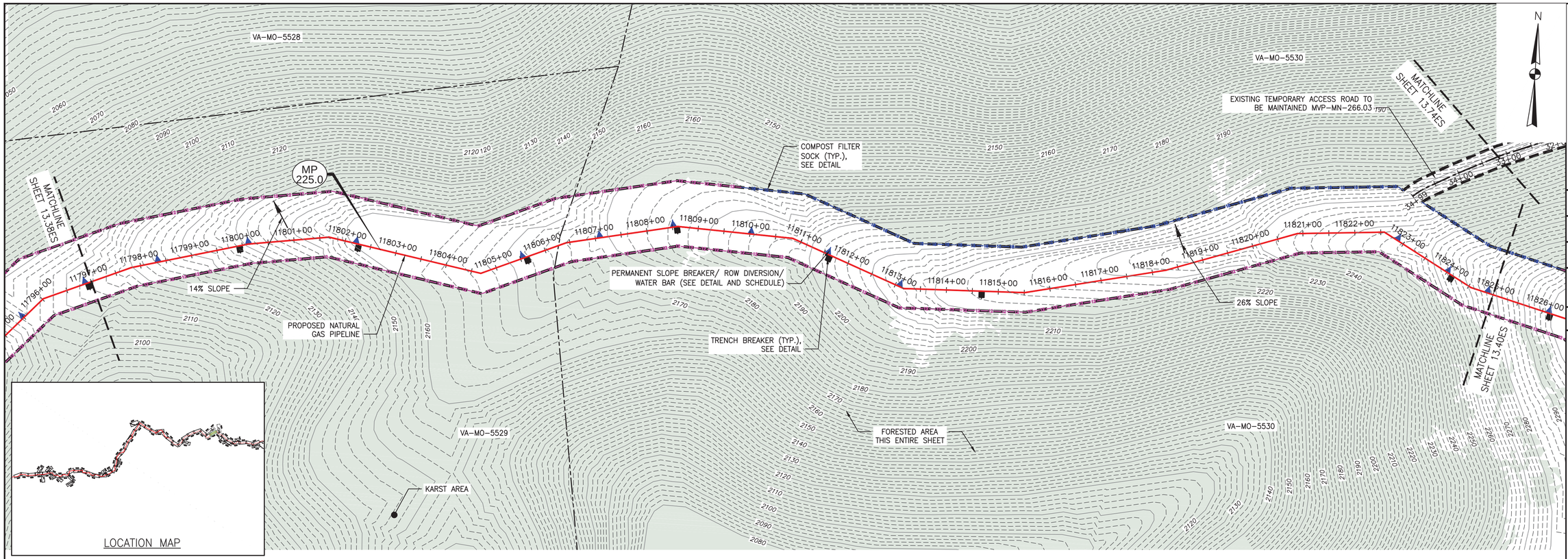
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

SHT. NO. 13.38ES OF 13.91ES

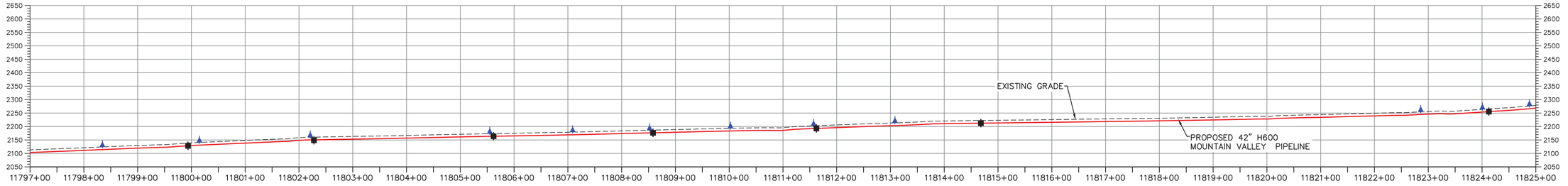
TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.38(S9).dwg PLOTTED ON: 9/13/2018 9:42 AM PLOTTED BY: Zindren, Dan PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

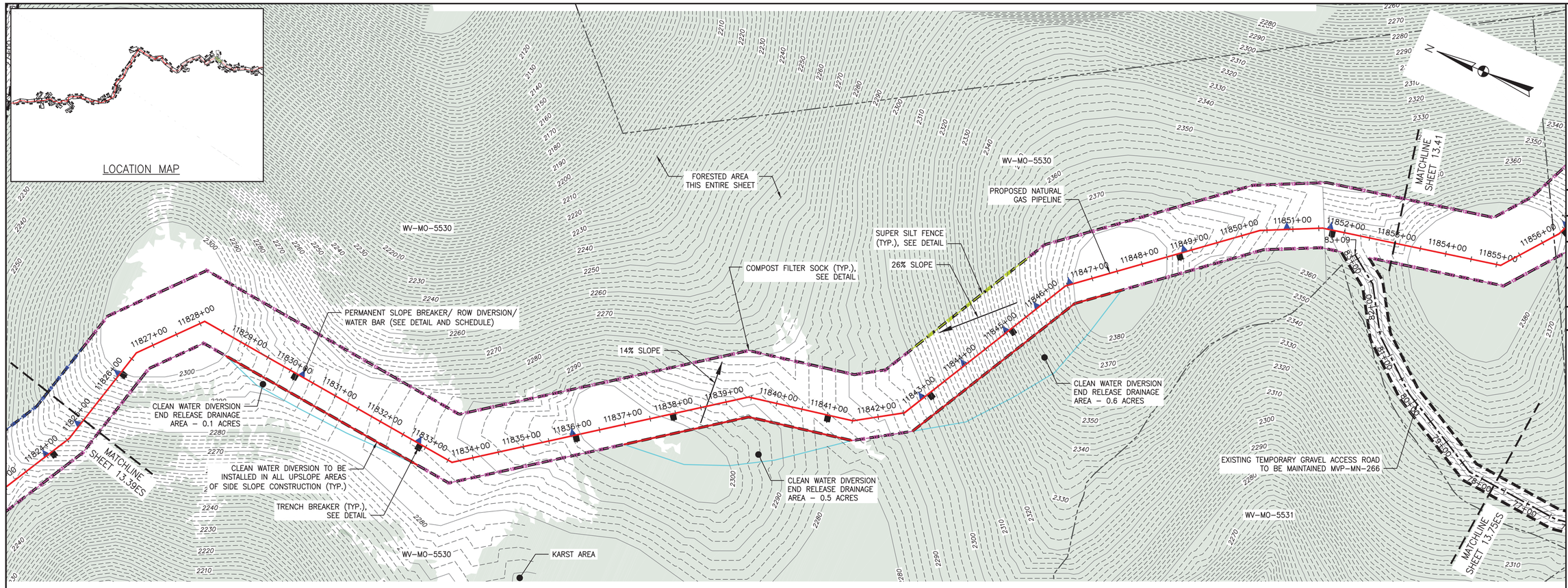
MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

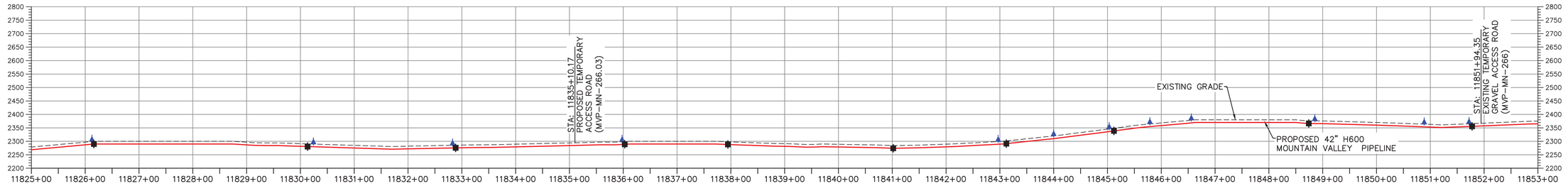
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5
SHT. NO.	13.39ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.40(S9).dwg PLOTTED ON: 3/2/2018 9:54 AM PLOTTED BY: Schreibeis, Carly PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

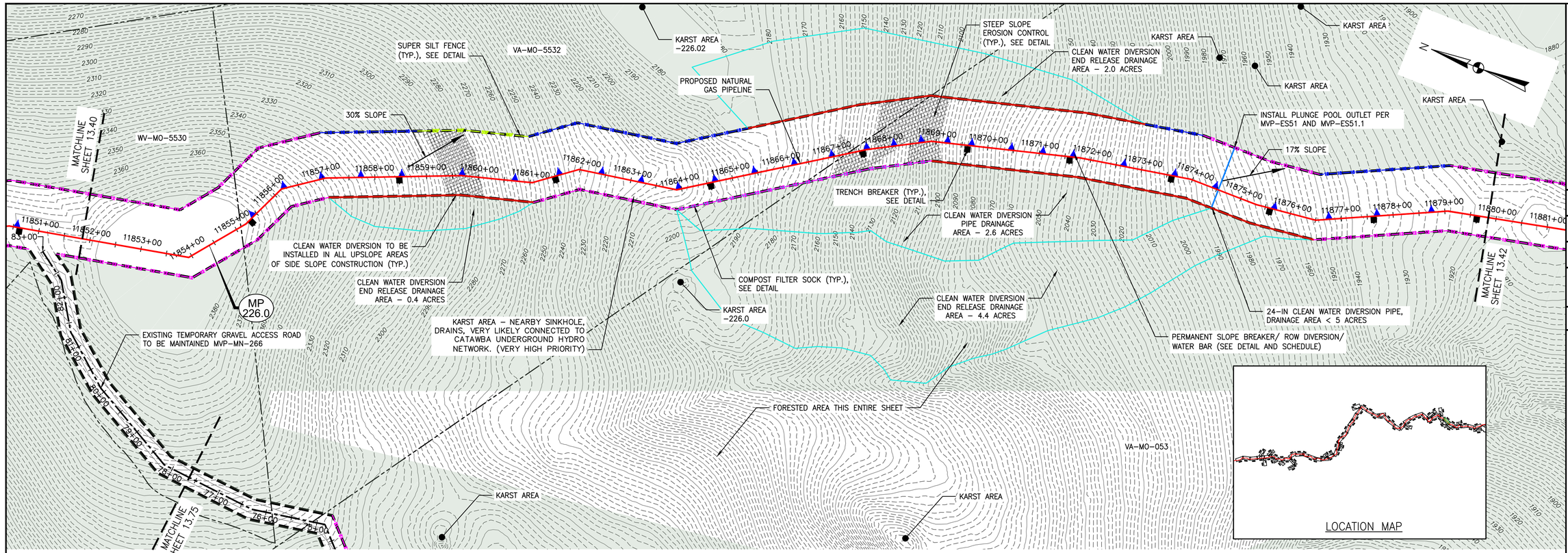
MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

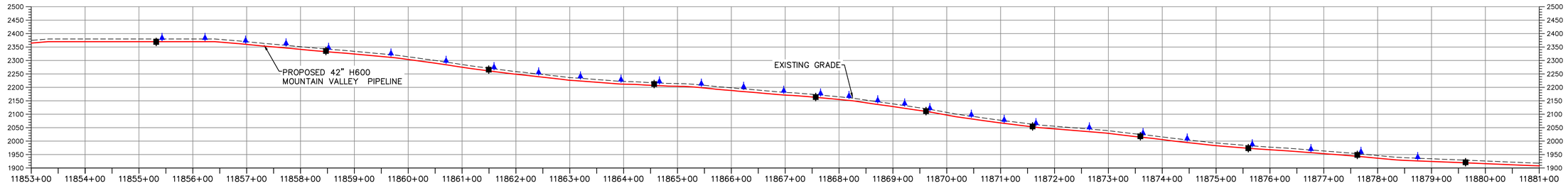
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5
SHT. NO.	13.40ES OF 13.91ES



PLAN

SCALE: 1" = 100'



HORIZONTAL SCALE: SCALE: 1" = 100'

PROFILE

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.41(S9).dwg PLOTTED ON: 8/31/2018 8:26 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

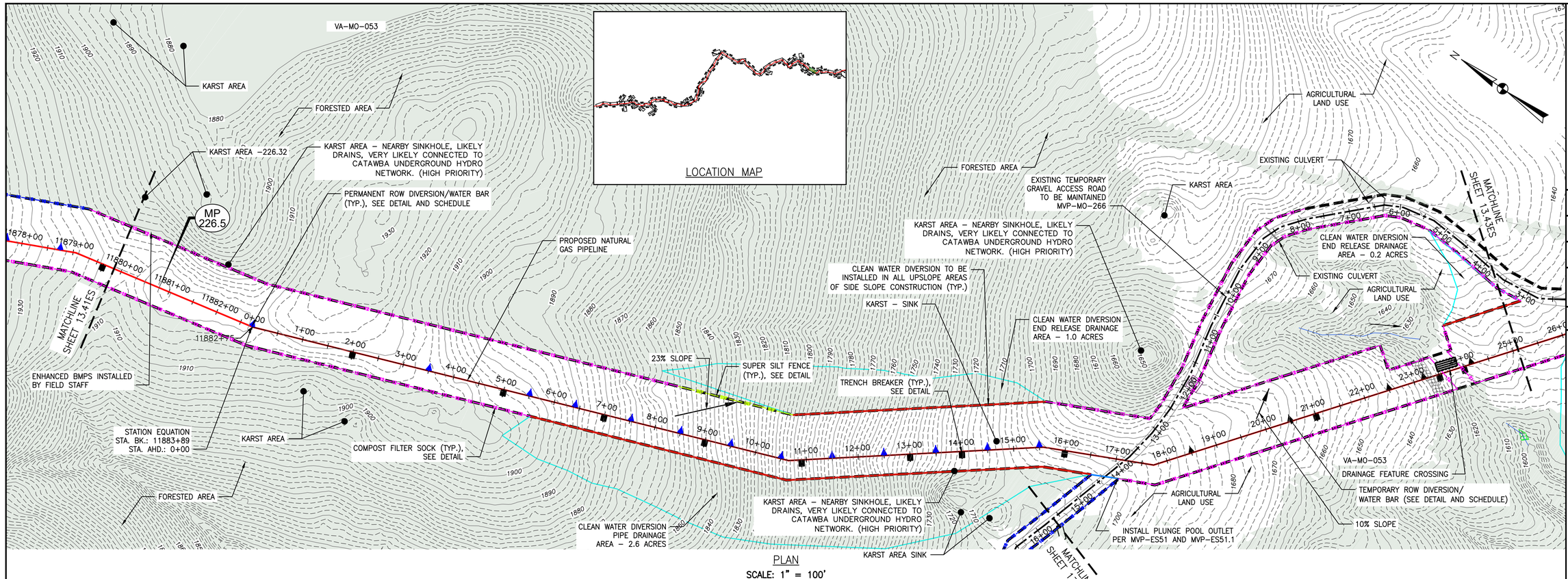
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

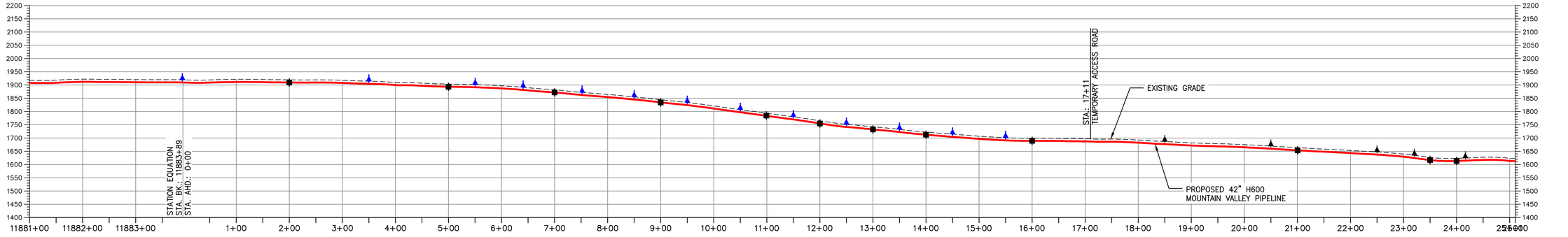
REVISION

SHT. NO. 13.41ES OF 13.91ES



PLAN

SCALE: 1" = 100'



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

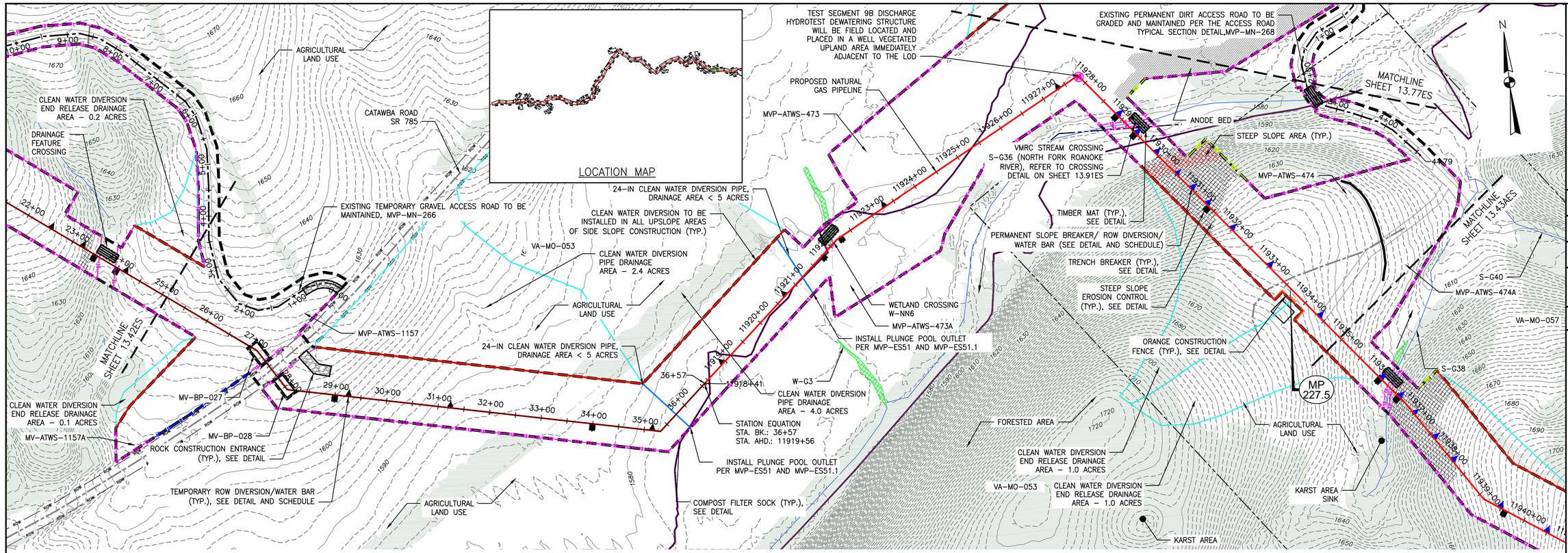
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
SHT. NO.	13.42ES OF 13.91ES

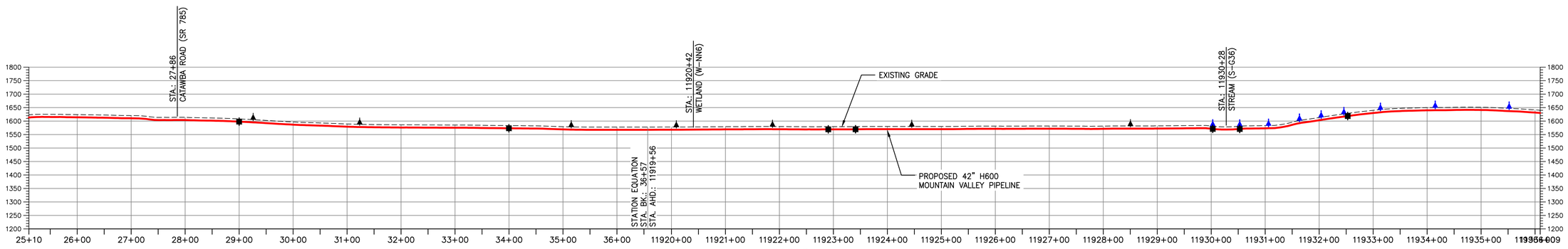
REVISION



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.43(S9).dwg PLOTTED ON: 8/31/2018 8:30 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

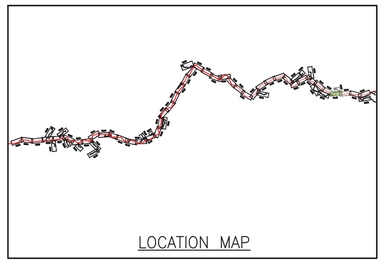
complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

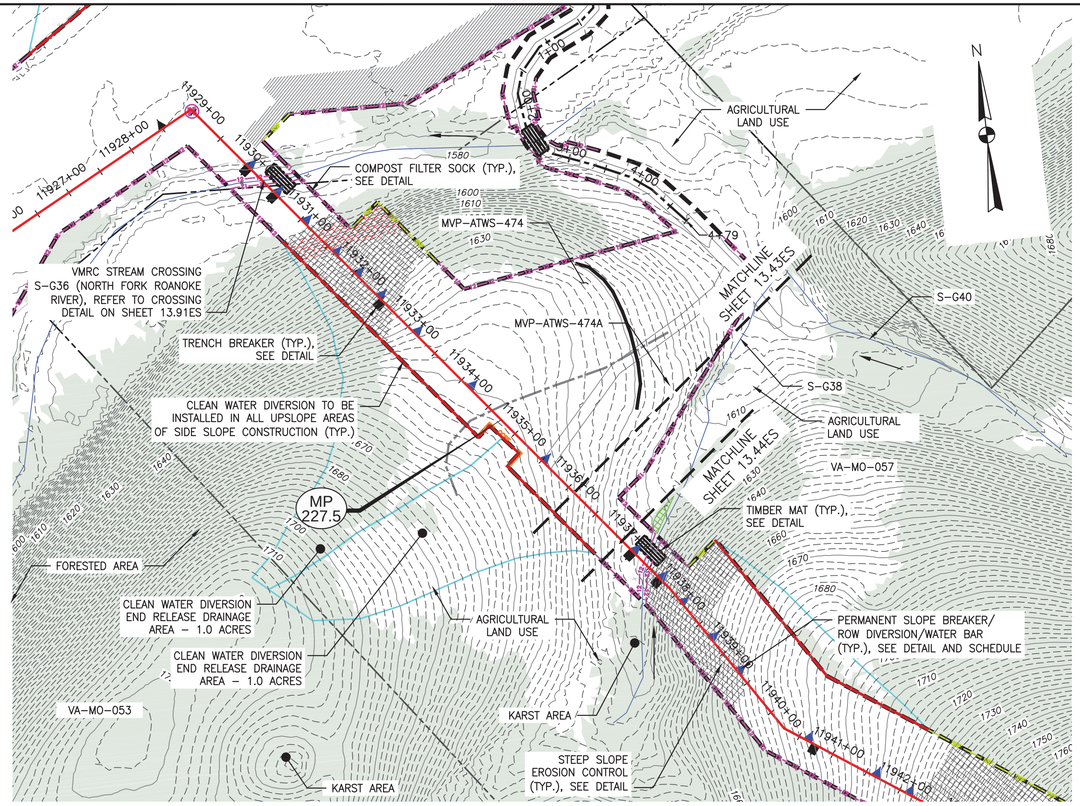
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	
SHT. NO.	13.43ES OF 13.91ES



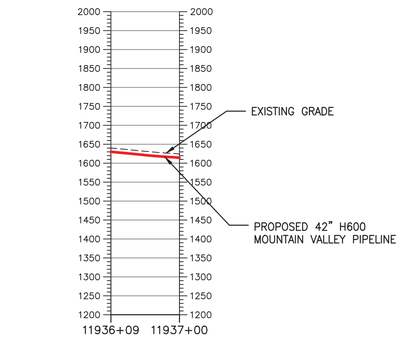
LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

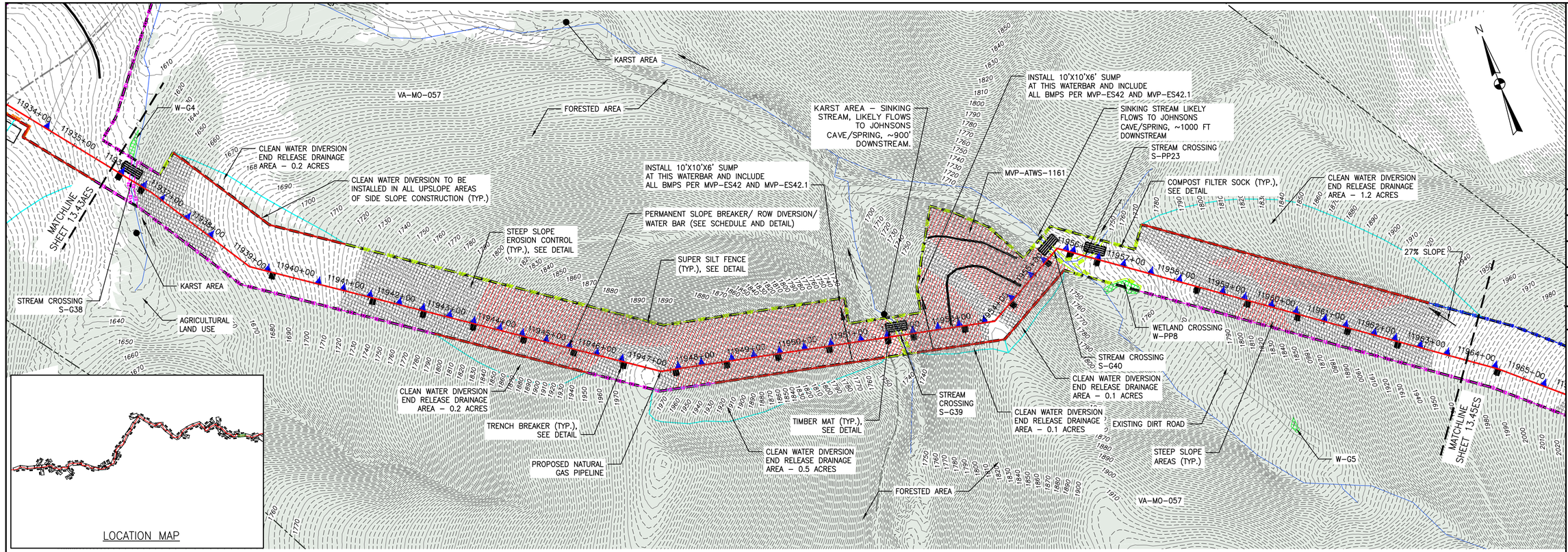
COMMONWEALTH OF PENNSYLVANIA
DAVID J. WALLNER
Lic. No. 040205793
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.43AES OF 13.91ES

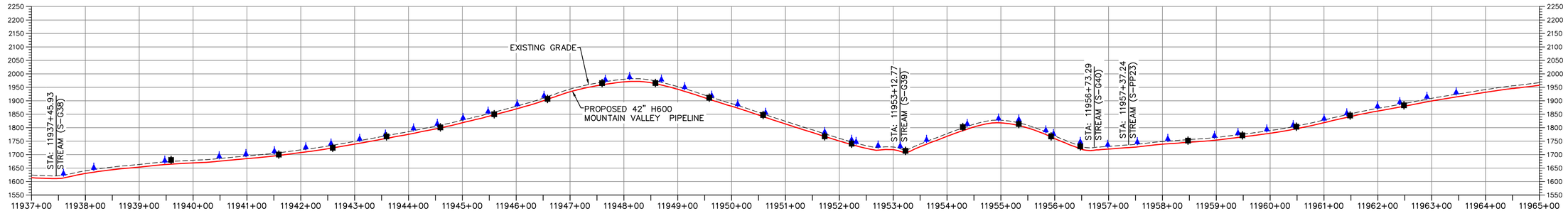
TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.43A(S9).dwg PLOTTED ON: 3/2/2018 9:14 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.44(S9).dwg PLOTTED ON: 8/31/2018 8:40 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL COLOR.ctb

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

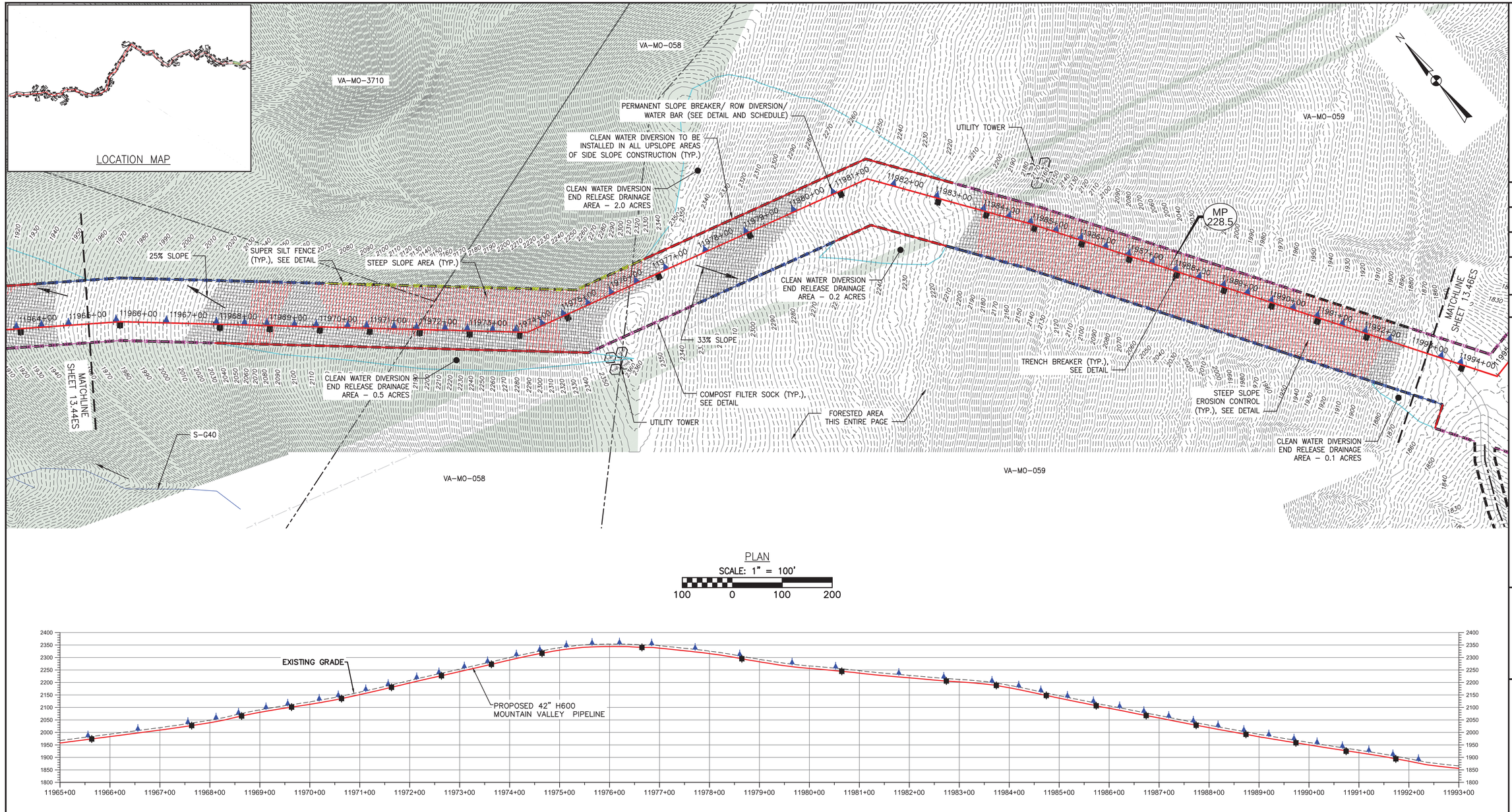
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN
REVISION	6

SHT. NO. 13.44ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200

PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.45(S9).dwg PLOTTED ON: 3/2/2018 9:26 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

TETRA TECH

complex world | CLEAR SOLUTIONS™

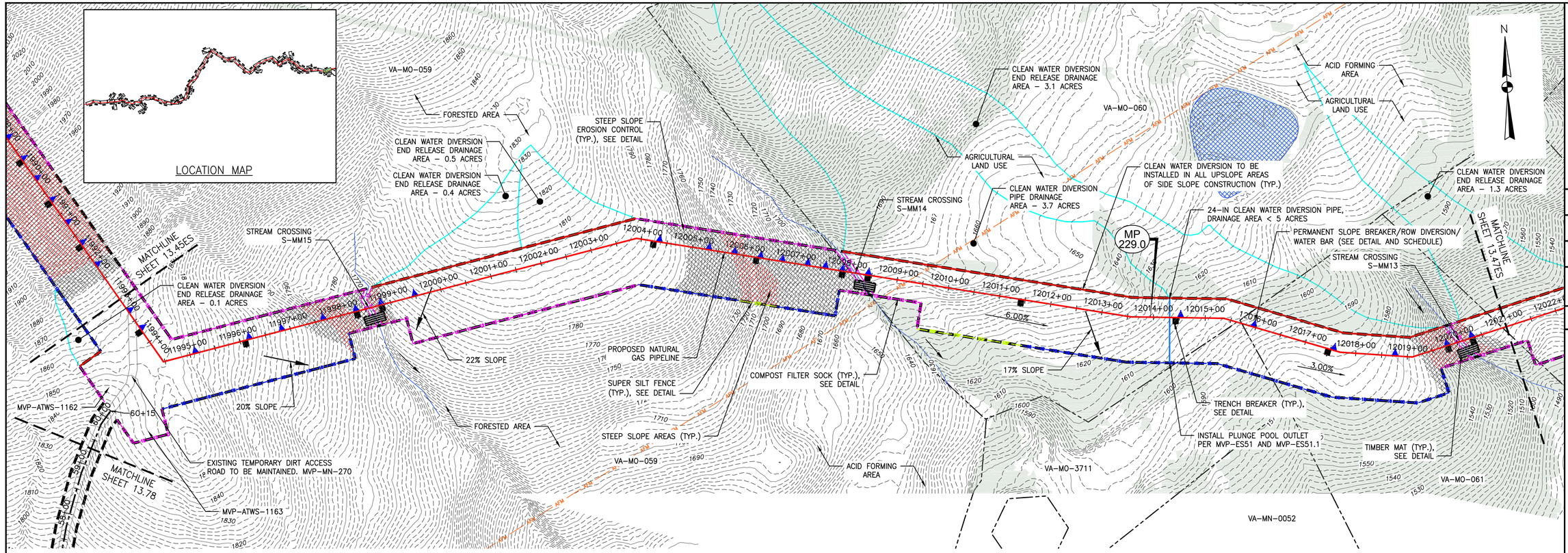
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
SHT. NO.	13.45ES OF 13.91ES

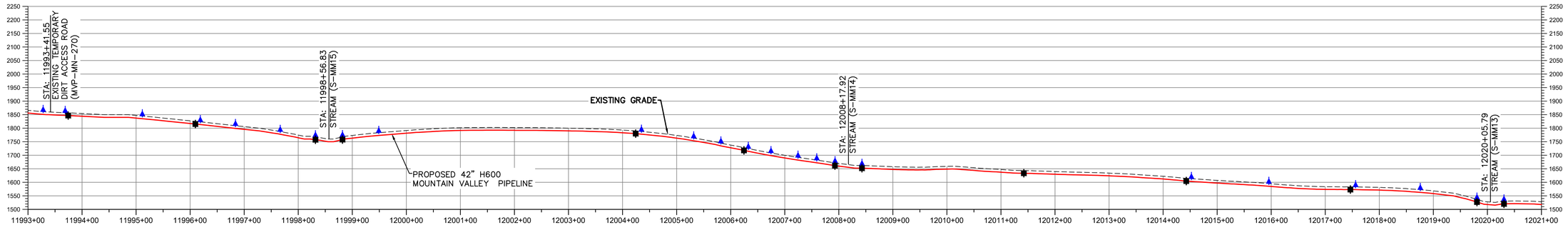
MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL (AMST)
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL (AFM)
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5) (SF)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2) (SSF)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3) (RFD)
- ORANGE CONSTRUCTION SAFETY FENCE (OCSF)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2) (12)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2) (18)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2) (24)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.46(S9).dwg PLOTTED ON: 3/14/2018 8:23 AM PLOTTED BY: Scabilloni, Joy PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHK'D.:	APP'D.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

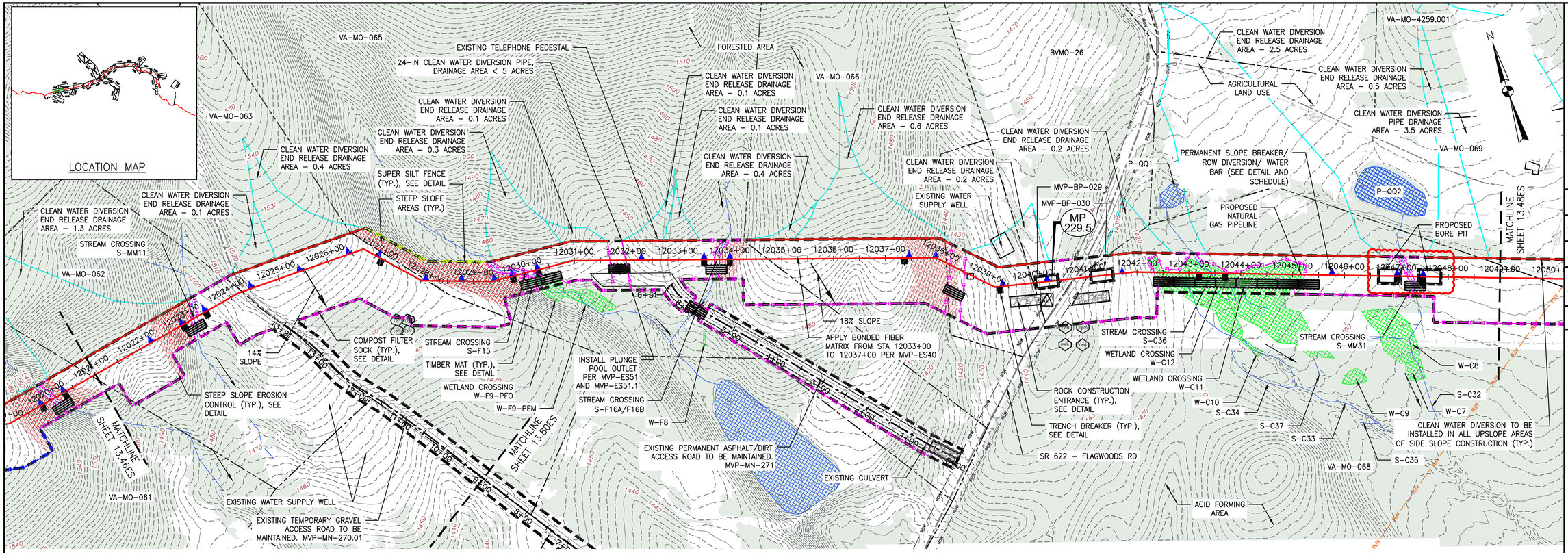
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

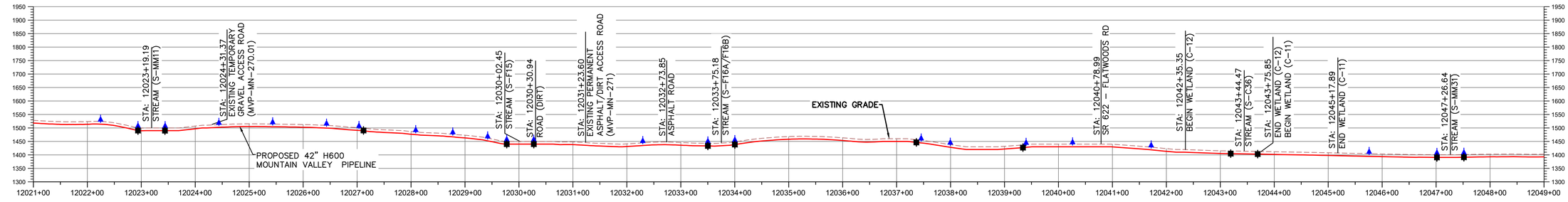
SHT. NO. 13.46ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE:

SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE:

SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER
2/1/2023

THIS SEAL APPLIES ONLY TO REVISIONS DATED 02-01-23

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.47(S9).dwg PLOTTED ON: 9/15/2022 1:08 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	02/01/23	GAR	TD	DW	ADDRESS VADEQ COMMENTS ON CROSSING METHOD CHANGE
–	5/12/21	ZM	JRE	DJW	CROSSING METHOD CHANGE FROM OPEN CUT TO BORE
–	7/7/20	ZM	JRE	DJW	CHANGES TO AQUATIC RESOURCES DELINEATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

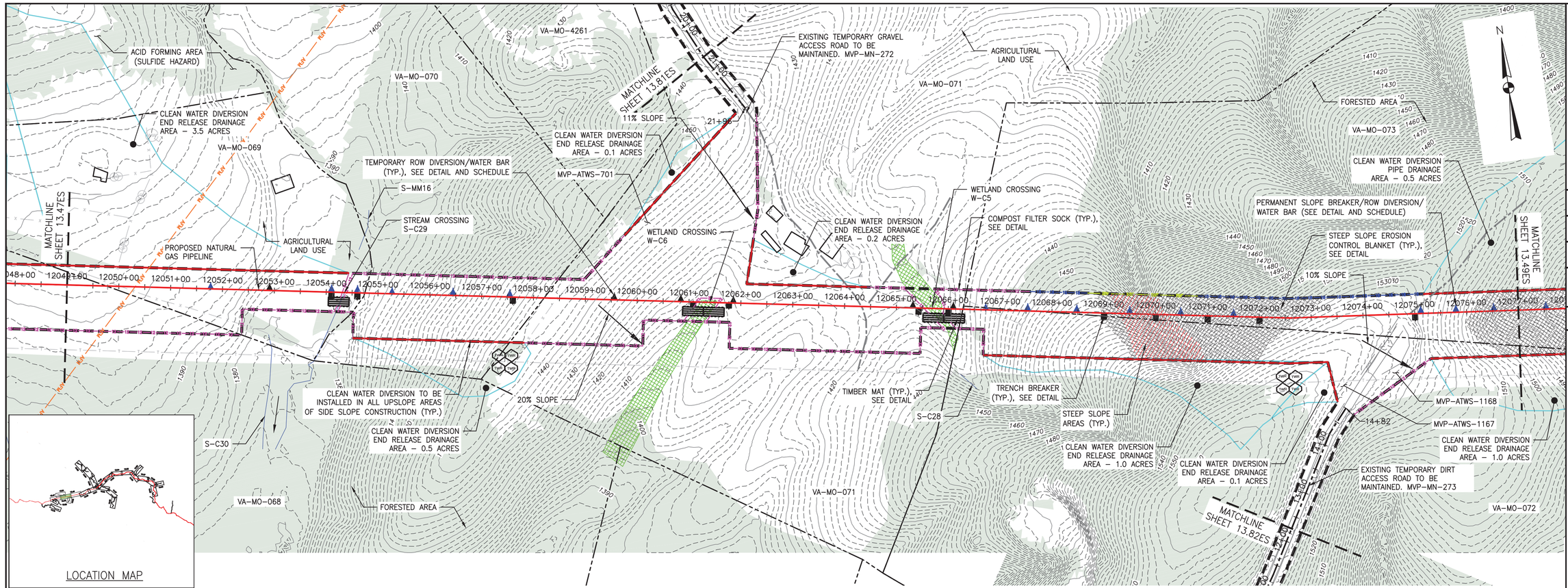
MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	GAR
CHECKED BY:	TD
APPROVED BY:	DW
DATE:	02/01/2023
SCALE:	AS SHOWN
REVISION	
SHT. NO.	13.47ES OF 13.91ES

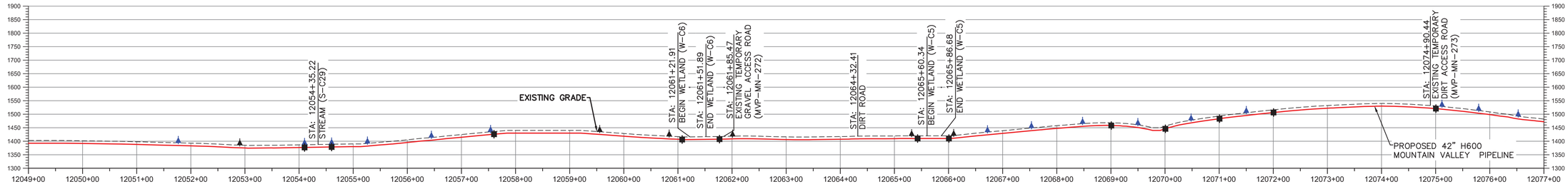


LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.48(S9).dwg PLOTTED ON: 3/2/2018 9:57 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

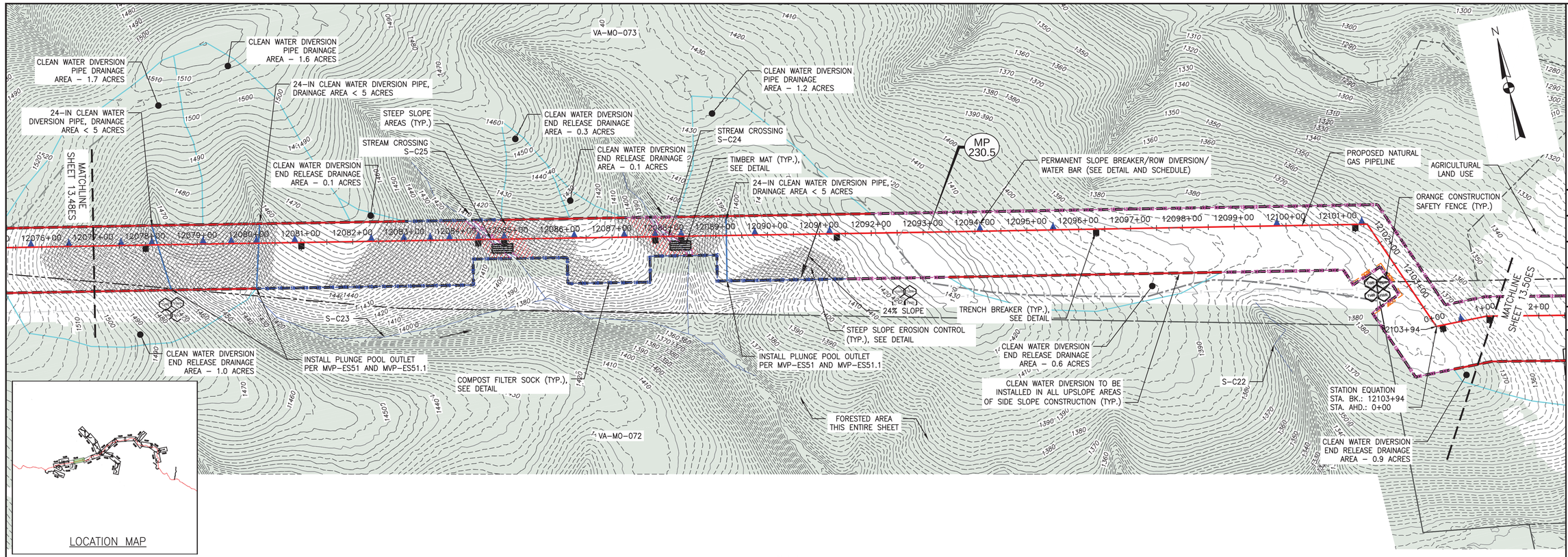
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

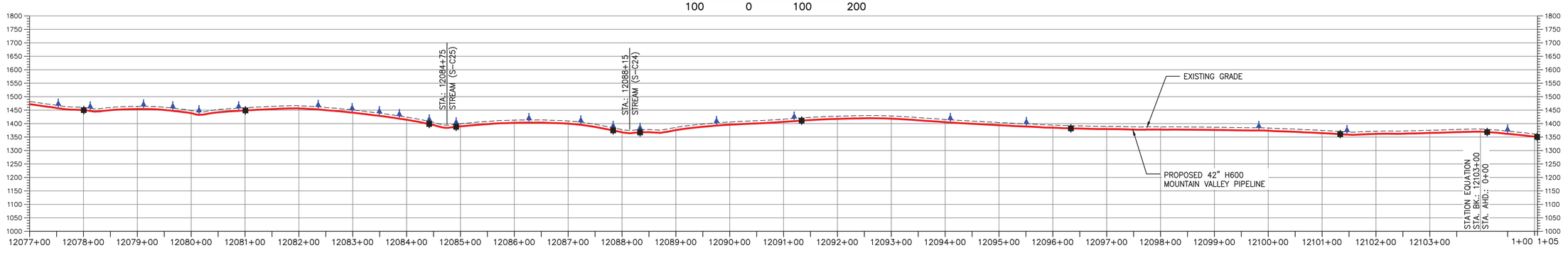
REVISION

SHT. NO. 13.48ES OF 13.91ES



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200



PROFILE
HORIZONTAL SCALE: SCALE: 1" = 100'
100 0 100 200
VERTICAL SCALE: SCALE: 1" = 200'
200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.49(S9).dwg PLOTTED ON: 3/2/2018 10:05 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.:	DATE:	DWN.:	CHK'D.:	APP'D.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

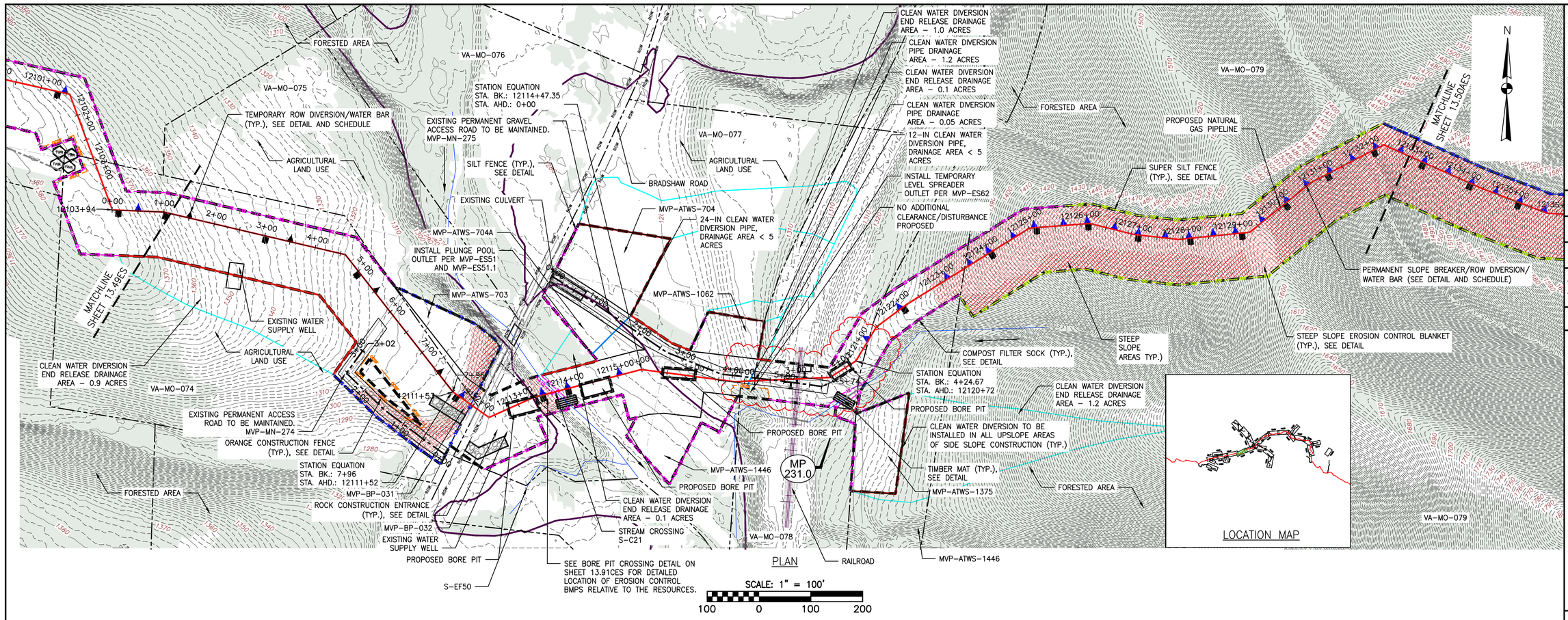
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

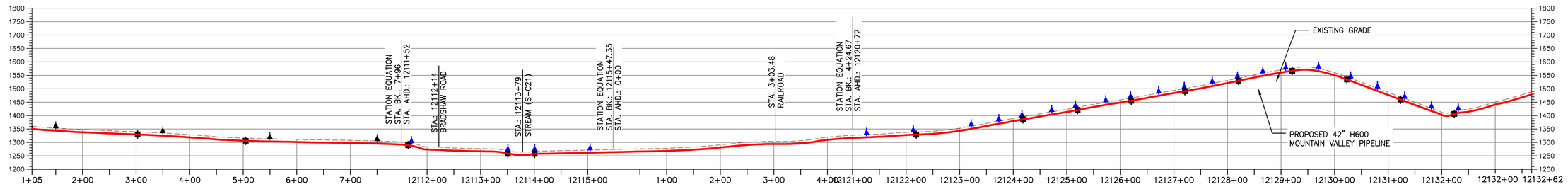
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5

SHT. NO. 13.49ES OF 13.91ES



PLAN

SCALE: 1" = 100'



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

VERTICAL SCALE: SCALE: 1" = 200'

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
10/18/23
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER

THIS SEAL APPLIES ONLY TO REVISIONS DATED 10-16-23

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	10/16/23	JJZ	IHH	DCW	ADJUST PIPELINE CENTERLINE
–	4/07/23	JJZ	IHH	DCW	ADDRESS DEQ COMMENTS ON CROSSING CHANGE METHOD
–	8/11/22	JJZ	DCW	TD	REMOVE LOD
–	1/11/21	ZM	JRE	DJW	ADDRESS VADEQ COMMENTS
–	8/5/20	ZM	JRE	DJW	FIELD MODIFICATION MP 230.8 (PIPELINE REROUTE)
5	3/12/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

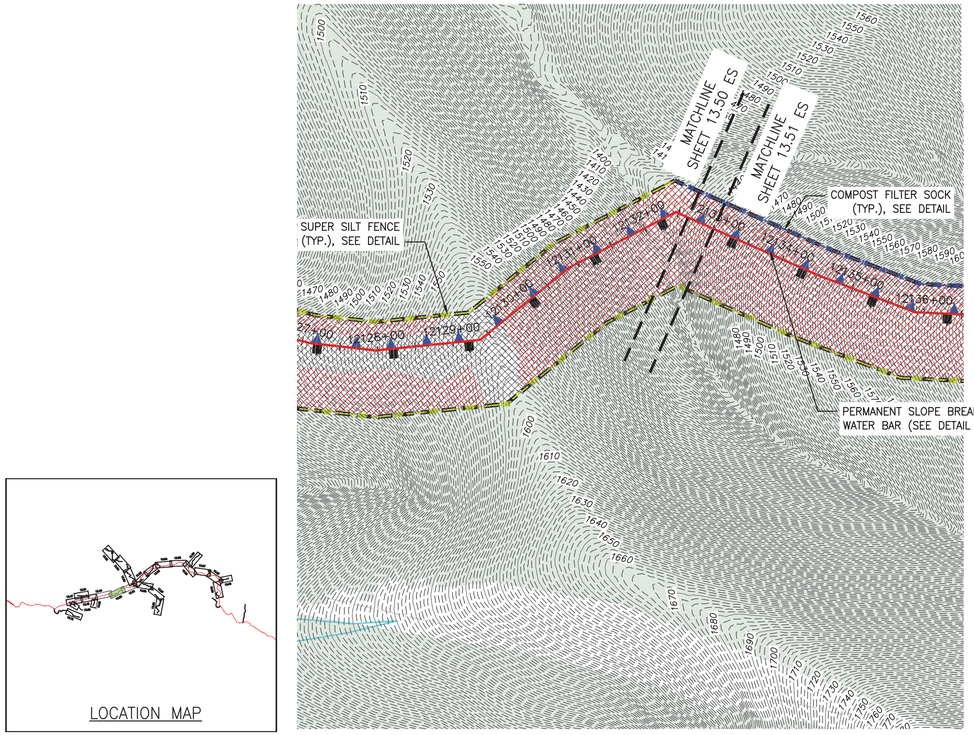
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	JJZ
CHECKED BY:	IHH
APPROVED BY:	DCW
DATE:	04/16/23
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.50ES OF 13.91ES

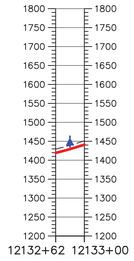
TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.50(S9).dwg PLOTTED ON: 10/11/2023 1:28 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LOCATION MAP

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

N

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

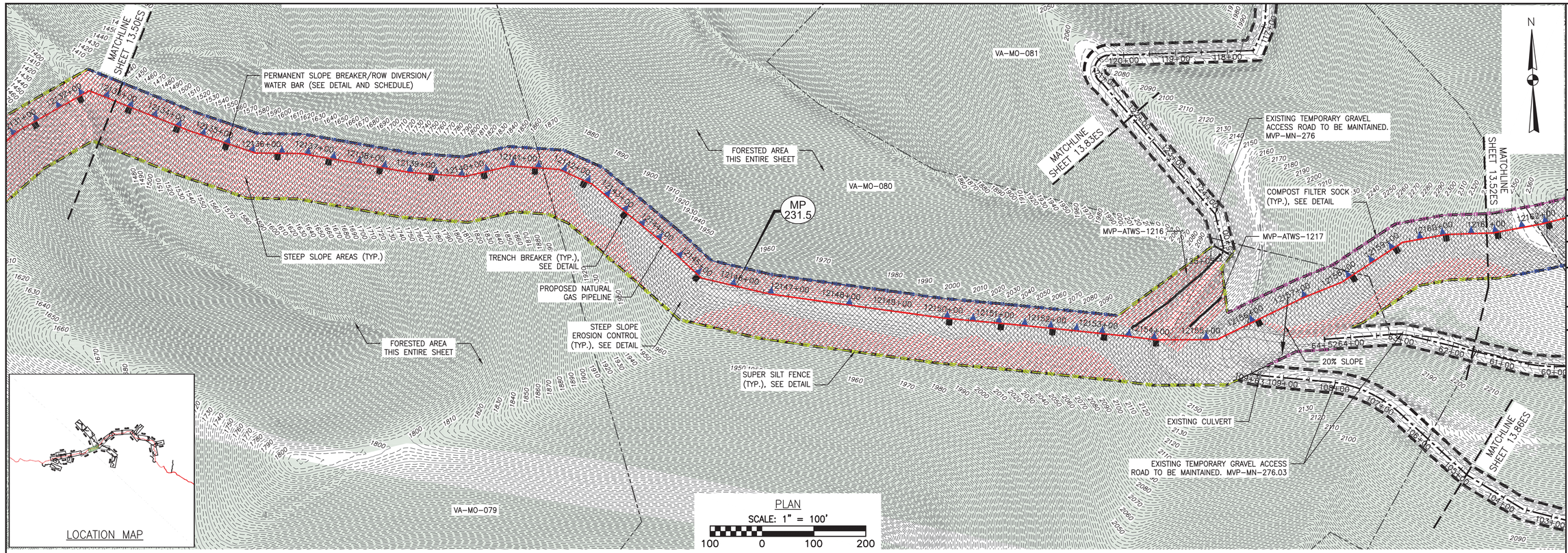
EROSION AND SEDIMENT CONTROL PLANS

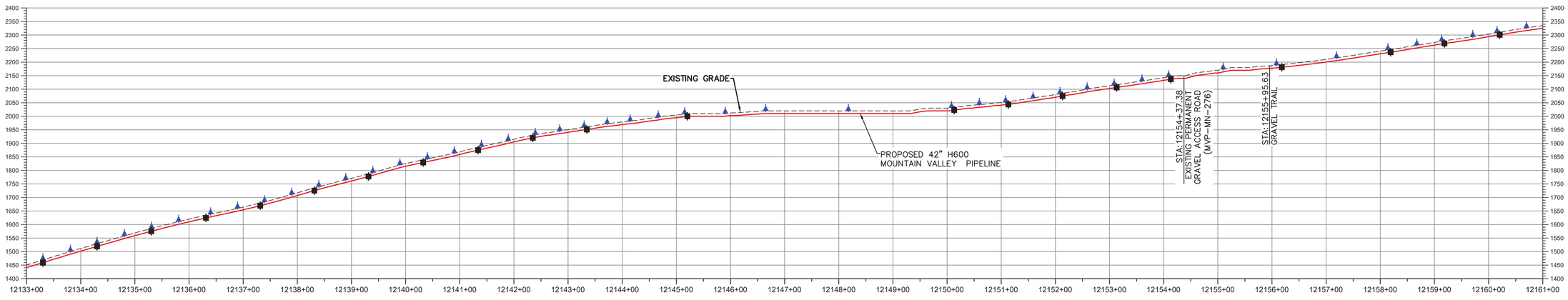
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5

SHT. NO. 13.50AES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.50A(S9).dwg PLOTTED ON: 3/1/2018 2:19 PM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb





LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHK'D.:	APP'D.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

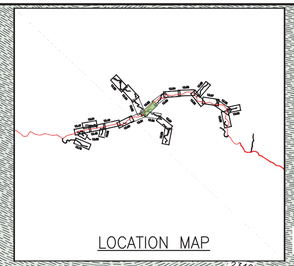
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.51ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.51(S9).dwg PLOTTED ON: 3/1/2018 2:20 PM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



VA-MO-080

PERMANENT SLOPE BREAKER/ROW DIVERSION/ WATER BAR (SEE DETAIL AND SCHEDULE)

MP 232.0

MATCHLINE SHEET 13.51ES

MATCHLINE SHEET 13.53ES

PROPOSED NATURAL GAS PIPELINE

22% SLOPE

25% SLOPE

TRENCH BREAKER (TYP.), SEE DETAIL

STEEP SLOPE EROSION CONTROL (TYP.), SEE DETAIL

COMPOST FILTER SOCK (TYP.), SEE DETAIL

STEEP SLOPE AREAS (TYP.)

SUPER SILT FENCE (TYP.), SEE DETAIL

FORESTED AREA THIS ENTIRE SHEET

VA-MO-082

EXISTING TEMPORARY GRAVEL ACCESS ROAD TO BE MAINTAINED. MVP-MN-276.03

FORESTED AREA THIS ENTIRE SHEET

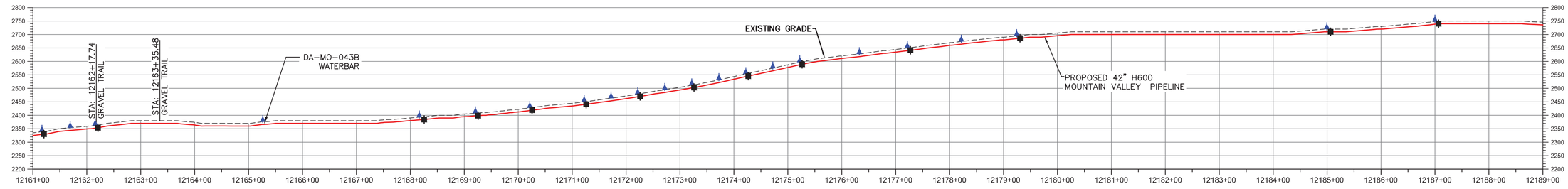
BVMO-29

N

PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.52(S9).dwg PLOTTED ON: 3/1/2018 2:22 PM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

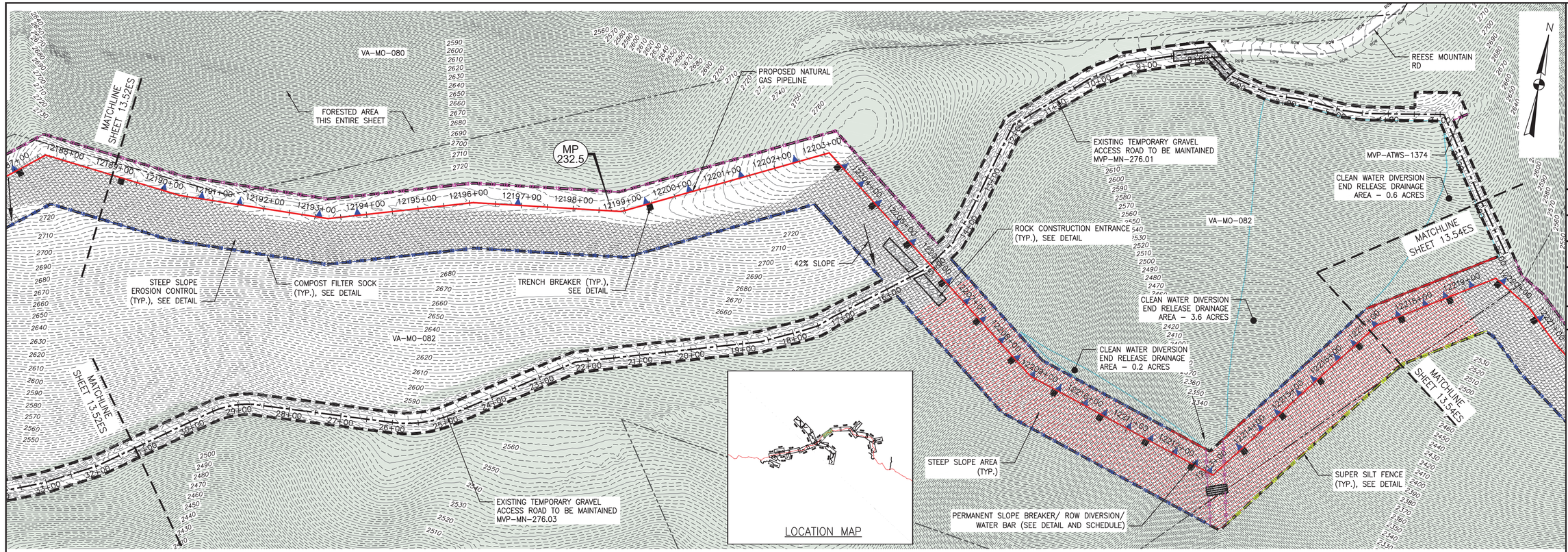
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

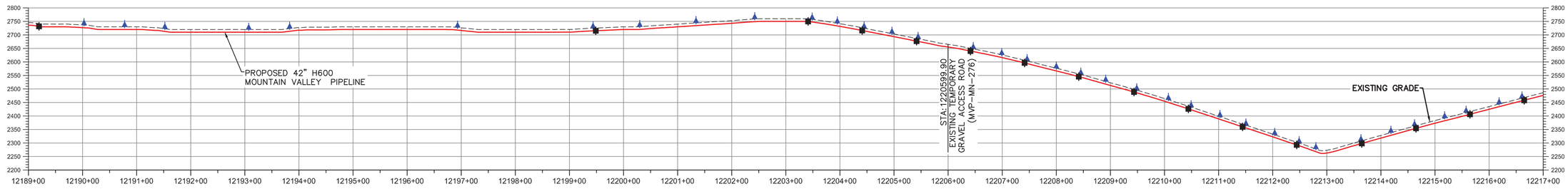
SHT. NO. 13.52ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- AMST — AMST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ocsf — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHK'D.:	APP'D.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

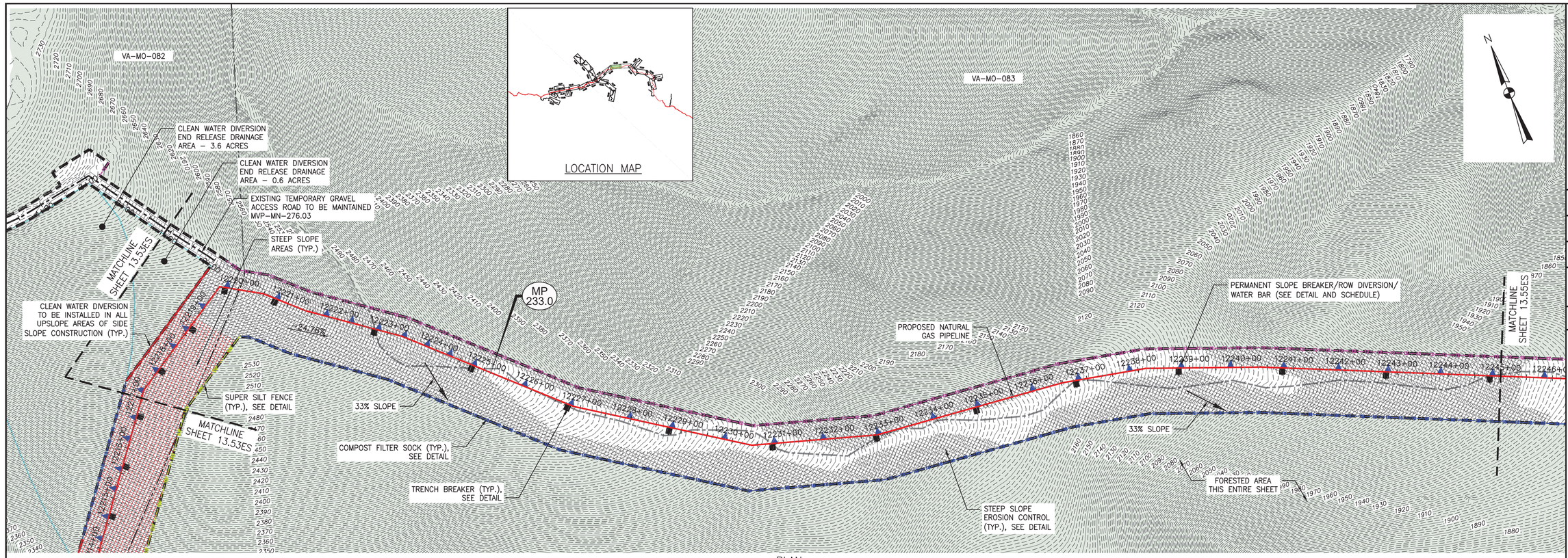
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.53ES OF 13.91ES

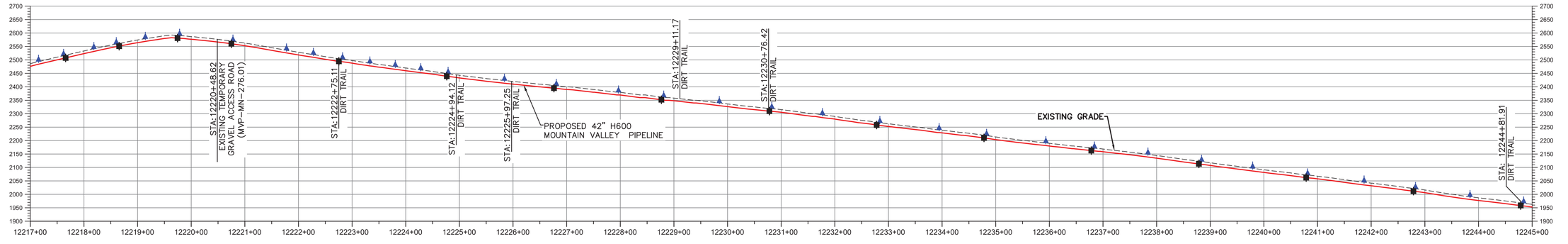
TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.53(S9).dwg PLOTTED ON: 3/1/2018 2:24 PM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- ANST — ANST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- OCSF — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

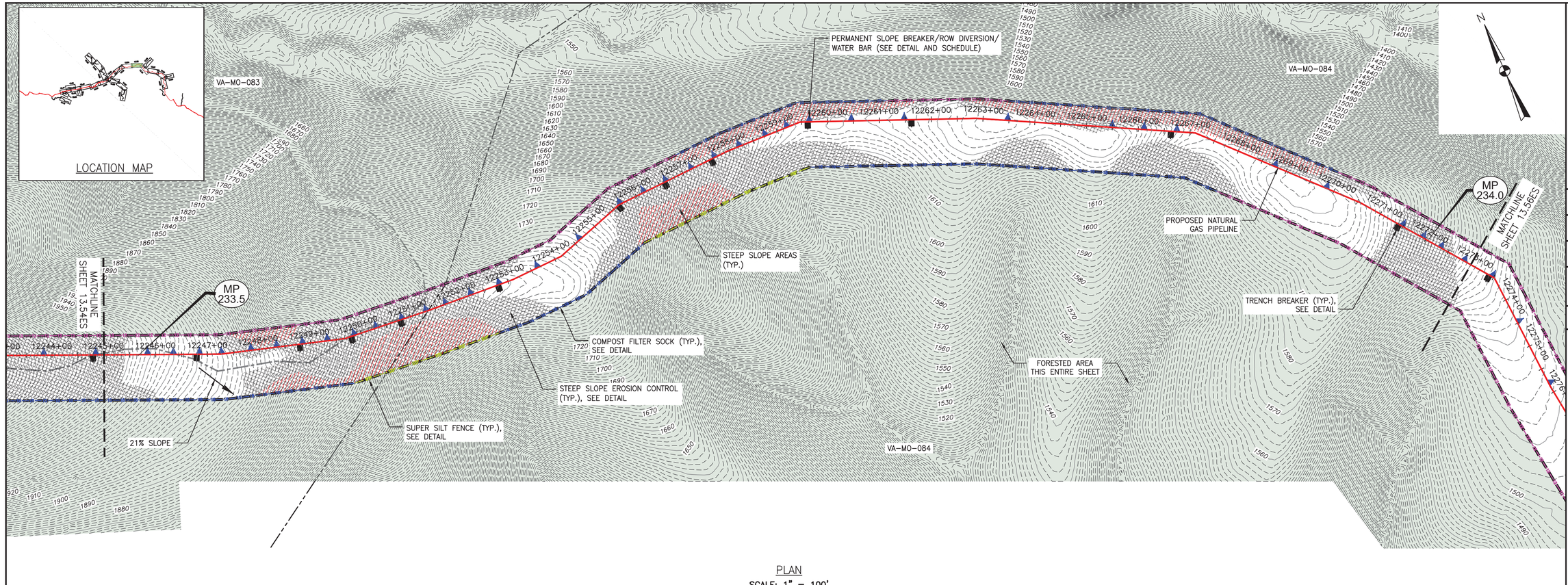
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	
SHT. NO.	13.54ES OF 13.91ES

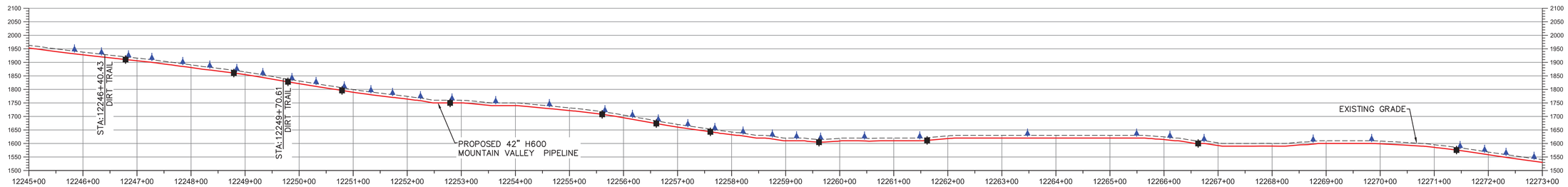
TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.54(S9).dwg PLOTTED ON: 3/1/2018 2:25 PM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

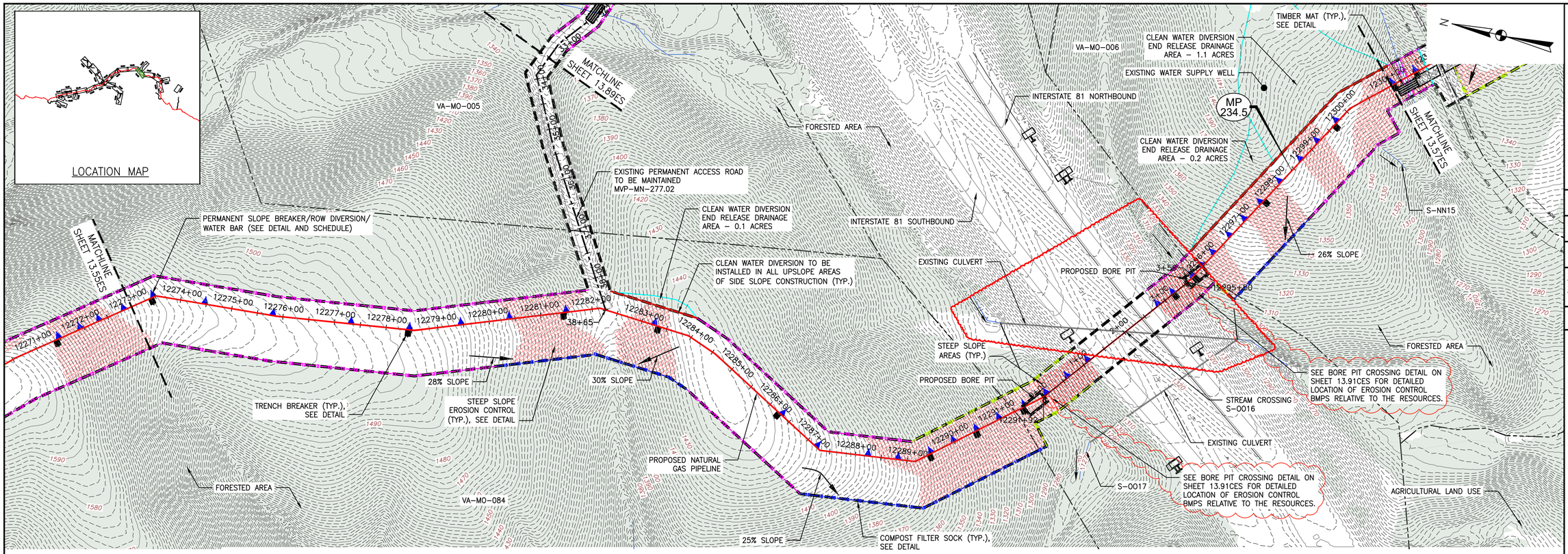
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.55ES OF 13.91ES

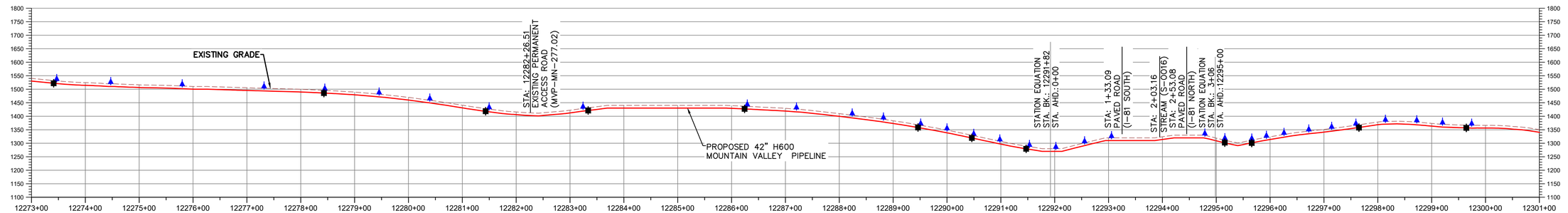
TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.55(S9).dwg PLOTTED ON: 3/1/2018 2:26 PM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
4/7/23
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER

THIS SEAL APPLIES ONLY TO REVISIONS DATED 04-07-23

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPLELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	04/07/23	JZ	TD	DCW	ADDRESS DEQ COMMENTS ON CROSSING CHANGE METHOD
–	7/7/20	ZM	JRE	DJW	FIELD MODIFICATIONS
6	4/30/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
5	3/12/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

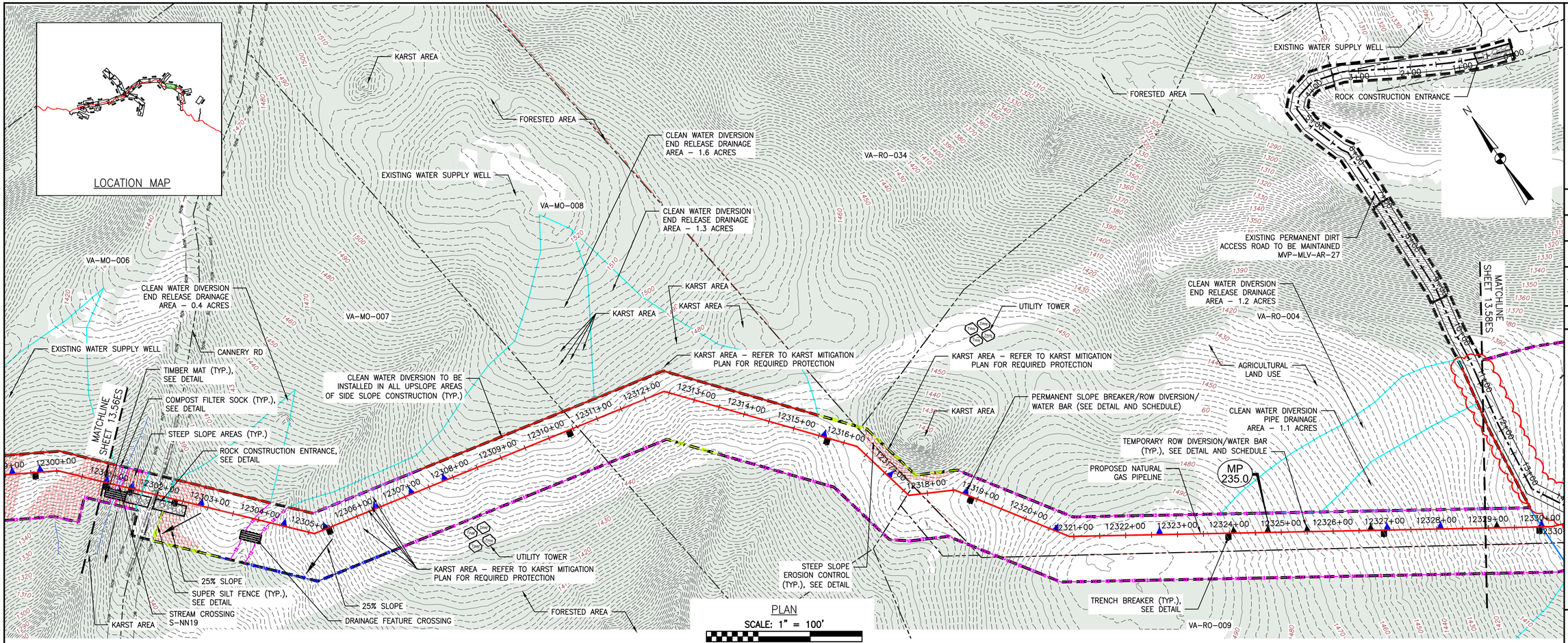
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

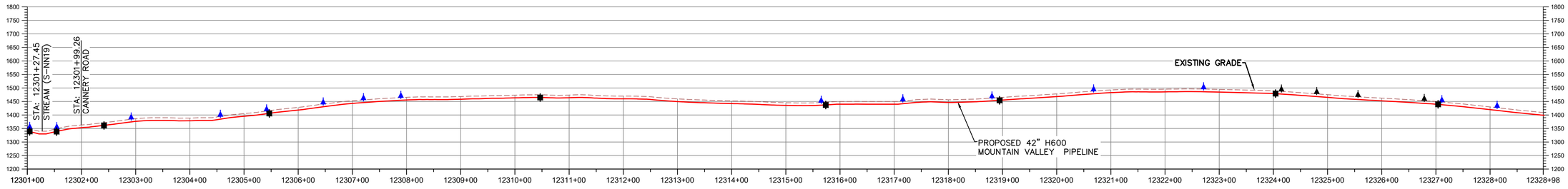
DRAWN BY:	JJZ
CHECKED BY:	TD
APPROVED BY:	DCW
DATE:	04/07/23
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.56ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.56(S9).dwg PLOTTED ON: 3/29/2023 1:56 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb





PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'
100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'
200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
1/3/24
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER

THIS SEAL ONLY APPLIES TO REVISIONS DATED 01-03-24

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	01/03/24	JZ	HH	DCW	REVISE REV CLOUD AROUND MVP-MLV-27 REVISIONS
–	06/09/23	JZ	HH	DCW	MVP-MLV-27 RELOCATION
–	04/07/23	JZ	TD	DCW	ADDRESS DEQ COMMENTS ON CROSSING CHANGE METHOD
–	–	MJP	JRE	DJW	FIELD MODIFICATIONS
–	1/11/21	ZM	JRE	DJW	ADDRESS VADEQ COMMENTS
6	8/23/18	BH	JRE	DJW	VMRC CROSSING METHOD CHANGE FROM OPEN CUT TO BORE
5	3/22/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

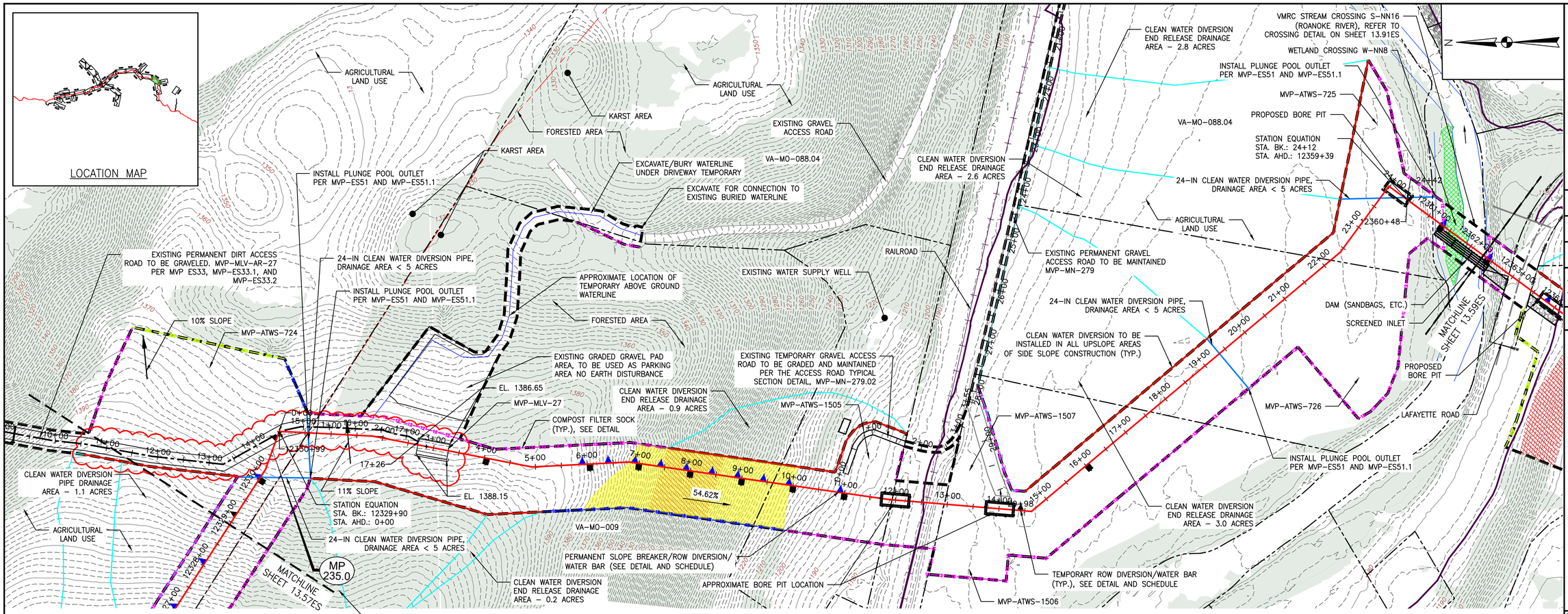
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	JJZ
CHECKED BY:	IHH
APPROVED BY:	DCW
DATE:	01/03/24
SCALE:	AS SHOWN
REVISION	6

SHT. NO. 13.57ES OF 13.91ES

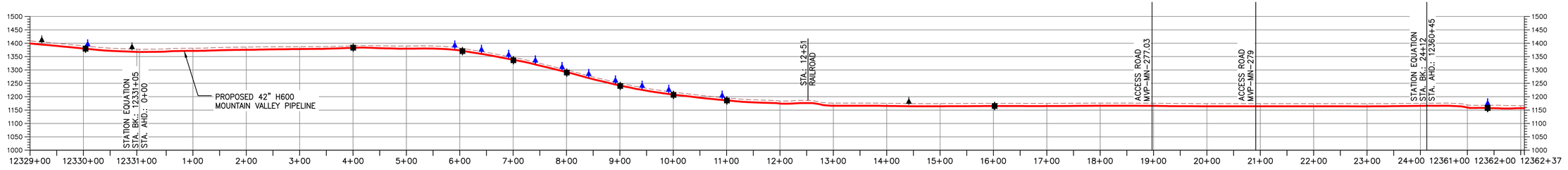
TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157_-_MVP_Construction_Spread_9\13_-_Montgomery\E&S\7157ES13.57(S9).dwg PLOTTED ON: 1/3/2024 12:26 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
11/3/24
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER

THIS SEAL ONLY APPLIES TO REVISIONS DATED 01-03-24

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPLELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.58(S9).dwg PLOTTED ON: 1/3/2024 12:27 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/22/18	JRE	DJW		ADDRESS VADEQ COMMENTS
6	8/23/18	BH	JRE	DJW	VMRC CROSSING METHOD CHANGE FROM OPEN CUT TO BORE
–	1/11/21	ZM	JRE	DJW	ADDRESS VADEQ COMMENTS
–	–	–	MJP	JRE	FIELD MODIFICATIONS
–	04/07/23	JZ	TD	DCW	ADDRESS DEQ COMMENTS ON CROSSING CHANGE METHOD
–	06/09/23	JZ	HH	DCW	MVP-MLV-27 RELOCATION
–	01/03/24	JZ	HH	DCW	REVISE REV CLOUD AROUND MVP-MLV-27 REVISIONS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

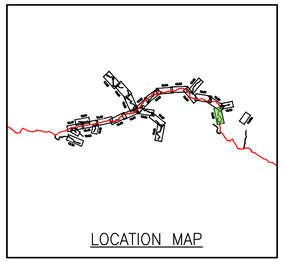
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

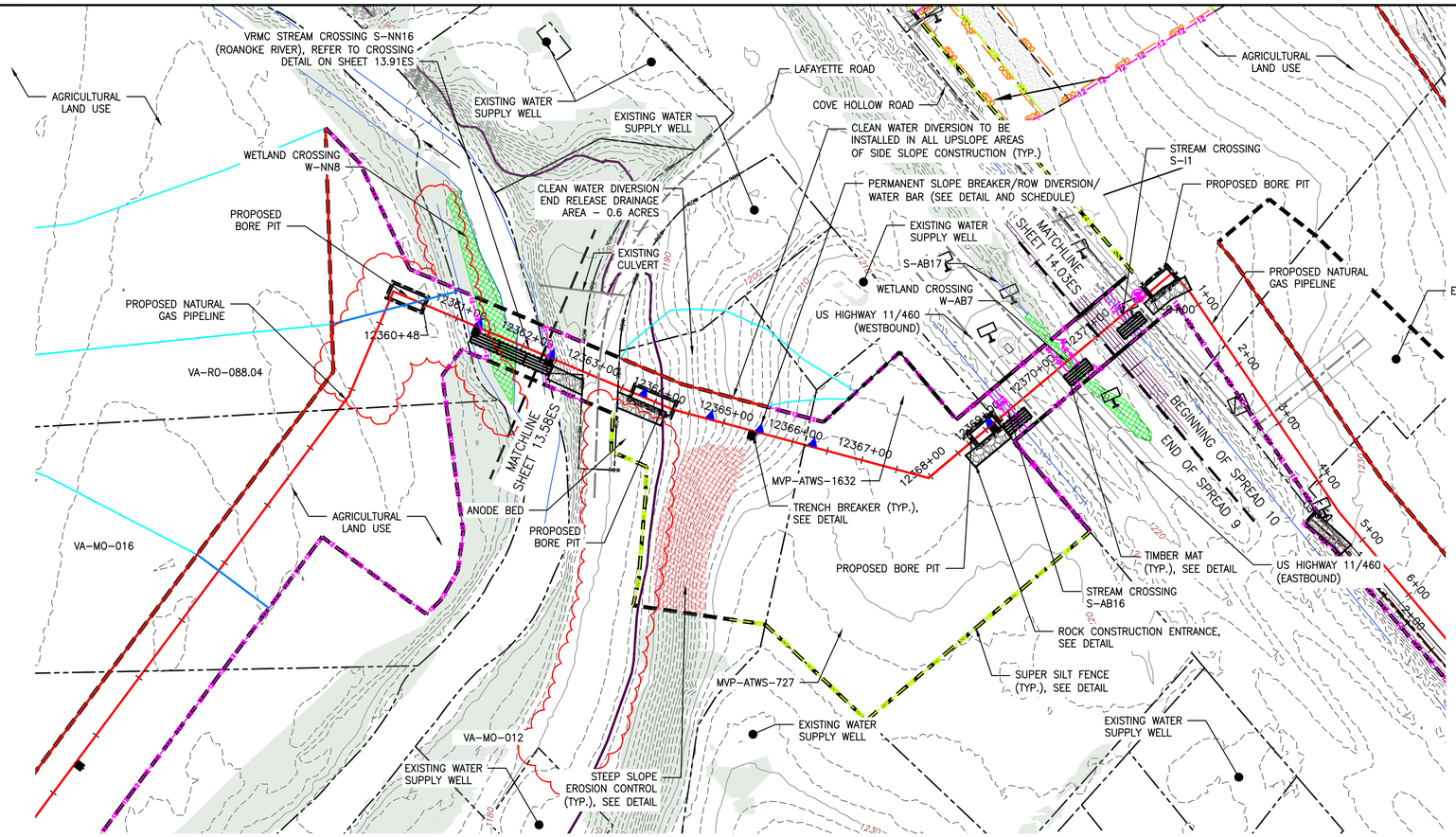
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	JJZ
CHECKED BY:	IHH
APPROVED BY:	DCW
DATE:	01/03/24
SCALE:	AS SHOWN
SHT. NO.	13.58ES OF 13.91ES

1 REVISION

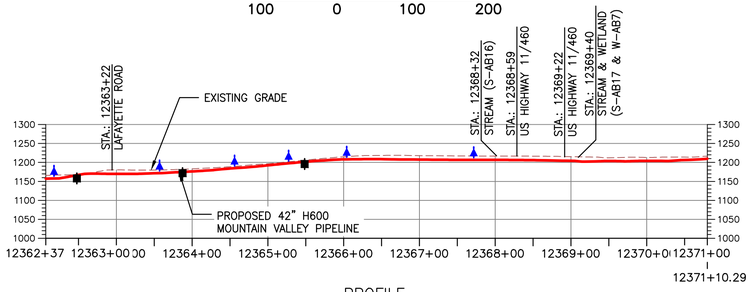




PLAN

SCALE: 1" = 100'

100 0 100 200



PROFILE

HORIZONTAL SCALE: SCALE: 1" = 100'

100 0 100 200

VERTICAL SCALE: SCALE: 1" = 200'

200 0 200 400

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

COMMONWEALTH OF VIRGINIA
DANIEL C. WITT
Lic. No. 65093
10/19/23
PROFESSIONAL ENGINEER

THIS SEAL APPLIES ONLY TO REVISIONS DATED 10-19-23

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPLELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus_Shale_Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\7157ES13.59(S9).dwg PLOTTED ON: 10/19/2023 12:13 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	10/19/23	JZ	IHH	DCW	PERMANENT LOD REDUCTION FOR CPGB-24
–	10/16/23	JZ	HH	DCW	ADJUST PIPELINE CENTERLINE
–	02/01/23	JZ	TD	DCW	ADDRES DEQ COMMENTS ON CROSSING CHANGE METHOD
–	8/5/20	BH	JRE	DJW	CHANGES TO PROPOSED BORE PIT LOCATIONS
10	11/25/19	BH	JRE	DJW	ADDRESS VADEQ COMMENTS TO FIELD MODIFICATION SUBMITTAL
9	4/3/19	BH	JRE	DJW	FIELD MODIFICATION-MP 235.5 (ADDED MVP-ATWS-1632)
8	1/31/19	BH	JRE	DJW	FIELD MODIFICATION-MOVED ROANOKE RIVER BORE PITS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

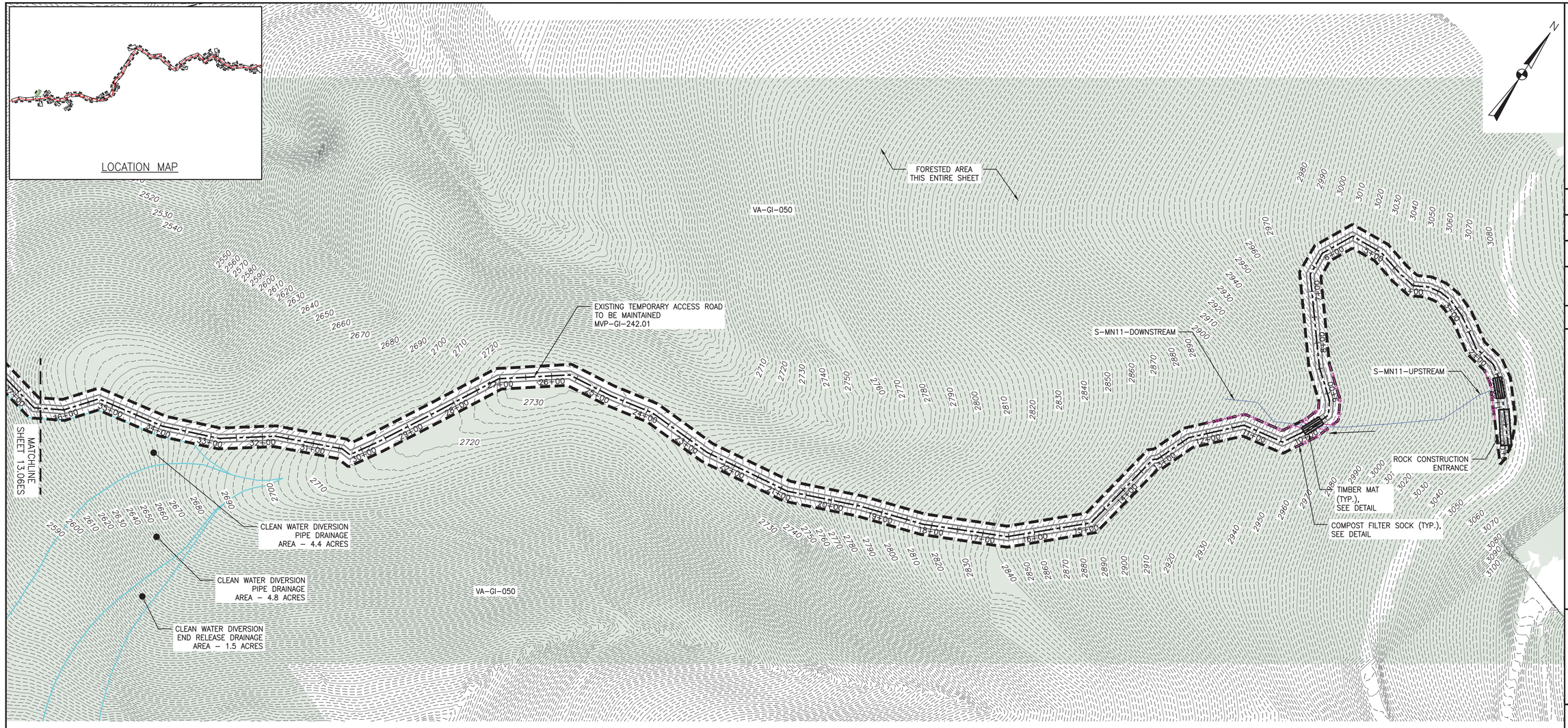
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	JJZ
CHECKED BY:	IHH
APPROVED BY:	DCW
DATE:	10/19/23
SCALE:	AS SHOWN
SHT. NO.	13.59ES OF 13.91ES

– REVISION



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\E&S Version 5.0.0\7157ES13.60(S9).dwg PLOTTED ON: 3/1/2018 3:38 PM PLOTTED BY: Szpak, Jamie PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

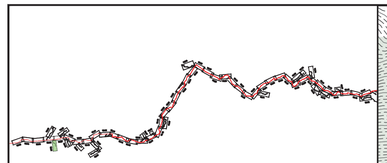
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

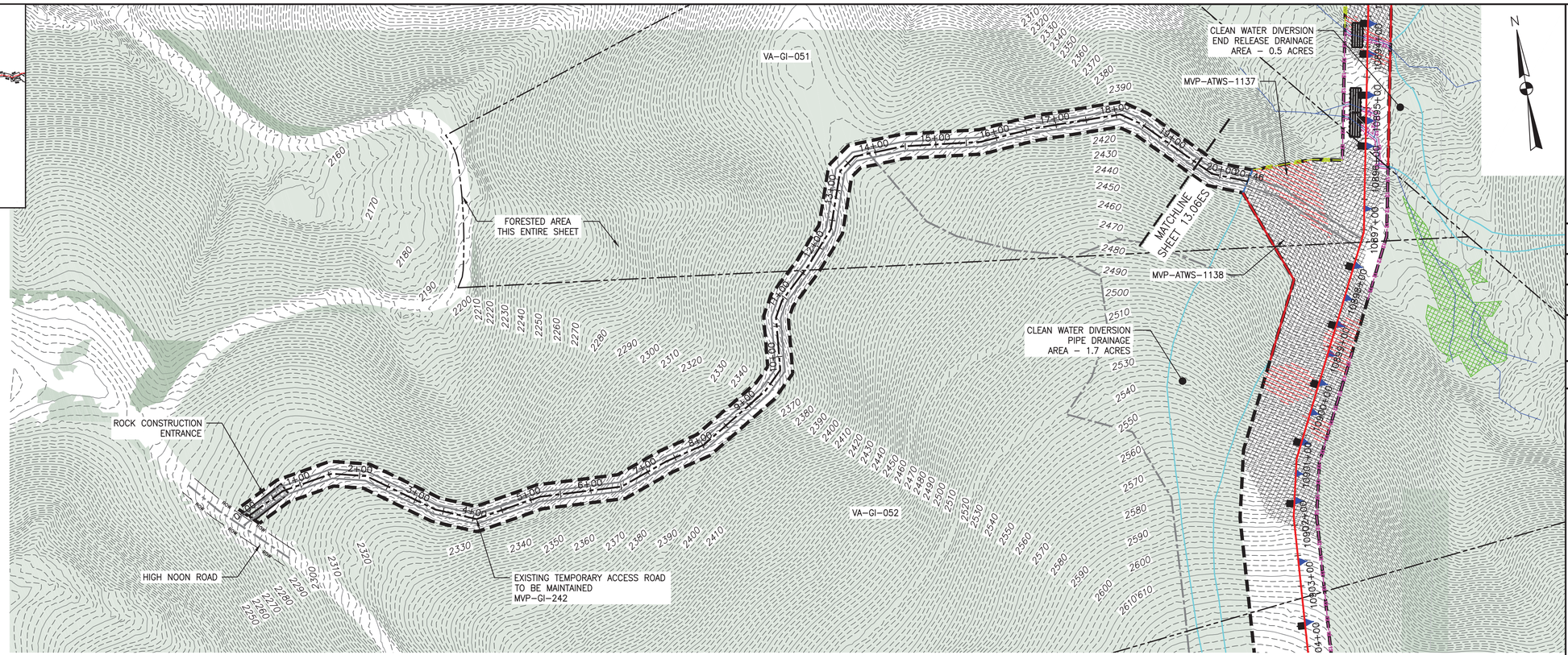
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
SHT. NO.	13.60ES OF 13.91ES

REVISION



LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

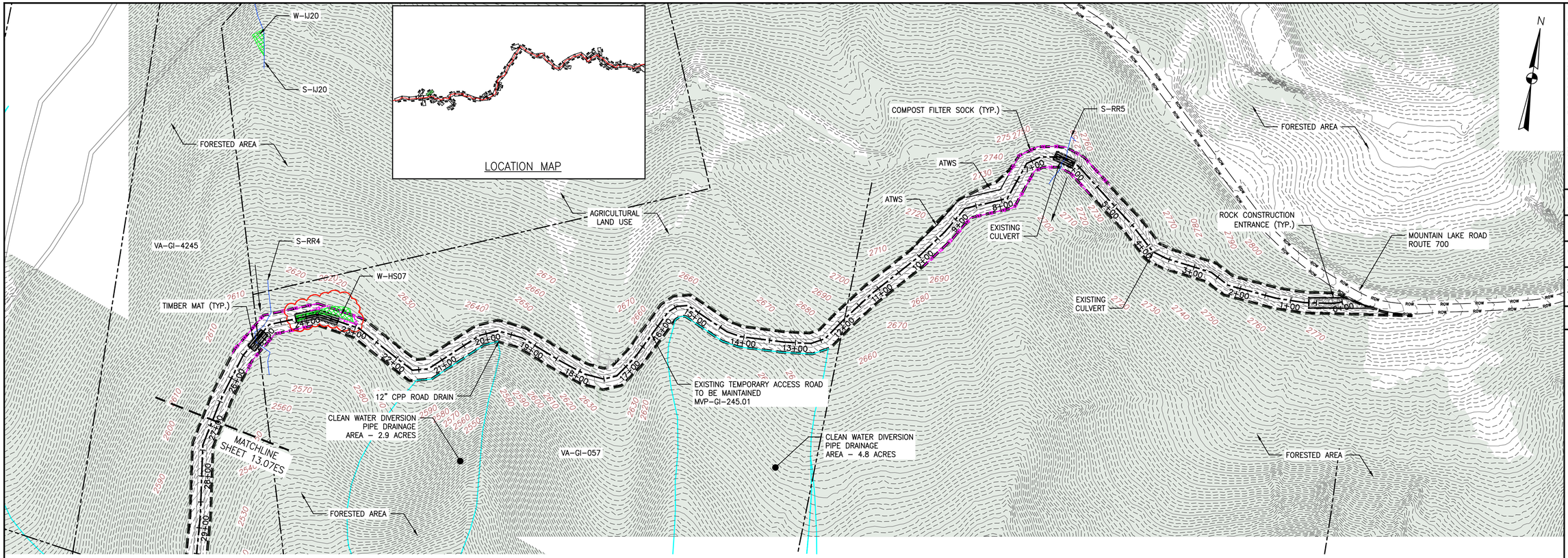
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.61ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\E&S Version 5.0.0\7157ES13.61(S9).dwg PLOTTED ON: 3/2/2018 8:28 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30% OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPLELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

COMMONWEALTH OF VIRGINIA
9/8/23
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER

THIS SEAL APPLIES ONLY TO REVISIONS DATED 09-08-2023

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	09/08/23	JJZ	IHH	DCW	CHANGES TO AQUATIC RESOURCES DELINEATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

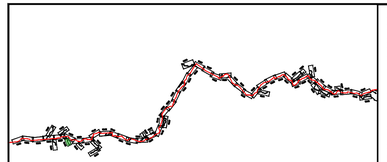
COMMONWEALTH OF VIRGINIA
9/12/2023
DAVID J. WALLNER
Lic. No. 57593
PROFESSIONAL ENGINEER

DRAWN BY:	JJZ
CHECKED BY:	IHH
APPROVED BY:	DCW
DATE:	09/08/2023
SCALE:	AS SHOWN

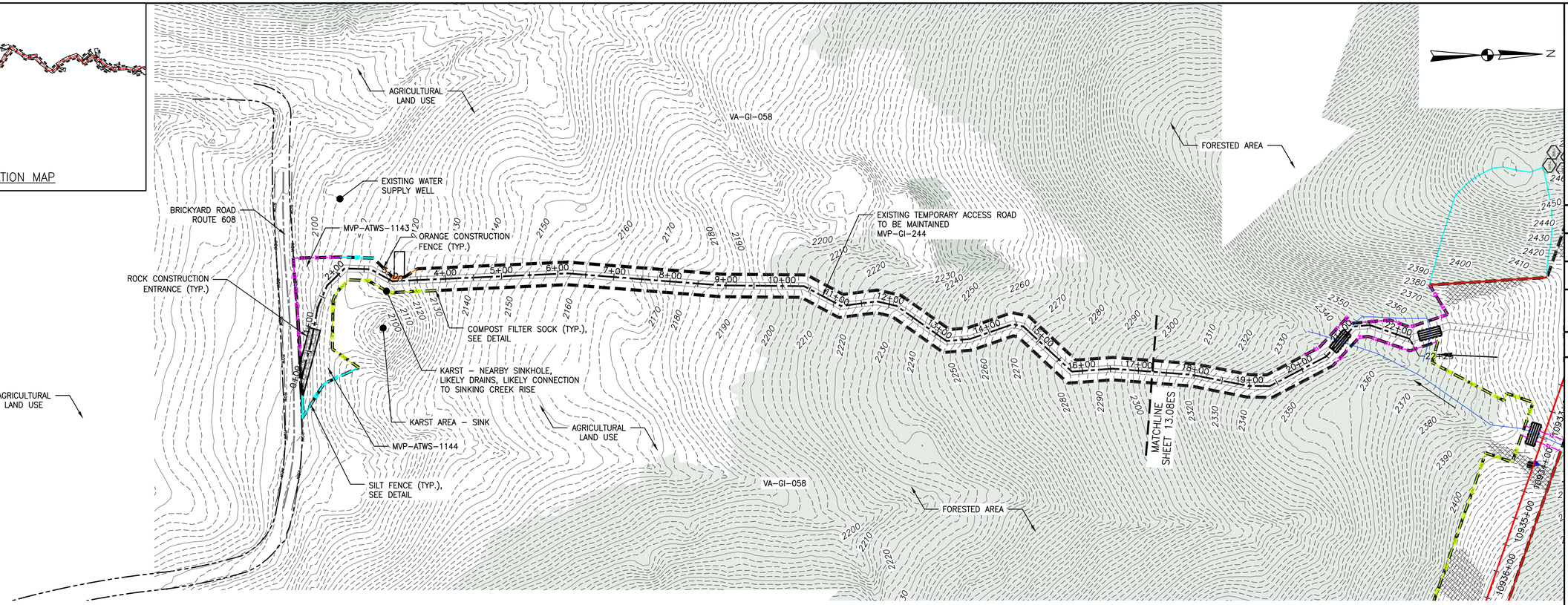
REVISION

SHT. NO. 13.62ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\7157ES13.62(S9).dwg PLOTTED ON: 9/7/2023 11:21 AM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

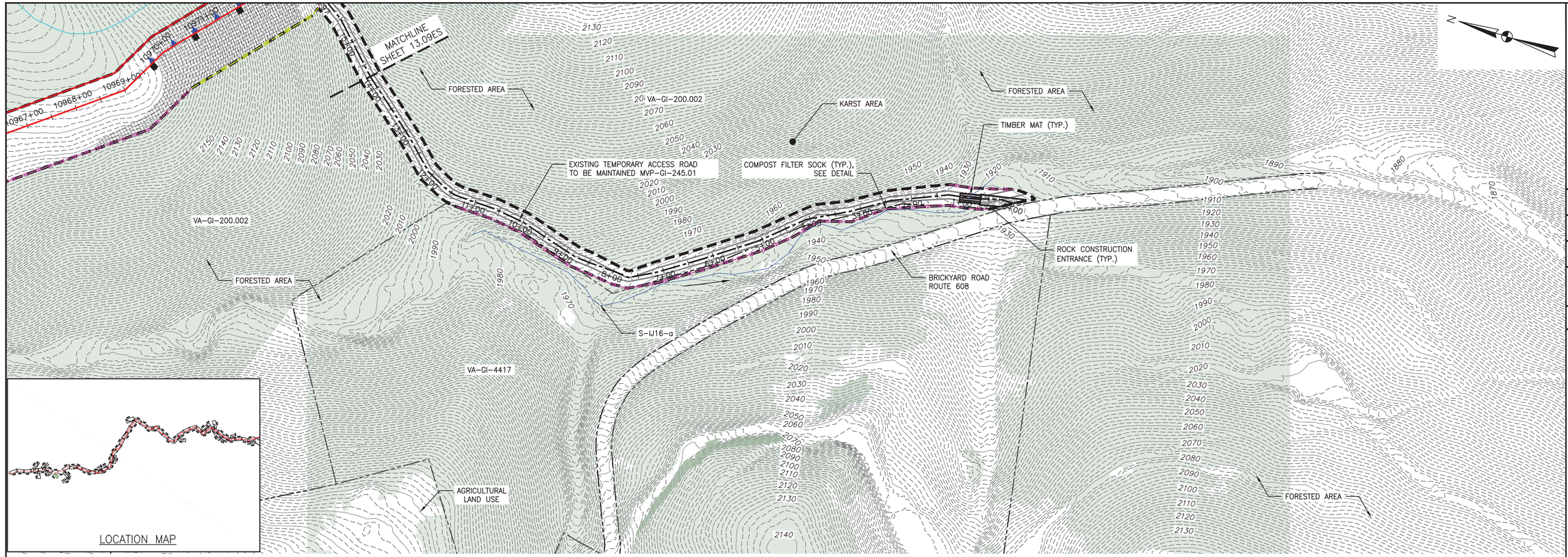
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.63ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\7157ES13.63(S9).dwg PLOTTED ON: 8/31/2018 8:13 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\E&S Version 5.0.0\7157ES13.64(S9).dwg PLOTTED ON: 3/2/2018 8:30 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

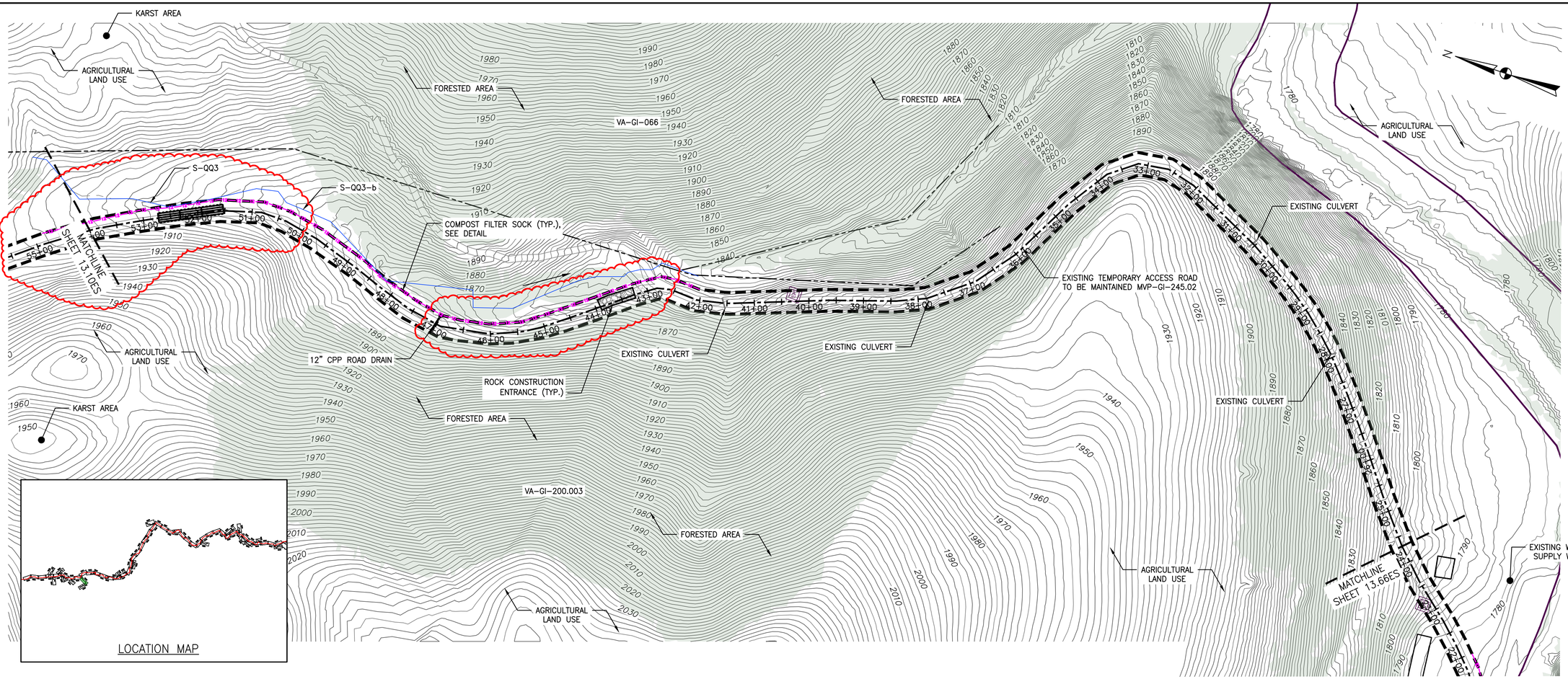
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.64ES OF 13.91ES



PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPLELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	10/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

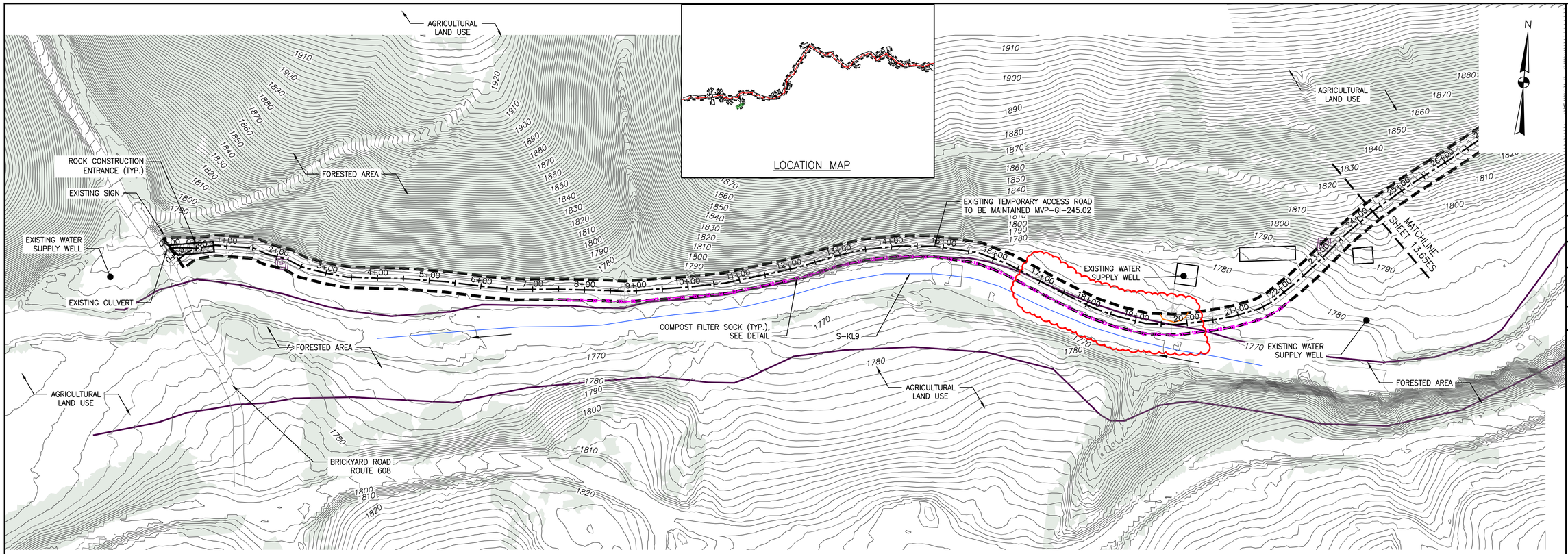
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	10/23/18
SCALE:	AS SHOWN
REVISION	6

SHT. NO. 13.65ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\7157ES13.66(S9).dwg PLOTTED ON: 11/8/2018 11:03 AM PLOTTED BY: Moore, Zachary PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
					REVISIONS:
6	10/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

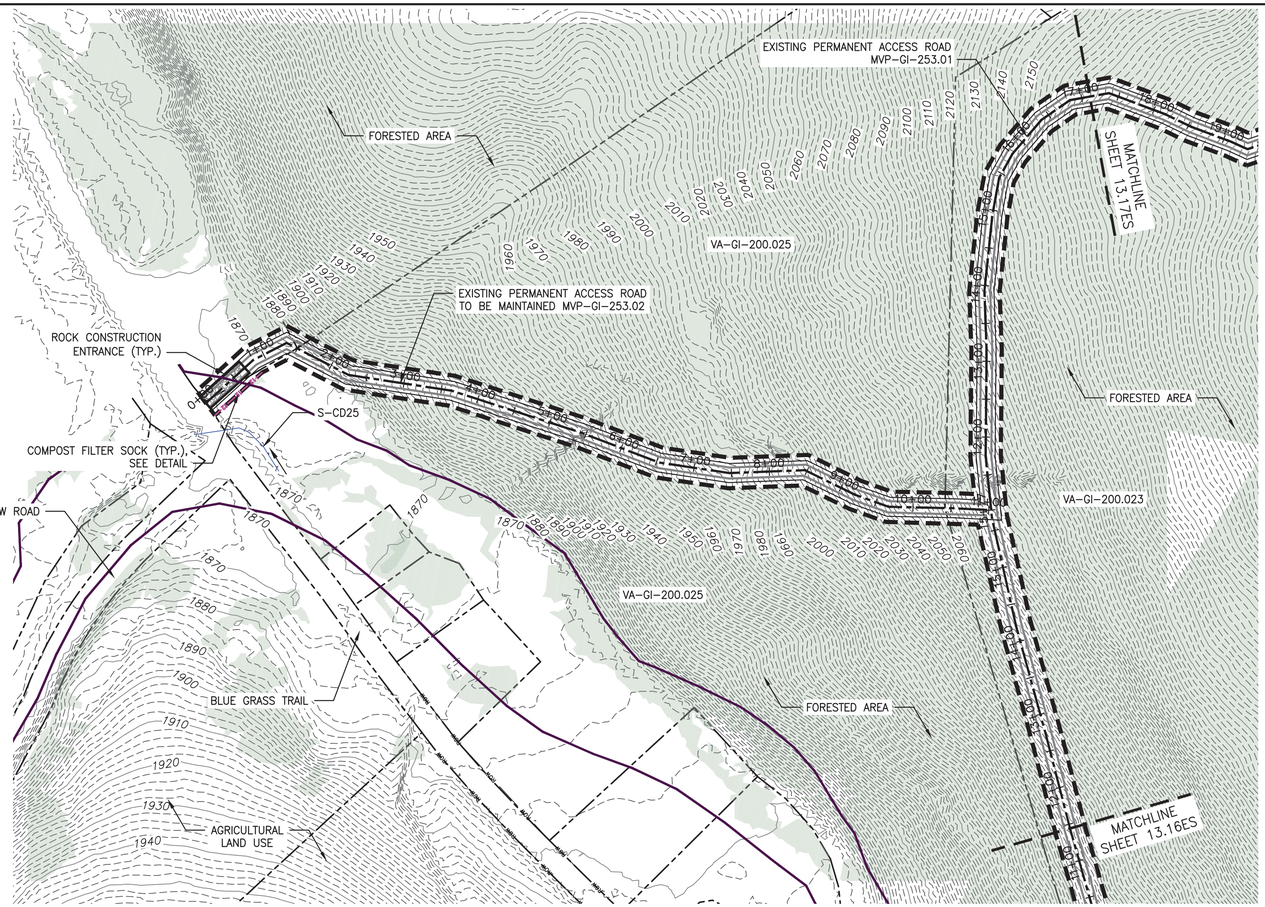
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	10/23/18
SCALE:	AS SHOWN

6 REVISION

SHT. NO. 13.66ES OF 13.91ES

LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

N

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- AMST — AMST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- OCSF — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

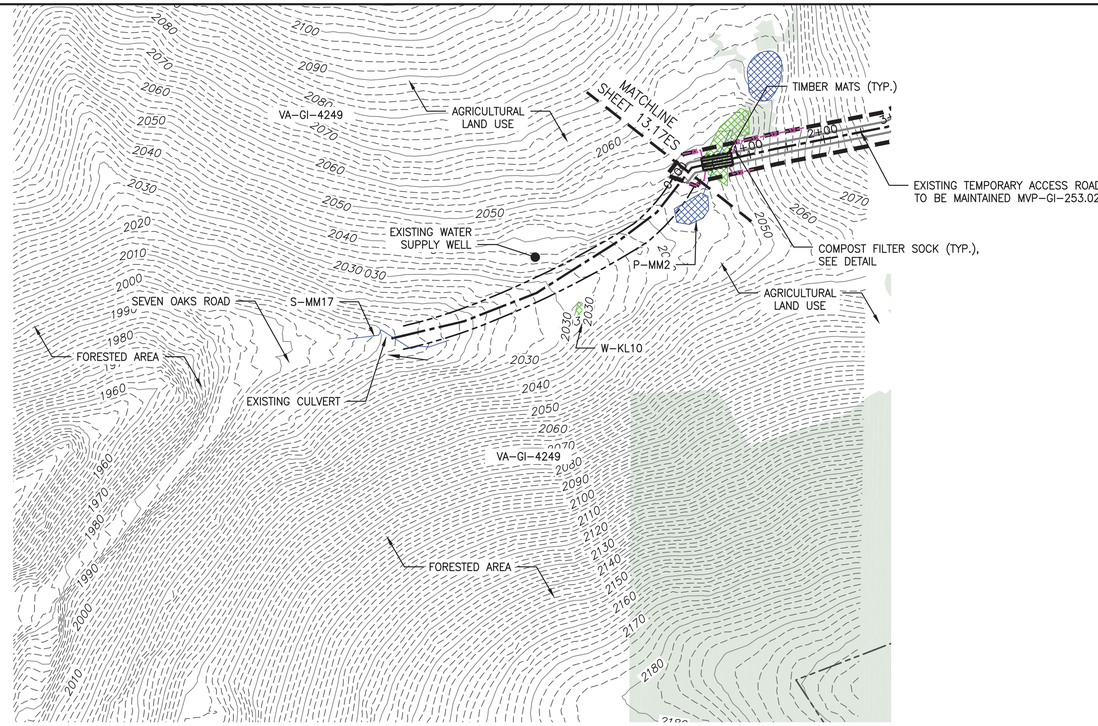
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.67ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.67(S9).dwg PLOTTED ON: 3/2/2018 8:35 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

N

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\12 - Giles\E&S\E&S Version 5.0.0\7157ES13.68(S9).dwg PLOTTED ON: 3/2/2018 8:38 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

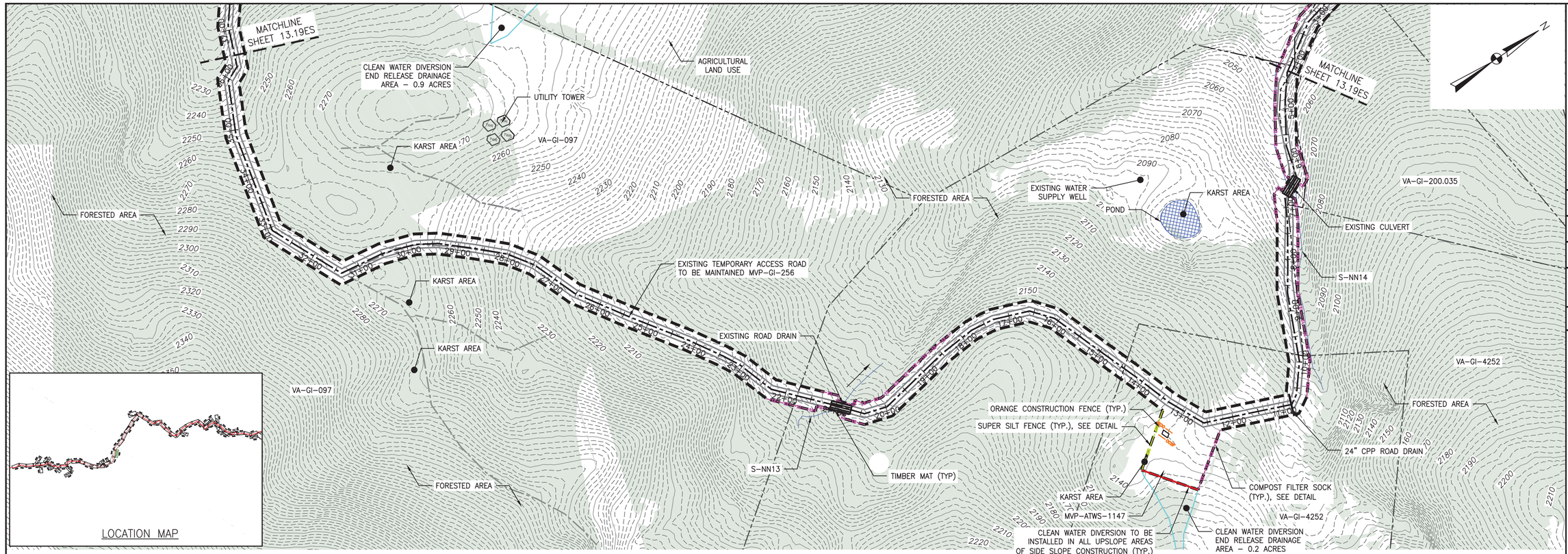
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.68ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.69(S9).dwg PLOTTED ON: 3/2/2018 8:43 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

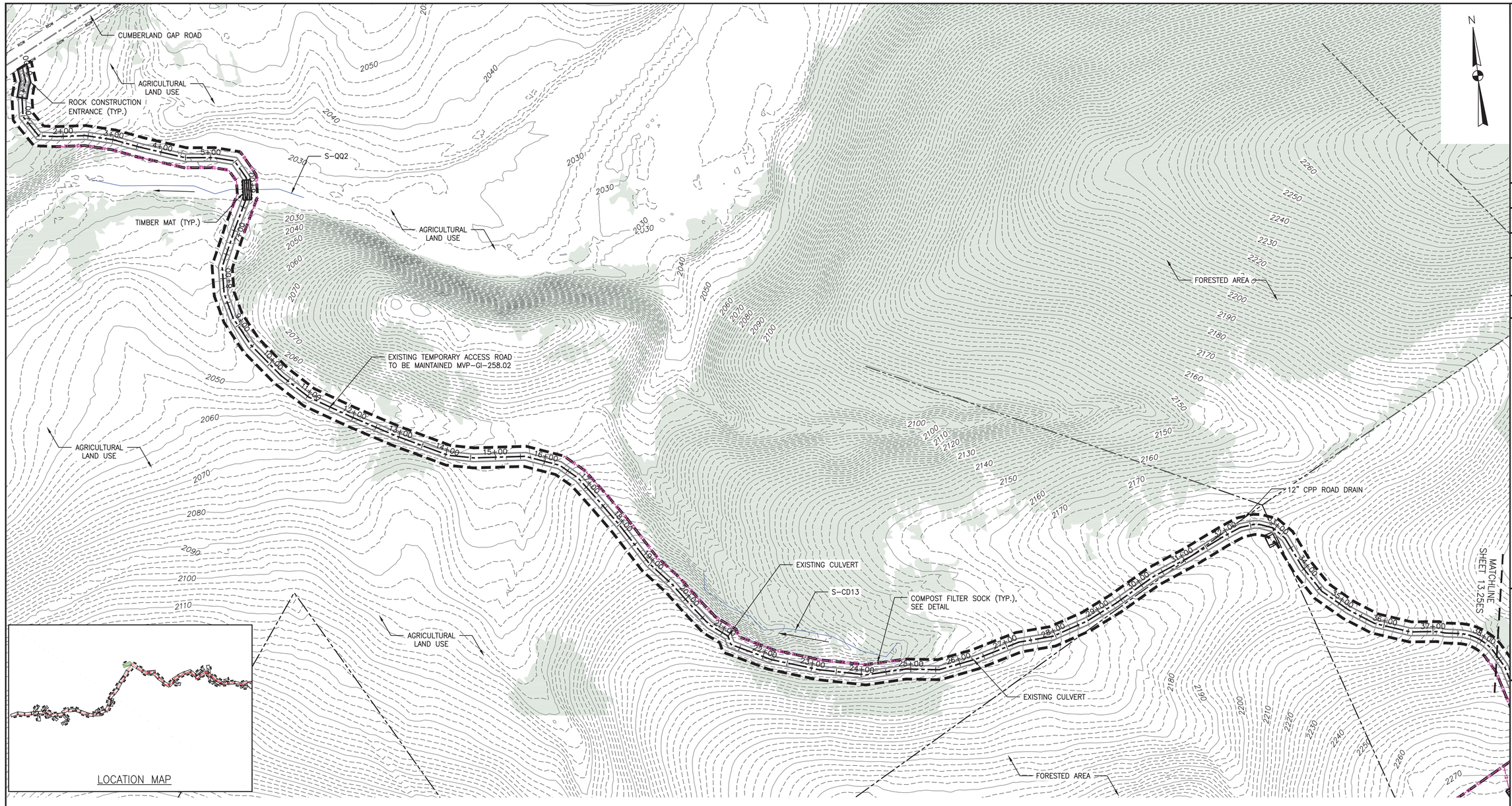
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5

SHT. NO. 13.69ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – GILES COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.70ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\12 – Giles\E&S\E&S Version 5.0.0\7157ES13.70(S9).dwg PLOTTED ON: 3/2/2018 8:59 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

ACCESS ROAD MVP-MN-262.01
REMOVED FROM PROJECT

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- ANST — ANST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- OCSF — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.71(S9).dwg PLOTTED ON: 3/2/2018 9:10 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

TETRA TECH
complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

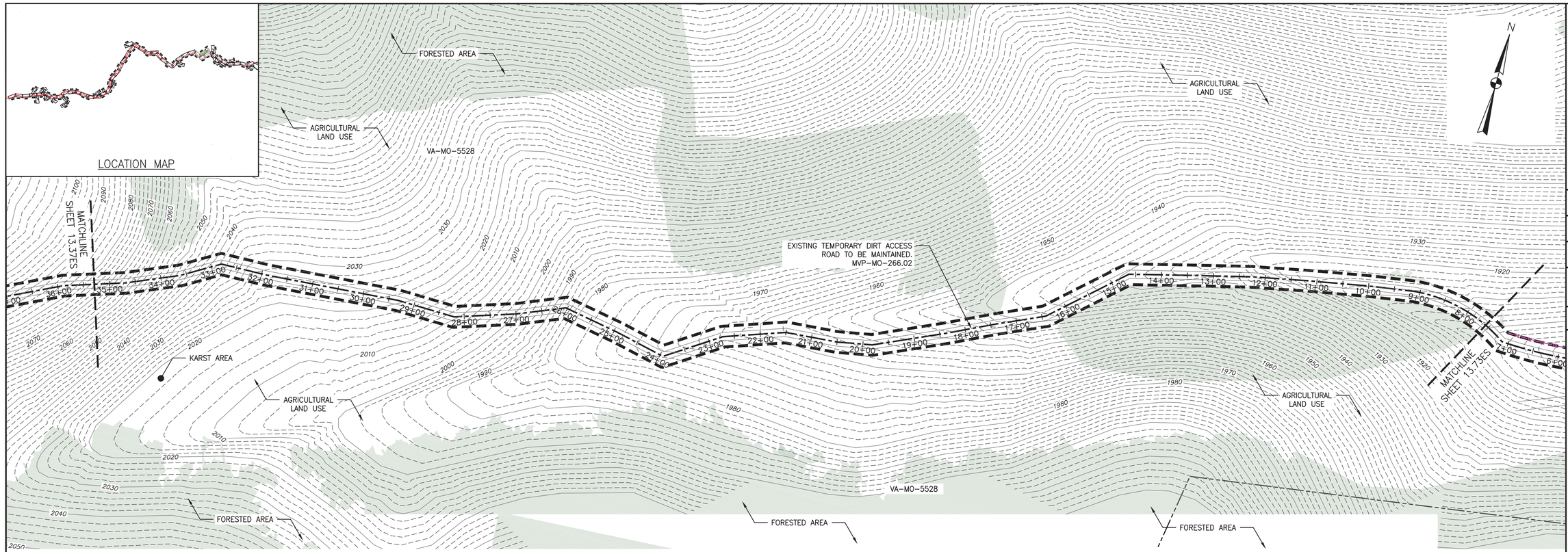
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.71ES OF 13.91ES

LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.72(S9).dwg PLOTTED ON: 3/2/2018 9:10 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

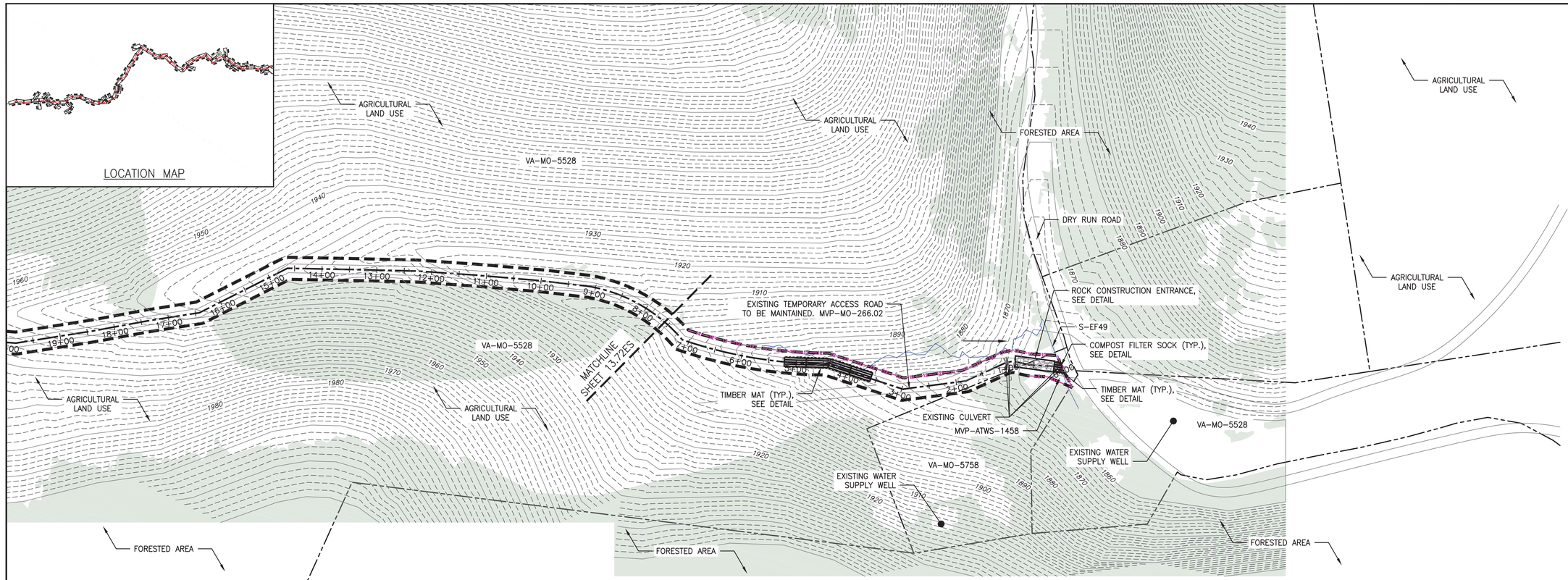
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.72ES OF 13.91ES

LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.73(S9).dwg PLOTTED ON: 3/2/2018 9:10 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

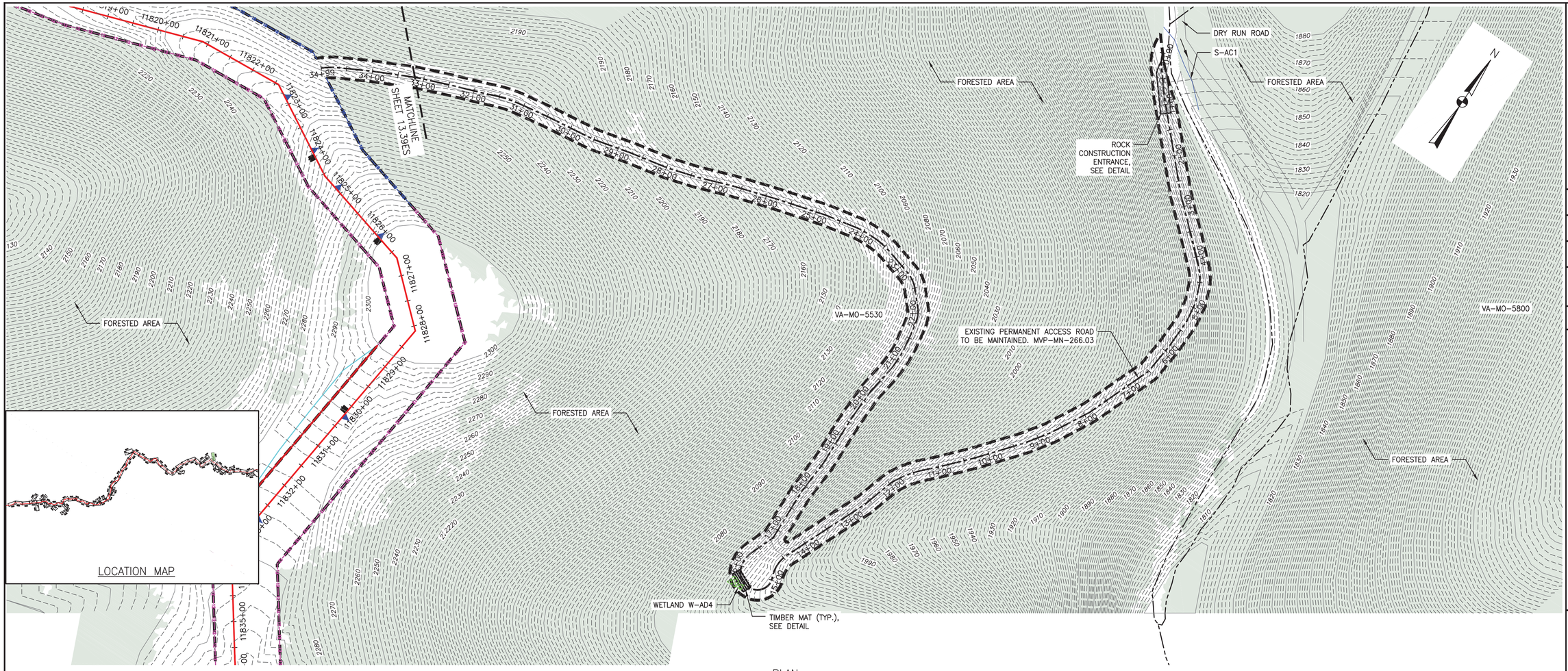
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.73ES OF 13.91ES



PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

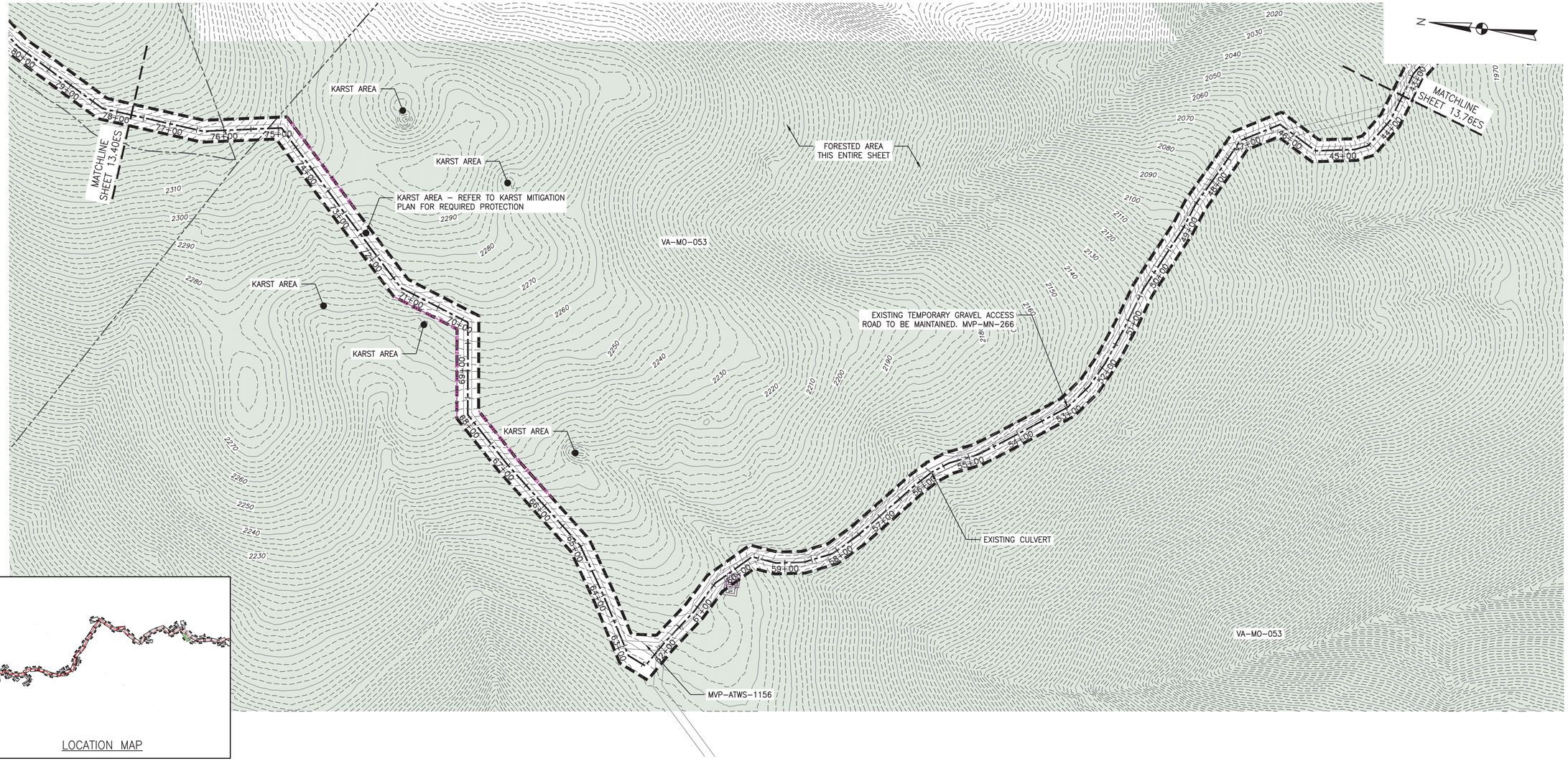
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	

SHT. NO. 13.74ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.74(S9).dwg PLOTTED ON: 3/2/2018 9:11 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.75(S9).dwg PLOTTED ON: 3/2/2018 9:11 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

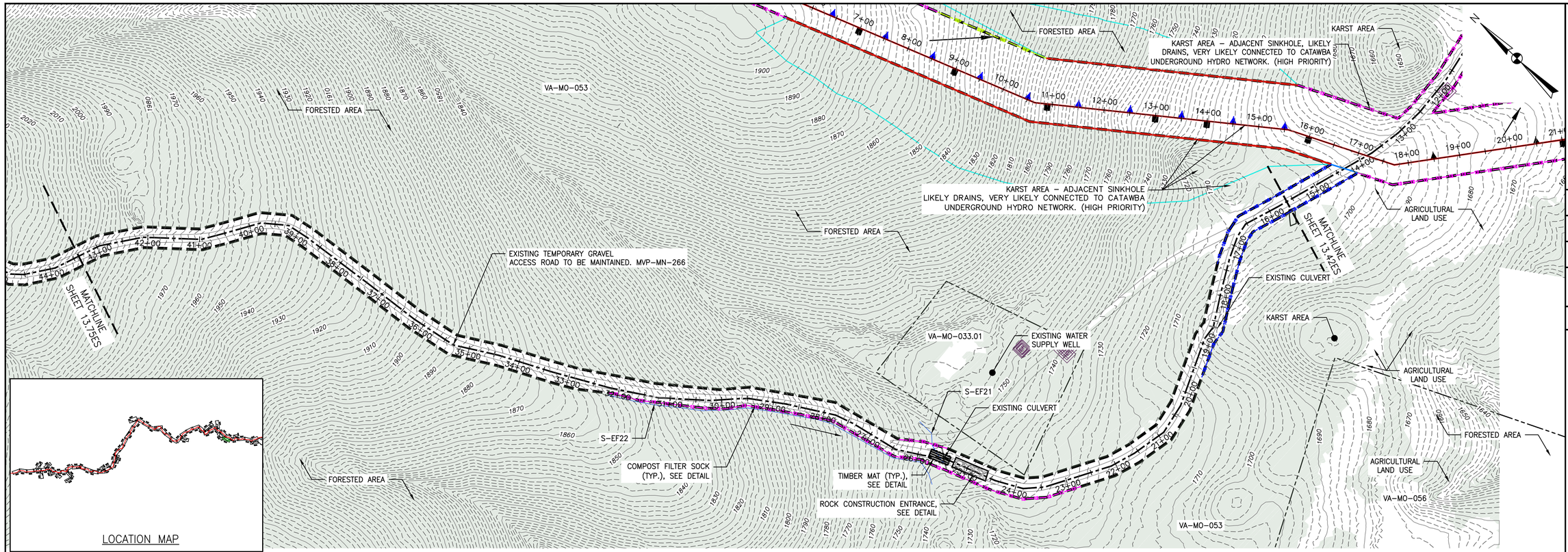
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.75ES OF 13.91ES



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
6	8/23/18	BH	JRE	DJW	FIELD MODIFICATIONS
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLANS SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

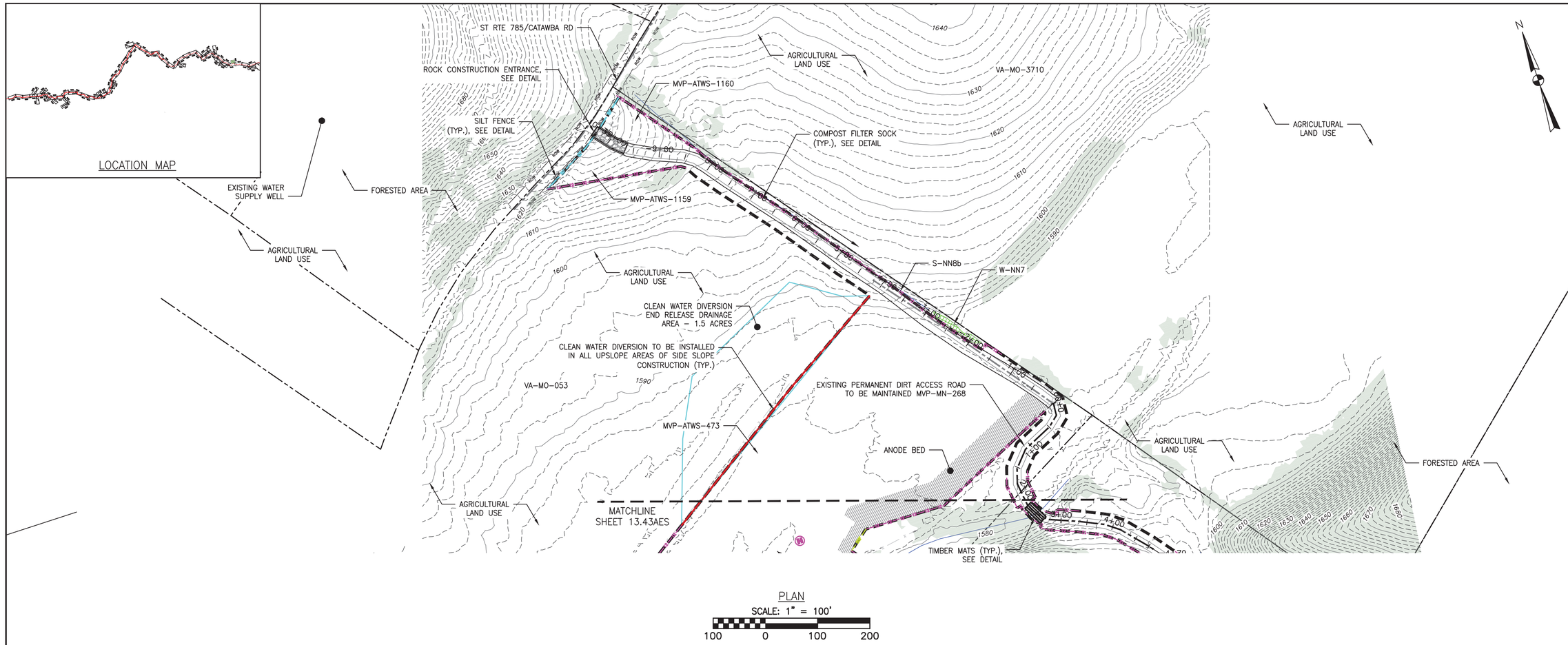
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	8/23/18
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.76ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\7157ES13.76(S9).dwg PLOTTED ON: 8/31/2018 8:44 AM PLOTTED BY: Najeski, Nichole PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

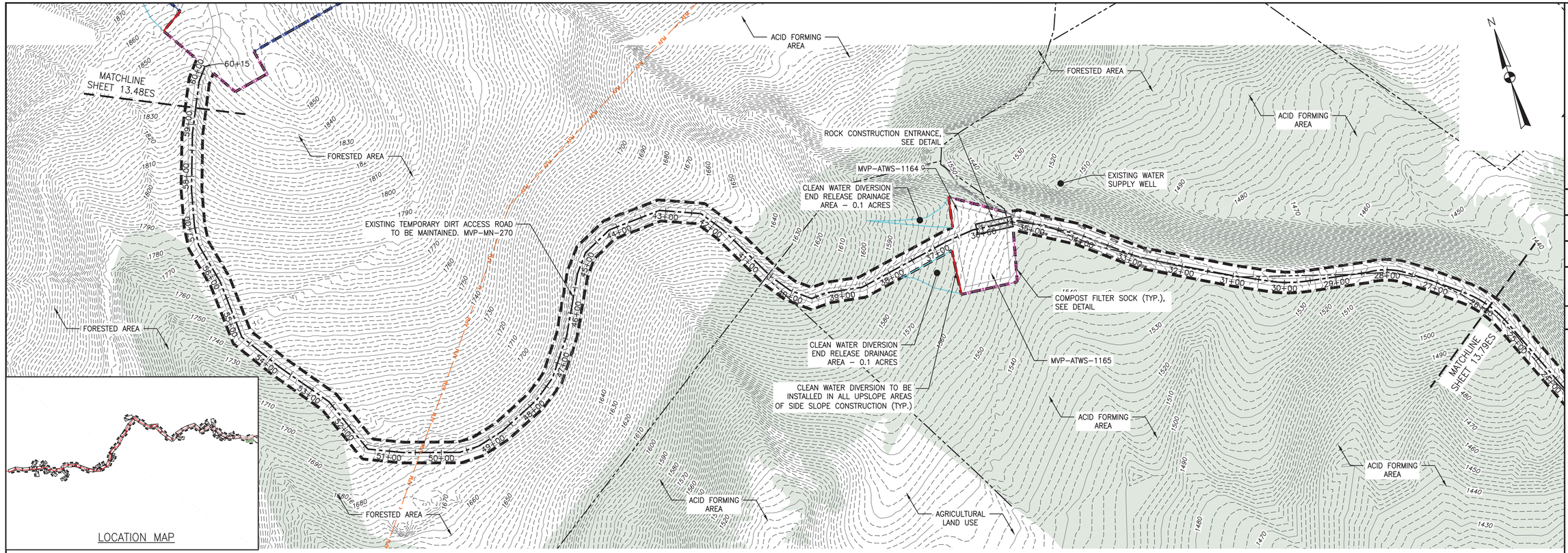
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.77ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.77(S9).dwg PLOTTED ON: 3/2/2018 9:12 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP

PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

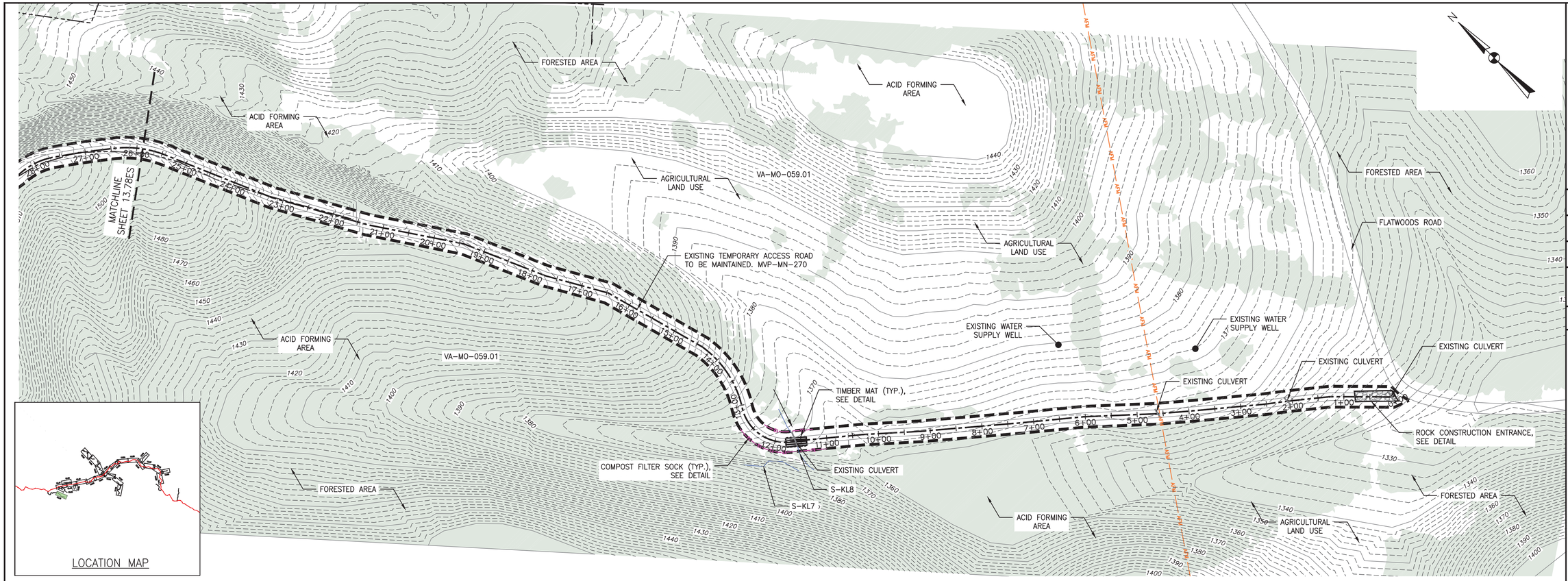
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.78ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.78(S9).dwg PLOTTED ON: 3/2/2018 9:12 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

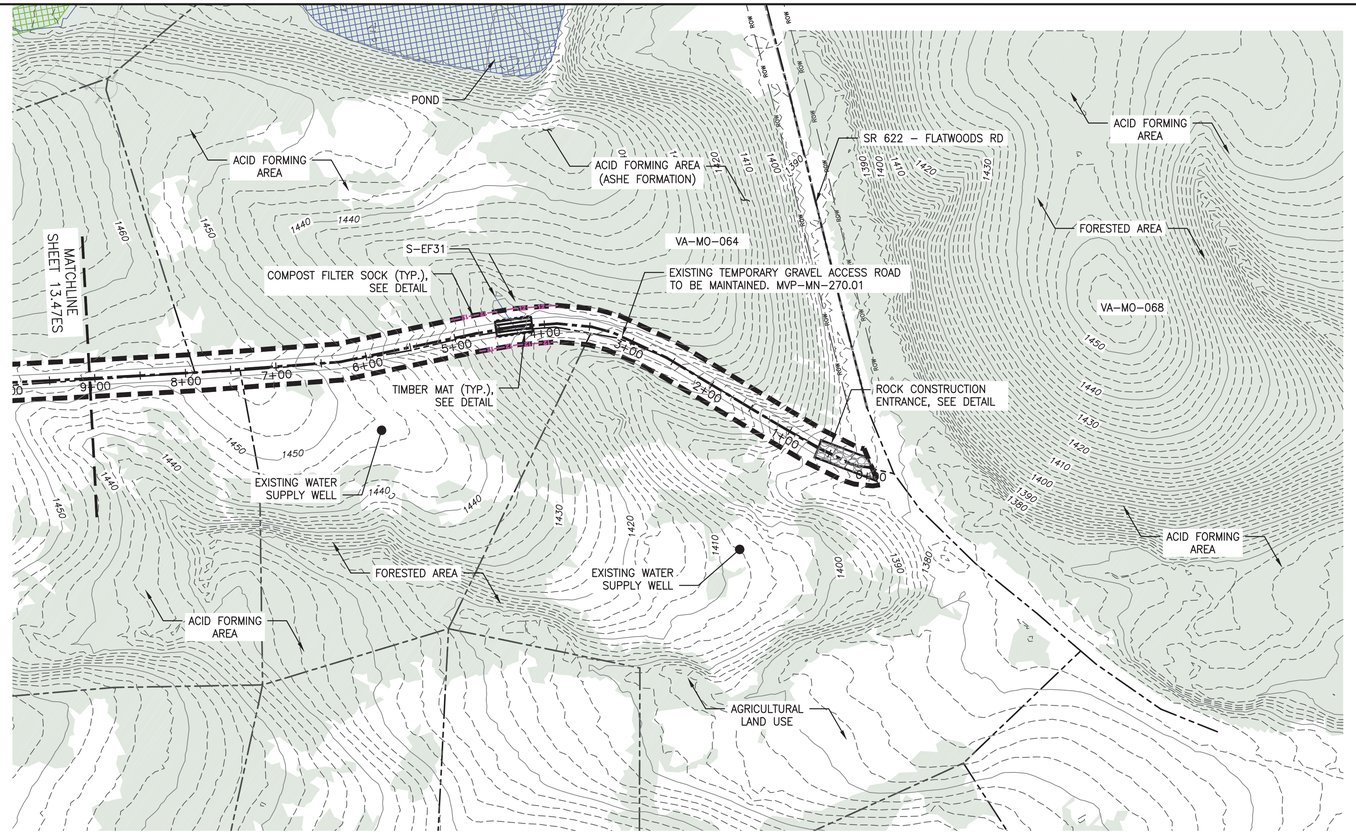
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.79ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.79(S9).dwg PLOTTED ON: 3/2/2018 9:12 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

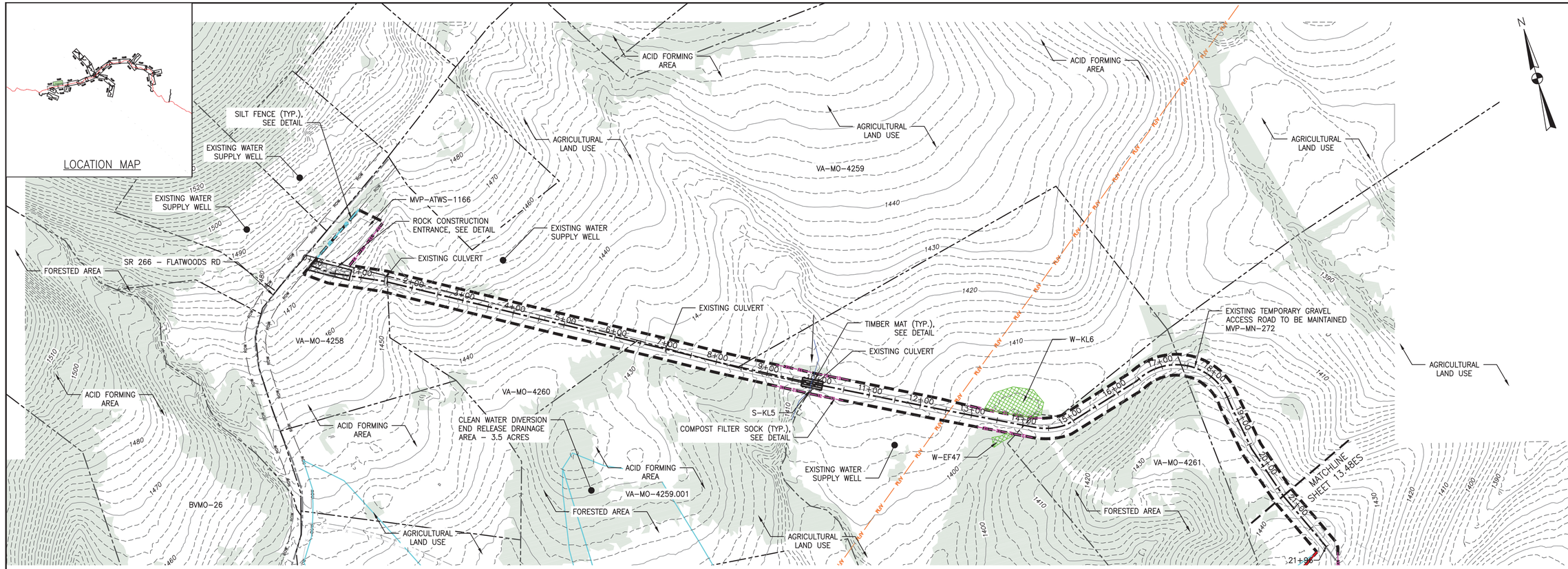
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.80ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.80(S9).dwg PLOTTED ON: 3/2/2018 9:13 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

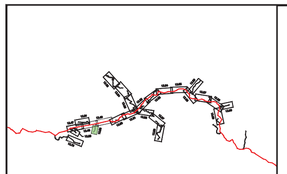
DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

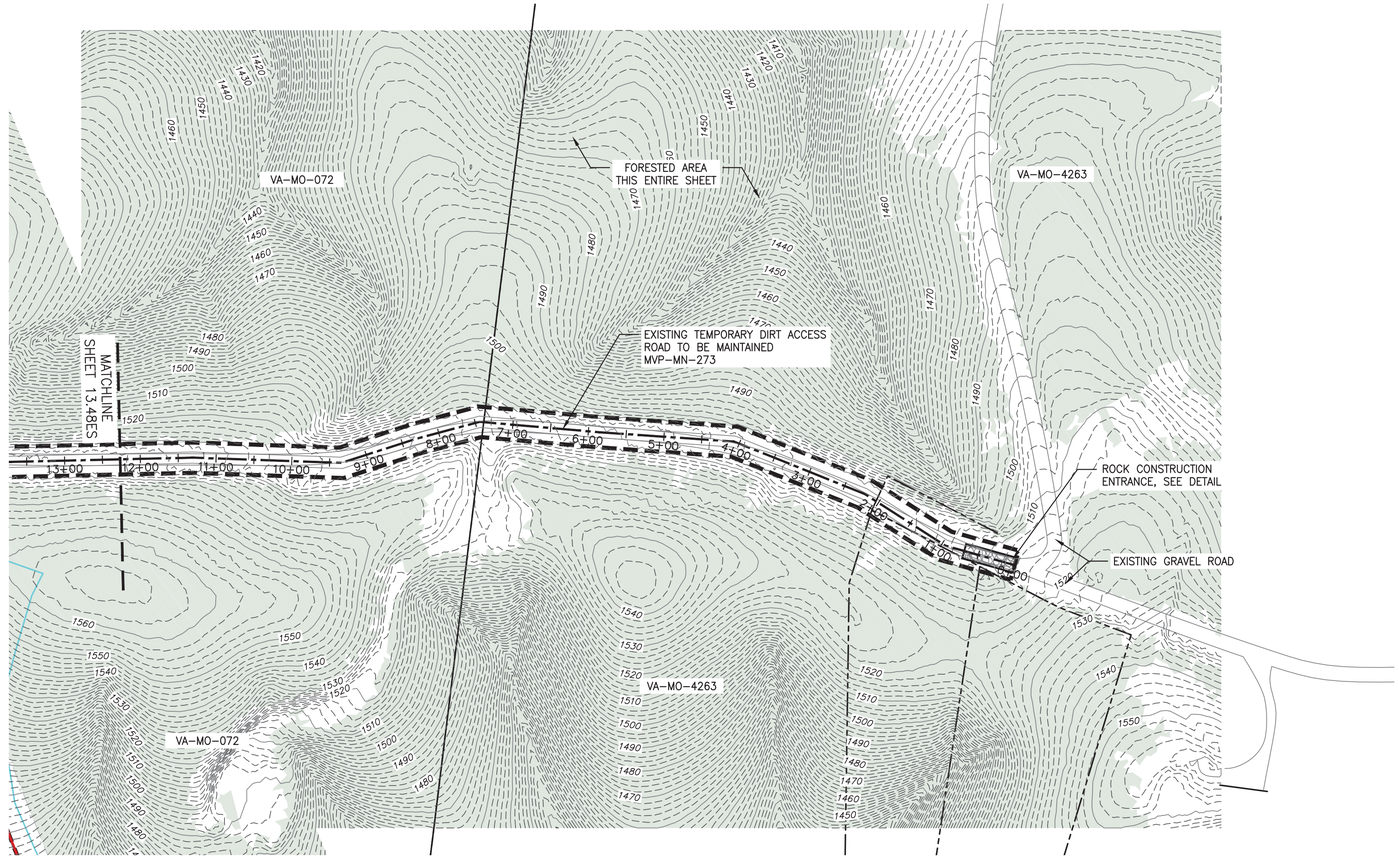
REVISION

SHT. NO. 13.81ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.81(S9).dwg PLOTTED ON: 3/2/2018 9:13 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

LOCATION MAP





PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.82(S9).dwg PLOTTED ON: 3/2/2018 9:22 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

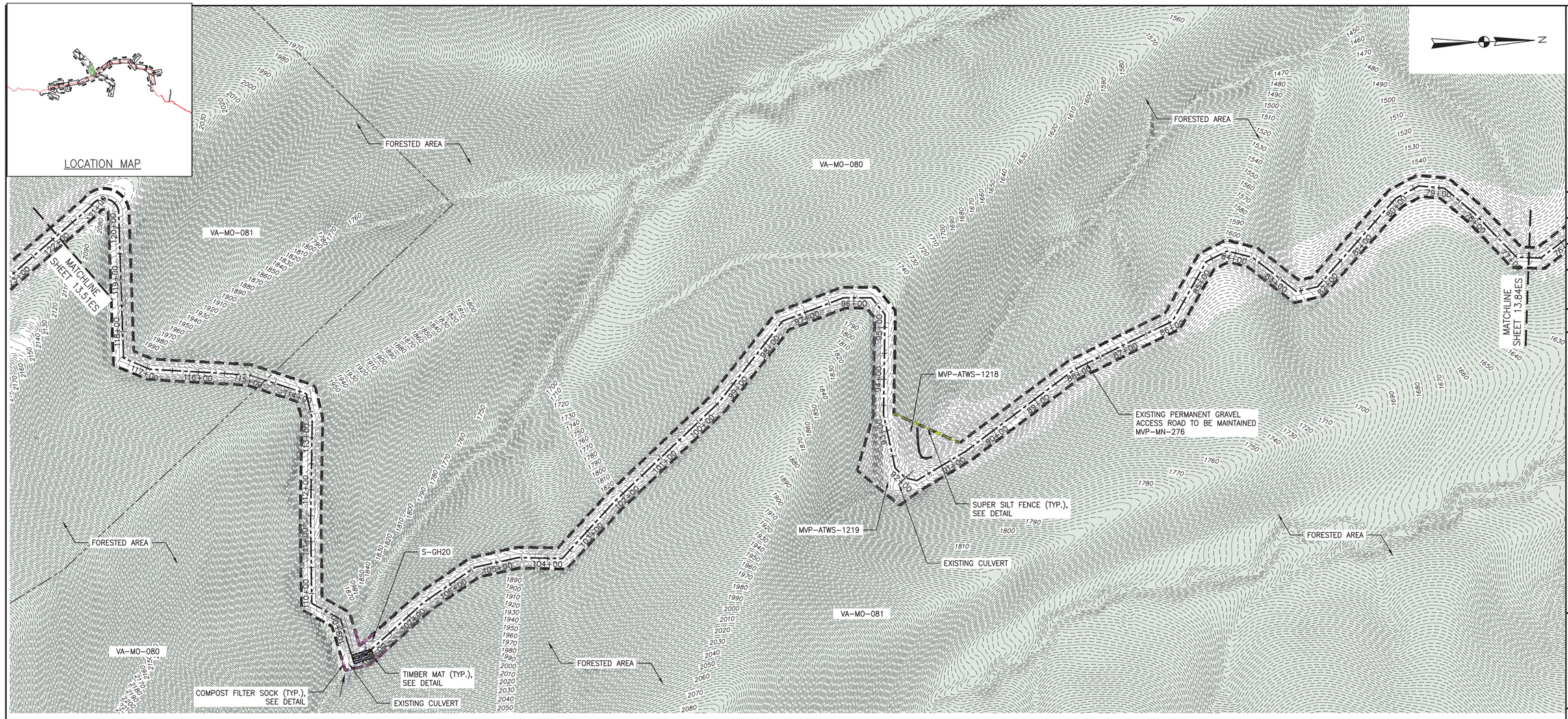
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	5

SHT. NO. 13.82ES OF 13.91ES



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

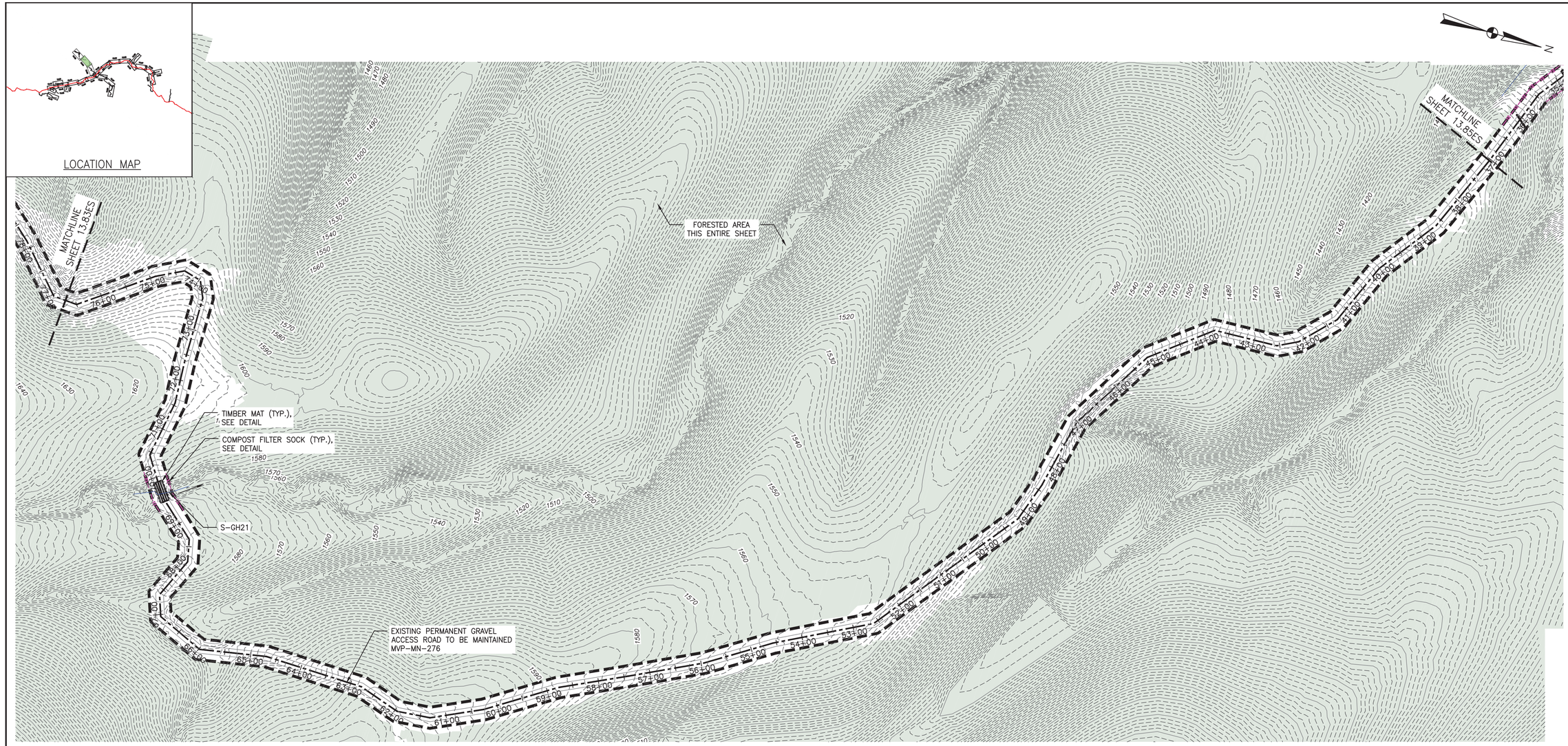
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	

SHT. NO. 13.83ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.83(S9).dwg PLOTTED ON: 3/2/2018 9:22 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- ANST — ANST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- OCSF — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.84(S9).dwg PLOTTED ON: 3/2/2018 9:22 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

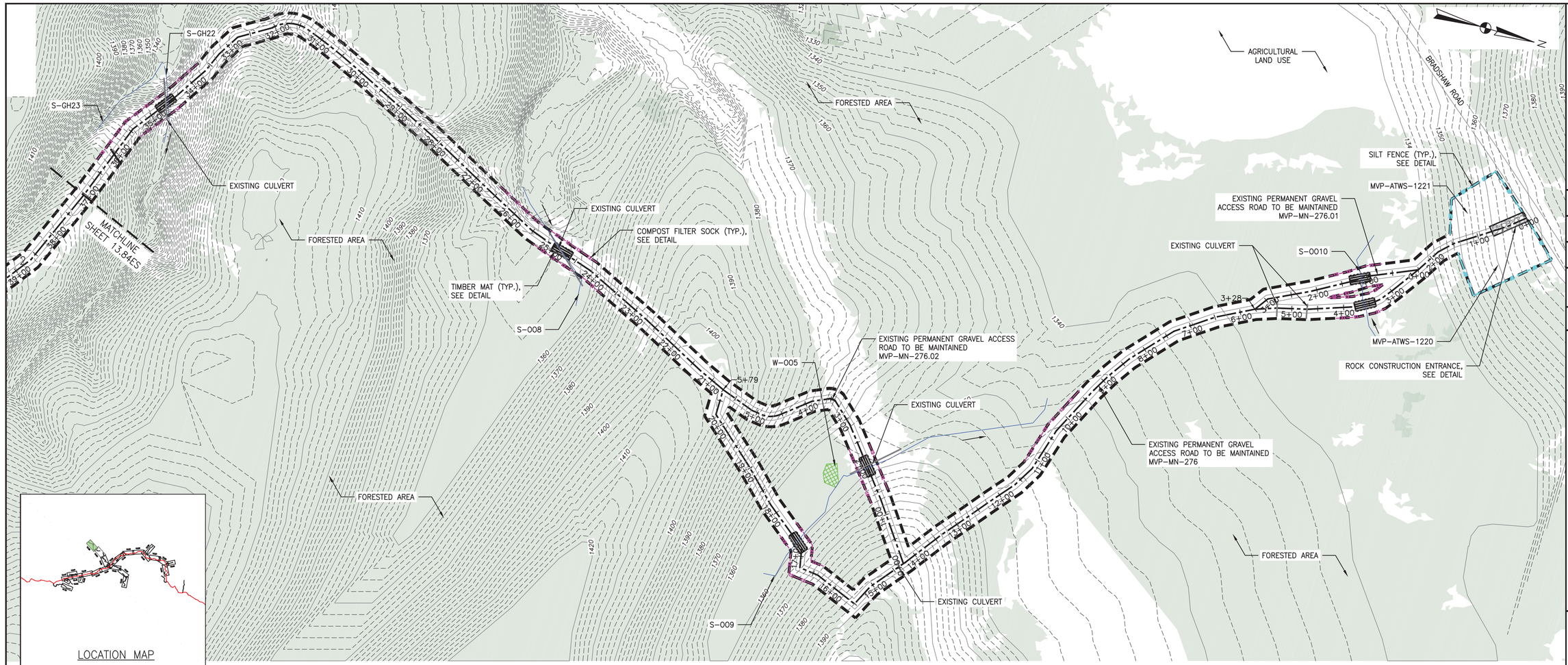
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 040205759
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.84ES OF 13.91ES



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF PENNSYLVANIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.85ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.85(S9).dwg PLOTTED ON: 3/2/2018 9:22 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

EXISTING CULVERT

EXISTING CULVERT

EXISTING CULVERT

EXISTING CULVERT

BVMO–29

EXISTING TEMPORARY ACCESS GRAVEL ROAD TO BE MAINTAINED DETAIL MVP–MN–276.01

MATCHLINE SHEET 13.87ES

MATCHLINE SHEET 13.51ES

LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP–ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP–ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP–ES3, 3.1, 3.2)
- GRASS–LINED CHANNEL (SEE DETAIL MVP–ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP–ES50 AND MVP–ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP–ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP–20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP–17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP–ES46.1 THROUGH MVP–ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE–SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH–HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP–ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.86(S9).dwg PLOTTED ON: 3/2/2018 9:23 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

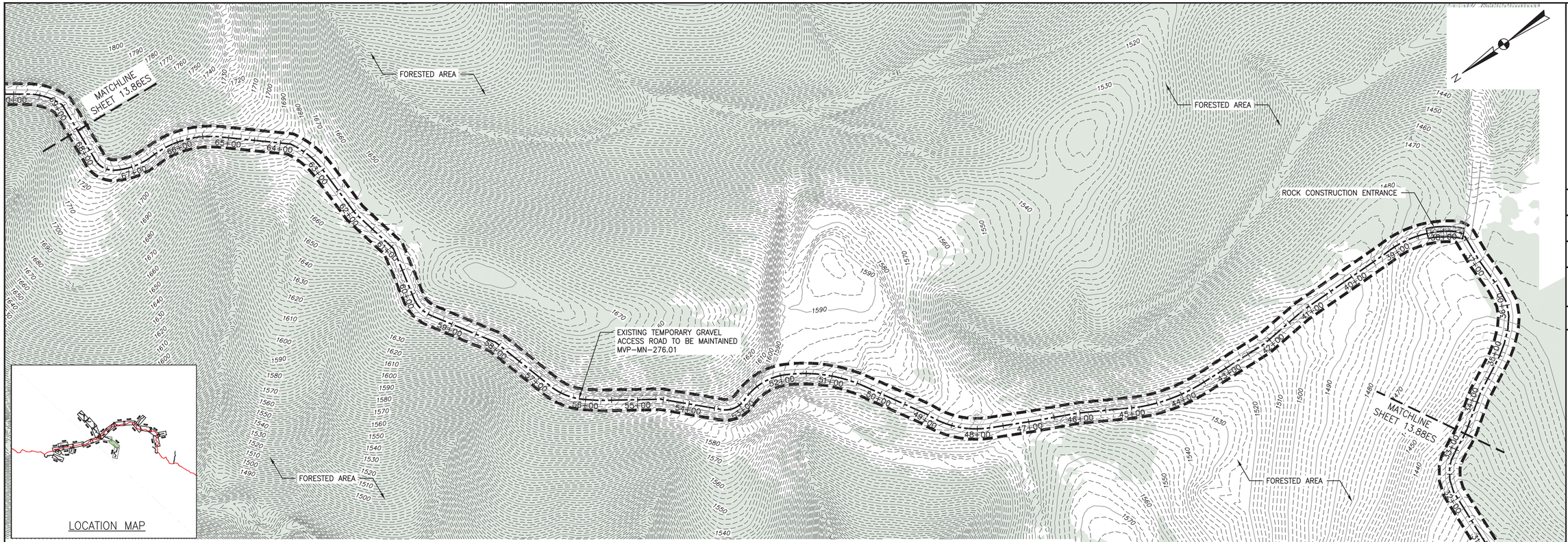
TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

SHT. NO. 13.86ES OF 13.91ES



PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30" OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

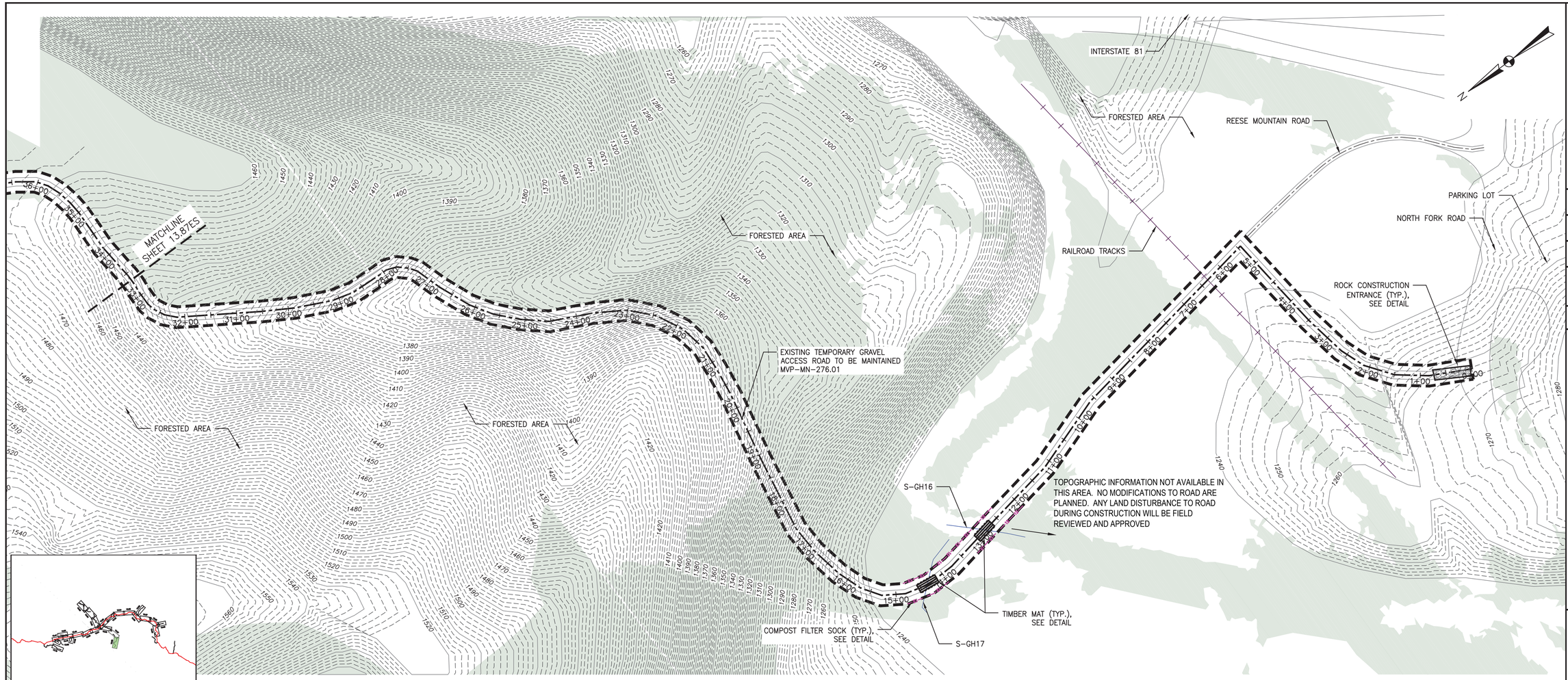
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.87ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.87(S9).dwg PLOTTED ON: 3/2/2018 9:23 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



LOCATION MAP

PLAN
SCALE: 1" = 100'
100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- ANST — ANST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- OCSF — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

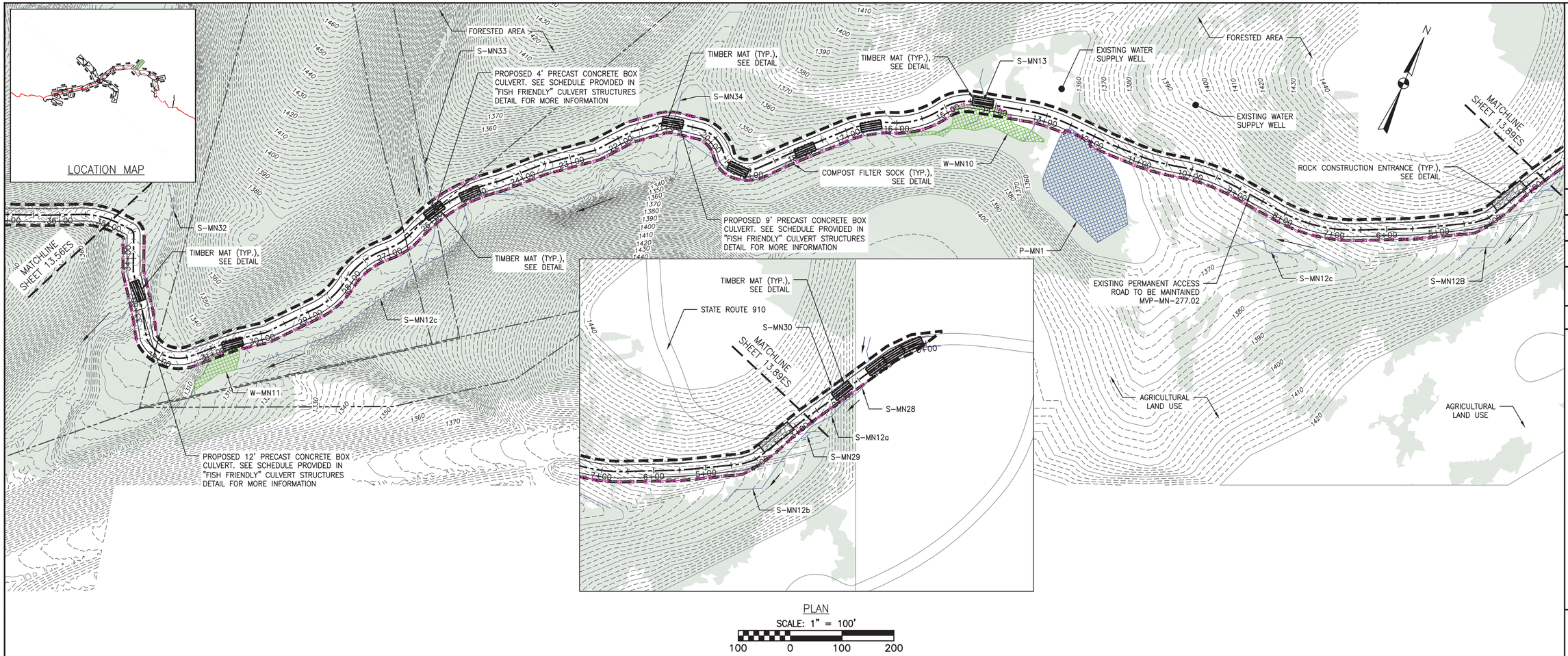
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	

SHT. NO. 13.88ES OF 13.91ES

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 – MVP Construction Spread 9\13 – Montgomery\E&S\E&S Version 5.0.0\7157ES13.88(S9).dwg PLOTTED ON: 3/2/2018 9:23 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- ANST — ANST — APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- AFM — AFM — ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- SF — SF — PROPOSED SILT FENCE (SEE NOTE 5)
- SSF — SSF — PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- RFD — RFD — PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- OCSF — ORANGE CONSTRUCTION SAFETY FENCE
- 12 — 12 — 12 — 12 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 18 — 18 — 18 — 18 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- 24 — 24 — 24 — 24 — PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE

SPREAD 9 – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

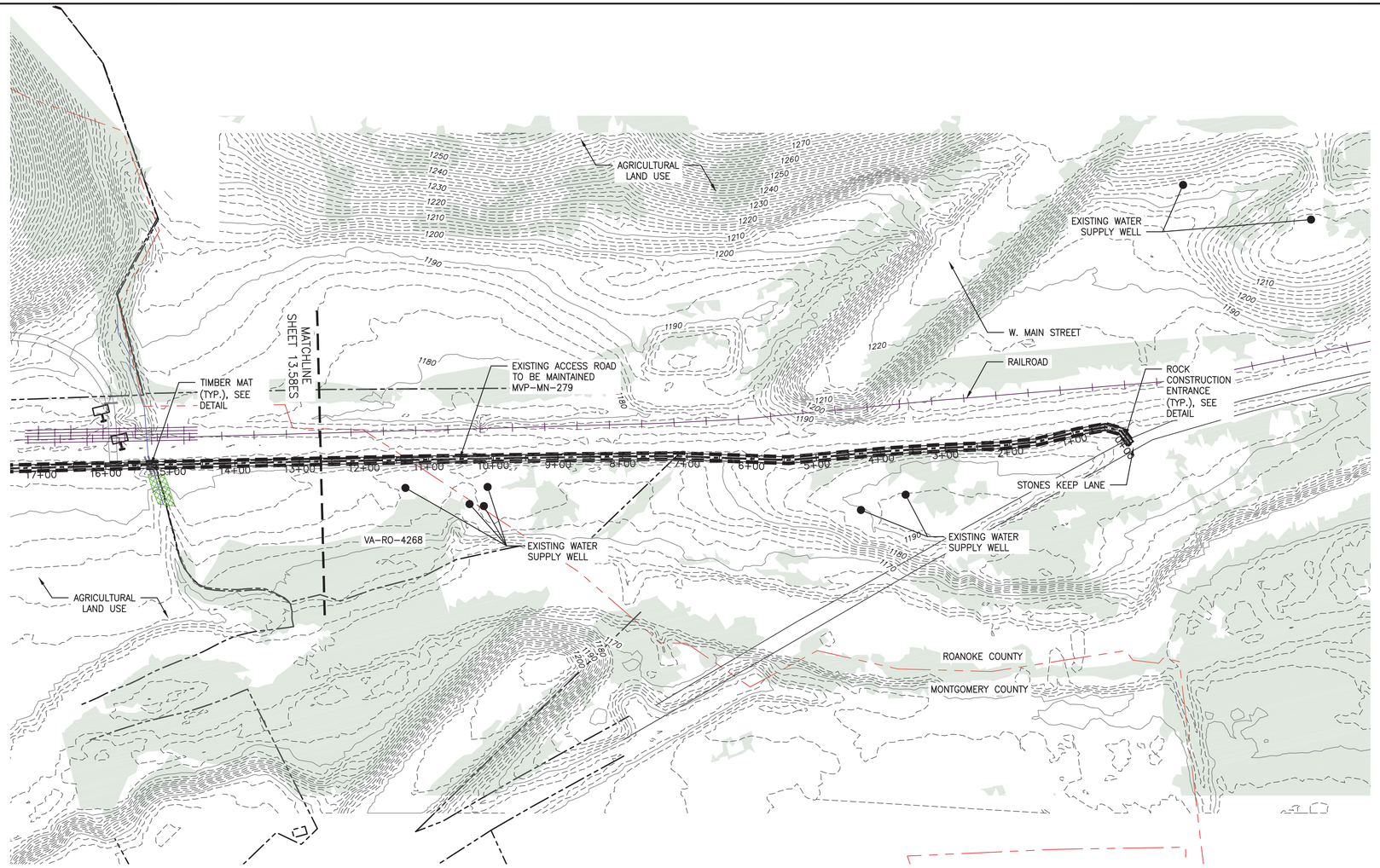
COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN

REVISION

SHT. NO. 13.89ES OF 13.91ES

LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- SURFACE WATER FLOW DIRECTION
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- EXISTING FOREST
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (VADEQ STD & SPEC 3.11)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAILS MVP-17, ES38, AND SCHEDULE)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAIL MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30' OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. DRAINAGE FEATURE CROSSINGS TO BE PERFORMED PER DETAIL MVP-ES49.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBER MATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS. NO UNPERMITTED IMPACT TO STREAMS WILL OCCUR AS A RESULT OF ROAD OR PIPELINE CROSSINGS AND ALL ESC BMP'S WILL BE INSTALLED TO CONTINUE THE STREAM FLOW.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

TETRA TECH CAD FILE PATH: R:_Marcellus Shale Projects\EQT\7157 - MVP Construction Spread 9\13 - Montgomery\E&S\E&S Version 5.0.0\7157ES13.90(S9).dwg PLOTTED ON: 3/2/2018 9:24 AM PLOTTED BY: Hoppe, Ben PLOT FILE: ENVIRONMENTAL_COLOR.ctb

NO.	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
5	3/2/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
4	2/23/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
3	1/26/18	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
2	11/21/17	KAL	JRE	DJW	ADDRESS VADEQ COMMENTS
1	9/21/17	KAL	JRE	DJW	PLAN SUBMISSION

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC

2200 ENERGY DRIVE

CANONSBURG, PA 15317

TETRA TECH

complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

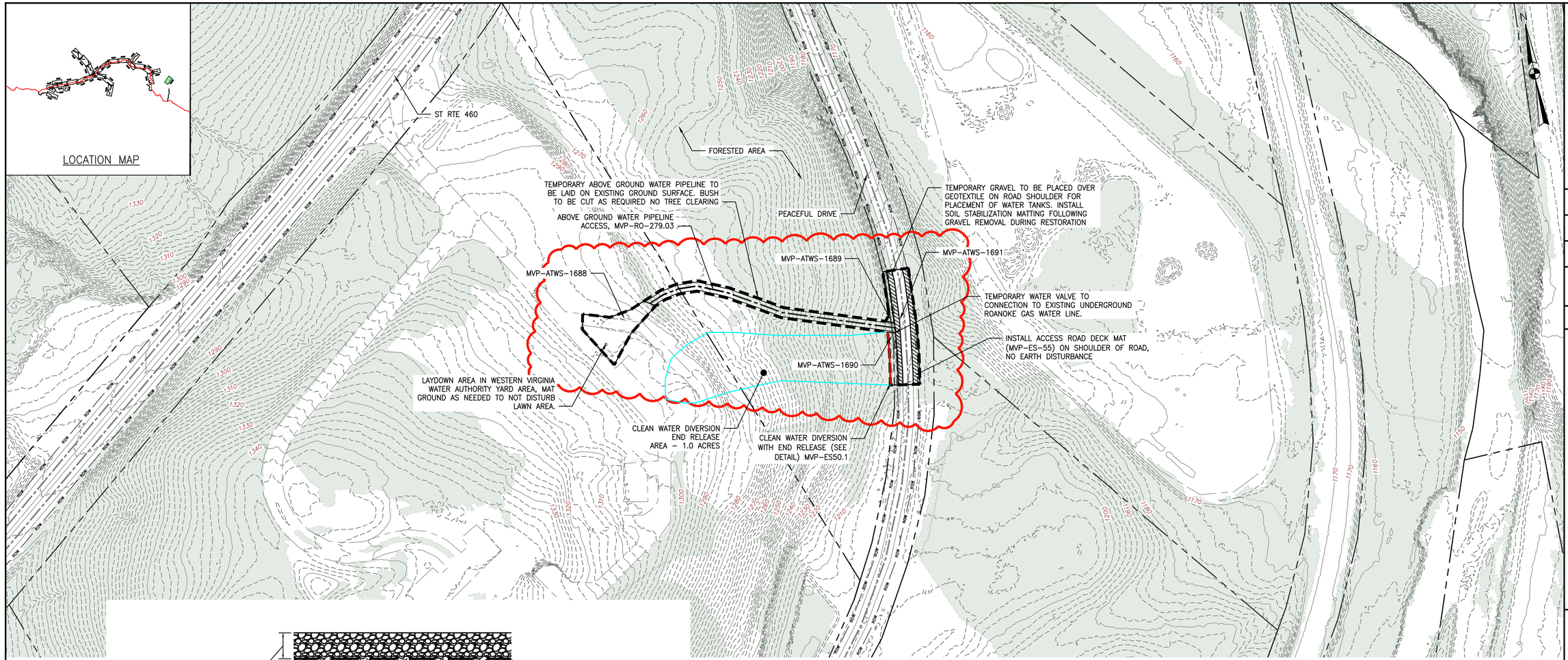
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
DAVID J. WALLNER
Lic. No. 0402057593
PROFESSIONAL ENGINEER

DRAWN BY:	KAL
CHECKED BY:	JRE
APPROVED BY:	DJW
DATE:	11/21/2017
SCALE:	AS SHOWN
REVISION	

SHT. NO. 13.90ES OF 13.91ES

LOCATION MAP



PLAN

SCALE: 1" = 100'

100 0 100 200

TEMPORARY GRAVEL SURFACE SPECIFICATIONS

- SITE WILL BE GRADED AS REQUIRED AND THE GRAVEL WILL BE PLACED ON THE ROAD SHOULDER.
- THE EXISTING SURFACE SHALL BE CLEARED OF ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL BY BRUSH HOGGING THE AREA.
- A 6-INCH COURSE OF VDOT #1 COARSE AGGREGATE (AS PER SECTION 203 OF VDOT'S ROAD AND BRIDGE SPECIFICATIONS) SHALL BE PROVIDED AS SOON AS VEGETATION REMOVAL IS COMPLETE.
- IN "HEAVY DUTY" TRAFFIC SITUATIONS THE AGGREGATE SHOULD INSTEAD BE PLACED AT AN 8- TO 10-INCH DEPTH TO AVOID EXCESSIVE DISSIPATION OR MAINTENANCE NEEDS.
- IF THE GRAVEL SURFACE BECOMES CLOGGED WITH SEDIMENT AND OTHER DEBRIS, IT SHALL BE REMOVED AND REPLACED WITH CLEAN AGGREGATE SO THAT INFILTRATION IS MAINTAINED.
- GEOTEXTILE SHALL BE NON-WOVEN WITH AASHTO M288 SURVIVABILITY CLASS (1) AND A MIN. PERMITIVITY OF 90 GAL/MIN/FT².

TYPICAL GRAVEL SURFACE DETAIL

N.T.S.

LEGEND

- PROPOSED LIMIT OF DISTURBANCE
- STREAM
- USDA FOREST SERVICE (NATIONAL FOREST) LANDS
- APPALACHIAN NATIONAL SCENIC TRAIL
- EXISTING ROAD/TRAIL
- EXISTING PROPERTY LINE
- EXISTING STATE LINE
- EXISTING COUNTY LINE
- POND
- WETLAND
- ACID FORMING MATERIAL
- EXISTING FOREST
- PROPOSED ACCESS ROAD CENTERLINE
- PROPOSED PIPELINE
- PROPOSED SILT FENCE (SEE NOTE 5)
- PROPOSED SUPER SILT FENCE (SEE DETAIL MVP-ES9.2)
- PROPOSED REINFORCED FILTRATION DEVICE (SEE DETAILS MVP-ES9, 9.1, 9.2, 9.3)
- ORANGE CONSTRUCTION SAFETY FENCE
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- PROPOSED COMPOST FILTER SOCK (SEE DETAILS MVP-ES3, 3.1, 3.2)
- GRASS-LINED CHANNEL (SEE DETAIL MVP-ES39)
- CLEAN WATER DIVERSION PIPE
- CLEAN WATER DIVERSION DIKE (SEE DETAIL MVP-ES50 AND MVP-ES51)
- STREAM FLOW DIRECTION
- FEMA 100 YEAR FLOODPLAIN
- DRAINAGE AREA BOUNDARY
- TIMBER MAT (SEE DETAIL MVP-ES37)
- STEEP SLOPE EROSION CONTROL (SEE NOTE 2)
- STEEP SLOPE AREAS (SEE NOTE 4)
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED TRENCH BREAKER (SEE DETAIL MVP-20)
- TEMPORARY ROW DIVERSION/WATER BAR (SEE DETAIL MP-17)
- PERMANENT SLOPE BREAKER/ROW DIVERSION/WATER BAR (SEE DETAIL MVP-17)

NOTES:

1. TOPSOIL SEGREGATION WILL BE PERFORMED IN ALL IMMEDIATE CONSTRUCTION AREAS OF THE PROJECT IN ACCORDANCE WITH DETAILS MVP-ES46.1 THROUGH MVP-ES46.3.
2. FLEXTERRA, EARTHGUARD OR EQUIVALENT MAY BE USED AS A SUBSTITUTE TO EROSION CONTROL BLANKET AS DIRECTED BY MVP.
3. CONTRACTOR IS RESPONSIBLE TO IDENTIFY ALL UTILITIES. THE UTILITY LINES SHOWN ON THE PLAN ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT REPRESENT SURVEYED LINE INFORMATION.
4. SLOPES OF 30° OR GREATER EXIST. CONSTRUCTION FOR STEEP SLOPES TO BE PERFORMED USING STEEP SLOPE TECHNIQUES IDENTIFIED IN THE DETAIL SHEETS. ALSO REFER TO THE SITE-SPECIFIC DESIGN OF STABILIZATION MEASURES IN SELECTED HIGH-HAZARD PORTIONS OF THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPLELINE PROJECT.
5. WHERE CONSTRUCTION CONDITIONS PRECLUDE THE USE OF DIVERSION DITCHES DUE TO SITE CONDITIONS THE CONTRACTOR WILL INSTALL SILT FENCE AT THE DIRECTION OF MVP.
6. IMPROVEMENTS TO PERMANENT AND TEMPORARY ACCESS ROADS WILL BE PERFORMED PER THE SITE SPECIFIC ACCESS ROAD DETAILS.
7. TEMPORARY ACCESS ROAD CROSSING OF STREAMS AND WETLANDS WILL UTILIZE TIMBERMATS. ANY PERMANENT ROAD CROSSINGS WILL BE CONDUCTED VIA CULVERTS.
8. ALL NON VMRC STREAM CROSSINGS WILL BE PERFORMED AS DESCRIBED IN THE STREAM CROSSING TABLE INCLUDED IN THIS PACKAGE.

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
0	08-10-22	JJZ	DCW	TD	ADDITION OF MVP-ATWS 1691 AND 1690

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

SPREAD 9 - MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15311

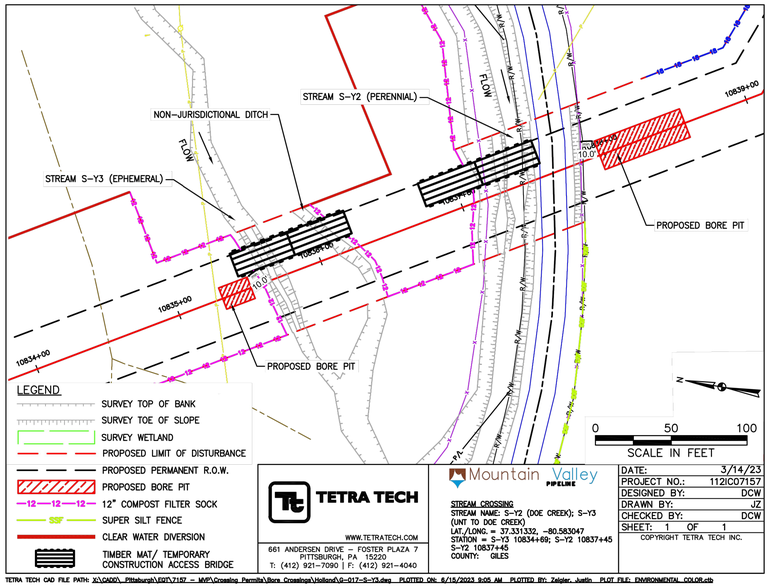
TETRA TECH
complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
8/10/22
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER

DRAWN BY:	JJZ
CHECKED BY:	DW
APPROVED BY:	TD
DATE:	01/27/2022
SCALE:	AS SHOWN
REVISION	0
SHT. NO.	13.90AES OF 13.91ES



TETRA TECH
WWW.TETRATECH.COM
661 ANDERSEN DRIVE – FOSTER PLAZA 7
PITTSBURGH, PA 15220
T: (412) 921-7090 | F: (412) 921-4040

Mountain Valley PIPELINE

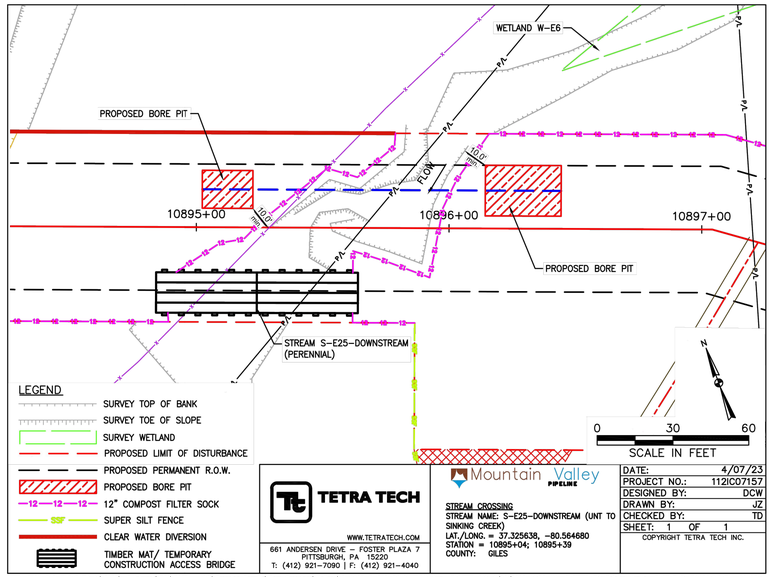
STREAM CROSSING
STREAM NAME: S-Y2 (DOE CREEK); S-Y3 (UNT TO DOE CREEK)
LAT./LONG. = 37.331332, -80.583047
STATION = S-Y3 10834+69; S-Y2 10837+45
S-Y2 10837+45
COUNTY: GILES

DATE:	3/14/23
PROJECT NO.:	112IC07157
DESIGNED BY:	DCW
DRAWN BY:	JZ
CHECKED BY:	DCW
SHEET: 1 OF 1	

COPYRIGHT TETRA TECH INC.

TETRA TECH CAD FILE PATH: X:\CADD_ Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\G-017-S-Y3.dwg PLOTTED ON: 6/15/2023 8:05 AM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

BORE PIT STREAM CROSSING S-Y3, S-Y2
CROSSING ID G-017
PLAN VIEW



TETRA TECH
WWW.TETRATECH.COM
661 ANDERSEN DRIVE – FOSTER PLAZA 7
PITTSBURGH, PA 15220
T: (412) 921-7090 | F: (412) 921-4040

Mountain Valley PIPELINE

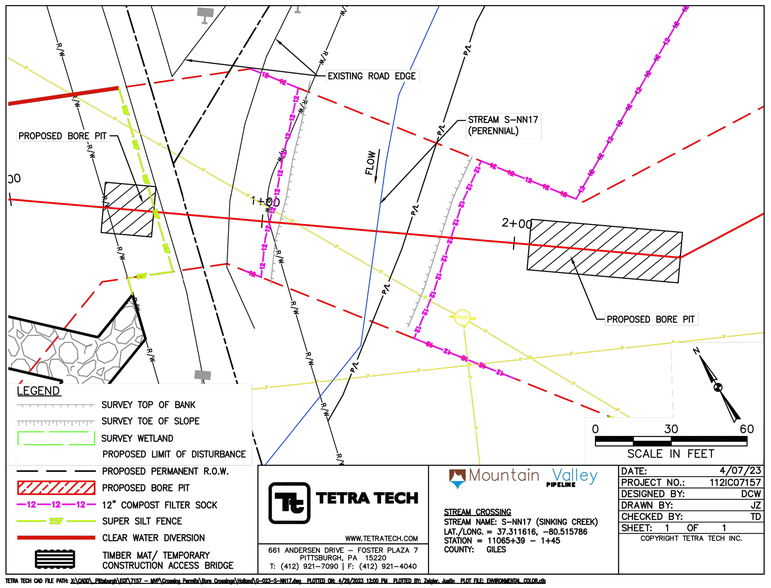
STREAM CROSSING
STREAM NAME: S-E25-DOWNSTREAM (UNT TO SINKING CREEK)
LAT./LONG. = 37.325638, -80.564680
STATION = 10895+04; 10895+39
COUNTY: GILES

DATE:	4/07/23
PROJECT NO.:	112IC07157
DESIGNED BY:	DCW
DRAWN BY:	JZ
CHECKED BY:	TD
SHEET: 1 OF 1	

COPYRIGHT TETRA TECH INC.

TETRA TECH CAD FILE PATH: X:\CADD_ Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\G-019B-S-E25-DOWNSTREAM.dwg PLOTTED ON: 4/28/2023 11:53 AM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

BORE PIT STREAM CROSSING S-E25 DOWNSTREAM
CROSSING ID G-019B
PLAN VIEW



TETRA TECH
WWW.TETRATECH.COM
661 ANDERSEN DRIVE – FOSTER PLAZA 7
PITTSBURGH, PA 15220
T: (412) 921-7090 | F: (412) 921-4040

Mountain Valley PIPELINE

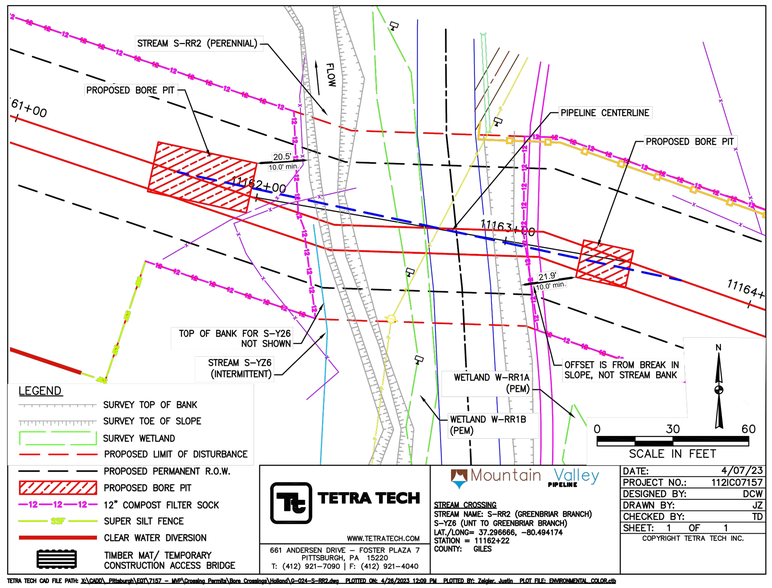
STREAM CROSSING
STREAM NAME: S-NN17 (SINKING CREEK)
LAT./LONG. = 37.311616, -80.515786
STATION = 11065+39 – 1+45
COUNTY: GILES

DATE:	4/07/23
PROJECT NO.:	112IC07157
DESIGNED BY:	DCW
DRAWN BY:	JZ
CHECKED BY:	TD
SHEET: 1 OF 1	

COPYRIGHT TETRA TECH INC.

TETRA TECH CAD FILE PATH: X:\CADD_ Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\G-023-S-NN17.dwg PLOTTED ON: 4/28/2023 12:20 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

BORE PIT STREAM CROSSING S-NN17
CROSSING ID G-023
PLAN VIEW



TETRA TECH
WWW.TETRATECH.COM
661 ANDERSEN DRIVE – FOSTER PLAZA 7
PITTSBURGH, PA 15220
T: (412) 921-7090 | F: (412) 921-4040

Mountain Valley PIPELINE

STREAM CROSSING
STREAM NAME: S-RR2 (GREENBRIAR BRANCH)
S-YZ6 (UNT TO GREENBRIAR BRANCH)
LAT./LONG= 37.296665, -80.494174
STATION = 11162+22
COUNTY: GILES

DATE:	4/07/23
PROJECT NO.:	112IC07157
DESIGNED BY:	DCW
DRAWN BY:	JZ
CHECKED BY:	TD
SHEET: 1 OF 1	

COPYRIGHT TETRA TECH INC.

TETRA TECH CAD FILE PATH: X:\CADD_ Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\G-024-S-RR2.dwg PLOTTED ON: 4/28/2023 12:09 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

BORE PIT STREAM CROSSING S-RR2, S-YZ6, W-RRb1
CROSSING ID G-024
PLAN VIEW

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	05/25/23	JZ	IHH	DCW	BORE CROSSING PERMITS
–	06/16/23	JZ	IHH	DCW	ADDRESS VADEQ COMMENTS ON BORE PITS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – GILES – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

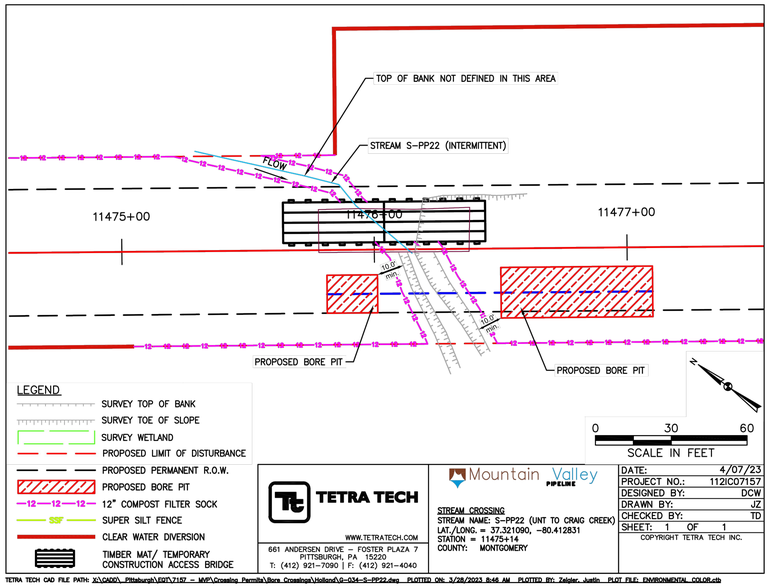
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
6/16/23
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER

DRAWN BY:	JZ
CHECKED BY:	IHH
APPROVED BY:	DCW
DATE:	06/16/2023
SCALE:	AS SHOWN
REVISION	–

SHT. NO. 13.91AES OF 13.91ES

TETRA TECH CAD FILE PATH: X:\CADD_ Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\Figures\Spread 9\7157ES13.91AES.dwg PLOTTED ON: 6/15/2023 9:06 AM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb



TETRA TECH CAD FILE PATH: X:\CADD_Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\G-034-S-PP22.dwg PLOTTED ON: 3/28/2023 8:46 AM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

TETRA TECH
WWW.TETRATECH.COM
661 ANDERSEN DRIVE – FOSTER PLAZA 7
PITTSBURGH, PA 15220
T: (412) 921-7090 | F: (412) 921-4040

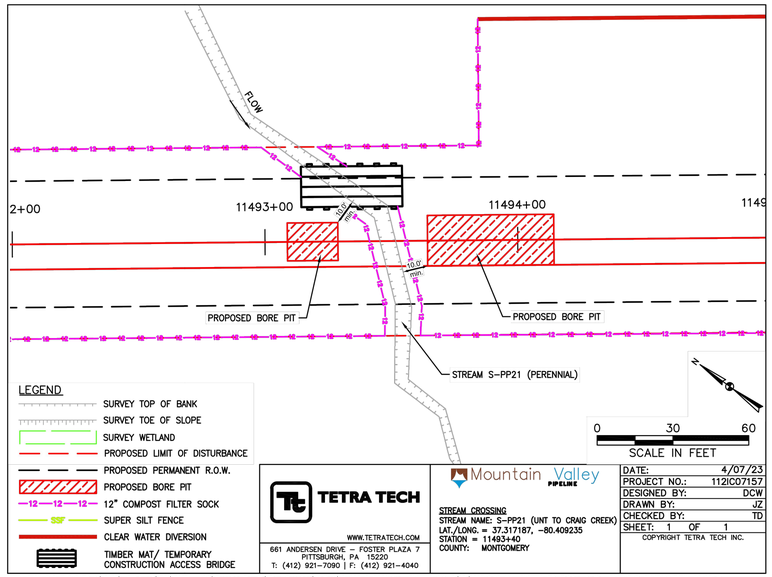
Mountain Valley PIPELINE

STREAM CROSSING
STREAM NAME: S-PP22 (UNT TO CRAIG CREEK)
LAT./LONG. = 37.321090, -80.412831
STATION = 11475+14
COUNTY: MONTGOMERY

DATE:	4/07/23
PROJECT NO.:	112IC07157
DESIGNED BY:	DCW
DRAWN BY:	JZ
CHECKED BY:	TD
SHEET: 1 OF 1	

COPYRIGHT TETRA TECH INC.

BORE PIT STREAM CROSSING S-PP22
CROSSING ID G-034
PLAN VIEW



TETRA TECH CAD FILE PATH: X:\CADD_Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\G-035-S-PP21.dwg PLOTTED ON: 3/28/2023 9:19 AM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

TETRA TECH
WWW.TETRATECH.COM
661 ANDERSEN DRIVE – FOSTER PLAZA 7
PITTSBURGH, PA 15220
T: (412) 921-7090 | F: (412) 921-4040

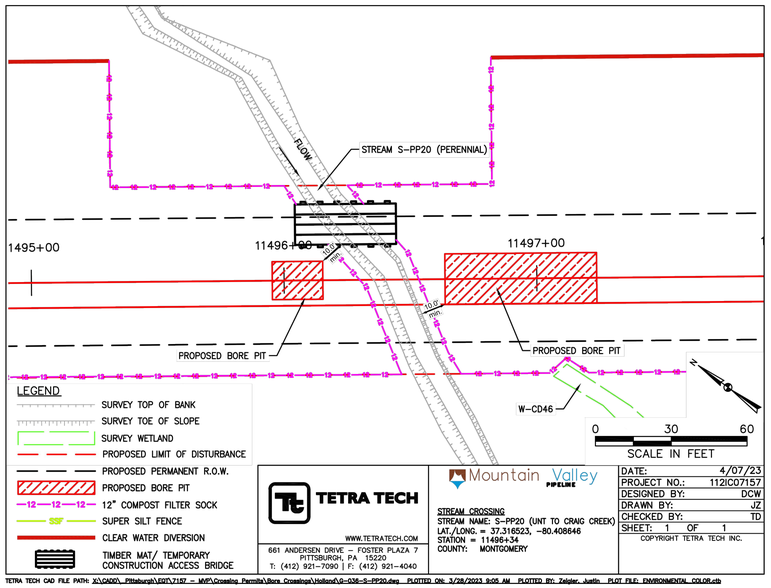
Mountain Valley PIPELINE

STREAM CROSSING
STREAM NAME: S-PP21 (UNT TO CRAIG CREEK)
LAT./LONG. = 37.317187, -80.409235
STATION = 11493+40
COUNTY: MONTGOMERY

DATE:	4/07/23
PROJECT NO.:	112IC07157
DESIGNED BY:	DCW
DRAWN BY:	JZ
CHECKED BY:	TD
SHEET: 1 OF 1	

COPYRIGHT TETRA TECH INC.

BORE PIT STREAM CROSSING S-PP21
CROSSING ID G-035
PLAN VIEW



TETRA TECH CAD FILE PATH: X:\CADD_Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\G-036-S-PP20.dwg PLOTTED ON: 3/28/2023 9:05 AM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

TETRA TECH
WWW.TETRATECH.COM
661 ANDERSEN DRIVE – FOSTER PLAZA 7
PITTSBURGH, PA 15220
T: (412) 921-7090 | F: (412) 921-4040

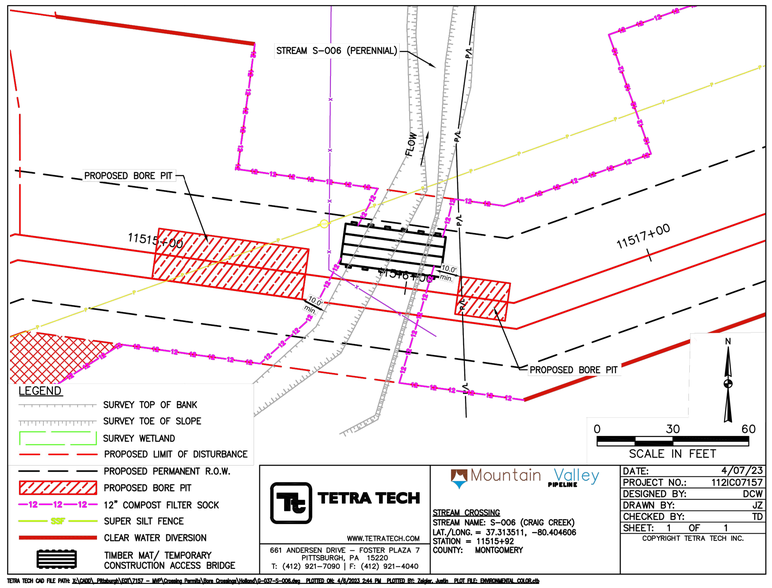
Mountain Valley PIPELINE

STREAM CROSSING
STREAM NAME: S-PP20 (UNT TO CRAIG CREEK)
LAT./LONG. = 37.316523, -80.408646
STATION = 11496+34
COUNTY: MONTGOMERY

DATE:	4/07/23
PROJECT NO.:	112IC07157
DESIGNED BY:	DCW
DRAWN BY:	JZ
CHECKED BY:	TD
SHEET: 1 OF 1	

COPYRIGHT TETRA TECH INC.

BORE PIT STREAM CROSSING S-PP20
CROSSING ID G-036
PLAN VIEW



TETRA TECH CAD FILE PATH: X:\CADD_Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\G-037-S-006.dwg PLOTTED ON: 4/6/2023 2:44 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

TETRA TECH
WWW.TETRATECH.COM
661 ANDERSEN DRIVE – FOSTER PLAZA 7
PITTSBURGH, PA 15220
T: (412) 921-7090 | F: (412) 921-4040

Mountain Valley PIPELINE

STREAM CROSSING
STREAM NAME: S-006 (CRAIG CREEK)
LAT./LONG. = 37.313511, -80.404606
STATION = 11515+92
COUNTY: MONTGOMERY

DATE:	4/07/23
PROJECT NO.:	112IC07157
DESIGNED BY:	DCW
DRAWN BY:	JZ
CHECKED BY:	TD
SHEET: 1 OF 1	

COPYRIGHT TETRA TECH INC.

BORE PIT STREAM CROSSING S-006
CROSSING ID G-037
PLAN VIEW

REVISIONS:

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	04/07/23	JJZ	TD	DCW	BORE CROSSING PERMITS

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – GILES – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

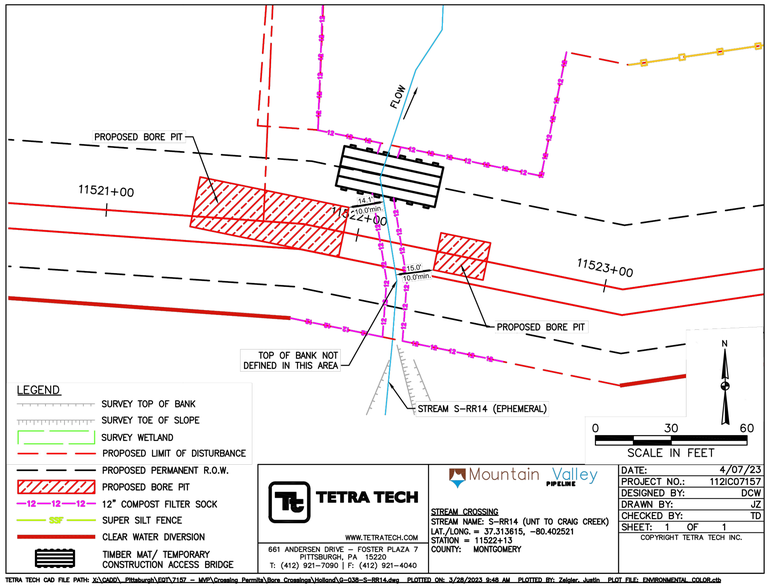
EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
4/7/23
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER

DRAWN BY:	JZ
CHECKED BY:	DCW
APPROVED BY:	TD
DATE:	04/07/2023
SCALE:	AS SHOWN
REVISION	–

SHT. NO. 13.91BES OF 13.91ES

TETRA TECH CAD FILE PATH: X:\CADD_Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\Figures\Spread 9\7157ES13.91BES.dwg PLOTTED ON: 4/6/2023 2:47 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb



TETRA TECH
WWW.TETRATECH.COM
661 ANDERSEN DRIVE – FOSTER PLAZA 7
PITTSBURGH, PA 15220
T: (412) 921-7090 | F: (412) 921-4040

Mountain Valley PIPELINE

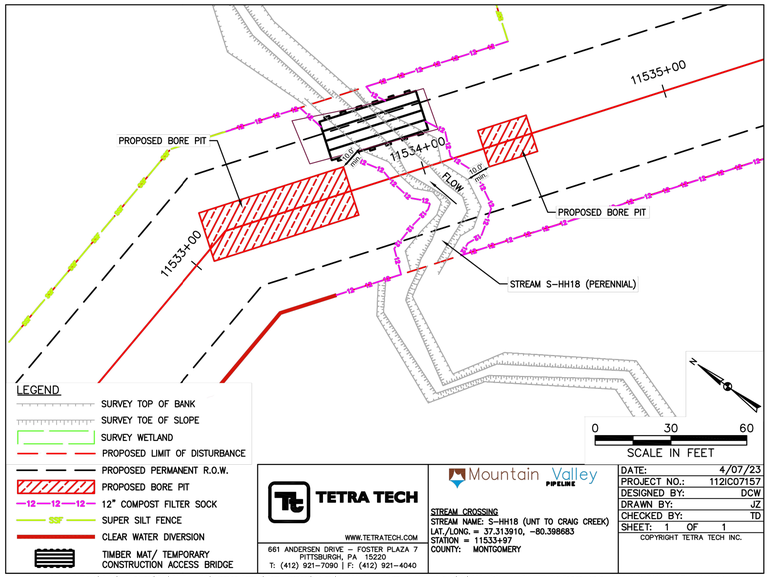
STREAM CROSSING
STREAM NAME: S-RR14 (UNT TO CRAIG CREEK)
LAT./LONG. = 37.313615, -80.402521
STATION = 11522+13
COUNTY: MONTGOMERY

DATE:	4/07/23
PROJECT NO.:	112IC07157
DESIGNED BY:	DCW
DRAWN BY:	JZ
CHECKED BY:	TD
SHEET: 1 OF 1	

COPYRIGHT TETRA TECH INC.

TETRA TECH CAD FILE PATH: X:\CADD_Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\G-038-S-RR14.dwg PLOTTED ON: 3/28/2023 9:48 AM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

BORE PIT STREAM CROSSING S-RR14
CROSSING ID G-038
PLAN VIEW



TETRA TECH
WWW.TETRATECH.COM
661 ANDERSEN DRIVE – FOSTER PLAZA 7
PITTSBURGH, PA 15220
T: (412) 921-7090 | F: (412) 921-4040

Mountain Valley PIPELINE

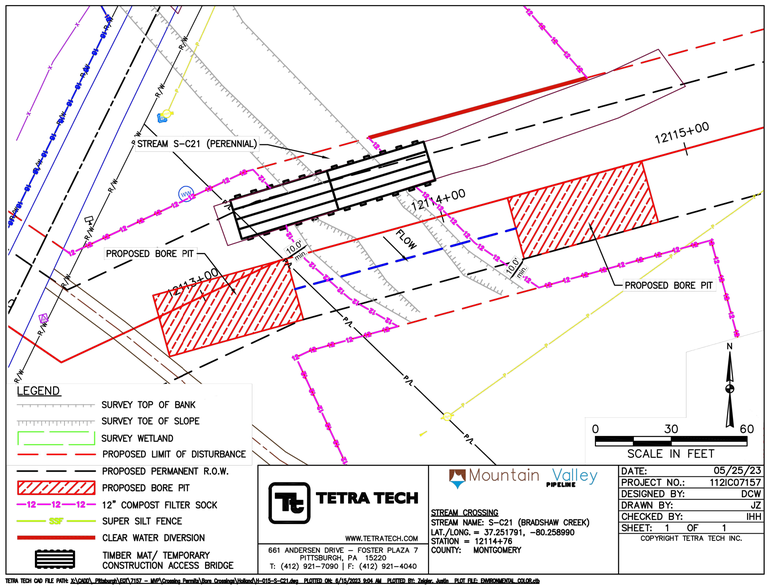
STREAM CROSSING
STREAM NAME: S-HH18 (UNT TO CRAIG CREEK)
LAT./LONG. = 37.313910, -80.398683
STATION = 11533+97
COUNTY: MONTGOMERY

DATE:	4/07/23
PROJECT NO.:	112IC07157
DESIGNED BY:	DCW
DRAWN BY:	JZ
CHECKED BY:	TD
SHEET: 1 OF 1	

COPYRIGHT TETRA TECH INC.

TETRA TECH CAD FILE PATH: X:\CADD_Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\G-039-S-HH18.dwg PLOTTED ON: 3/28/2023 10:01 AM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

BORE PIT STREAM CROSSING S-HH18
CROSSING ID G-039
PLAN VIEW



TETRA TECH
WWW.TETRATECH.COM
661 ANDERSEN DRIVE – FOSTER PLAZA 7
PITTSBURGH, PA 15220
T: (412) 921-7090 | F: (412) 921-4040

Mountain Valley PIPELINE

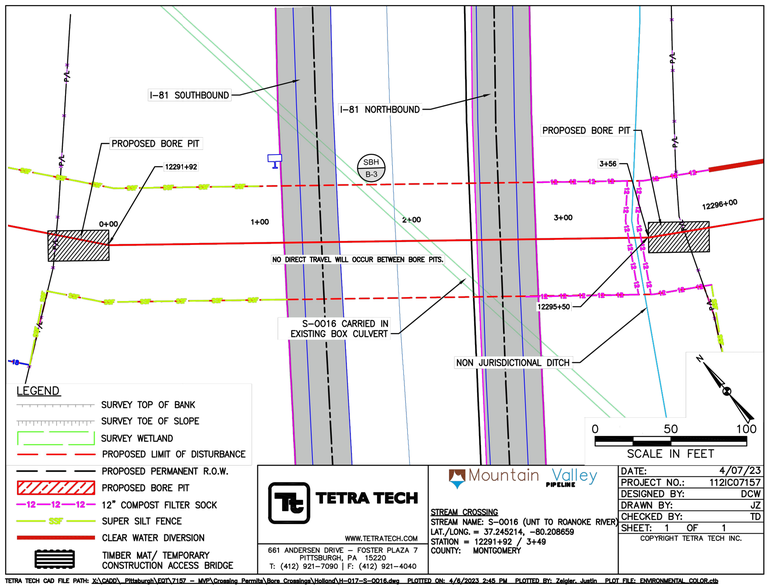
STREAM CROSSING
STREAM NAME: S-C21 (BRADSHAW CREEK)
LAT./LONG. = 37.251791, -80.258990
STATION = 12114+76
COUNTY: MONTGOMERY

DATE:	05/25/23
PROJECT NO.:	112IC07157
DESIGNED BY:	DCW
DRAWN BY:	JZ
CHECKED BY:	IHH
SHEET: 1 OF 1	

COPYRIGHT TETRA TECH INC.

TETRA TECH CAD FILE PATH: X:\CADD_Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\H-015-S-C21.dwg PLOTTED ON: 5/16/2023 8:04 AM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

BORE PIT STREAM CROSSING S-C21
CROSSING ID H-015
PLAN VIEW



TETRA TECH
WWW.TETRATECH.COM
661 ANDERSEN DRIVE – FOSTER PLAZA 7
PITTSBURGH, PA 15220
T: (412) 921-7090 | F: (412) 921-4040

Mountain Valley PIPELINE

STREAM CROSSING
STREAM NAME: S-0016 (UNT TO ROANOKE RIVER)
LAT./LONG. = 37.245214, -80.208659
STATION = 12291+92 / 3+49
COUNTY: MONTGOMERY

DATE:	4/07/23
PROJECT NO.:	112IC07157
DESIGNED BY:	DCW
DRAWN BY:	JZ
CHECKED BY:	TD
SHEET: 1 OF 1	

COPYRIGHT TETRA TECH INC.

TETRA TECH CAD FILE PATH: X:\CADD_Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\H-017-S-0016.dwg PLOTTED ON: 4/6/2023 2:45 PM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb

BORE PIT STREAM CROSSING S-0016
CROSSING ID H-017
PLAN VIEW

NO.:	DATE:	DWN.:	CHKD.:	APPD.:	DESCRIPTION:
–	06/16/23	JZ	IHH	DCW	ADDRESS VAQEO COMMENTS ON BORE PITS
–	05/25/23	JZ	IHH	DCW	BORE CROSSING PERMITS

REVISIONS:

Mountain Valley PIPELINE

EROSION AND SEDIMENT CONTROL PLANS
MOUNTAIN VALLEY PIPELINE PROJECT – H600 LINE
SPREAD 9 – GILES – MONTGOMERY COUNTY, VIRGINIA

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

EROSION AND SEDIMENT CONTROL PLANS

COMMONWEALTH OF VIRGINIA
6/16/23
DANIEL C. WITT
Lic. No. 65093
PROFESSIONAL ENGINEER

DRAWN BY:	JZ
CHECKED BY:	IHH
APPROVED BY:	DCW
DATE:	06/16/2023
SCALE:	AS SHOWN
REVISION	–

SHT. NO. 13.91CES OF 13.91ES

TETRA TECH CAD FILE PATH: X:\CADD_Pittsburgh\EQT\7157 – MVP\Crossing Permits\Bore Crossings\Holland\Figures\Spread 9\7157ES13.91CES.dwg PLOTTED ON: 6/15/2023 9:07 AM PLOTTED BY: Zeigler, Justin PLOT FILE: ENVIRONMENTAL_COLOR.ctb