west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Friday, January 27, 2023
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

MOUNTAIN V OIL & GAS, INC.
PO BOX 904

BUCKHANNON, WV 26201

Re: Permit Modification Approval for C1H WV0487
47-015-03509-00-00

Modified the access road at the entrance.

MOUNTAIN V OIL & GAS, INC.

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

Operator's Well Number:	C1H WV0487
Farm Name:	DALTON HALCOMB ET AL
U.S. WELL NUMBER:	47-015-03509-00-00
Horizontal 6A	New Drill
Date Modification Issued:	1/27/2023

BROWN, GOSHORN, & SWANN LEASE
PAD C FINAL SITE PLAN
MOUNTAIN V OIL & GAS, INC.

PROPOSED WELL NO.'S C1H WV0487, C2H WV0488, & C3H WVO489

SITUATE ON THE WATERS OF LAUREL CREEK
IN HENRY DISTRICT, CLAY COUNTY, WEST VIRGINIA.

PROJECT INFORMATION

PROJECT NAME: BROWN, GOSHORN, & SWANN LEASE (PAD C)

SITE LOCATION:
THE WELL PAD C IS LOCATED ON A RIDGE EAST OF COUNTY ROUTE 13/2 AND SOUTHWEST OF W.V. STATE ROUTE 4, ON THE WATERS OF LAUREL CREEK IN HENRY DISTRICT, CLAY COUNTY, HAVING AN ACCESS ROAD ENTRANCE THAT IS APPROXIMATELY 0.44 MILES SOUTH OF THE INTERSECTION OF W.V. STATE ROUTE 4 AND COUNTY ROUTE 13/2.

SURFACE OWNERS:

ARELETTA DAVIS ET AL
TM 7 PAR 1.1
UNION DISTRICT
CLAY COUNTY, WV
TOTAL PROPERTY AREA: 1.95 ACRES
DISTURBANCE AREA: 0.10 ACRES
TM 6 PAR 152.1
UNION DISTRICT
CLAY COUNTY, WV
TOTAL PROPERTY AREA: 1.604 ACRES
DISTURBANCE AREA: 0.14 ACRES

ARELETTA O'BRION
TM 7 PAR 1
UNION DISTRICT
CLAY COUNTY, WV
TOTAL PROPERTY AREA: 50.48 ACRES
DISTURBANCE AREA: 4.40 ACRES

CHRISTOPHER GROVE
TM 17 PAR 8
HENRY DISTRICT
CLAY COUNTY, WV
TOTAL PROPERTY AREA: 124.45 ACRES
DISTURBANCE AREA: 12.19 ACRES
TM 17 PAR 9
HENRY DISTRICT
CLAY COUNTY, WV
TOTAL PROPERTY AREA: 3 ACRES
DISTURBANCE AREA: 1.46 ACRES

GEAROLD TAYLOR
TM 17 PAR 19.1
HENRY DISTRICT
CLAY COUNTY, WV
TOTAL PROPERTY AREA: 10.584 ACRES
DISTURBANCE AREA: 0.02 ACRES
TM 17 PAR 19
HENRY DISTRICT
CLAY COUNTY, WV
TOTAL PROPERTY AREA: 14.93 ACRES
DISTURBANCE AREA: 0.10 ACRES

JIM LENNOX & RONALD GIVEN
TM 17 PAR 33
HENRY DISTRICT
CLAY COUNTY, WV
TOTAL PROPERTY AREA: 51.82 ACRES
DISTURBANCE AREA: 1.24 ACRES

DALTON HOLCOMB ET AL
TM 17 PAR 37
HENRY DISTRICT
CLAY COUNTY, WV
TOTAL PROPERTY AREA: 23.20 ACRES
DISTURBANCE AREA: 1.26 ACRES

WALTER H. PRIMUS, JR
TM 17 PAR 6 &10
HENRY DISTRICT
CLAY COUNTY, WV
TOTAL PROPERTY AREA: 20 & 22 ACRES
DISTURBANCE AREA: 1.43 ACRES

JOSEPH FITZWATER
TM 17 PAR 14
HENRY DISTRICT
CLAY COUNTY, WV
TOTAL PROPERTY AREA: 67.72 ACRES
DISTURBANCE AREA: 0.40 ACRES

PROPERTY DISTURBANCE COMPUTATIONS

TAX MAP 7 PARCEL 1.1	= 0.10 ± ACRES
TAX MAP 6 PARCEL 152.1	= 0.14± ACRES
TAX MAP 7 PARCEL 1	= 4.40 ± ACRES
TAX MAP 17 PARCEL 18	= 12.19± ACRES
TAX MAP 17 PARCEL 19.1	= 0.02± ACRES
TAX MAP 17 PARCEL 19	= 0.10± ACRES
TAX MAP 17 PARCEL 33	= 1.24± ACRES
TAX MAP 17 PARCEL 9	= 1.46± ACRES
TAX MAP 17 PARCEL 37	= 1.26± ACRES
TAX MAP 17 PARCELS 6 &10	= 1.43± ACRES
TAX MAP 17 PARCEL 14	= 0.40± ACRES
TOTAL SITE DISTURBANCE	= 22.74± ACRES

SITE DISTURBANCE COMPUTATIONS

WELL PAD AREA	= 4.30 ± ACRES
MAIN ACCESS AREA	= 13.00 ± ACRES
TOPSOIL STOCKPILE AREAS	= 2.76± ACRES
EXCESS MATERIAL STOCKPILE AREAS	= 2.68± ACRES
TOTAL SITE DISTURBANCE	= 22.74 ± ACRES

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

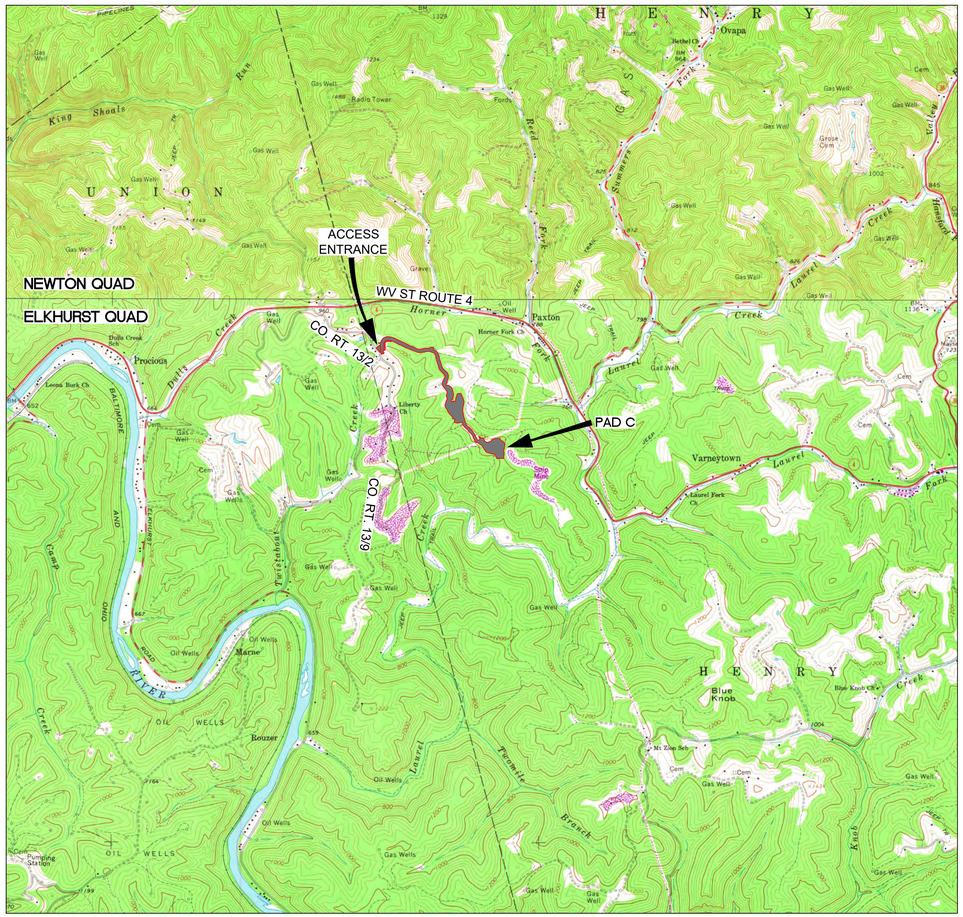
ENVIRONMENTAL NOTE

A WETLAND/STREAM DELINEATION WAS PERFORMED ON 08-03-2022 AND 10-11-2022 BY SLS TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY PURVIEW OF THE U.S. ARMY CORPS OF ENGINEERS (USACE). THIS DELINEATION DOES NOT, IN ANY WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE LANDWARD LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE. IT IS STRONGLY RECOMMENDED THAT THE USACE BE CONSULTED IN AN EFFORT TO GAIN WRITTEN CONFIRMATION OF THE DELINEATION DESCRIBED BY THIS REPORT PRIOR TO ENGAGING IN CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S. INCLUDING WETLAND FILLS AND STREAM CROSSINGS.

RESTRICTIONS NOTES:

1. THERE ARE NO WETLANDS OR PERENNIAL STREAMS WITHIN 100 FEET OF THE WELL PAD LOD, OR WITHIN THE TOTAL SITE LOD.
2. THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 300 FEET OF THE WELL PAD AND LOD.
3. THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE WELL PAD AND LOD.
4. THERE ARE NO APPARENT EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF THE WELL(S) BEING DRILLED.
5. THERE ARE NO DWELLINGS WITHIN 625 FEET OF THE CENTER OF THE PROPOSED WELL PAD.
6. THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 625 FEET OF THE CENTER OF THE WELL PAD.

GRID NORTH (NAD83) AND SURVEYED ELEVATIONS (NAVD 88) SHOWN HEREON WERE ESTABLISHED BY GPS SURVEY GRADE EQUIPMENT.



GENERAL DESCRIPTION

THE PAD C IS BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL HORIZONTAL WEIR GAS WELLS.

GEOTECHNICAL NOTE

NO SUBSURFACE INVESTIGATION OF THIS SITE WAS PERFORMED.

ENTRANCE PERMIT

MOUNTAIN V OIL AND GAS, INC. WILL OBTAIN AN ENCROACHMENT PERMIT (FORM MM-109) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

MISS UTILITY STATEMENT

MISS UTILITY OF WEST VIRGINIA WAS NOTIFIED FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN; TICKET #2222057663. IN ADDITION, MISS UTILITY WILL BE CONTACTED PRIOR TO START OF THE PROJECT.

FLOODPLAIN NOTE

ACCORDING TO FLOOD INSURANCE RATE MAP NUMBER 54015C0185C DATED FEBRUARY 6, 2013, THE SITE IS NOT LOCATED WITHIN KNOWN FLOOD HAZARD ZONE.

LOCATION COORDINATES

SITE ENTRANCE
LATITUDE: 38.496257 LONGITUDE: -81.182276 (NAD 83)

CENTER OF WELL PAD
LATITUDE: 38.488830 LONGITUDE: -81.170834 (NAD 83)

LIST OF DRAWINGS

1 - COVER SHEET
2 - NOTES
3 - NOTES
4 - NOTES
5 - SHEET INDEX
6-8 ACCESS ROAD
9 - ACCESS ROAD AND WELL PAD
10 - WELL PAD DETAIL
11-14 ACCESS ROAD PROFILES
15-19 ACCESS ROAD SECTIONS
20 - WELL PAD PROFILES
21 - RECLAMATION PLAN
22-24 CONSTRUCTION DETAILS

MISS Utility of West Virginia
1-800-245-4848
West Virginia State Law
(Section XIV: Chapter 24-C)
Requires that you call two business days before you dig in the state of West Virginia.
IT'S THE LAW!!

LEGEND

EXISTING	PROPOSED
INDEX CONTOUR	INDEX CONTOUR
INTERMEDIATE CONTOUR	INTERMEDIATE CONTOUR
BOUNDARY LINE	
ROAD EDGE OF GRAVEL/DIRT	PROPOSED EXPANDED LIMITS OF DISTURBANCE
ROAD EDGE OF PAVEMENT	
ROAD CENTERLINE	LIMITS OF DISTURBANCE
DITCHLINE	WELL PAD
CULVERT	WELL HEAD
FENCELINE	4" PVC DRAIN PIPE
GATE	SUMP DRAIN
OVERHEAD UTILITY	CONTAINMENT BERM
OVERHEAD UTILITY R/W	
POWER POLE	
GUY WIRE	
TELEPHONE LINE	
GASLINE	ROCK CONSTRUCTION ENTRANCE
GASLINE R/W	
WATERLINE	
WATER METER OR SPIGOT	
GAS WELL	
TREELINE	ROAD EDGE OF GRAVEL
DELINEATED STREAM	ROAD CENTERLINE
	V-DITCH W/ CHECK DAMS
DELINEATED WETLAND	PAD UNDERDRAIN
	DITCH RELIEF CULVERT (DRC)
BUILDING AS NOTED	RIP-RAP OUTLET PROTECTION
100' WETLAND/STREAM BUFFER	12" COMPOST FILTER SOCK — CS-12
SLS AREA OF INTEREST	18" COMPOST FILTER SOCK — CS-18
	24" COMPOST FILTER SOCK — CS-24
	18" TRIPLE STACK COMPOST FILTER SOCK — CS-ST
	PROFILE LINE — PROFILE 1, 0+00 to 0+50
	X-SECTION GRID INDEX
	X-SECTION GRID INTERMEDIATE
	X-SECTION PROPOSED GRADE
	X-SECTION EXISTING GRADE
	SPOT ELEVATION — 1000.0
	SUBGRADE ELEVATION — 1387.53'
	SUBGRADE SLOPE
	FINISH GRADE ELEVATION — 1388.53'
	FINISH GRADE SLOPE
	RIP-RAP DIVERSION DITCH

OPERATOR

MOUNTAIN V
OIL AND GAS, INC.
P.O. BOX 904
BUCKHANNON, WV 26201
PHONE: (304) 203-7550

ENGINEER/SURVEYOR

SLS LAND & ENERGY DEVELOPMENT
12 VANHORN DRIVE
P.O. BOX 150
GLENVILLE, WV 26351
PHONE: (304) 462-5634

REVISION DATE	DETAILS
01/05/2023	UPDATED ITEMS PER WVDEP INSPECTOR COMMENTS, LABELED ITEMS PER WVDEP COMMENTS, ADDED ACCESS STOCKPILE & WELL BORE DIAMETER, REVISED ENTRANCE
01/23/2023	

MOUNTAIN V OIL & GAS, INC.

SLS FROM THE GROUND UP
12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
ADDITIONAL OFFICE LOCATIONS: 1106 Charleston Road | Spencer, WV 25276 | 304.927.5910
Arthur Byrnes | Beckley, WV 25801 | 304.255.0266
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.0266
slsenv.com

RICHARD E. THOMAS
REGISTERED
9715
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER
01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT
FOR: MOUNTAIN V OIL AND GAS

COVER SHEET
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022
SCALE: AS SHOWN
DESIGNED BY: C.P.M.
FILE NO. 9235
SHEET 1 OF 24
REV: 01-23-2023

PAD C FINAL SITE PLAN
MOUNTAIN V OIL AND GAS, INC.
CONSTRUCTION NOTES

CONSTRUCTION SEQUENCE:

THE DEVELOPMENT OF THIS SITE SHALL BE CONSISTENT WITH THE FOLLOWING GENERAL SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL IMPLEMENT, MAINTAIN, AND OPERATE ALL PROPOSED EROSION AND SEDIMENT CONTROL MEASURES TO EFFECTIVELY MITIGATE THE HAZARD OF ACCELERATED EROSION AND SEDIMENTATION TO ACCEPTABLE LEVELS. MINOR DEVIATIONS FROM THIS SEQUENCE SHALL BE EXECUTED BY THE PROJECT'S SUPERINTENDENT AS NEEDED TO ELIMINATE ANY POTENTIAL EROSIVE CONDITION THAT MAY ARISE FOR THE DURATION OF THE PROJECT. THE WVDEP OFFICE OF OIL AND GAS SHALL BE NOTIFIED OF ANY AND ALL SUCH DEVIATIONS FROM THE APPROVED PLANS.

1. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD WITH THE CONTRACTOR AND APPROPRIATE EROSION AND SEDIMENT CONTROL INSPECTOR 48 HOURS PRIOR TO BEGINNING WORK TO REVIEW THE CONSTRUCTION DRAWINGS AND PROVIDE ANY REQUESTED GUIDANCE.

2. STAKE THE LIMITS OF CONSTRUCTION AND MARK ALL IDENTIFIED WETLANDS, STREAMS, AND OTHER AREAS OF CONCERN FOR CONSTRUCTION ACTIVITIES. INSTALL SIGNS TO DESIGNATE THE AREAS AND ORANGE SAFETY FENCE TO IDENTIFY IMPORTANT PROJECT ATTRIBUTES SUCH AS APPROVED ACCESS ROADS, NO REFUELING ZONES, WETLANDS/STREAM BOUNDS, ETC.

3. CONSTRUCT THE ROCK CONSTRUCTION ENTRANCE. ALL VEHICLES ENTERING AND EXITING THE SITE SHALL DO SO VIA THE ROCK CONSTRUCTION ENTRANCE.

4. INSTALL ALL BMPS NECESSARY TO BEGIN CLEARING AND GRUBBING OF THE SITE AS SHOWN ON THE PLANS AND DETAILS.

5. RELOCATE EXISTING GAS LINES AS NEEDED.

6. CLEAR AND GRUB THE ACCESS ROAD, WELL PAD, AND AST PAD AREAS. ALL WOODY MATERIAL, BRUSH, TREES, STUMPS, LARGE ROOTS, BOULDERS, AND DEBRIS SHALL BE CLEARED FROM THE SITE AREA AND KEPT TO THE MINIMUM NECESSARY FOR PROPER CONSTRUCTION, INCLUDING THE INSTALLATION OF NECESSARY SEDIMENT CONTROLS.

7. IF APPLICABLE, INSTALL ALL WETLAND OR STREAM CROSSINGS AS SHOWN ON THE PLANS.

8. STRIP THE TOPSOIL FROM THE ACCESS ROAD, WELL PAD, AND AST PAD. ALL STRIPPED TOPSOIL SHALL BE STOCKPILED IN AREAS SHOWN ON THE PLANS, AND IMMEDIATELY STABILIZED. ADDITIONAL BMP MEASURES SHALL BE CONSTRUCTED AROUND TOPSOIL STOCKPILES, IF NECESSARY.

9. CONSTRUCT THE ACCESS ROAD. PROPOSED CROSS CULVERTS AND ROAD SIDE DITCHES. AS ACCESS ROAD CONSTRUCTION PROGRESSES, BEGIN WELL PAD CONSTRUCTION. AS FILL SLOPES ARE CONSTRUCTED, INSTALL SLOPE INTERRUPTION COMPOST FILTER SOCK AS LABELED ON THE PLANS AND SHOWN ON THE DETAILS.

10. INSTALL DITCH RELIEF CULVERTS AT A MINIMUM SLOPE OF 1% AND APPROXIMATELY 30 DEGREES DOWNGRADE TO THE CENTERLINE OF THE DITCH. INSTALL OUTLET PROTECTION AS SHOWN ON PLANS AND DETAILS AS CROSS CULVERTS ARE INSTALLED AND IMMEDIATELY STABILIZE ROAD SIDE DITCHES WITH ROCK. STABILIZE THE ROAD WITH GEOTEXTILE FABRIC AND STONE AND SIDE SLOPES AS SPECIFIED WITH PERMANENT SEEDING. STOCKPILE AND STABILIZE EXCESS MATERIAL ALONG THE ACCESS ROAD, AS NEEDED.

11. ALL DITCH LINES SHALL BE CLEANED PRIOR TO INSTALLATION OF LINED PROTECTION. ALL DITCHES SHALL BE ROCK LINED WITH D50 = 6" MIN. SIZED RIPRAP UNLESS SPECIFIED OTHERWISE.

12. FINALIZE GRADING OF THE WELL PAD, AND AST PAD AREAS. IMMEDIATELY STABILIZE THE OUTER AREAS OF THE WELL PAD, AND AST PAD. THE PAD SHALL BE STABILIZED WITH GEOTEXTILE FABRIC AND STONE. STABILIZE ALL SIDE SLOPES WITH COCONUT EROSION CONTROL BLANKETS. APPLY SEED AND MULCH TO ALL DISTURBED AREAS. THIS SHALL BE INCLUDED IN ALL AREAS THAT WILL NOT BE SUBJECT TO REGULAR TRAFFIC ACTIVITY (TO BE STABILIZED WITH STONE), OR ANY DISTURBED AREA THAT WILL NOT BE RE-DISTURBED BEFORE SITE RECLAMATION BEGINS.

13. PREVIOUSLY DISTURBED AREAS AND IMMEDIATE DOWN SLOPE AREAS SHALL BE INSPECTED AFTER EACH RAINFALL STORM EVENT AND MONITORED WEEKLY FOR SIGNS OF ACCELERATED EROSION. IMPLEMENT ADDITIONAL BMPS AS DEEMED NECESSARY. THESE INSPECTIONS SHALL CONTINUE DURING THE DURATION OF THE PROJECT AND SUBSEQUENT SITE RECLAMATION.

14. COMMENCE THE DRILLING ACTIVITY.

15. DISTURBED AREAS ARE TO BE RE-VEGETATED AND STABILIZED FOLLOWING RECLAMATION. CONTINUE TO MONITOR THESE AREAS TO ENSURE A UNIFORM RATE OF 70% VEGETATIVE COVERAGE IS MAINTAINED. ANY AREAS FOUND TO BE DEFICIENT SHALL BE RE-SEEDED AND MULCHED. THE TEMPORARY E&S CONTROL BMPS MAY BE REMOVED UPON ACHIEVING 70% VEGETATIVE COVER, FOLLOWING APPROVAL FROM THE WVDEP.

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

MOUNTAIN V OIL & GAS, INC.

SLS FROM THE GROUND UP

RICHARD G. TRUMP
PROFESSIONAL ENGINEER
9715
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER
01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

NOTES
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022
SCALE: NOT TO SCALE
DESIGNED BY: C.P.M.
FILE NO. 9235
SHEET 2 OF 24
REV: 01-23-2023

PAD C FINAL SITE PLAN
MOUNTIAN V OIL AND GAS, INC.
CONSTRUCTION NOTES

WELL PAD CONSTRUCTION STANDARDS:

THE DESIGN, CONSTRUCTION, AND REMOVAL OF EMBANKMENTS ASSOCIATED WITH
THE WELL PAD MUST BE ACCOMPLISHED IN SUCH A MANNER AS TO PROTECT
THE HEALTH AND SAFETY OF THE PEOPLE, THE NATURAL RESOURCES, AND
ENVIRONMENT OF THE STATE. THE EMBANKMENTS SHALL BE DESIGNED,
CONSTRUCTED, AND MAINTAINED TO BE STRUCTURALLY SOUND AND
REASONABLY PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.

1. THE FOUNDATION FOR THE WELL PAD MUST BE STRIPPED AND GRUBBED TO A MINIMUM DEPTH OF 2 FEET PRIOR TO PLACEMENT AND COMPACTION OF
EARTHEN FILL MATERIAL. NO EMBANKMENT FILL SHALL BE PLACED ON FROZEN
MATERIAL. REMOVE ROCK PIECES GREATER THAN 6 INCHES IN ANY DIMENSION.
BACKFILL VOIDS CREATED BY REMOVAL OF ROCK.

2. ANY SPRINGS ENCOUNTERED WITHIN THE FOUNDATION AREA SHALL BE DRAINED TO OUTSIDE/DOWNSTREAM TOE OF EMBANKMENT. SEEPAGE FROM SPRINGS TO BE COLLECTED AT THEIR ORIGINS IN COLLECTION PITS, WITH TRENCH DRAINS DIRECTING THE FLOW UNTIL THEY CAN BE OUTLETTED WELL BEYOND THE LIMITS OF THE FILL SLOPE. COLLECTION PITS SHOULD BE LINED WITH FILTER FABRIC AND BACKFILLED WITH CLEAN STONE OR RIPRAP. A SOLID PIPE SHOULD BE INSTALLED TO OUTLET THE SPRING FLOWS. BACKFILL AROUND THE OUTLET PIPE WITHIN TEN (10) FEET OF THE PIT SHOULD BE ACCOMPLISHED USING CLAY SOILS TO CREATE A RELATIVELY IMPERVIOUS WATER STOP.

3. SOILS FOR EARTHEN EMBANKMENT CONSTRUCTION SHALL BE LIMITED TO TYPES GC, GM, SC, SM, CL, OR ML (ASTMD-2487 - UNIFIED SOILS CLASSIFICATION). SOILS MUST CONTAIN A MINIMUM OF 20% PF PLUS NO. 200 MATERIAL AND BE "WELL GRADED" WITH NO COBBLES OR BOULDER SIZE MATERIAL MIXED WITH CLAY. A MINIMUM OF THREE SAMPLES SHALL BE CLASSIFIED.

4. THE EARTHEN EMBANKMENT SHALL BE COMPACTED BY A VIBRATING SHEEPSFOOT ROLLER FOLLOWED BY A SMOOTH DRUM VIBRATING ROLLER. THE LIFTS MUST BE IN HORIZONTAL LAYERS WITH A MAXIMUM LOOSE LIFT THICKNESS OF 10" AND MAXIMUM PARTICLE SIZE LESS THAN 6". ALL FILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST (ASTMD-698). LIFTS WITHIN (3) FEET OF FINAL SUBGRADE AND ALL FILL WITHIN THE SOUTH EMBANKMENT OF THE WELL PAD ARE TO ACHIEVE 98% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST (ASTMD-698). ALL SOIL TO BE WITHIN 3%+/- OF OPTIMUM MOISTURE CONTENT FOR COMPACTION.

5. ALL FILL MATERIAL SHALL BE FREE OF WOOD, STUMPS AND ROOTS, LARGE ROCKS AND BOULDERS, AND ANY OTHER NONCOMPACTABLE SOIL MATERIAL. THE EMBANKMENT SHALL BE COMPACTED TO A MINIMUM OF VISIBLE NON-MOVEMENT. THE MINIMUM SIDESLOPES SHALL BE 2H:1V. UNLESS OTHERWISE SPECIFIED.

6. ALL EXPOSED EMBANKMENT SLOPES, NOT COVERED BY COMPACTED ROCK FILL OR RIP-RAP SHALL BE LIMED, FERTILIZED, SEEDED AND MULCHED. PERMANENT VEGETATIVE GROUND COVER IN COMPLIANCE WITH THE WVDEP EROSION AND SEDIMENT CONTROL FIELD MANUAL MUST BE ESTABLISHED UPON THE COMPLETION OF THE PAD CONSTRUCTION. EMBANKMENTS SHALL BE MAINTAINED WITH A GRASSY VEGETATIVE COVER AND FREE OF BRUSH AND/OR TREES. USE 10-20-20 FERTILIZER FOR PERMANENT VEGETATION. SEE THE REVEGETATION INFORMATION PROVIDED IN THIS PLAN FOR FURTHER INFORMATION.

7. ROCK FILL LIFTS WILL BE NO GREATER THAN 24 INCHES.

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

SITE CLEANUP & RECYCLE PROGRAM

1. GARBAGE, FUELS OR ANY SUBSTANCE HARMFUL TO HUMAN, AQUATIC OR FISH LIFE, WILL BE PREVENTED FROM ENTERING SPRINGS, STREAMS, PONDS, LAKES, WETLANDS OR ANY WATER COURSE OR WATER BODY.

2. OILS, FUELS, LUBRICANTS AND COOLANTS WILL BE PLACED IN SUITABLE CONTAINERS AND DISPOSED PROPERLY.

3. ALL TRASH AND GARBAGE WILL BE COLLECTED AND DISPOSED PROPERLY.

4. ALL SEDIMENT REMOVED FROM SEDIMENT CAPTURING DEVICES SHALL BE PLACED ON THE TOPSOIL STOCKPILE, THEN SEEDED AND MULCHED, AS NECESSARY. ALTERNATIVELY, THE REMOVED SEDIMENT CAN BE TRANSPORTED TO A SITE WITH AN APPROVED PERMIT.

CONSTRUCTION NOTES:

1. THE CONTRACTOR IS TO VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION AND WILL NOTIFY SLS LAND & ENERGY DEVELOPMENT (304) 462-5634 IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLAN. ANY WORK PERFORMED BY THE CONTRACTOR AFTER THE FINDING OF SUCH DISCREPANCIES SHALL BE DONE AT THE CONTRACTOR'S RISK.

2. METHODS AND MATERIALS USED IN THE CONSTRUCTION OF THE IMPROVEMENTS HEREIN SHALL CONFORM TO THE CURRENT COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS AND/OR CURRENT WVDEP EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL STANDARDS AND SPECIFICATIONS. SHOULD A CONFLICT BETWEEN THE DESIGN, SPECIFICATIONS, AND PLANS OCCUR, THE MOST STRINGENT REQUIREMENT WILL APPLY. THE APPROVAL OF THESE PLANS IN NO WAY RELIEVES THE DEVELOPER OR HIS AGENT OF THE RESPONSIBILITIES CONTAINED IN THE WVDEP EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL.

3. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE.

4. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING MUD FROM TRUCKS AND/OR OTHER EQUIPMENT PRIOR TO ENTERING PUBLIC STREETS, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS, ALLAY DUST, AND TO TAKE WHATEVER MEASURES ARE NECESSARY TO INSURE THAT THE STREETS ARE MAINTAINED IN A CLEAN, MUD- AND DUST-FREE CONDITION AT ALL TIMES.

5. THE LOCATION OF EXISTING UTILITIES SHOWN IN THESE PLANS ARE FROM FIELD LOCATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES AS NEEDED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ENGINEER OF ANY CONFLICTS ARISING FROM THIS EXISTING UTILITY VERIFICATION AND THE PROPOSED CONSTRUCTION.

6. THE CONTRACTOR SHALL PROVIDE NOTIFICATION TO THE APPROPRIATE UTILITY COMPANY PRIOR TO CONSTRUCTION OF WATER AND/OR GAS PIPELINES. INFORMATION SHOULD ALSO BE OBTAINED FROM THE APPROPRIATE AUTHORITY CONCERNING PERMITS, CUT SHEETS, AND CONNECTIONS TO EXISTING LINES.

7. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO THE EXISTING STREETS AND UTILITIES WHICH OCCUR AS A RESULT OF THIS CONSTRUCTION PROJECT WITHIN OR CONTIGUOUS TO THE EXISTING RIGHT-OF-WAY.

8 . WHEN GRADING IS PROPOSED WITHIN EASEMENTS OF UTILITIES, LETTERS OF PERMISSION FROM ALL INVOLVED COMPANIES MUST BE OBTAINED PRIOR TO GRADING AND/OR SITE DEVELOPMENT.

9 . THE DEVELOPER WILL BE RESPONSIBLE FOR THE RELOCATION OF ANY UTILITIES WHICH IS REQUIRED AS A RESULT OF THIS PROJECT. THE RELOCATION SHOULD BE DONE PRIOR TO CONSTRUCTION.

10. THESE PLANS IDENTIFY THE LOCATION OF ALL KNOWN GRAVE SITES. GRAVE SITES SHOWN ON THIS PLAN WILL BE PROTECTED IN ACCORDANCE WITH WEST VIRGINIA STATE LAW. IN THE EVENT GRAVE SITES ARE DISCOVERED DURING CONSTRUCTION, THE OWNER AND ENGINEER MUST BE NOTIFIED IMMEDIATELY.

11. THE CONTRACTOR(S) SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATING OR BLASTING AT LEAST TWO (2) WORKING DAYS, BUT NOT MORE THAN TEN (10) WORKING DAYS, PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION.

12. CONTRACTOR IS TO CONTACT OPERATOR AND ENGINEER IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION. THE ENGINEER OR SURVEYOR IS NOT RESPONSIBLE FOR ANY BURIED WATER WELLS, SPRINGS OR ANY OTHER FEATURES UNCOVERED DURING CONSTRUCTION.

13. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE EROSION AND SEDIMENT CONTROL INSPECTOR 2 DAYS PRIOR TO THE START OF CONSTRUCTION.

14. ALL MATERIAL TESTS SHALL BE CONDUCTED BY A CERTIFIED MATERIALS TESTING LABORATORY AND A CERTIFICATION OF THE MATERIALS TESTED SHALL BE PROVIDED BY A LICENSED PROFESSIONAL ENGINEER REPRESENTING THE LABORATORY. ALL TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER CERTIFYING THE CONSTRUCTED FACILITY. FAILURE TO CONDUCT THE DENSITY TEST SHALL BE CAUSE FOR NON-ACCEPTANCE OF THE CONSTRUCTED
FACILITY.

15. SATISFACTORY MATERIALS FOR USE AS FILL FOR PAD AREAS INCLUDE MATERIALS CLASSIFIED BY ASTM D-2487 AS GM, GC, SM, SC, ML, AND CL. MOISTURE CONTENT WILL BE CONTROLLED IN ACCORDANCE WITH THE STANDARD PROCTOR TEST (ASTM-D698) RESULTS. UNSATISFACTORY MATERIALS INCLUDE MATERIALS CLASSIFIED BY ASTM D-2487 AS PT, CH, MH, OL, OH, AND ANY SOIL TOO WET TO FACILITATE COMPACTION. CH AND MH SOILS MAY BE USED SUBJECT TO APPROVAL OF THE ENGINEER. SOILS SHALL HAVE A MINIMUM DRY DENSITY OF 92 LB/CF PER ASTM D-698 AND SHALL HAVE A PLASTICITY INDEX LESS THAN 20.

16. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING THE SITE IN ACCORDANCE WITH THE DESIGN PLANS AND CONSTRUCTION DOCUMENTS AND THE SCOPE OF WORK SHALL CONFORM WITH THE GRADES, BERMS, DEPTHS, DIMENSIONS, ETC. SHOWN HEREON.

MOUNTAIN V OIL & GAS, INC.

SLS FROM THE GROUND UP
12 Vanhorn Drive | P.O. Box 260 | Glenville, WV 26351 | 304.462.4354
1124 Smith Street, Suite 3300 | Charleston, WV 25301 | 304.205.5501
104 East Bockrer Bypass | Buckhannon, WV 26201 | 304.265.0266

RICHARD G. TRUMP
LICENSED
PROFESSIONAL
ENGINEER
9715
STATE OF
WEST VIRGINIA
REGISTERED
PROFESSIONAL ENGINEER
01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT
FOR: MOUNTAIN V OIL AND GAS

NOTES
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022
SCALE: NOT TO SCALE
DESIGNED BY: C.P.M.
FILE NO. 9235
SHEET 3 OF 24
REV: 01-23-2023

PAD C FINAL SITE PLAN
MOUNTAIN V OIL AND GAS, INC.
CONSTRUCTION NOTES

CONSTRUCTION NOTES CONTINUED:

PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH THIS TITLE

THE RECYCLING AND DISPOSAL OF MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. COMPLY WITH AIR QUALITY, WATER QUALITY, SOLID WASTE MANAGEMENT POLICIES, ETC. CONSTRUCTION WASTES MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

* EXCESS SOIL MATERIALS (1)
* TREES, SHRUBS AND BRUSH REMOVED DURING CLEARING AND GRUBBING (2)
* SANITARY WASTES (3)
* CONCRETE WASH WATER (3)
* PACKAGING MATERIALS (WOOD, PAPER, PLASTIC, STYROFOAM, ETC.) (3) SCRAP OR SURPLUS BUILDING MATERIALS (METALS, RUBBER, PLASTIC, GLASS, MASONRY PRODUCTS, AND OTHER SOLID WASTE MATERIALS) (3)
* PETROLEUM PRODUCTS, PAINT AND THINNERS, CLEANING SOLVENTS, CURING COMPOUNDS AND SIMILAR MATERIALS (3)
* DEMOLITION DEBRIS (3)

1. UNLESS OTHERWISE DIRECTED, EXCESS SOIL AND EXCAVATED MATERIAL MAY BE USED FOR FILL MATERIAL ON SITE OR OFF SITE. COORDINATE WITH OWNER AND AGENCIES HAVING JURISDICTION.
2. TREES, SHRUBS AND BRUSH SHALL BE CHIPPED WHEN POSSIBLE AND REUSED AS MULCH. DO NOT BURN WITHOUT PERMISSION.
3. WHERE POSSIBLE WASTES SHALL BE RECYCLED. WHERE NOT PRACTICAL, WASTES SHALL BE PROPERLY DISPOSED OF AT A PERMITTED LANDFILL FACILITY. THE CONTRACTOR IS ENCOURAGED TO CONSULT THE RECYCLING HOTLINE OR LOCAL SOLID WASTE MANAGEMENT AGENCY.

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1/27/2023

CONTRACTOR SHALL PRACTICE GOOD HOUSEKEEPING, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

* NEAT, ORDERLY AND CENTRALIZED STORAGE OF MATERIALS AND WASTES
* CONTROL OF LITTER PROVIDING CONTAINERS WITH LIDS IF NEEDED
* REGULAR DISPOSAL
* PROMPT CLEANUP OF ANY SPILLS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS OR IN ACCORDANCE WITH REGULATORY REQUIREMENTS. UTILIZE A SPECIALTY FIRM IF REQUIRED.
* PROMPT CLEANUP OF SEDIMENTS WITHIN THE SITE AND ONTO ADJACENT ROADWAYS. PROPER TRAFFIC CONTROL MUST BE UTILIZED WHEN WORKING WITHIN THE ROADWAY.
* KEEP DUST WITHIN TOLERABLE LIMITS BY USING WATER OR OTHER APPROVED DUST SUPPRESSERS.

MAINTENANCE PROGRAM WHICH PROVIDES FOR INSPECTION OF BMPS ON A WEEKLY BASIS AND AFTER EACH MEASURABLE RAINFALL EVENT INCLUDING THE REPAIR OF THE BMPS TO ENSURE EFFECTIVE AND EFFICIENT OPERATION

IT SHALL BE THE RESPONSIBILITY OF THE OWNER'S CONTRACTOR TO MAINTAIN THE TEMPORARY CONTROL DEVICES. THE DEVICES SHALL BE REGULARLY INSPECTED ON A WEEKLY BASIS AND AFTER EVERY STORM EVENT, AND THE REPAIR OR REPLACEMENT OF BMPS SHALL BE PROVIDED AS NECESSARY TO ENSURE EFFECTIVE AND EFFICIENT OPERATION. A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR, REPLACEMENT, AND MAINTENANCE ACTIVITIES SHALL BE PREPARED AFTER EACH INSPECTION AND BE AVAILABLE UPON REQUEST. THE FOLLOWING ARE SOME TYPICAL MAINTENANCE ITEMS:

PUMPED ~FILTER BAG

* A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED.
* FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME HALF FULL.
* SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
* FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

ROCK CONSTRUCTION ENTRANCE

* THE STRUCTURE'S THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSION BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING OF THE ROADWAY WITH WATER IS NOT PERMITTED.

COMPOST FILTER SOCK

* COMPOST FILTER SOCK SHOULD BE INSPECTED ON A WEEKLY BASIS AND WITHIN 24 HOURS OF A MAJOR RUNOFF EVENT.
* IF PONDING BECOMES EXCESSIVE, ADDITIONAL COMPOST FILTER SOCK MAY BE REQUIRED TO REDUCE THE EFFECTIVE SLOPE LENGTH OR SEDIMENT REMOVAL MAY BE NECESSARY.
* SEDIMENT ACCUMULATED AT 1/2 OF THE EFFECTIVE HEIGHT SHALL BE REMOVED OR A NEW COMPOST FILTER SOCK CAN BE PLACED ON TOP OF AND SLIGHTLY BEHIND THE EXISTING COMPOST FILTER SOCK WITHOUT CREATING ANY ADDITIONAL DISTURBANCE.
* DAMAGED COMPOST FILTER SOCK SHALL BE REPLACED IN ITS ENTIRETY, OR SECTION REPLACED WITH A ROCK FILTER OUTLET IF POSSIBLE.
* NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION.

GENERAL MAINTENANCE

* REPAIR, RESEED, AND REMULCH ANY AREAS THAT ERODE PRIOR TO FINAL STABILIZATION. FINAL STABILIZATION WILL BE ACHIEVED WHEN THERE IS A UNIFORM VEGETATIVE COVER OR DENSITY OF 70% ACROSS THE DISTURBED AREA.
* THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE MEASURES TO ENSURE THAT SEDIMENT IS NOT DEPOSITED ON PUBLIC WALKS OR ROADWAYS. IF ANY SEDIMENT IS DEPOSITED ON PUBLIC WALKS OR ROADWAYS, IT SHALL BE REMOVED AND RETURNED TO THE SITE DAILY, DISPOSED OF IN LOW AREAS AND IMMEDIATELY SEEDED AND MULCHED.
* CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING TEMPORARY DIVERSIONS OR UTILIZING OTHER MEANS TO CONTROL SURFACE OR GROUNDWATER DURING CONSTRUCTION.

MOUNTAIN V OIL & GAS, INC.

SLS FROM THE GROUND UP
12 Vantown Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.4314
1418 Kanawha Blvd East | Charleston, WV 25301 | 304.414.5505
104 East Bockrye Bypass | Buckhy, WV 26807 | 304.255.0256
Glenville

RICHARD B. TRIMBLE
REGISTERED
9715
STATE OF
PROFESSIONAL ENGINEER
01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT
FOR: MOUNTAIN V OIL AND GAS

NOTES
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022
SCALE: NOT TO SCALE
DESIGNED BY: C.P.M.
FILE NO. 9235
SHEET 4 OF 24
REV: 01-23-2023

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

MOUNTAIN V OIL & GAS, INC.

SLS
FROM THE GROUND UP

12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.4314
1418 Kanawha Boulevard, East | Charleston, WV 25301 | 304.344.3900
104 East Bockrar Bypass | Buckhannon, WV 26201 | 304.235.3256
slsenergy.com

RICHARD G. TRUMP
REGISTERED
9715
STATE OF
PROFESSIONAL ENGINEER

01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

INDEX SHEET

PAD C
FINAL SITE PLAN

HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

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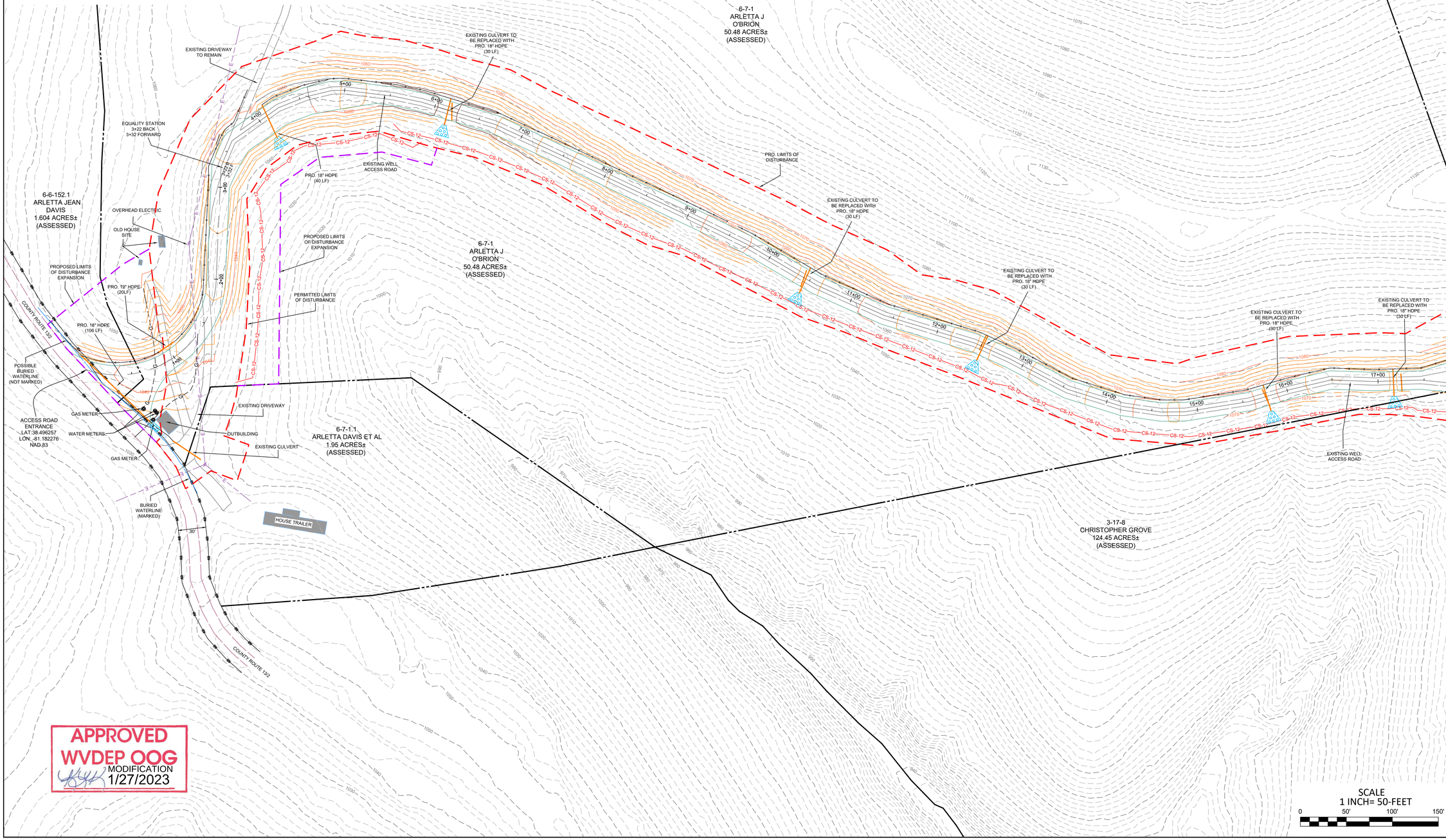
FILE NO. 9235

SHEET 5 OF 24

REV: 01-23-2023

PAD C
FINAL SITE PLAN
MOUNTAIN V OIL AND GAS, INC.

GRID NORTH (NAD 83) AND SURVEYED ELEVATIONS (NAVD 88) SHOWN HEREON WERE ESTABLISHED BY DGPS SURVEY GRADE EQUIPMENT.



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WVDEP OOG
MODIFICATION
1/27/2023

MOUNTAIN V OIL & GAS, INC.

SLS FROM THE GROUND UP
12 Stinnett Drive | P.O. Box 1501 | Gassaway, WV 26624 | 304.462.8454
1570 Staunton Road | Suite 2 | Charleston, WV 25314 | 304.205.5963
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5096
Silverscape

RICHARD E. TRUMP III
REGISTERED
9715
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER
01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

ACCESS ROAD
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

SCALE: 1" = 50'

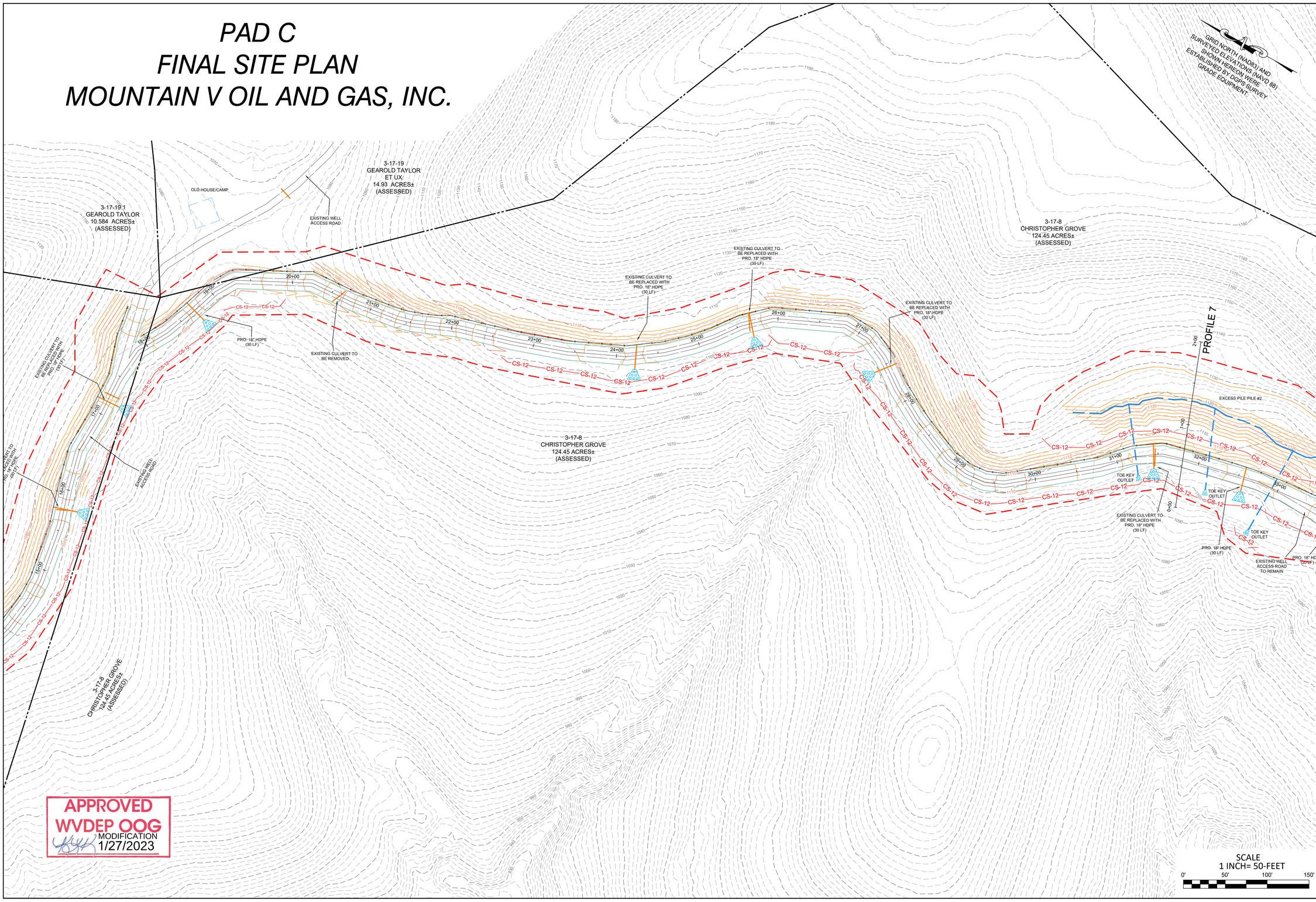
DESIGNED BY: C.P.M.

FILE NO. 9235

SHEET 6 OF 24

REV: 01-23-2023

PAD C
FINAL SITE PLAN
MOUNTAIN V OIL AND GAS, INC.



APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

MOUNTAIN V OIL & GAS, INC.

SLS FROM THE GROUND UP

12 Stanhaven Drive | P.O. Box 1501 | Glenville, WV 26351 | 304.462.8454
1207 Grant Avenue | Suite 2 | Vienna, WV 26105 | 304.422.9432
244 East Beckley Bypass | Beckley, WV 25801 | 304.255.5096
slsreviews.com

RICHARD G. TRUMP
REGISTERED
9715
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

ACCESS ROAD
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

SCALE: 1" = 50'

DESIGNED BY: C.P.M.

FILE NO. 9235

SHEET 7 OF 24

REV: 01-23-2023

PAD C
FINAL SITE PLAN
MOUNTAIN V OIL AND GAS, INC.

GRID NORTH (NAD83) AND SURVEYED ELEVATIONS (NAVD 88) SHOWN HEREON WERE ESTABLISHED BY DGPS SURVEY GRADE EQUIPMENT.

3-17-8
CHRISTOPHER GROVE
124.45 ACRES±
(ASSESSED)

3-17-33
JIM LENNOX & RONALD GIVEN
51.82 ACRES±
(ASSESSED)

EXISTING CULVERT TO BE REPLACED WITH PRO. 18" HDPE (30 LF)

PROFILE 7

PROFILE 5

PROFILE 6

TOPSOIL PILE #1

EXCESS PILE PILE #2

EXCESS PILE PILE #1

TOE KEY OUTLET

PRO. 18" HDPE (30 LF)

EXISTING WELL ACCESS ROAD TO REMAIN

EXISTING CULVERT

EXISTING WELL ACCESS ROAD

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

SCALE
1 INCH= 50-FEET
0' 50' 100' 150'

MOUNTAIN V
OIL & GAS, INC.

SLS
FROM THE GROUND UP
12 Stanhorn Drive | P.O. Box 1021 | Gassaway, WV 26624 | 304.462.8454
1207 Staunton Avenue | Parkersburg, WV 26101 | 304.865.3061
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5046
Silversmith Land Surveying, LLC

RICHARD G. TRUMP
REGISTERED
9715
STATE OF
PROFESSIONAL ENGINEER

01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

ACCESS ROAD
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

SCALE: 1" = 50'

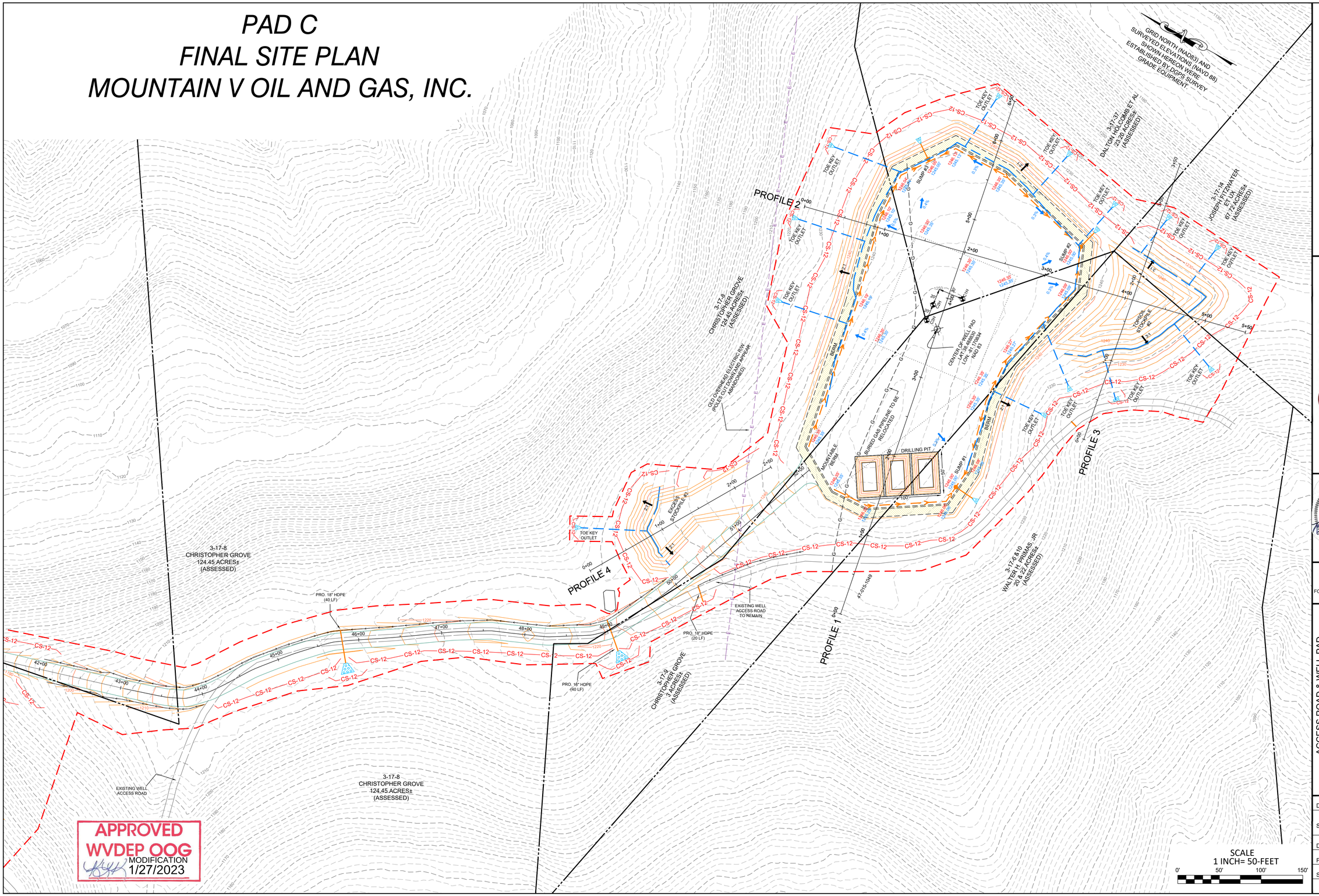
DESIGNED BY: C.P.M.

FILE NO. 9235

SHEET 8 OF 24

REV: 01-23-2023

PAD C
FINAL SITE PLAN
MOUNTAIN V OIL AND GAS, INC.



MOUNTAIN V OIL & GAS, INC.

SLS
FROM THE GROUND UP
12 Stanhom Drive | P.O. Box 1501 | Glenville, WV 26351 | 304.462.8454
1207 Grandview Avenue | Suite 201 | Charleston, WV 25302 | 304.205.5963
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5266
Glenville | Charleston

RICHARD B. THOMAS REGISTERED 9715 STATE OF WEST VIRGINIA REGIONAL ENGINEER

01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

ACCESS ROAD & WELL PAD

PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

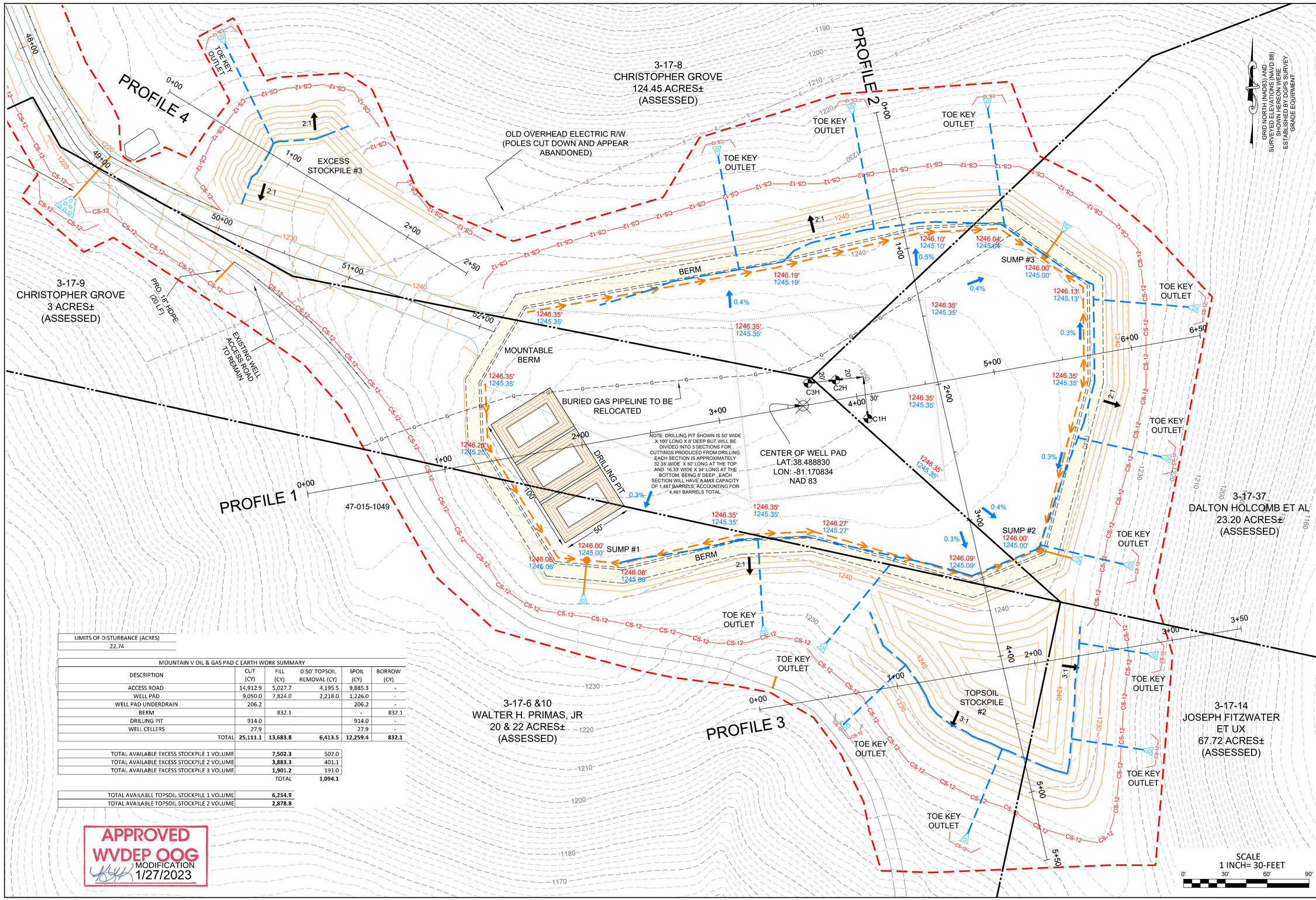
SCALE: 1" = 50'

DESIGNED BY: C.P.M.

FILE NO. 9235

SHEET 9 OF 24

REV: 01-23-2023



LIMITS OF DISTURBANCE (ACRES)
22.74

MOUNTAIN V OIL & GAS PAD C EARTH WORK SUMMARY

DESCRIPTION	CUT (CY)	FILL (CY)	0.50' TOPSOIL REMOVAL (CY)	SPOIL (CY)	BORROW (CY)
ACCESS ROAD	14,912.9	5,027.7	4,195.5	9,885.3	-
WELL PAD	9,050.0	7,824.0	2,218.0	1,226.0	-
WELL PAD UNDERDRAIN	206.2			206.2	-
BERM		832.1		-	832.1
DRILLING PIT	914.0			914.0	-
WELL CELLERS	27.9			27.9	-
TOTAL	**25,111.1**	**13,683.8**	**6,413.5**	**12,259.4**	**832.1**

TOTAL AVAILABLE EXCESS STOCKPILE 1 VOLUME	**7,502.3**	502.0
TOTAL AVAILABLE EXCESS STOCKPILE 2 VOLUME	**3,883.3**	401.1
TOTAL AVAILABLE EXCESS STOCKPILE 3 VOLUME	**1,901.2**	191.0
	TOTAL	**1,094.1**

TOTAL AVAILABLE TOPSOIL STOCKPILE 1 VOLUME	**6,254.9**
TOTAL AVAILABLE TOPSOIL STOCKPILE 2 VOLUME	**2,878.8**

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

MOUNTAIN V OIL & GAS, INC.

SLS
FROM THE GROUND UP

12 Stanhaven Drive | P.O. Box 1501 | Gassaway, WV 26624 | 304.462.8454
1207 Grandview Drive | Suite 2A | Charleston, WV 25311 | 304.205.8843
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5046
Directions

RICHARD G. TRUMP
REGISTERED
9715
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER
01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

WELL PAD
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

SCALE: 1" = 30'

DESIGNED BY: C.P.M.

FILE NO. 9235

SHEET 10 OF 24

REV: 01-23-2023

PAD C FINAL SITE PLAN
MOUNTAIN V OIL AND GAS, INC.

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

MAIN ACCESS PROFILE 0+00-15+00
SCALE: HORIZ. 1" = 50' VERT. 1" = 10'

MOUNTAIN V OIL & GAS, INC.

SLS
FROM THE GROUND UP
12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.6354
1340 Pike Street | Parkersburg, WV 26101 | 304.865.3925
104 East Bockrar Bypass | Buckhy, WV 26201 | 304.255.2536
Glenville

RICHARD G. TIMMS
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9715
STATE OF
VIRGINIA
PROFESSIONAL ENGINEER

01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

ACCESS ROAD PROFILE
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

SCALE: AS SHOWN

DESIGNED BY: C.P.M.

FILE NO. 9235

SHEET 11 OF 24

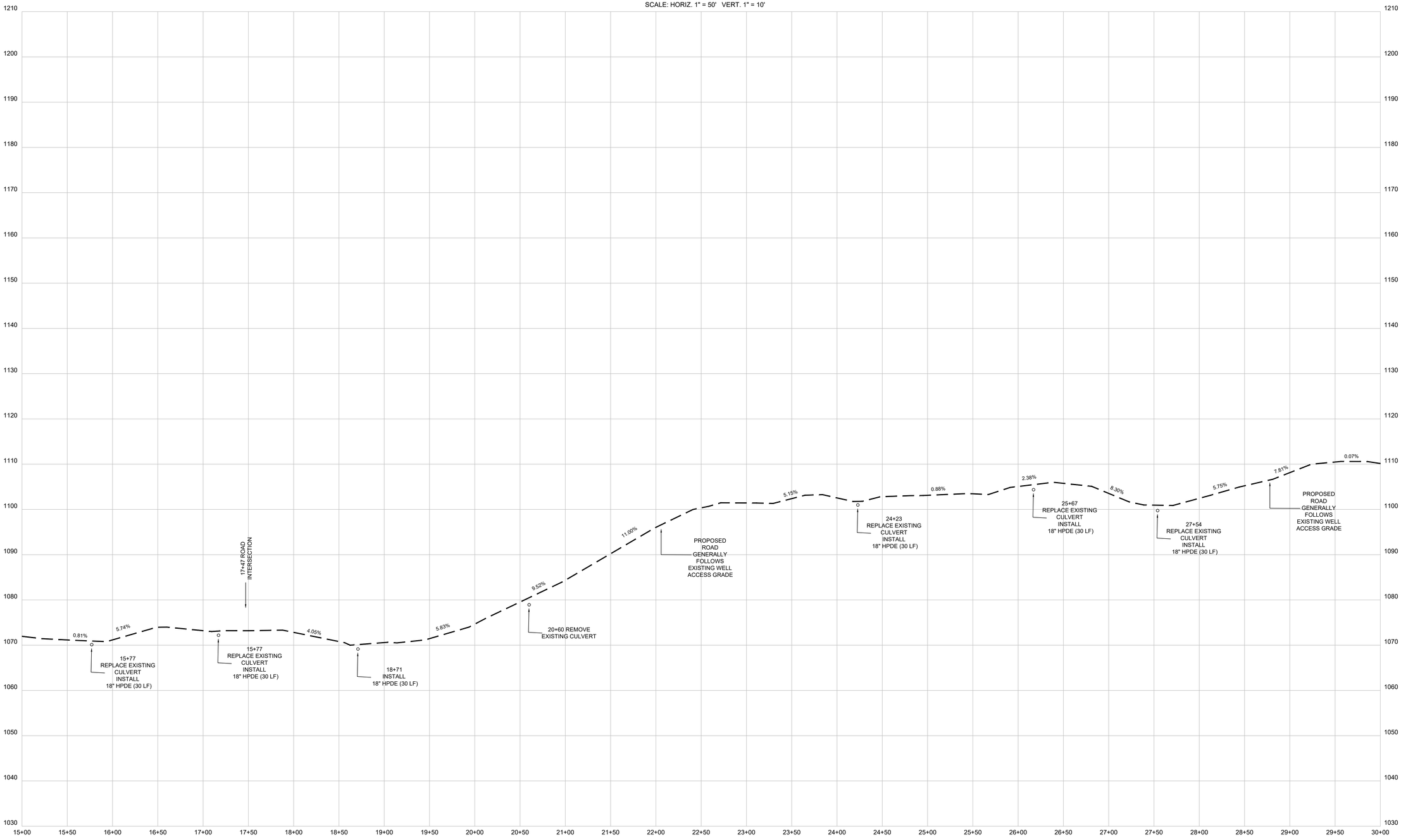
REV: 01-23-2023

PAD C FINAL SITE PLAN
MOUNTAIN V OIL AND GAS, INC.

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

MAIN ACCESS PROFILE 15+00-30+00

SCALE: HORIZ. 1" = 50' VERT. 1" = 10'



MOUNTAIN V OIL & GAS, INC.

SLS FROM THE GROUND UP

12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.6014
1418 Kanawha Blvd East | Charleston, WV 25301 | 304.205.5502
104 East Bockrar Bypass | Buckhannon, WV 26201 | 304.235.2036

RICHARD G. TRUMP
REGISTERED
9715
STATE OF
VIRGINIA
PROFESSIONAL ENGINEER

01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

ACCESS ROAD PROFILE
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

SCALE: AS SHOWN

DESIGNED BY: C.P.M.

FILE NO. 9235

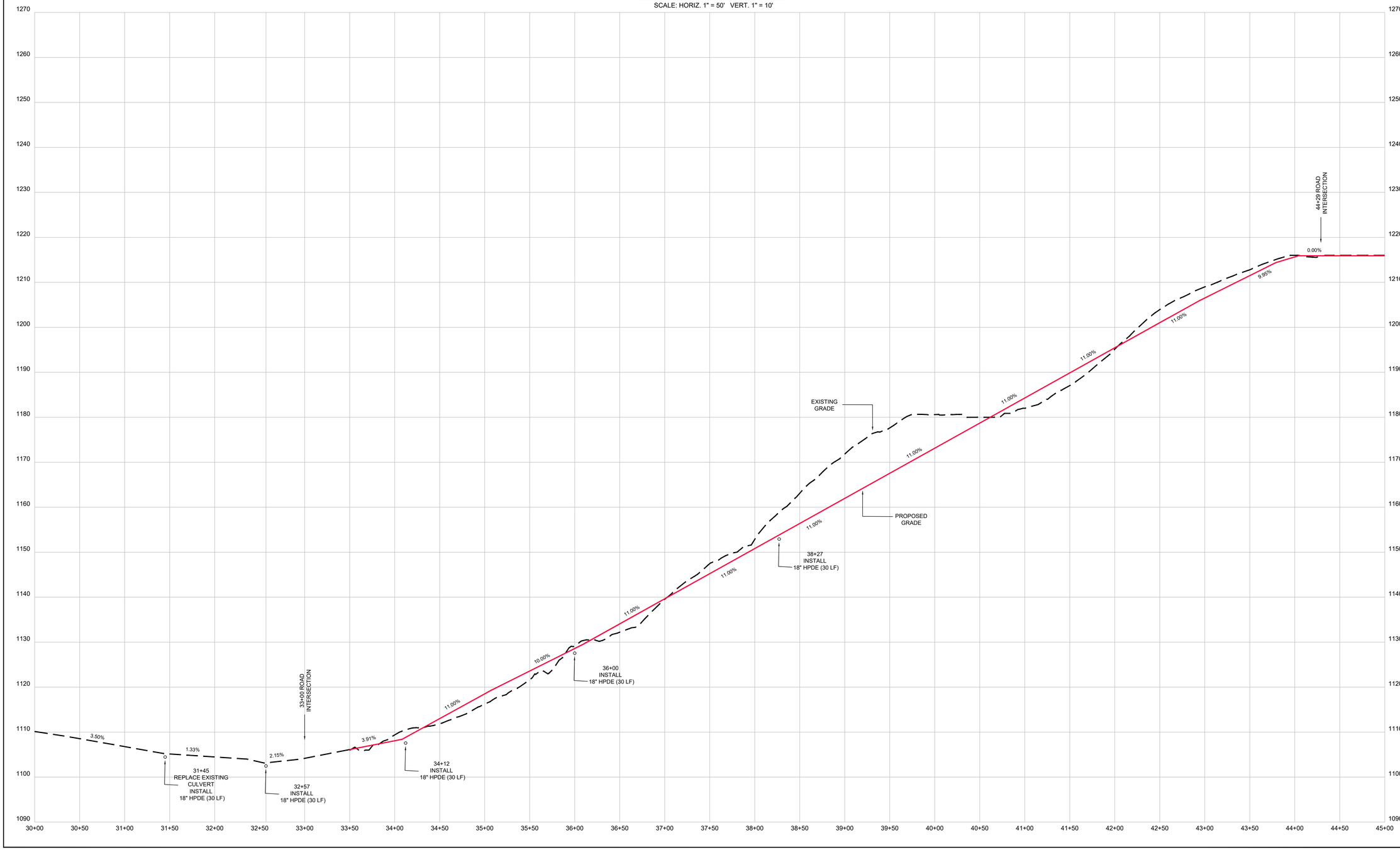
SHEET 12 OF 24

REV: 01-23-2023

PAD C FINAL SITE PLAN
MOUNTAIN V OIL AND GAS, INC.

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

MAIN ACCESS PROFILE 3+00-45+00
SCALE: HORIZ. 1" = 50' VERT. 1" = 10'



MOUNTAIN V OIL & GAS, INC.

SLS
FROM THE GROUND UP
12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.4314
1418 Kanawha Blvd East | Charleston, WV 25301 | 304.414.6315
104 East Bockrar Bypass | Buckhannon, WV 26201 | 304.235.2536

RICHARD G. TRUSS
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9715
STATE OF
PROFESSIONAL ENGINEER

01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

ACCESS ROAD PROFILE
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

SCALE: AS SHOWN

DESIGNED BY: C.P.M.

FILE NO. 9235

SHEET 13 OF 24

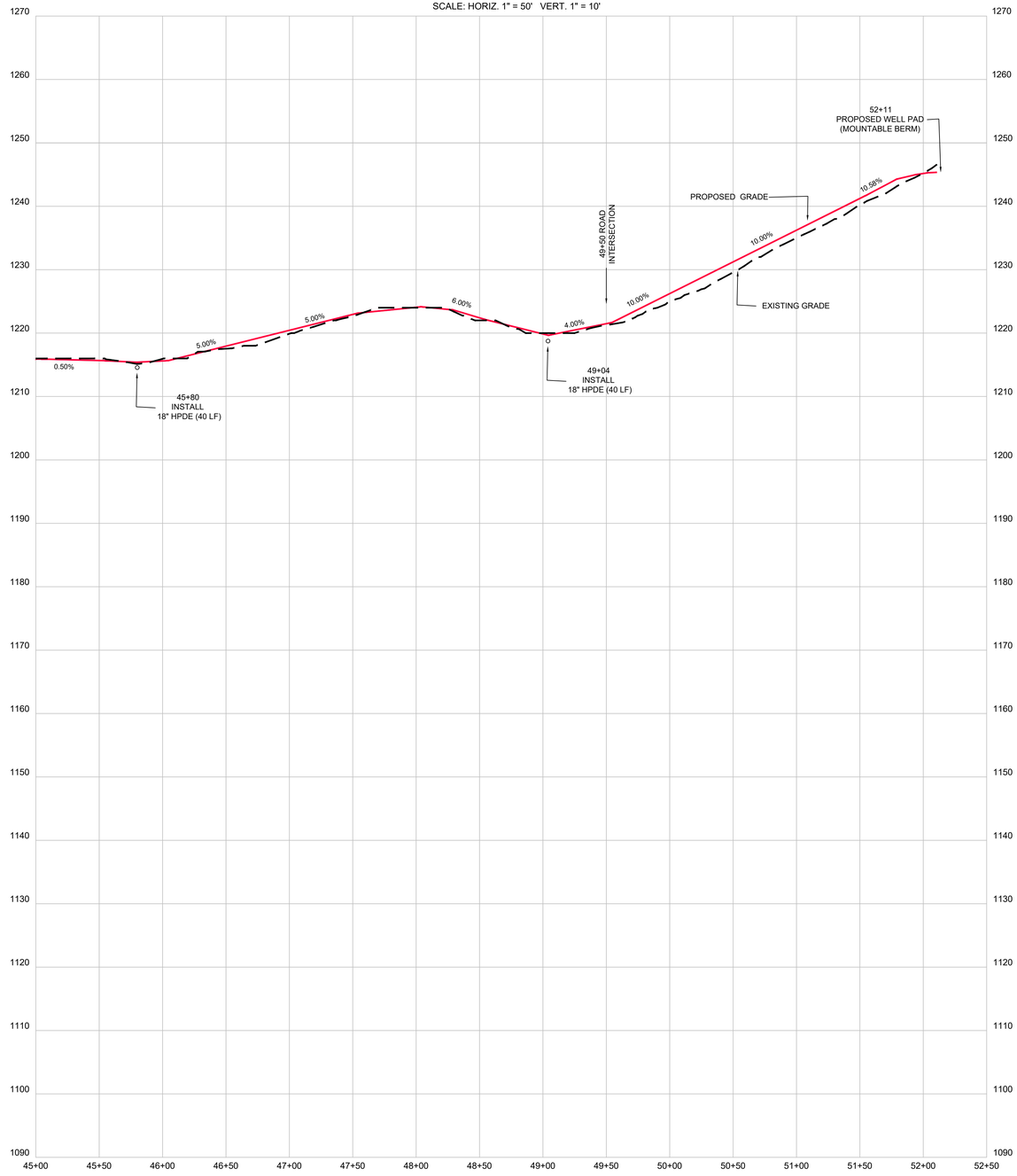
REV: 01-23-2023

PAD C FINAL SITE PLAN
MOUNTAIN V OIL AND GAS, INC.

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

MAIN ACCESS PROFILE 45+00-52+11

SCALE: HORIZ. 1" = 50' VERT. 1" = 10'



MOUNTAIN V OIL & GAS, INC.

SLS
FROM THE GROUND UP
12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.4314
1416 Kanawha Blvd East | Charleston, WV 25301 | 304.414.6315
104 East Bockrar Bypass | Buckhy, WV 26201 | 304.255.2536
slsnr.com

RICHARD G. TRUMP
PROFESSIONAL ENGINEER
REGISTERED
9715
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

ACCESS ROAD PROFILE
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HENRY DISTRICT
CLAY COUNTY, WV

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FILE NO. 9235

SHEET 14 OF 24

REV: 01-23-2023

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

SCALE: HORIZ. 1" = 20' VERT. 1" = 10'

MOUNTAIN V OIL & GAS, INC.

SLS
FROM THE GROUND UP
12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.4314
1106 Kanawha Blvd East | Charleston, WV 25301 | 304.414.5935
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slsenergy.com

RICHARD D. IRWIN
REGISTERED
9715
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

ACCESS ROAD SECTIONS
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

SCALE: AS SHOWN

DESIGNED BY: C.P.M.

FILE NO. 9235

SHEET 15 OF 24

REV: 01-23-2023

Horizontal Scale 2
Vertical Scale 10

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

SCALE: HORIZ. 1" = 20' VERT. 1" = 10'

MOUNTAIN V OIL & GAS, INC.

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01/23/23

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FOR: MOUNTAIN V OIL AND GAS

ACCESS ROAD SECTIONS
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

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DESIGNED BY: C.P.M.

FILE NO. 9235

SHEET 16 OF 24

REV: 01-23-2023

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FOR: MOUNTAIN V OIL AND GAS

ACCESS ROAD SECTIONS

PAD C
FINAL SITE PLAN

HENRY DISTRICT

CLAY COUNTY, WV

DATE: 11-02-2022

SCALE: AS SHOWN

DESIGNED BY: C.P.M.

FILE NO. 9235

SHEET 17 OF 24

REV: 01-23-2023

APPROVED
WVDEP OOG
MODIFICATION
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SCALE: HORIZ. 1" = 20' VERT. 1" = 10'

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01/23/23

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FOR: MOUNTAIN V OIL AND GAS

ACCESS ROAD SECTIONS
PAD C
FINAL SITE PLAN

HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

SCALE: AS SHOWN

DESIGNED BY: C.P.M.

FILE NO. 9235

SHEET 18 OF 24

REV: 01-23-2023

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

SCALE: HORIZ. 1" = 20' VERT. 1" = 10'

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RICHARD D. THOMAS REGISTERED 9715 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

01/23/23

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FOR: MOUNTAIN V OIL AND GAS

ACCESS ROAD SECTIONS
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

SCALE: AS SHOWN

DESIGNED BY: C.P.M.

FILE NO. 9235

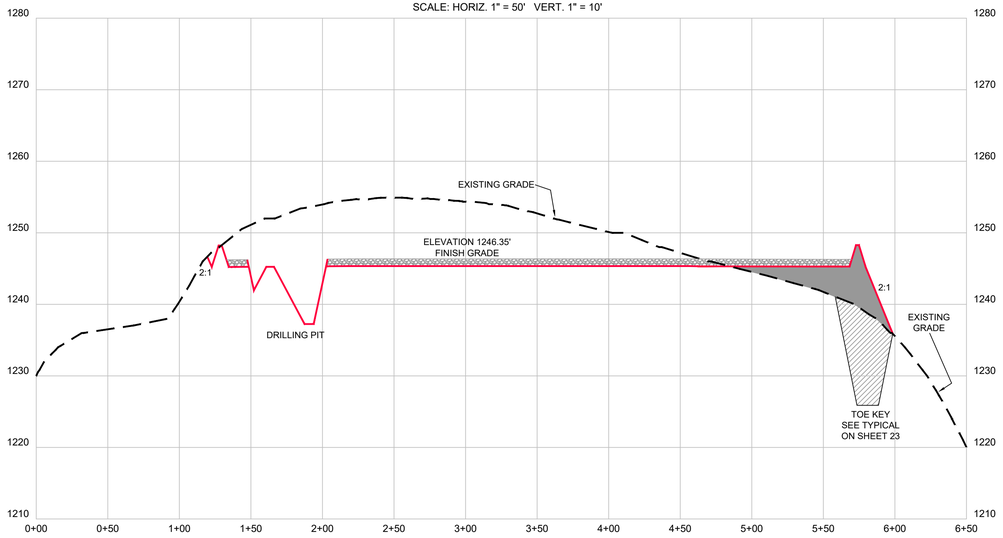
SHEET 19 OF 24

REV: 01-23-2023

PAD C FINAL SITE PLAN
MOUNTAIN V OIL AND GAS, INC.

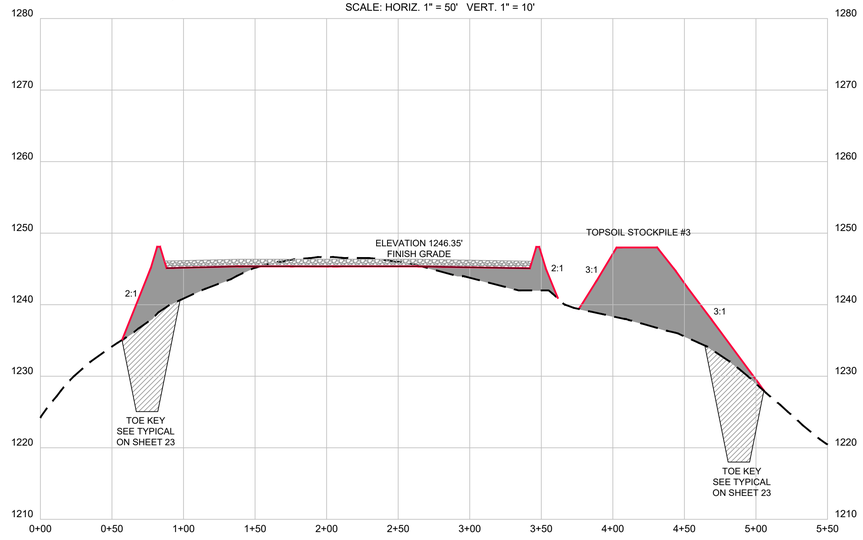
PROFILE 1

SCALE: HORIZ. 1" = 50' VERT. 1" = 10'



PROFILE 2

SCALE: HORIZ. 1" = 50' VERT. 1" = 10'



PROFILE 3

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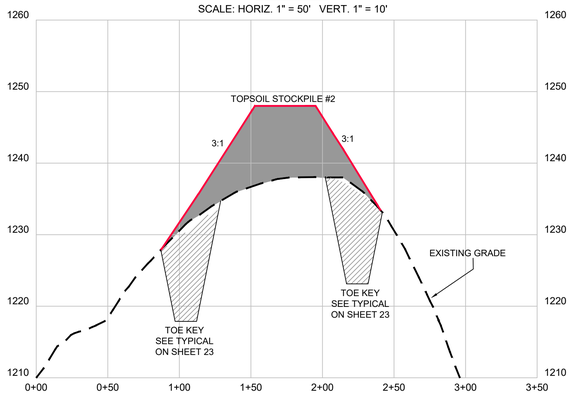

PROFILE 4

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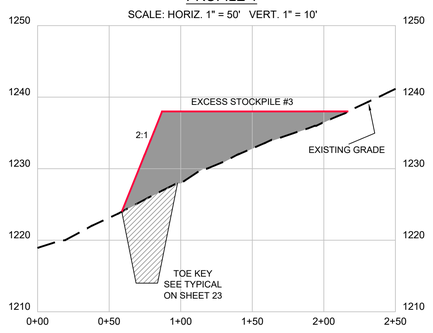
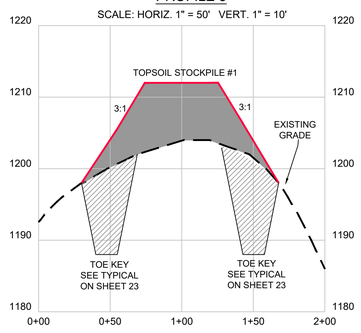


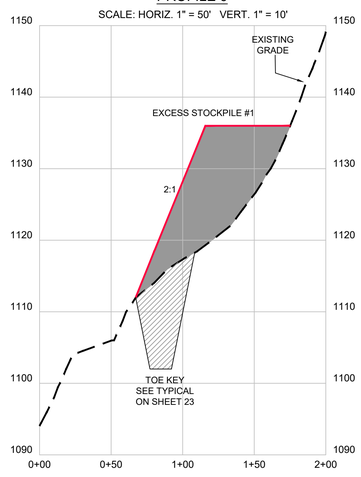
PROFILE 5

SCALE: HORIZ. 1" = 50' VERT. 1" = 10'



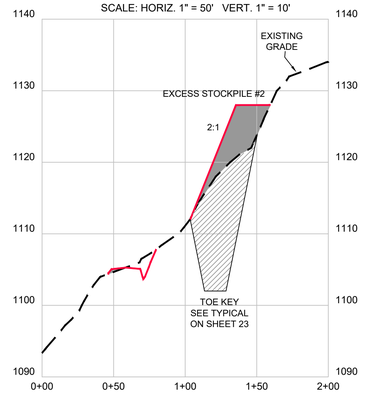
PROFILE 6

SCALE: HORIZ. 1" = 50' VERT. 1" = 10'



PROFILE 7

SCALE: HORIZ. 1" = 50' VERT. 1" = 10'



APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

MOUNTAIN V OIL & GAS, INC.

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104 East Beckley Bypass | Beckley, WV 25801 | 304.255.2536
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PROFESSIONAL ENGINEER
01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

WELL PAD & STOCKPILES PROFILES

PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022

SCALE: AS SHOWN

DESIGNED BY: C.P.M.

FILE NO. 9235

SHEET 20 OF 24

REV: 01-23-2023

3-17-8
CHRISTOPHER GROVE
124.45 ACRES±
(ASSESSED)

3-17-9
CHRISTOPHER GROVE
3 ACRES±
(ASSESSED)

EXCESS STOCKPILE
TO BE UTILIZED
TO BACKFILL
DRILLING PIT

CS-12

SUMP TO BE REMOVED
BERM TO BE BREACHED
(SEE DETAIL ON SHEET 24)

3H
2H
1H

DRILLING PIT CONTENTS AND LINER TO BE REMOVED
AND HAULED TO APPROVED FACILITY.
DRILLING PIT TO BE BACKFILLED.

SUMP TO BE REMOVED
BERM TO BE BREACHED
(SEE DETAIL ON SHEET 24)

SUMP TO BE REMOVED
BERM TO BE BREACHED
(SEE DETAIL ON SHEET 24)

47-015-1049

3-17-37
DALTON HOLCOMB ET AL
23.20 ACRES±
(ASSESSED)

3-17-6 &10
WALTER H. PRIMAS, JR
20 & 22 ACRES±
(ASSESSED)

TOPSOIL
STOCKPILE
#2

3-17-14
JOSEPH FITZWATER
ET UX
67.72 ACRES±
(ASSESSED)

1180 1190 1200 1210 1220 1230 1240 1250

GRID NORTH (NAD83) AND
SURVEYED ELEVATIONS (NAVD 88)
SHOWN HEREON WERE
ESTABLISHED BY DGPS SURVEY
GRADE EQUIPMENT.

NOTES/SEQUENCE
1. ALL NON ESSENTIAL STRUCTURES TO BE REMOVED FROM SITE.
2. ALL EXISTING BMP'S SHOWN SHALL BE INSPECTED FOR DAMAGE AND REPLACED AS NECESSARY BEFORE RECLAMATION CAN BEGIN.
3. FILL WILL BE PLACED IN 24" MAXIMUM LOOSE LIFTS, MAXIMUM PARTICLE SIZE OF 6", COMPACTED TO 90% PER STANDARD PROCTOR (ASTM D-698) WITH A VIBRATING SHEEPSFOOT ROLLER, AND ON A LEVEL SURFACE.
4. A MINIMUM OF 4" OF TOPSOIL TO BE PLACED OVER ALL DISTURBED AREAS AND SLOPES BEFORE SEEDING AND MULCHING.
5. ALL E & S CONTROLS TO BE LEFT IN PLACE UNTIL THERE IS 70% GROWTH OVER THE ENTIRE SITE.

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

SCALE
1 INCH= 30-FEET
0' 30' 60' 90'

MOUNTAIN V
OIL & GAS, INC.

SLS
FROM THE GROUND UP
12 Stanhaven Drive | P.O. Box 1300 | Ghent, WV 25843 | 304.462.8454
1207 Quarrier Street | Suite 402 | Charleston, WV 25301 | 304.982.3056
254 East Main Street | Ripley, WV 25271 | 304.372.5945
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5046
Eleven Locations

RICHARD E. TRUMBO
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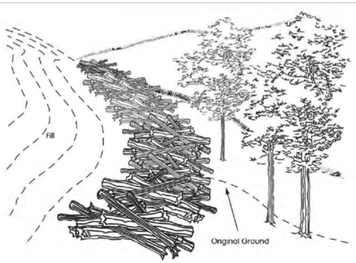
01/23/23

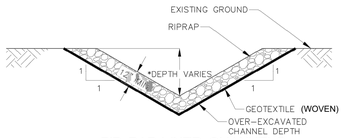
THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT
FOR: MOUNTAIN V OIL AND GAS

RECLAMATION PLAN
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022
SCALE: 1" = 30'
DESIGNED BY: C.P.M.
FILE NO. 9235
SHEET 21 OF 24
REV: 01-23-2023



BRUSH PILE SEDIMENT BARRIER
SCALE: NOT TO SCALE



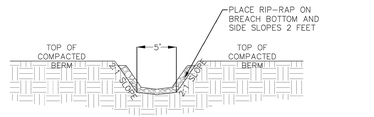
RIP-RAP LINED CHANNELS
SCALE: NOT TO SCALE

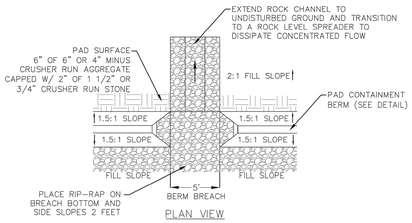
*** UNDERLAYMENT INCIDENTAL TO RIP-RAP LINED CHANNEL**

* DEPTH WILL VARY ALONG THE LENGTH OF THE WELL PAD CHANNELS TO ALLOW SUFFICIENT SLOPE FOR STORMWATER TO FLOW OFF THE FLAT WELL PAD.

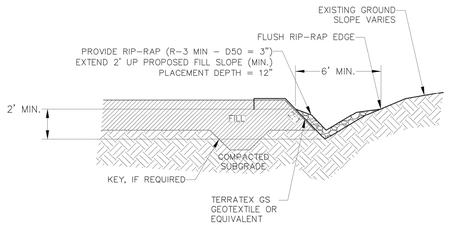
CHANNEL CROSS-SECTIONS

MAINTENANCE:
1. ALL CHANNELS MUST BE KEPT FREE OF OBSTRUCTIONS SUCH AS FILL GROUND, FALLEN LEAVES & WOODY DEBRIS, ACCUMULATED SEDIMENT, AND CONSTRUCTION MATERIALS/WASTES.
2. CHANNELS SHOULD BE KEPT MOWED AND/OR FREE OF ALL WEEDY, BRUSHY OR WOODY GROWTH.
3. ANY UNDERGROUND UTILITIES RUNNING ACROSS/ THROUGH THE CHANNEL(S) SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL(S) REPAIRED AND STABILIZED PER THE CHANNEL CROSS-SECTION DETAIL.

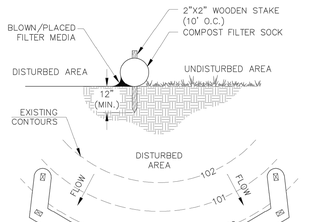




BERM BREACH DETAIL FOR RECLAMATION
SCALE: NOT TO SCALE

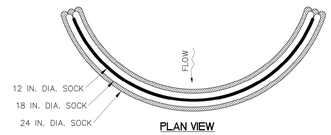


FILL SLOPE RIP-RAP PROTECTION
SCALE: NOT TO SCALE

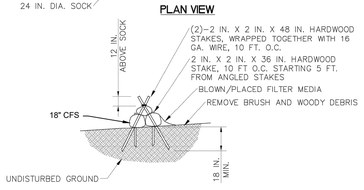


NOTE:
SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2.

COMPOST FILTER SOCK
SCALE: NOT TO SCALE



PLAN VIEW



STAKING DETAIL
TRIPLE STACK COMPOST FILTER SOCK

COMPOST FILTER SOCK NOTES:
1. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT.
2. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES ½ THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN AN APPROVED MANNER.
4. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
5. BIODEGRADABLE FILTER SOCK SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
6. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

MAXIMUM SLOPE LENGTH ABOVE FILTREXX COMPOST FILTER SOCKS *

SLOPE PERCENT	COMPOST FILTER SOCK DIAMETER				
	8"	12"	18"	24"	32"
2	600	750	1000	1300	1650
5	400	500	550	650	750
10	200	250	300	400	500
20	100	125	140	260	400
25	80	100	110	200	275
35	60	75	80	115	150
50	40	50	55	65	75

* TABLE SUMMARIZED FROM DATA PROVIDED BY MANUFACTURER, FILTREXX LOW IMPACT DESIGN MANUAL, VERSION 8.0 / PAGE 324

NOTE: COMPOST FILTER SOCKS SHOWN IN THIS E&S PLAN WERE SIZED ACCORDING TO THE ABOVE TABLE. ALL COMPOST FILTER SOCKS SHALL BE FILTREXX SEDIMENT CONTROL OR APPROVED EQUIVALENT WITH EQUAL OR BETTER SLOPE LENGTH LIMITS.

TABLE 4.1
COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	23% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS
TWO-PLY SYSTEMS					
INNER CONTAINMENT NETTING				HDPE BIAXIAL NET CONTINUOUSLY WOUND FUSION-WELDED JUNCTURES	
OUTER FILTRATION MESH				3/4"X3/4" MAX. APERTURE SIZE COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH) 3/16" MAX. APERTURE SIZE	
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.					

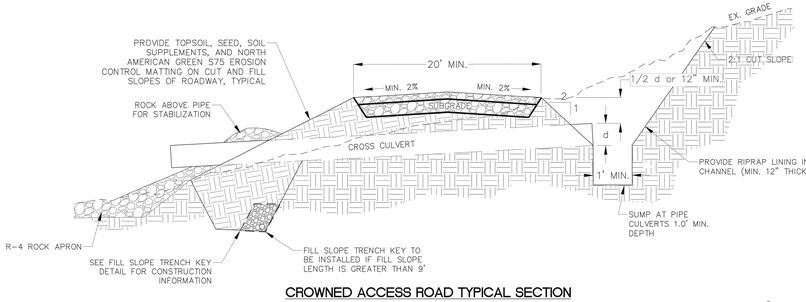
TABLE 4.2
COMPOST STANDARDS

ORGANIC MATTER CONTENT	25-100% (DRY WEIGHT BASE)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5-8.5
MOISTURE CONTENT	30-60%
PARTICLE SIZE	30-50% PASS THROUGH 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 dS/m (MMHOS/CM) MAXIMUM

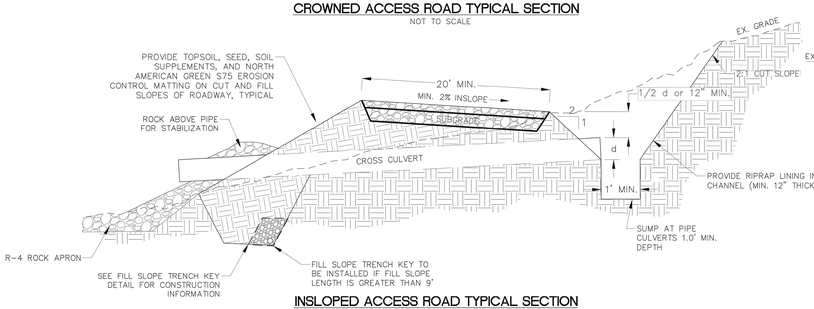
COMPOST SOCK SEDIMENT TRAP DESIGN NOTES:
1. COMPOST SOCK SEDIMENT TRAP SHALL BE SIZED TO PROVIDE 2000 CUBIC FEET OF STORAGE CAPACITY FOR EACH ACRE TRIBUTARY TO THE TRAP.
2. MINIMUM BASE WIDTH IS EQUAL TO THE HEIGHT.
3. SEDIMENT ACCUMULATION SHALL NOT EXCEED 1/3 THE TOTAL HEIGHT OF THE TRAP.
4. SOCKS SHALL BE OF LARGER DIAMETER AT THE BASE OF THE TRAP AND DECREASE IN DIAMETER FOR SUCCESSIVE LAYERS AS SHOWN ON THE PLAN VIEW.
5. ENDS OF THE TRAP SHALL BE A MINIMUM OF 1 FOOT HIGHER IN ELEVATION THAN THE MID-SECTION, WHICH SHALL BE LOCATED AT THE POINT OF DISCHARGE.

COMPOST SOCK SEDIMENT TRAP NOTES:
1. SOCK MATERIAL SHALL MEET THE STANDARDS OF TABLE 4.1 ABOVE. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 ABOVE.
2. COMPOST SOCK SEDIMENT TRAPS SHALL NOT EXCEED THREE SOCKS IN HEIGHT AND SHALL BE STACKED IN PYRAMIDAL FORM AS SHOWN ABOVE. MINIMUM TRAP HEIGHT IS ONE 24" DIAMETER SOCK. ADDITIONAL STORAGE MAY BE PROVIDED BY MEANS OF AN EXCAVATED SUMP 12" DEEP EXTENDING 1 TO 3 FEET UPSLOPE OF THE SOCKS ALONG THE LOWER SIDE OF THE TRAP.
3. COMPOST SOCK SEDIMENT TRAPS SHALL PROVIDE 2,000 CUBIC FEET STORAGE CAPACITY WITH 12" FREEBOARD FOR EACH TRIBUTARY DRAINAGE ACRE. (SEE MANUFACTURER FOR ANTICIPATED SETTLEMENT.)
4. THE MAXIMUM TRIBUTARY DRAINAGE AREA IS 5.0 ACRES. SINCE COMPOST SOCKS ARE "FLOW-THROUGH," NO SPILLWAY IS REQUIRED.
5. COMPOST SOCK SEDIMENT TRAPS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/3 THE HEIGHT OF THE SOCKS.
6. PHOTODEGRADABLE AND BIODEGRADABLE SOCKS SHALL NOT BE USED FOR MORE THAN 1 YEAR.

COMPOST SOCK SEDIMENT TRAP
SCALE: NOT TO SCALE

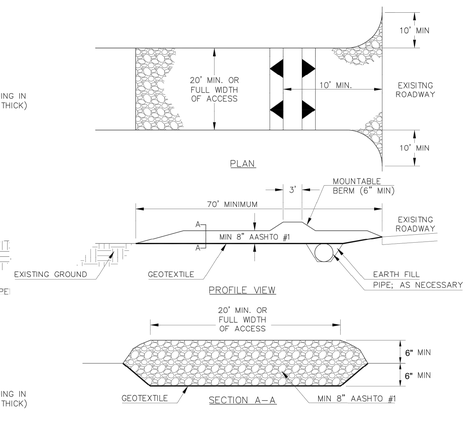


CROWNED ACCESS ROAD TYPICAL SECTION
NOT TO SCALE



INSLOPED ACCESS ROAD TYPICAL SECTION
NOT TO SCALE

NOTE:
- CUT AND FILL SLOPES SHALL BE STABILIZED IMMEDIATELY UPON COMPLETION OF ROADWAY GRADING. THESE AREAS SHALL BE BLANKETED WHEREVER THEY ARE LOCATED WITHIN 50 FEET OF A SURFACE WATER OR WITHIN 100 FEET OF A SURFACE WATER WHERE A SUITABLE VEGETATIVE FILTER STRIP DOES NOT EXIST.
- A DURABLE TOP DRESSING SHALL BE PROVIDED FOR SOILS HAVING LOW STRENGTH.
- ROADSIDE DITCHES SHALL BE PROVIDED WITH ADEQUATE PROTECTIVE LINING.
- ADEQUATELY SIZED CULVERTS OR OTHER SUITABLE CROSS DRAINS SHALL BE PROVIDED AT ALL SEEPS, SPRINGS, AND DRAINAGE COURSES.
- ROADWAY SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED ROADWAYS, DITCHES, OR CROSS DRAINS SHALL BE REPAIRED IMMEDIATELY.



INSTALLATION
1. TOPSOIL SHOULD BE REMOVED PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE.
2. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
3. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
4. MOUNTABLE BERM SHOULD BE INSTALLED WHENEVER OPTIONAL CULVERT PIPE IS USED. PIPE TO BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE
1. THE STRUCTURE'S THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK.
2. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE.
3. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY.
4. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FEET INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK.
5. WASHING OF THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWER, CULVERTS OR OTHER DRAINAGEWAYS IS NOT ACCEPTABLE.

ROCK CONSTRUCTION ENTRANCE
SCALE: NOT TO SCALE

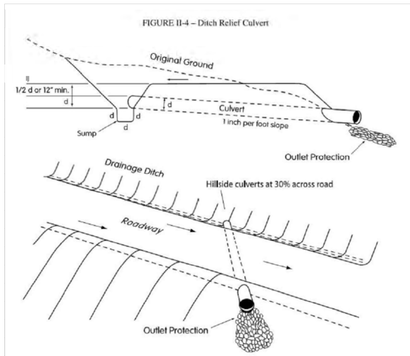


Table II-5 **Pipe Sizes for Culverts Across Roads**

Drainage Area (Ac)	Pipe Diameter (In)	Pipe Capacity (Cfs)
10	15	5
20	18	9
30	21	12
50	24	18
80	27	24
100	30	29
300	36	60
500	42	85

Table II-6 **Spacing of Culverts**

Road Grade (%)	Distance (Ft)
2-5	500-300
6-10	300-200
11-15	200-100
16-20	100

DITCH RELIEF CULVERT
SCALE: NOT TO SCALE

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

MOUNTAIN V OIL & GAS, INC.

SLS
FROM THE GROUND UP
12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.4804
1124 Smith Street, Suite 300 | Charleston, WV 25301 | 304.205.5535
104 East Bockrae Bypass | Beckley, WV 25801 | 304.255.2536
slsre.com

RICHARD B. TRIPP
REGISTERED
9715
STATE OF
VIRGINIA
PROFESSIONAL ENGINEER
01/23/23

THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

CONSTRUCTION DETAILS
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022
SCALE: NOT TO SCALE
DESIGNED BY: C.P.M.
FILE NO. 9235
SHEET 22 OF 24
REV: 01-23-2023

SPECIFICATIONS: HIGH PERFORMANCE–FLEXIBLE GROWTH MEDIUM

THIS SECTION SPECIFIES A HYDRAULICALLY–APPLIED, 100% BIODEGRADABLE, HIGH PERFORMANCE–FLEXIBLE GROWTH MEDIUM (HP–FGM) THAT IS MANUFACTURED IN THE UNITED STATES AND IS COMPOSED OF 100% RECYCLED THERMALLY REFINED (WITHIN A PRESSURE VESSEL) WOOD FIBERS, CRIMPED INTERLOCKING MAN–MADE BIODEGRADABLE FIBERS, MICRO–PORE GRANULES, NATURALLY DERIVED CROSSLINKED BIOPOLYMERS AND WATER ABSORBENTS. THE HP–FGM IS PHYTOSANITIZED, FREE FROM PLASTIC NETTING, REQUIRES NO CURING PERIOD AND UPON APPLICATION FORMS AN INTIMATE BOND WITH THE SOIL SURFACE TO CREATE A CONTINUOUS, POROUS, ABSORBENT AND FLEXIBLE EROSION RESISTANT BLANKET THAT ALLOWS FOR RAPID GERMINATION AND ACCELERATED PLANT GROWTH. ALL COMPONENTS OF THE GM SHALL BE PRE–PACKAGED BY THE MANUFACTURER TO ASSURE BOTH MATERIAL PERFORMANCE AND COMPLIANCE WITH THE FOLLOWING VALUES. NO CHEMICAL ADDITIVES WITH THE EXCEPTION OF FERTILIZER, LIMING AND BIOSTIMULANT MATERIALS SHOULD BE ADDED TO THIS PRODUCT.

1. THERMALLY PROCESSED (WITHIN A PRESSURE VESSEL) WOOD FIBER – 80% ±3%
   - HEATED TO A TEMPERATURE GREATER THAN 380 DEGREES FAHRENHEIT (193 DEGREES CELSIUS) FOR 5 MINUTES AT A PRESSURE GREATER THAN 50 PSI (345 kPa)

   CROSSLINKED BIOPOLYMERS AND WATER ABSORBENTS – 10% ± 1%
   CRIMPED, MAN–MADE BIODEGRADABLE INTERLOCKING FIBERS – 5% ± 1%
   MICRO–PORE GRANULES – 5% ± 1%

INSTALLATION

STRICTLY COMPLY WITH EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS. USE APPROVED HYDRO–SPRAYING MACHINES WITH FAN TYPE NOZZLE (50–DEGREE TIP). TO ACHIEVE OPTIMUM SOIL SURFACE COVERAGE, APPLY HP–FGM FROM OPPOSING DIRECTIONS TO SOIL SURFACE. ROUGH SURFACES (ROCKY TERRAIN, CAT TRACKS AND RIPPED SOILS) MAY REQUIRE HIGHER APPLICATION RATES TO ACHIEVE 100% COVER. SLOPE INTERRUPTION DEVICES OR WATER DIVERSION TECHNIQUES ARE RECOMMENDED WHEN SLOPE LENGTHS EXCEED 100 FEET (30 M). MAXIMUM SLOPE LENGTHS IS FOR PRODUCT APPLICATIONS ON A 3H:1V SLOPE. FOR APPLICATION ON STEEPER SLOPES, SLOPE INTERRUPTION LENGTHS MAY NEED TO BE DECREASED BASED ON ACTUAL SITE CONDITIONS. **NOT RECOMMENDED FOR CHANNELS OR AREAS WITH CONCENTRATED WATER FLOW.** NO CHEMICAL ADDITIVES WITH THE EXCEPTION OF FERTILIZER, LIMING AND BIOSTIMULANT MATERIALS SHOULD BE ADDED TO THIS PRODUCT: TO ENSURE PROPER APPLICATION RATES, MEASURE AND STAKE AREA. FOR MAXIMUM PERFORMANCE, APPLY HP–FGM IN A TWO–STEP PROCESS AS FOLLOWS:

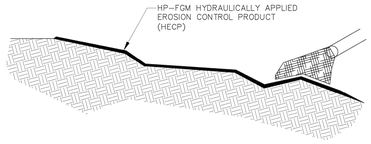
1. STEP ONE: APPLY PRESCRIPTIVE AGRONOMIC FORMULATIONS OF LIME AND FERTILIZER ALONG WITH 50% OF SEED WITH A SMALL AMOUNT OF HP–FGM FOR VISUAL METERING
2. STEP TWO: MIX BALANCE OF SEED AND APPLY HP–FGM AT A RATE OF 50 LB PER 125 GALLONS (23 KG/475 LITERS) OF WATER OVER FRESHLY SEEDED SURFACES. CONFIRM LOADING RATES WITH EQUIPMENT MANUFACTURER. DO NOT LEAVE SEEDED SURFACES UNPROTECTED, ESPECIALLY IF PRECIPITATION IS IMMINENT.

3. STEP THREE: SEE THE APPLICATION GUIDE IN THE APPENDIX OF THE PROJECT SPECIFICATIONS OR AT www.ecfenvironmental.com/PDFs/FGM/Application%20Guide%20–%20ET–FGM,%20HP–FGM,%20BFM,%20SMM.pdf

APPLICATION RATES: THESE APPLICATION RATES ARE FOR STANDARD CONDITIONS. DESIGNERS MAY WISH TO REDUCE RATES TO ENCOURAGE FASTER VEGETATION ESTABLISHMENT OR MAY NEED TO INCREASE APPLICATION RATES ON ROUGH SURFACES. CONSULT APPLICATION AND LOADING CHARTS TO DETERMINE NUMBER OF BAGS TO BE ADDED FOR DESIRED AREA AND APPLICATION RATE.

SLOPE GRADIENT/CONDITION	ENGLISH
≤ 4H TO 1V	2500 LB/AC
> 4H TO 1V AND ≤ 3H TO 1V	3000 LB/AC
≥ 3H TO 1V AND ≤ 2H TO 1V	3500 LB/AC
> 2H TO 1V AND ≤ 1H TO 1V	4000 LB/AC
> 1H TO 1V	4500 LB/AC
BELOW ECB OR TRM	1500 LB/AC
AS INFILL FOR TRM	3500 LB/AC

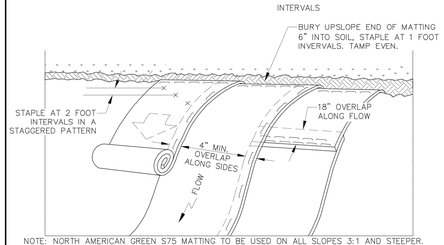
NOTE: IN AREAS THAT WILL STILL RECEIVE EROSION CONTROL MATTING, HYDRAULICALLY APPLIED EROSION CONTROL PRODUCT (HECP) SHOULD BE APPLIED FIRST, THEN THE EROSION CONTROL MATTING ON TOP AND PROPERLY SECURED BASED ON MANUFACTURERS SPECIFICATIONS.



HYDRAULICALLY APPLIED EROSION CONTROL BLANKET*

SCALE: NOT TO SCALE

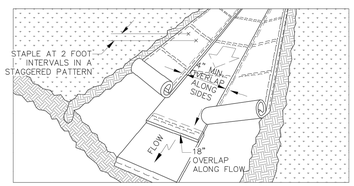
* NOTE: USED AS AN ALTERNATIVE FOR EROSION CONTROL MAT, HOWEVER, EROSION CONTROL MAT IS STILL REQUIRED IN AREAS OF CONCENTRATED FLOW. ALSO, A MINIMUM 3500 POUNDS PER ACRE COVERAGE OF FLEXTERRA HP–FGM IS REQUIRED IN ORDER TO REPLACE EROSION CONTROL MATTING ON SIDE SLOPES



NOTE: NORTH AMERICAN GREEN S75 MATTING TO BE USED ON ALL SLOPES 3:1 AND STEEPER.

EROSION CONTROL MATTING FOR SLOPES

SCALE: NOT TO SCALE



EROSION CONTROL MATTING FOR CHANNELS

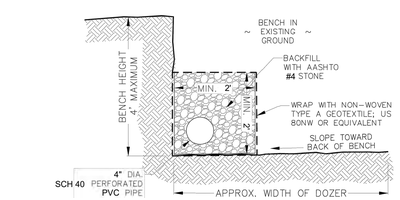
SCALE: NOT TO SCALE

EROSION CONTROL MATTING INSTALLATION

1. INSTALL ACCORDING TO WVDOH AND AS RECOMMENDED BY MANUFACTURER.
2. PLACE EROSION CONTROL MATERIALS AFTER THE SLOPE OR SWALE HAS BEEN DRESSED TO DEFINE THE FLOW AND THE DESIGNATED SEEDING, SOIL SUPPLEMENTS, AND MULCH HAVE BEEN APPLIED. PLACE EROSION CONTROL MATERIALS TO CONFORM TO THE SHAPE OF THE SOIL SURFACE.
3. SPREAD THE MAT EVENLY AND SMOOTHLY, WITHOUT STRETCHING, AND ENSURE CONTACT WITH MULCH AT ALL POINTS. UNROLL FABRIC PARALLEL TO THE FLOW DIRECTION. DRIVE ALL STAPLES FLUSH WITH THE SOIL SURFACE.
4. INSTALL THE UPSLOPE MAT END BY BURYING IN A VERTICAL, 6–INCH DEEP SLOT. STAPLE MAT ALONG THE BOTTOM OF THE SLOT AT 1–FOOT INTERVALS. BACKFILL THE SLOT AND TAMP.
5. STAPLE UNLAPPED EDGES AT 6–FOOT INTERVALS. WHERE TWO OR MORE WIDTHS ARE PLACED SIDE BY SIDE, OVERLAP EDGES BY NOT LESS THAN 4 INCHES. STAPLE ALONG THE OVERLAP AREA AT 3–FOOT INTERVALS.
6. OVERLAP ROLL ENDS BY 18 INCHES, WITH THE UPSLOPE END ON TOP. STAPLE OVERLAP AREA AT 1–FOOT INTERVALS. STAPLE FABRIC AT 2–FOOT INTERVALS IN A STAGGERED PATTERN THROUGHOUT THE MAT.
7. TERMINATE MAT INSTALLATION BY TURNING UNDER AT LEAST 6 INCHES OF FABRIC AND STAPLING SECURELY ALONG THE FOLD AT 1–FOOT INTERVALS.

EROSION CONTROL MATTING MAINTENANCE

1. INSPECT ON A WEEKLY BASIS AND AFTER EACH PRECIPITATION EVENT. REPAIRS SHOULD BE MADE IMMEDIATELY AFTER INSPECTION.
2. RE–ANCHOR ANY LOOSE PORTIONS OF THE MATTING.
3. REPLACE DAMAGED MATTING AND RESEED AS REQUIRED.

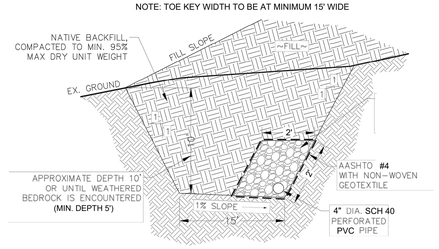


NOTE: BENCHES SHOULD BE CONSTRUCTED CONTINUOUSLY ON SLOPE WITH A MAXIMUM OF FOUR (4) FEET VERTICALLY BETWEEN THEM. BENCH WIDTHS SHOULD BE THE APPROXIMATE WIDTH OF THE DOZER CONSTRUCTING THEM.

BONDING BENCH AND BENCH DRAIN

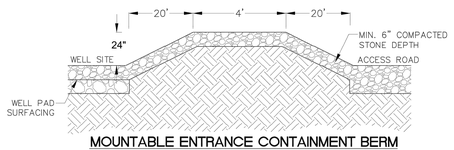
NO SCALE

NOTE: TOE KEY WIDTH TO BE AT MINIMUM 15' WIDE



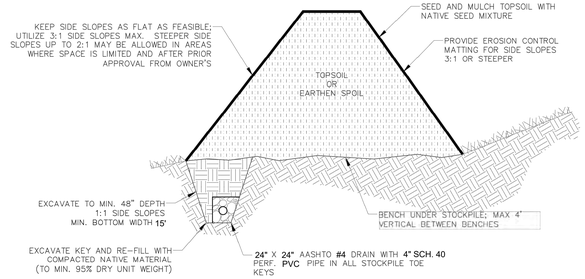
FILL SLOPE KEY TRENCH

NO SCALE



MOUNTABLE ENTRANCE CONTAINMENT BERM

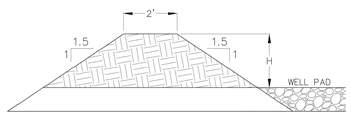
SCALE: NOT TO SCALE



NOTE: CONTRACTOR TO PROVIDE DEDICATED COMPACTION EQUIPMENT FOR SOIL STOCK PILES AND ENSURE COMPACTION TO 95% MAX DRY UNIT WEIGHT

SOIL STOCKPILE

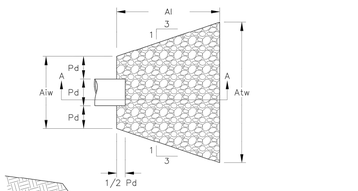
NOT TO SCALE



LOCATION	HEIGHT (H)	TOP WIDTH
WELL PADS	2'–0"	2'–0"

WELL PAD CONTAINMENT BERM

SCALE: NOT TO SCALE



SECTION A–A

OUTLET DESCRIPTION	RIPRAP MIN. D50 (IN)	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
AT ACCESS ROAD CROSS CULVERTS	3	12	12	4.5	16
AT BLANKET DRAIN OUTLET	3	12	12	4.5	16
AT TURNOUTS & CUT CHANNEL OUTLETS	3	12	12	4.5	16
AT TOE BENCH DRAIN OUTLETS	3	12	6	2	8
AT SUMP OUTLETS	3	12	6	4.5	9

INSTALLATION

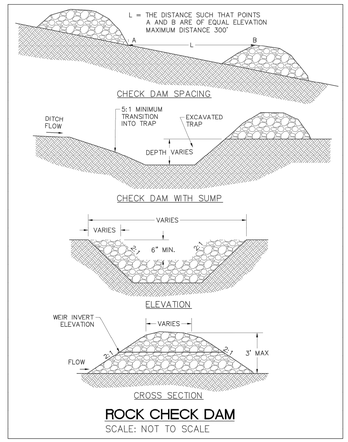
1. CONSTRUCT ALL APRONS TO THE DIMENSIONS SHOWN. ADJUST TERMINAL WIDTHS AS NECESSARY TO MATCH RECEIVING CHANNELS.
2. EXTEND RIPRAP ON BACKSIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

MAINTENANCE

1. INSPECT ALL APRONS WEEKLY AND AFTER EACH RUNOFF EVENT.
2. REPLACE DISPLACED RIPRAP WITHIN THE APRON IMMEDIATELY.

ROCK APRON

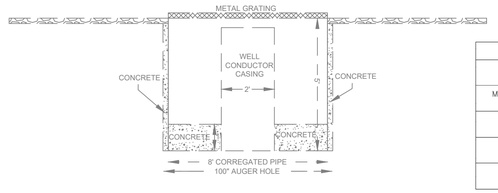
NOT TO SCALE



ROCK CHECK DAM

SCALE: NOT TO SCALE

8' DIAMETER CORRUGATED GALVANIZED METAL PIPE CELLAR



SEEDING SCHEDULE RECOMMENDATIONS

SEEDBED PREPARATION

THE SEEDBED MUST BE LOOSE AT THE TIME OF SEEDING. THE SEEDBED MUST BE LOOSENED BY DISKING ON THE CONTOUR, OR BY BULLDOZER TRACKING UP AND DOWN THE SLOPE. BACKBLADING IS ACCEPTABLE ON GENTLE SLOPES SUCH AS THE BENCH OR ROAD BED.

TEMPORARY SEEDING

TEMPORARY VEGETATIVE COVER MUST BE ESTABLISHED WHERE RUNOFF WILL GO DIRECTLY INTO A STREAM. IMMEDIATELY UPON CONSTRUCTION OF THE SITE, VEGETATION MUST BE ESTABLISHED ON ROAD BANK AND SLOPES WHEN RECLAMATION CANNOT BE COMPLETED WITHIN THE PRESCRIBED 6 MONTHS. APPLY SEED BY BROADCASTING, DRILLING OR HYDRAULIC APPLICATIONS ACCORDING TO THE RATE INDICATED IN THE TABLE BELOW. PERFORM ALL PLANTING OPERATIONS AT RIGHT ANGLES TO THE SLOPES.

PERMANENT SEEDING

PLANTING OF PERMANENT VEGETATIVE COVER SHALL BE PERFORMED ON ALL DISTURBED AREAS. LIME AND FERTILIZER RATES SHALL BE APPLIED TO ALL PERMANENT SEEDING AT THE TIME OF SEEDBED PREPARATION.

IN SITUATIONS WHERE ANOTHER COVER IS DESIRED, CONTACT THE LOCAL SOIL CONSERVATION DISTRICT FOR SEEDING RECOMMENDATIONS. APPROVAL OF THE OIL AND GAS INSPECTOR IS NEEDED.

THE PH CAN BE DETERMINED WITH A PORTABLE PH TESTING KIT OR BY SENDING THE SOIL SAMPLES TO A SOIL TESTING LABORATORY. WHEN 4 TONS OF LIME PER ACRE ARE APPLIED IT MUST BE INCORPORATED INTO THE SOIL BY DISCING, BACKBLADING OR TRACKING UP AND DOWN THE SLOPE.

MULCHING:

GENERAL ORGANIC MULCHES

THE APPLICATION OF STRAW, HAY OR OTHER SUITABLE MATERIALS TO THE SOIL SURFACE TO PREVENT EROSION. STRAW MADE FROM WHEAT OR OATS IS THE PREFERRED MULCH, THE USE OF HAY IS PERMISSIBLE, BUT NOT ENCOURAGED DUE TO THE RISK OF SPREADING INVASIVE SPECIES. MULCH MUST BE APPLIED TO ALL TEMPORARY AND PERMANENT SEEDING ON ALL DISTURBED AREAS. DEPENDING ON SITE CONDITIONS, IN CRITICAL AREAS SUCH AS WATERWAYS, OR STEEP SLOPES, ADDITIONAL OR SUBSTITUTE SOIL PROTECTIVE MEASURES MAY BE USED IF DEEMED NECESSARY. EXAMPLES INCLUDE JUTE MESH, AND SOIL STABILIZATION BLANKETS OR EROSION CONTROL MATTING.

AREAS THAT HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHOULD BE MULCHED IMMEDIATELY FOLLOWING SEEDING. MULCHES CONSERVE DESIRABLE SOIL PROPERTIES, REDUCE SOIL MOISTURE LOSS, PREVENT CRUSTING AND SEALING OF THE SOIL SURFACE AND PROVIDE A SUITABLE MICROCLIMATE FOR SEED GERMINATION.

AREAS THAT CANNOT BE SEEDED BECAUSE OF THE SEASON SHOULD BE MULCHED TO PROVIDE SOME PROTECTION TO THE SOIL SURFACE. AN ORGANIC MULCH, STRAW OR HAY, SHOULD BE USED AND THE AREA THEN SEEDED AS SOON AS WEATHER OR SEASONAL CONDITIONS PERMIT. DO NOT USE FIBER MULCH (CELLULOSE–HYDROSEED) ALONE FOR THIS PRACTICE; AT NORMAL APPLICATION RATES IT WILL NOT GIVE THE SOIL PROTECTION OF OTHER TYPES OF MULCH.

WOOD CELLULOSE FIBER MULCH, IS USED IN HYDROSEEDING OPERATIONS AND APPLIED AS PART OF THE SLURRY. IT CREATES THE BEST SEED–SOIL CONTACT WHEN APPLIED OVER TOP OF (AS A SEPARATE OPERATION) NEWLY SEEDED AREAS. FIBER MULCH DOES NOT ALONE PROVIDE SUFFICIENT PROTECTION ON HIGHLY ERODIBLE SOILS, OR DURING LESS THAN FAVORABLE GROWING CONDITIONS. FIBER MULCH SHOULD NOT BE USED ALONE DURING THE DRY SUMMER MONTHS OR WHEN USED FOR LATE FALL MULCH COVER. USE STRAW MULCH DURING THESE PERIODS, AND FIBER MULCH MAY BE USED TO TACK (ANCHOR) THE STRAW MULCH. FIBER MULCH IS WELL SUITED FOR STEEP SLOPES, CRITICAL AREAS, AND AREAS SUSCEPTIBLE TO WIND.

CHEMICAL MULCHES, SOIL BINDERS AND TACKIFIERS

A WIDE RANGE OF SYNTHETIC, SPRAY–ON MATERIALS IS MARKETED TO STABILIZE AND PROTECT THE SOIL SURFACE. THESE ARE MIXED WITH WATER AND SPRAYED OVER THE MULCH AND TO THE SOIL. THEY MAY BE USED ALONE IN SOME CASES AS TEMPORARY STABILIZERS, OR IN CONJUNCTION WITH FIBER MULCH, STRAW OR HAY.

WHEN USED ALONE MOST CHEMICAL MULCHES DO NOT HAVE THE CAPABILITY TO INSULATE THE SOIL OR RETAIN SOIL MOISTURE THAT ORGANIC MULCHES HAVE.

SPECIFICATIONS:

FROM TABLE IV–6 SELECT THE TYPE OF MULCH AND RATE OF APPLICATION THAT WILL BEST SUIT THE CONDITIONS AT THE SITE.

ANCHORING

DEPENDING ON THE FIELD SITUATION, MULCH MAY NOT STAY IN PLACE BECAUSE OF WIND ACTION OR RAPID WATER RUNOFF. IN SUCH CASES, MULCH IS TO BE ANCHORED MECHANICALLY OR WITH MULCH NETTING.

A. MECHANICAL ANCHORING
   APPLY MULCH AND PULL A MULCH ANCHORING TOOL OVER THE MULCH. WHEN A DISK IS USED, SET THE DISK STRAIGHT AND PULL ACROSS THE SLOPE. MULCH MATERIAL SHOULD BE TUCKED INTO THE SOIL ABOUT THREE INCHES.
B. MULCH NETTING
   FOLLOW MANUFACTURER'S RECOMMENDATIONS WHEN POSITIONING AND STAPLING THE MULCH NETTING IN THE SOIL.

TEMPORARY COVER				
SPECIES	SEEDING RATE (LBS/AC)	OPTIMUM SEEDING DATES	DRAINAGE	PH RANGE
ANNUAL RYEGRASS	40	3/1–6/15 OR 8/15–9/18	WELL–POORLY	5.5–7.5
FIELD BROMEGRASS	40	3/1–6/15 OR 8/15–9/18	WELL–MOD. WELL	6.0–7.0
SPRING OATS	96	3/1–6/15	WELL–POORLY	5.5–7.0
SUDANGRASS	40	5/15–8/15	WELL–POORLY	5.5–7.5
WINTER RYE	168	8/15–10/15	WELL–POORLY	5.5–7.5
WINTER WHEAT	180	8/15–11/15	WELL–MOD. WELL	4.5–7.0
JAPANESE MILLET	30	6/15–8/15	WELL	4.0–7.5
REDTOP	5	3/1–6/15	WELL	5.5–7.5
ANNUAL RYEGRASS	26	3/1–6/15	WELL–POORLY	5.5–7.5
SPRING OATS	64	3/1–6/15	WELL–POORLY	5.5–7.5

NOTE: THESE RATES SHOULD BE INCREASED BY 50% IF PLANTED APRIL 15–AUG 1 AND OCT 1–MARCH 1

PERMANENT SEEDING			
SPECIES/MIXTURE	SEEDING RATE (LBS/AC)	SOIL DRAINAGE PREFERENCE	PH RANGE
CROWNVETCH/TALL FESCUE	10–15 30	WELL–MOD. WELL	5.0–7.5
CROWNVETCH/PERENNIAL RYEGRASS	10–15 20	WELL–MOD. WELL	5.0–7.5
FLATPEA OR PERENNIAL PEA/TALL FESCUE	20 15	WELL–MOD. WELL	4.0–8.0
LADINO CLOVER/SERICEA LESPEDEZA/TALL FESCUE	30 25 3	WELL–MOD. WELL	4.5–7.5
TALL FESCUE/LADINO CLOVER/REDTOP	40 3 3	WELL–MOD. WELL	5.0–7.5
CROWNVETCH/TALL FESCUE/REDTOP	10 20 3	WELL–MOD. WELL	5.0–7.5
TALL FESCUE/BIRDSFOOT TREFOIL/REDTOP	40 10 3	WELL–MOD. WELL	5.0–7.5
SERICEA LESPEDEZA/TALL FESCUE/REDTOP	25 30 3	WELL–MOD. WELL	4.5–7.5
REDTOP/TALL FESCUE/CREEPING RED	25 30 3	WELL–MOD. WELL	5.0–7.5
TALL FESCUE	50	WELL–POORLY	4.5–7.5
PERENNIAL RYEGRASS/TALL FESCUE/LATHCO FLATPEA	10 15 20	WELL–POORLY	5.0–8.0

MULCH MATERIALS RATES AND USES			
MATERIAL	MINIMUM RATES PER ACRE	COVERAGE	REMARKS
HAY OR STRAW	2 TO 3 TONS 100 TO 150 BALES	COVER 75% TO 90% OF SURFACE	SUBJECT TO WIND BLOWING OR WASHING UNLESS TIED DOWN
WOOD FIBER PULP FIBER WOOD–CELLULOSE RECIRCULATED PAPER	1000 TO 1500 LBS.	COVER ALL DISTURBED AREAS	FOR HYDROSEEDING

ACCEPTABLE FERTILIZATION RECOMMENDATION			
SPECIES	N (LBS/AC)	P205 (LBS/AC)	EXAMPLE REC. (PER ACRE)
COOL SEASON GRASS	40	80	400 LBS. 10–20–20
CS GRASS & LEGUME	30	60	300 LBS. 10–20–20
TEMPORARY COVER	40	40	200 LBS. 19–19–19

RECOMMENDED SEEDING DATES	
PLANTING DATES	SUITABILITY
MARCH 1–APRIL 15 AND AUGUST 1–OCTOBER 1	BEST SEEDING PERIODS
APRIL 15–AUGUST 1	HIGH RISK – MOISTURE STRESS LIKELY
OCTOBER 1–DECEMBER 1	HIGH RISK – FREEZE DAMAGE TO YOUNG SEEDLINGS
DECEMBER 1–MARCH 1	GOOD SEEDING PERIOD DORMANT SEEDING

LIME AND FERTILIZER TABLE		
pH OF SOIL	LIME IN TONS PER ACRE	FERTILIZER, LBS., PER ACRE (10–20–20 OR EQUIVALENT)
ABOVE 6.0	2	500
5.0 TO 6.0	3	500
BELOW 5.0	4	500

APPROVED
WVDEP OOG
MODIFICATION
1/27/2023

MOUNTAIN V OIL & GAS, INC.

SLS
FROM THE GROUND UP
12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.4554
1124 Smith Street, Suite 300 | Charleston, WV 25301 | 304.205.8530
204 East Rockcrest Drive | Beckley, WV 25801 | 304.255.2536
slsenergy.com

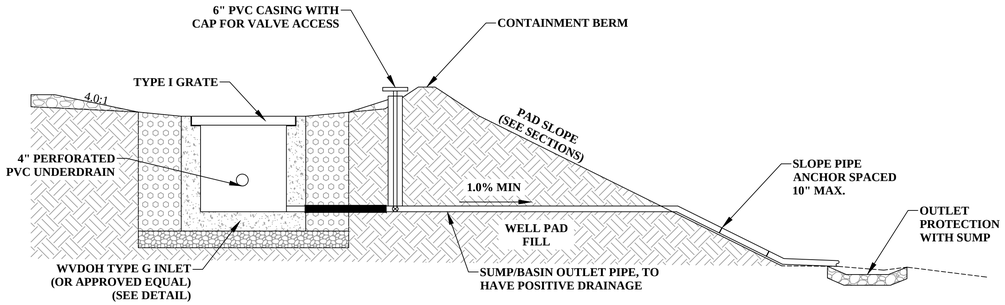
RICHARD E. YEAGER
REGISTERED
9715
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER
01/23/23

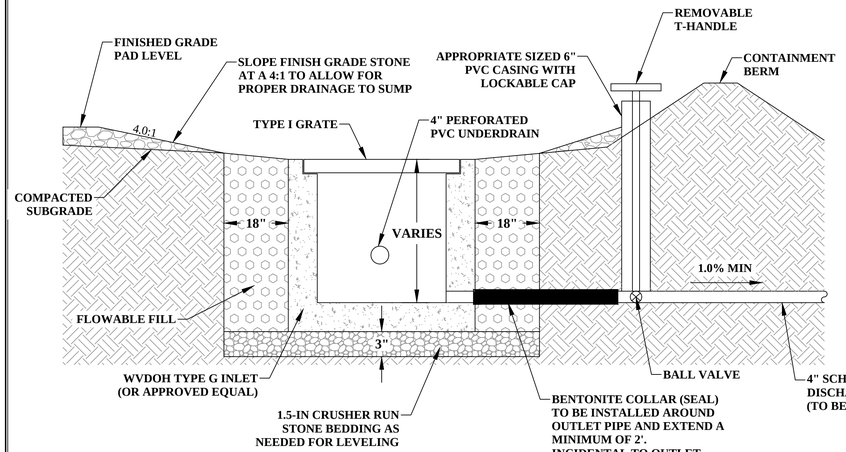
THIS DOCUMENT WAS PREPARED BY: SLS LAND & ENERGY DEVELOPMENT

FOR: MOUNTAIN V OIL AND GAS

CONSTRUCTION DETAILS
PAD C
FINAL SITE PLAN
HENRY DISTRICT
CLAY COUNTY, WV

DATE: 11-02-2022
SCALE: NOT TO SCALE
DESIGNED BY: C.P.M.
FILE NO. 9235
SHEET 23 OF 24
REV: 01-23-2023





NOTES:

1. VALVE SHALL REMAIN CLOSED AT ALL TIMES DURING DRILLING AND COMPLETION ACTIVITIES ON THE WELL PAD. THERE SHALL BE NO DISCHARGE TO LEAVE THE WELL PAD DURING THIS TIME UNLESS APPROVED BY THE OWNER.
2. SUMP AREAS SHALL BE LINED AS NECESSARY TO PREVENT FILTRATION THROUGH THE CONTAINMENT BERM.
3. DISCHARGE PIPE TRENCH BACKFILL SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE EARTHWORK AND COMPACTION GENERAL NOTES CONTAINED WITHIN THESE PLANS.
4. TOP OF GRATE SHALL BE SET 2" BELOW SUBGRADE OF THE PAD IMMEDIATELY ADJACENT TO THE SUMP.
5. FLOWABLE FILL SHALL BE PLACED AROUND THE PERIMETER OF THE SUMP, INCIDENTAL TO SUMP INSTALLATION.
6. OUTLET PIPES TO HAVE VARMINT COVERS, INCIDENTAL TO OUTLET AND SLOPE PIPE INSTALLATION.
7. FLOWABLE FILL SHALL BE A MINIMUM 1,000 PSI WITH AIR ADDED.

WELL PAD SUMP DETAIL

NOT TO SCALE

VARMINT OUTLET COVER

WELL PAD SUMP 1 ELEVATIONS	
WELL PAD FINISH GRADE	1246.00'
SUMP TOP GRATE(SUBGRADE)	1245.00'
SUMP INVERTS IN	1242.50'
SUMP INVERT OUT	1241.80'

WELL PAD SUMP 2 ELEVATIONS	
WELL PAD FINISH GRADE	1246.00'
SUMP TOP GRATE(SUBGRADE)	1245.00'
SUMP INVERTS IN	1242.50'
SUMP INVERT OUT	1241.80'

WELL PAD SUMP 3 ELEVATIONS	
WELL PAD FINISH GRADE	1246.00'
SUMP TOP GRATE(SUBGRADE)	1245.00'
SUMP INVERTS IN	1242.50'
SUMP INVERT OUT	1241.80'

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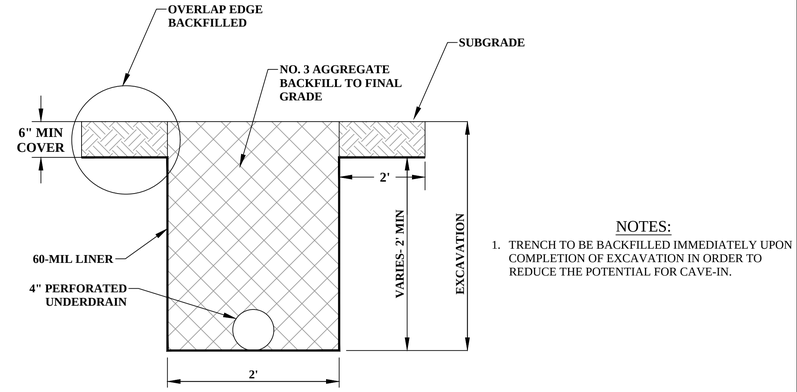
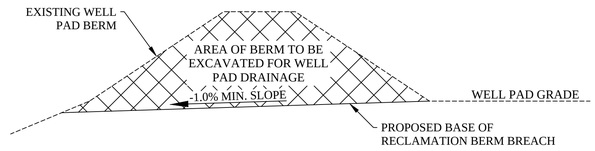


NOTES:

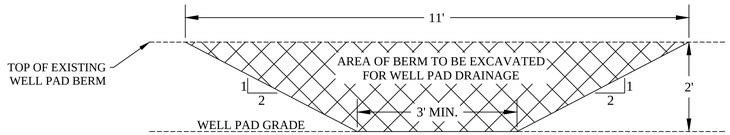
1. TRENCH TO BE BACKFILLED IMMEDIATELY UPON COMPLETION OF EXCAVATION IN ORDER TO REDUCE THE POTENTIAL FOR CAVE-IN.

WELL PAD TRENCH DRAIN DETAIL

NOT TO SCALE



SECTION VIEW



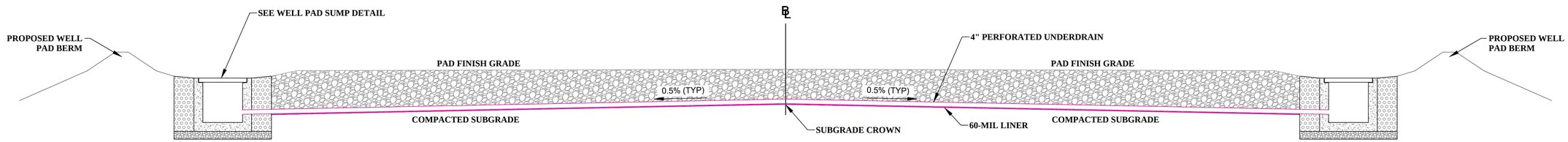
PROFILE VIEW

NOTES:

1. CONTRACTOR SHALL EXCAVATE BREACHES AT EACH LOCATION SHOWN ON THE RECLAMATION PLAN OR AS DIRECTED BY THE ENGINEER.
2. CONTRACTOR SHALL INSTALL OUTLET PROTECTION AT EACH BREACH LOCATION AND SHALL EXTEND OUTLET PROTECTION FROM THE EXISTING BERM TO THE TOE OF THE CONSTRUCTED SLOPE.
3. BASE OF PROPOSED BREACH SHALL BE SLOPED MINIMUM -1.0% AWAY FROM THE WELL PAD.
4. PRIOR TO WELL PAD BERM REMOVAL, ALL COMPOST FILTER SOCK SHOWN SHALL BE IN PLACE AND FULLY FUNCTIONAL.

WELL PAD RECLAMATION BERM BREACH DETAIL

NOT TO SCALE



WELL PAD TRENCH DRAIN SECTION

MOUNTAIN V OIL & GAS, INC.

SLS FROM THE GROUND UP
12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.4314
1416 Dilworth Road East | Charlotte, NC 28204 | 704.347.5935
104 East Bockar Bypass | Beckley, WV 25801 | 304.255.0256
slsnv.com

RICHARD G. TRUMP REGISTERED 9715 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

01/23/23

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