BAYSWATER
EXPLORATION & PRODUCTION, LLC

ONYX PAD STORMWATER MANAGEMENT PLAN

Contents

BAYSWATER
EXPLORATION & PRODUCTION, LLC

Article I. Introduction

Location Information

This document provides site-specific information for the Onyx Pad within the Onyx Pad OGDP. The information in this document relates specifically to the time during the construction, drilling, completion, and production of the twelve (12) proposed horizontal wells on this location.

The proposed location is irrigated crop land approximately 5270' North of the intersection of WCR 76 and WCR 33. The Pad will be in the NWNW Section 26, Township 7 North, Range 66 West, zoned agricultural within Weld County's Near-Urban planning area. A 1041WOGLA is being filed concurrently with the OGDP application as 1041WOGLA22-0017.

The proposed Pad will be 9.1 acres, reduced to 2.2 after interim reclamation. The working pad surface will be 5.5 acres. The Pad is on Parcel #070726200014 owned by Glenn C and Lee Shannon Leffler. The location is currently used for farming.

The proposed Onyx Pad will have production facility equipment located within the Working Pad Surface adjacent to the wells consisting of and will connect to existing oil tanks, water tanks, vapor recovery towers (VRT), vapor recovery units (VRU), and emission control devices (ECD) at the adjacent Leffler 26-A Pad (Loc ID 433335). Separators will be located within the Onyx Pad Working Pad Surface.

Phase	Duration (Days)	Estimated Start Date
Construction	14	3rd Quarter (September) 2023
Drilling	84	4th Quarter (October) 2023
Completions (Prep and Frac)	142	4th Quarter (December) 2023
Flowback (Drill Out and flowback)	48	2nd Quarter (May) 2024
Production	25 Years	3rd Quarter (August) 2024
Interim Reclamation	10	4th Quarter (November) 2024

**or the first favorable growing season.*

Article II. Site Information

Soil Description

Runoff characteristics are based on site topography, soil type, and soil/vegetative cover. The facilities will be constructed on land with little topographic variability and the potential for soil loss due to topography is minimal. The elevation in this Project Area ranges from 4,556 ft. to 5,279 ft. The NRCS soils map can be found attached to this plan**.** Soil data acquired from Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey, available online and accessed March 31, 2015.

Vegetation Description

Within the Project Area, native vegetation consists primarily of developed open space/low/medium/high intensity, deciduous/evergreen/mixed forest, open water, shrub/scrub, herbaceous, hay/pasture, cultivated crops, barren land, woody wetlands, and emergent herbaceous wetland. Vegetative cover ranges from 15% to 65%.

Construction and Development

During the construction and development phase, the construction areas will be cleared and grubbed. Stormwater inspections begin once the soil or vegetation is disturbed. Temporary or permanent on-site perimeter erosion and sediment control CMs will be installed as appropriate (i.e., before, during, and after all grading activities and development).

Well pads, central tank batteries, and access roads will be constructed using conventional cut and fill earth-moving techniques for the majority of the construction activities. Typical pad surfaces will be approximately 350 feet long by 350 feet wide. Specific construction dimensions may vary depending on the nature of the project and site-specific conditions.

In areas disturbed by construction, topsoil will be stripped and stockpiled near the site. Soil materials will be managed so erosion and sediment transport are minimized. Nearby drainages will be protected by appropriate CMs. Any stockpiled excess cut-material or topsoil will be segregated during construction, and appropriate erosion and sediment control CMs will be utilized to minimize sediment transport during temporary storage. Sequencing of construction activities will progress as rapidly as practicable to minimize the amount of time portions of the site are disturbed. Inactive areas will be stabilized and interim reclaimed to reduce erosion potential, slow runoff velocity, and promote infiltration and will be temporarily seeded where applicable.

Production and Operation

During the production and operation phase, appropriate CMs will be maintained and remain in place during the production phase. Disturbed areas will be graveled, surface hardened, or vegetated to a uniform individual plant density of at least 70 percent of pre-existing conditions prior to being removed from CDPHE permit coverage. Upon removal from CDPHE permit coverage, the site will be placed in the Colorado Oil and Gas Conservation Commission (COGCC) Post-Construction Stormwater Program in accordance with the COGCC 1000-Series Rules.

Interim Reclamation

After the construction and development phase is complete, interim reclamation will be completed, and all slopes and areas not needed for oil and gas extraction operations will be stabilized vegetated to a uniform individual plant density of at least 70 percent of pre-existing conditions prior to being removed from CDPHE permit coverage.

Final Reclamation

After construction and development is complete and production activities cease, the well(s) are typically plugged and abandoned and all equipment is removed in preparation for final reclamation activities. During final reclamation, all segregated soil horizons will be replaced to their original relative positions, contoured as near as practicable to achieve erosion control and long-term stability, and will be tilled adequately in order to establish a proper seedbed. Reclaimed areas will then be tracked, seeded, and mulched.

Final seeding of the reclaimed area will be done in the spring or fall depending on the completion time of the

reclamation and weather conditions permitting. If soil or vegetation is disturbed during final reclamation activities, the site will be placed back under Permit coverage, and stormwater inspections will resume until a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-existing conditions. If soil or vegetation is not disturbed during final reclamation activities, the site will remain part of the COGCC Post-Construction Stormwater Program in accordance with the COGCC 1000-Series Rules.

Following completion of final reclamation, a qualified stormwater manager will inspect reclaimed areas to ensure revegetation has been successful. If revegetation is not successful, spot revegetation or other remedial actions will be implemented to assure compliance.

Known Weed Infestations

None known.

Non-stormwater discharges

Non-stormwater discharges are not expected from the anticipated projects covered by this SMWP. There are no municipal discharge outfalls within the Project Area.

Receiving waters

The Project area covered by CDPHE permit COR400369 includes the Cache La Poudre Subbasin (USGS Hydrologic Unit Code [HUC] 10190007), the Lone Tree-Owl Sub-basin (HUC 10190008), the Crow Sub-basin (HUC 10190009), and the Middle South Platte-Cherry Creek Sub-basin (HUC 10190003), which are part of the South Platte Basin (HUC 101900). The ultimate receiving water is the South Platte River.

According to the National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center, the annual average total precipitation for Greeley (station USC00053553) is approximately 14.69 inches.

CDPS Permit

PERMIT COR400000.

Operator Stormwater Manager

Stormwater management involves several entities within Bayswater as well as an outside consultant. This SWMP was prepared on behalf of Bayswater by Kleinfelder, Inc. However, the implementation and execution of the SWMP will be conducted by Bayswater or their designee. The authorized officer(s) for this SWMP are listed below:

Responsible Corporate Officers:

Brad Rogers
Environmental Manager
Bayswater Exploration & Production, LLC
brogers@bayswater.us
Office: (303) 893-2503 ext. 204

Wade Hood

Field Compliance Specialist
Bayswater Exploration & Production, LLC
whood@bayswater.us
Cell: (970) 302-1499

Additional Contact:
Ryan W. Kaminky
Production & Facilities
Bayswater Exploration & Production, LLC
rkaminky@bayswater.us
Cell (303) 746-5195

Article III. Stormwater Management Control Measures

Potential Pollution Sources

The most common source of pollution from project construction and development is sediment, which can be carried away from the work site with stormwater runoff and possibly impact the water quality of a receiving stream. Clearing, grading, and altering previously undisturbed land may increase the rate of soil erosion over pre-disturbance rates. Potential pollution sources associated with construction, development, and production activities includes:

- Sediment resulting from erosion of soil stockpiles and other areas cleared of vegetation;
- Leakage of fuels and lubricants from equipment and spills from fueling or equipment failures during earth moving activities and storage of equipment on site;
- Trash and debris resulting from clearing activities, construction materials, and worker activity;
- Construction material storage areas, if improperly stored, or exposed to stormwater;
- Fugitive dust due to road use;
- Off-site vehicle tracking; and
- Temporary portable toilet services for construction workers.

Petroleum products are used in project construction to power or lubricate equipment and may include fuel, gear oil, hydraulic oil, brake fluid, and grease.

Other potential pollution sources within the construction site include debris from lay down areas, residue from equipment cleaning and maintenance, and solid waste generated from land clearing operations and human activity (e.g., trees, brush, paper, trash, etc.).

Structural and Non-Structural Practices

Structural Practices for Erosion and Sediment Control
There are a number of structural practices that are used in the project including: earthen berms, fiber rolls, diversion ditches (lined and unlined), check dams, culvert outlet protection, temporary slope drains, and sediment traps. Structural BMPs are located in the attached Grading Plan excerpt sheets.

Non-Structural Practice for Erosion and Sediment Control
Non-structural erosion and sediment control BMPs that are used include techniques such as phasing construction, minimizing disturbance to existing vegetation, preservation of natural vegetation, re-

establishing/replacing vegetation, mulching, rolled erosion control products, surface roughening, and land grading. Non-structural BMPs are located in the attached Grading Plan excerpt sheets.

Erosion Controls

All segregated soil horizons removed from crop lands will be replaced to their original relative positions and contour and will be tilled adequately to re-establish a proper seedbed and treated as needed for erosion control and invasive species prevention. Any perennial forage crops that were present before disturbance will be reestablished. In addition, gas, oil, and water gathering lines will be co-located to minimize potential of erosion associated with construction of any pipeline(s).

Vehicle Tracking Control

Vehicle tracking controls (VTCs) are used to reduce the potential for sediment to leave a construction area. Given the majority of roads in the area are dirt or gravel, off-site tracking is not anticipated to be a problem. If tracking does become an issue, VTCs will be implemented. VTCs may include, but are not limited to, asphalt- or rock-armored entrances or utilizing street sweeping operations to control tracking of sediment onto adjacent paved roads.

Materials handling and Spill prevention

Materials will be handled in accordance with OSHA requirements and manufacturers' instructions. Efforts will be made to refuel equipment away from drainages and waterways. If a release of a hazardous substance does occur during construction activities, construction personnel will take appropriate action to minimize the impact of the spill through the use of absorbent material stored at the construction site. A list of all potentially toxic or hazardous chemicals used during the project will be maintained and kept onsite. Safety Data Sheets and other safety information will be on file and accessible during all periods in which the chemicals are used or stored. Storage areas and containers will be regularly monitored for leaks and repaired or replaced, as necessary. Workers will be reminded about proper storage and handling of materials during safety meetings. In the event of a release of fuel, lubricant, coolant, or any other chemical, efforts will be made to stop the release. Spilled fluids will be cleaned up as soon as possible. All contaminated soils and spent/used clean-up materials will be containerized in drums or dumpsters and stored onsite until appropriate disposal methods have been identified. The necessary repairs will be made to the equipment to prevent a continued release of potential pollutants.

Management of Waste Material

There is a low potential for contaminated soils to contribute pollutants to stormwater discharges. Areas of contaminated soils will be identified through regular inspections. If found, contaminated soils will be excavated and disposed at an appropriate facility. Soil sampling will be conducted upon completion of excavation and removal activities to ensure contaminated soils have been removed.

Article IV. Site-Specific Construction and Stormwater/Erosion Control Measures

Initial Construction Layout Drawings

Please see attached Grading Plan sheets.

Interim Reclamation and Production Areas Construction Layout Drawings

Please see attached Grading Plan sheets.

Article V. Inspections and Maintenance Procedures

Training

Spill prevention and response are addressed in training of employees and contractor personnel on at least an annual basis.

Scope of Inspections

The construction site perimeter, all disturbed areas, designated haul roads, material and waste storage areas exposed to precipitation, locations where stormwater has the potential to discharge offsite, and locations where vehicles exit the site will be inspected for evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters. During the inspection, the operator, or their designee, will:

- Visually verify whether all implemented control measures are in effective operational condition and are working as designed in their specifications to minimize pollutant discharges;
- Determine if there are new potential sources of pollutants;
- Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges; and
- Identify all areas of noncompliance with the Permit requirements and, if necessary, implement corrective actions.

State and Local Inspection Requirements

All inspections shall be in accordance with the Colorado Department of Public Health and Environment's CDPS General Permit for Stormwater Discharges Associated with Construction Activity, and the Colorado Oil and Gas Conservation Commission (COGCC) 304.c.15 and 1002.f rules and requirements.

Inspection Procedures and Frequency

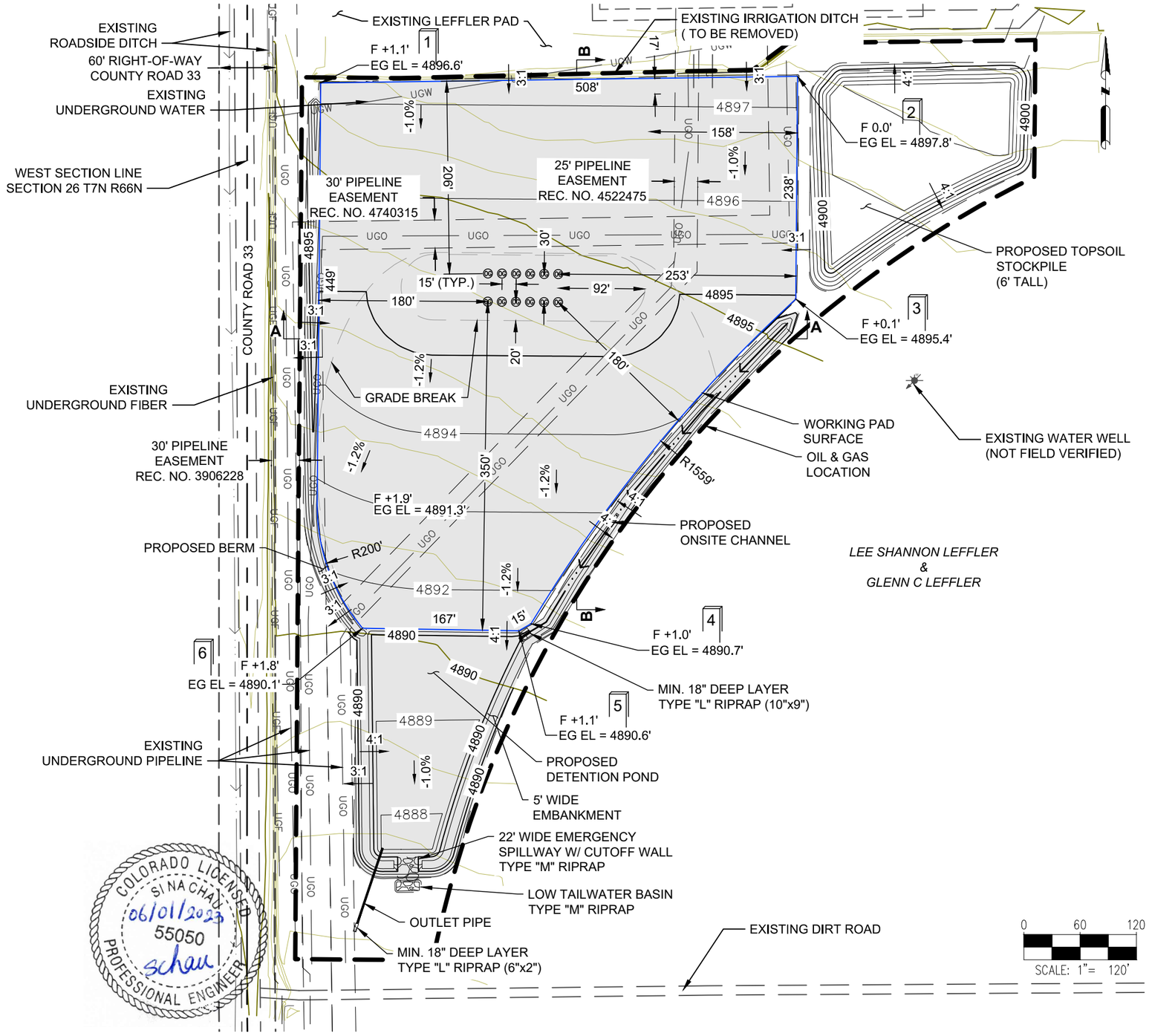
Inspections will start within seven calendar days of commencement of ground disturbing activities at the site. A log of inspections will be kept with the SWMP at the construction site. Sediment and erosion control CMs will be inspected for evidence of deterioration, need for maintenance, under-cutting, and buildup of sediment. A signed inspection report will be prepared and placed into the SWMP. Inspection reports will be retained for at least three years from the date that permit coverage expires or is terminated. Actions taken to modify any stormwater CM will be recorded and maintained with the SWMP. Deficiencies found that are associated with the SPCC Plan will be noted on the stormwater inspection paperwork. A thorough inspection will be made at least every seven calendar days, or every 14 calendar days, and within 24 hours after the end of any precipitation or snowmelt event causing surface erosion. Provided the timing is appropriate, post-storm inspections may be used to fulfil the 14-day inspection requirement.

Article VI. Site-Specific BMP

- Bayswater will install stormwater controls, constructed in a manner that is consistent with good engineering practices, that will prevent offsite migration of sediment/contaminant, into the nearby sensitive areas.

- Gas, oil, and water gathering lines will be co-located to minimize potential of erosion associated with construction of any pipeline(s).
- Operator shall install stormwater controls, constructed in a manner that is consistent with good engineering practices, that will prevent offsite migration of sediment/contaminant, into the nearby sensitive areas. Stormwater controls shall be installed prior to construction activities.
- Operator will be responsible for segregating the topsoil, backfilling, re-compacting any backfill, reseeding, and re-contouring the surface of any disturbed area so as not to interfere with Owner's operations and will reclaim such area to be returned to preexisting conditions as best as possible with control of all weeds.
- Operator will stabilize the topsoil stockpiles utilizing vehicle tracking perpendicular to slope angle for short term stabilization and drill seed/crimped straw mulch application for longer term stabilization measures to suppress fugitive dust caused solely by wind.
- Stabilization and revegetation will be performed as part of interim reclamation.
- Stormwater controls shall be installed prior to construction activities.
- Stormwater inspection will be performed at least every 7 days during well production and every 30 days after interim reclamation.
- The stormwater system for the Onyx Pad includes one detention pond with an outlet structure.
- Spill prevention and response are addressed in training of employees and contractor personnel on at least an annual basis.
- A vehicle tracking BMP is a rock (stone, gravel) pad, shaker rack, wheel washer, or other BMP designed to remove soil and mud from vehicles leaving the work zone and entering offsite areas, such as public roadways and public or private parking lots.

ONYX PAD
GRADING PLAN



SITE QUANTITIES

FINISHED GRADE ELEVATION	4891.9' - 4897.8'
ROUGH GRADE ELEVATION	4891.4' - 4897.3'
TOTAL CUT FOR SITE (BANK)	185 CY
TOTAL FILL FOR SITE	13,399 CY
NET IMPORT MATERIAL	13,214 CY
TOPSOIL (6")	5,535 CY
OIL & GAS LOCATION AREA	9.1 ACRES
WORKING PAD SURFACE AREA	5.5 ACRES
ACCESS ROAD DISTURBANCE AREA	0.0 ACRES
FLOWLINE CORRIDOR AREA	0.0 ACRES

DATA SOURCE:
WATER WELL: DEPARTMENT OF WATER RESOURCES

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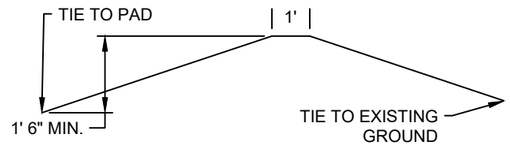

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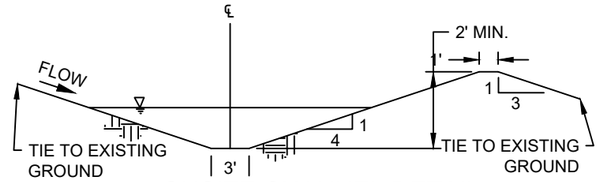

ONSITE CHANNEL DETAIL
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PREPARED FOR:
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BAYSWATER EXPLORATION & PRODUCTION, LLC
730 17TH ST, SUITE 500
DENVER, CO 80202
(303) 893-2503

SHEET NAME: CONSTRUCTION LAYOUT
SURFACE LOCATION
ONYX PAD
NW 1/4 NW 1/4 SECTION 26, T7N, R66W, 6TH P.M.
WELD COUNTY, COLORADO

REV.	DATE	REVISION DESCRIPTION	INT.
0	5/23/22	ISSUED FOR CONSTRUCTION	AMS

FIELD DATE: 2-20-2022
DRAWING DATE: 5-23-2022
DRAFTED BY: AMS
SHEET NO. 03 OF 15

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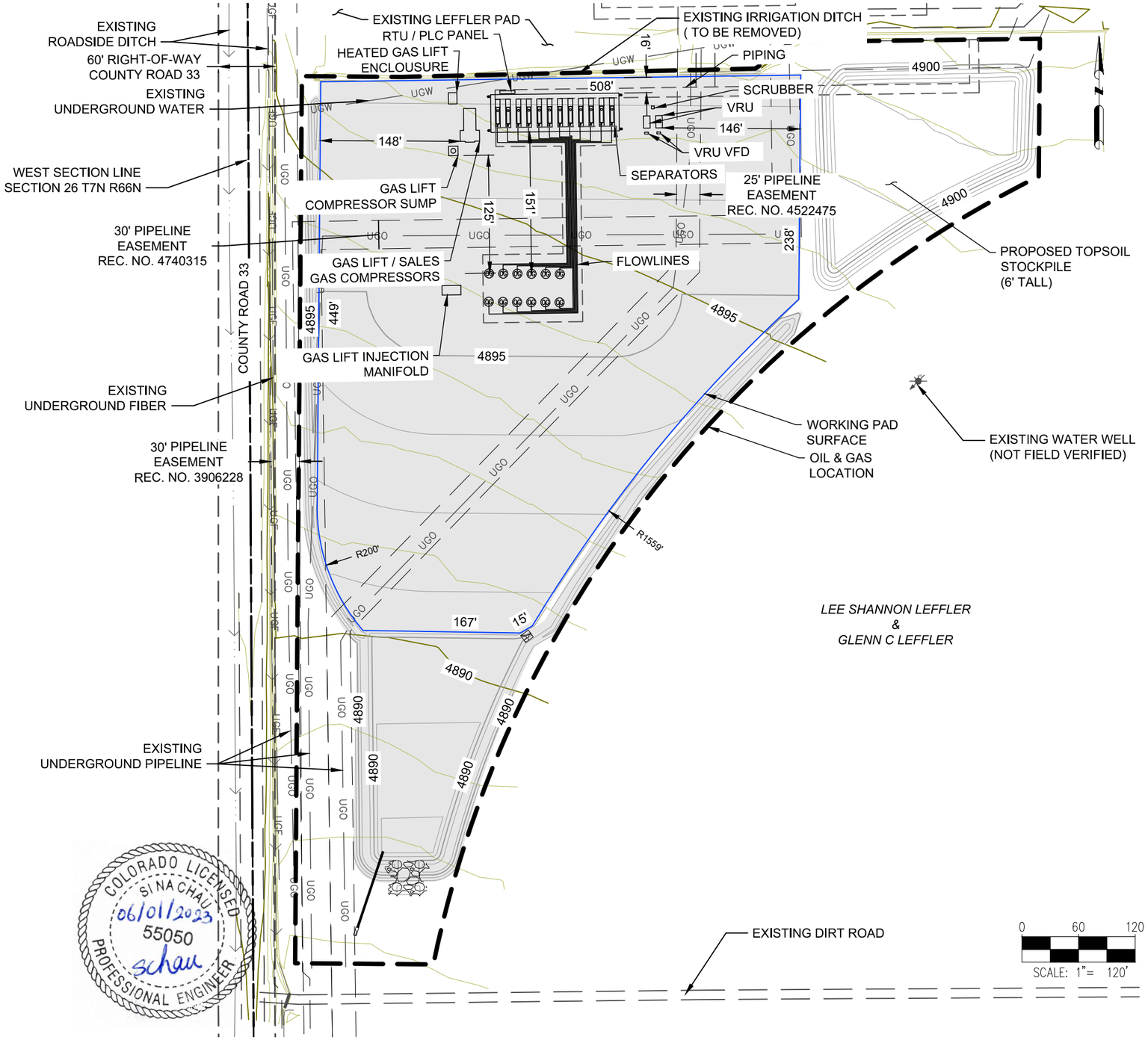

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SCALE: 1"= 120'

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SHEET NAME: PRODUCTION LAYOUT

SURFACE LOCATION
ONYX PAD
NW 1/4 NW 1/4 SECTION 26, T7N, R66W, 6TH P.M.
WELD COUNTY, COLORADO

REV.	DATE	REVISION DESCRIPTION	INT.
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1	10/17/22	ISSUED FOR CONSTRUCTION	AMS
2	6/2/23	ISSUED FOR CONSTRUCTION	AMS
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DRAWING DATE: 5-23-2022
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SHEET NO. 08 OF 15

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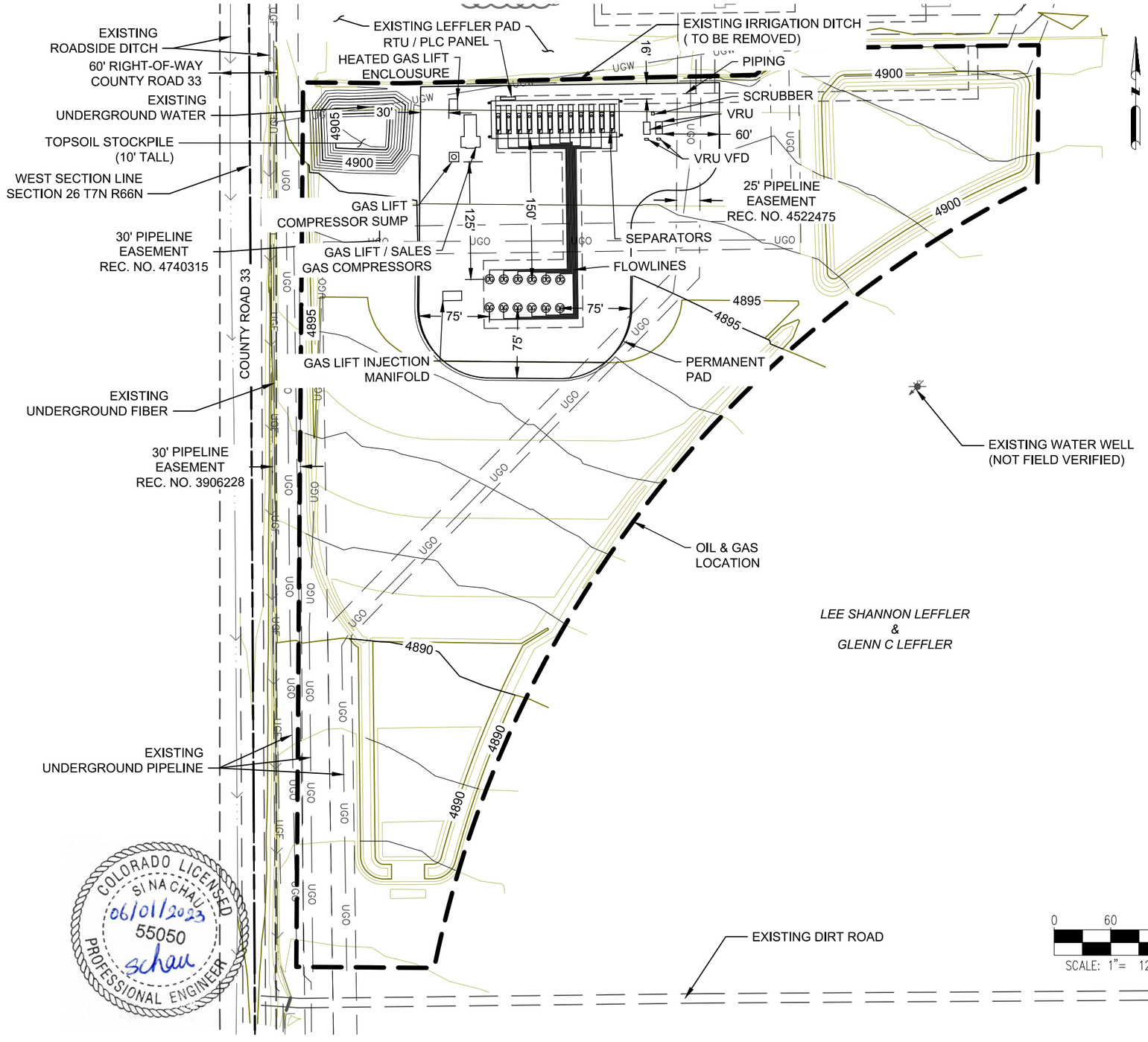

SITE QUANTITIES

TOTAL CUT FOR SITE (BANK)	10,161	CY
TOTAL FILL FOR SITE	202	CY
NET EXCESS MATERIAL (BANK)	9,960	CY
RECLAIMED AREA	6.9	ACRES
PERMANENT DISTURBANCE AREA	2.2	ACRES
OIL & GAS LOCATION AREA	9.1	ACRES

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SHEET NAME:
INTERIM-RECLAMATION LAYOUT

SURFACE LOCATION
ONYX PAD
NW 1/4 NW 1/4 SECTION 26, T7N, R66W, 6TH P.M.
WELD COUNTY, COLORADO

REV.	DATE	REVISION DESCRIPTION	INT.
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1	10/17/22	ISSUED FOR CONSTRUCTION	AMS
2	6/2/23	ISSUED FOR CONSTRUCTION	AMS
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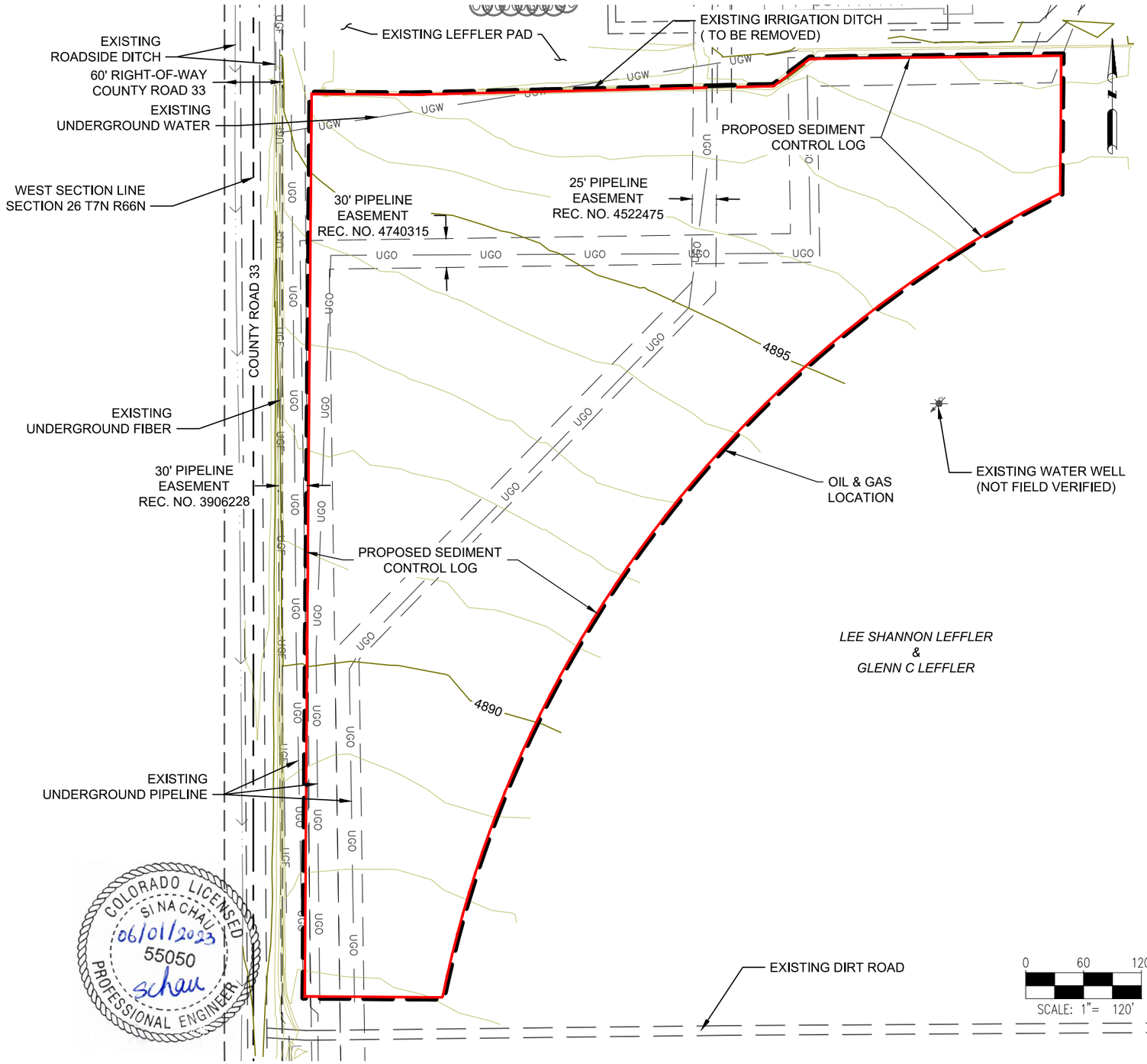

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SHEET NAME:
EROSION & SEDIMENT CONTROL PLAN - INITIAL

SURFACE LOCATION
ONYX PAD
NW 1/4 NW 1/4 SECTION 26,
T7N, R66W, 6TH P.M.
WELD COUNTY, COLORADO

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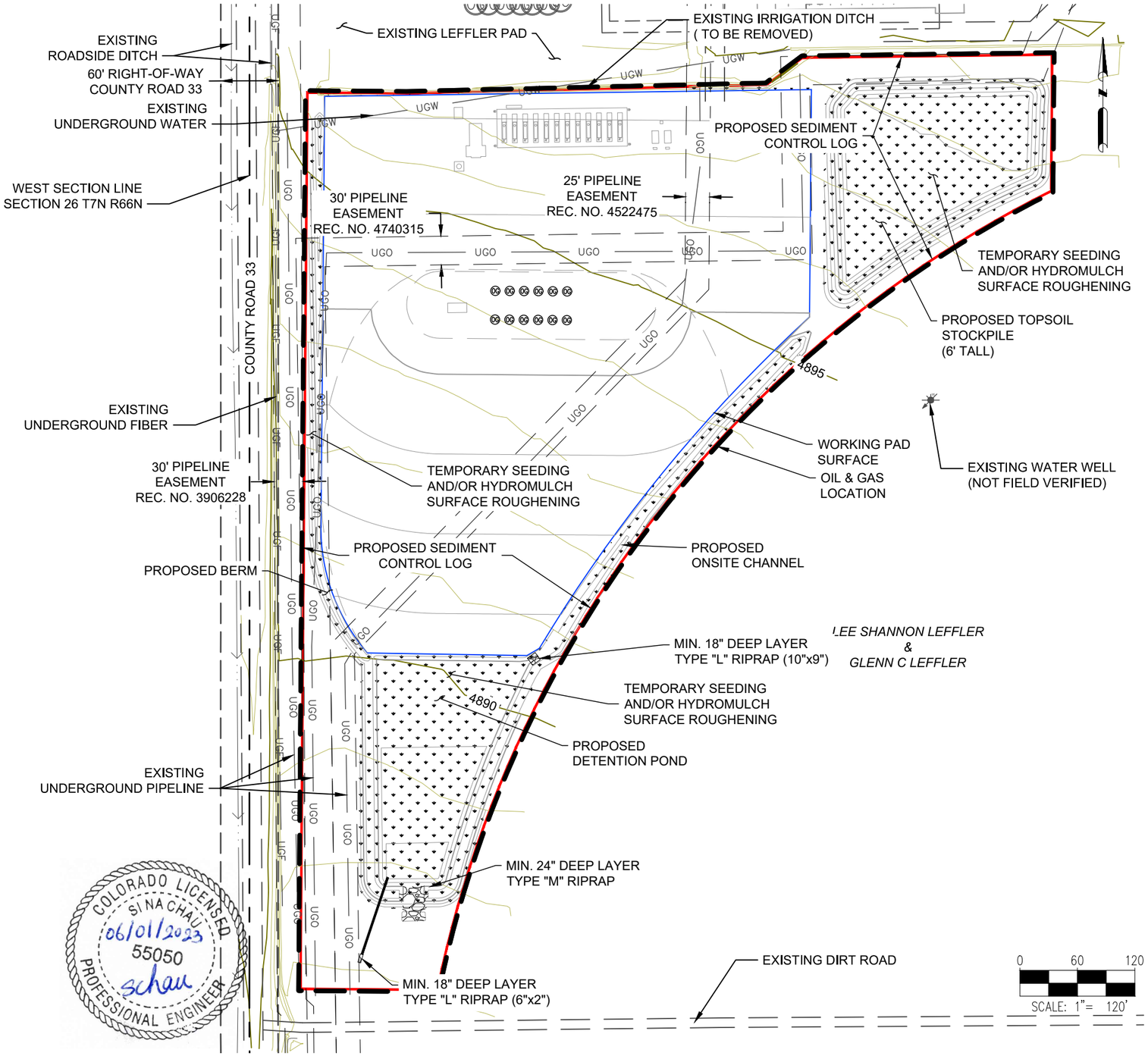

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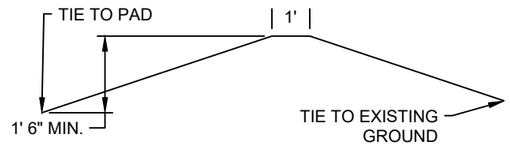

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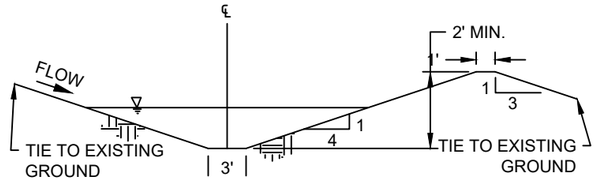

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COLORADO LICENSED
SI NA CHAU
06/01/2023
55050
schau
PROFESSIONAL ENGINEER

LEE SHANNON LEFFLER & GLENN C LEFFLER

ASCENT GEOMATICS SOLUTIONS
ASCENT GEOMATICS SOLUTIONS
8620 WOLFF COURT
WESTMINSTER, CO 80031
(303) 928-7128

PREPARED FOR:
BAYSWATER EXPLORATION AND PRODUCTION, LLC
BAYSWATER EXPLORATION & PRODUCTION, LLC
730 17TH ST, SUITE 500
DENVER, CO 80202
(303) 893-2503

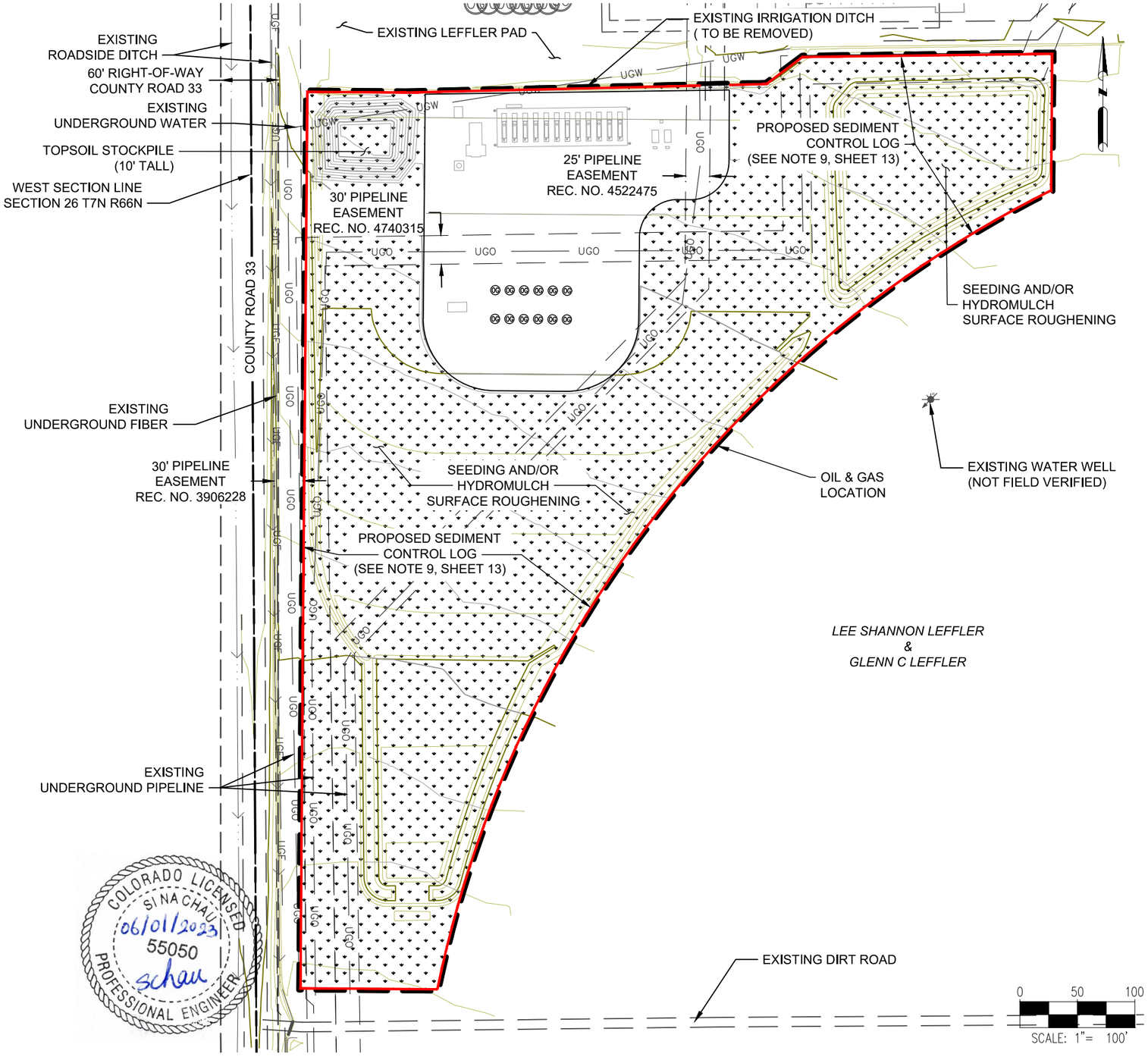
SHEET NAME:
EROSION & SEDIMENT CONTROL PLAN - INTERIM

SURFACE LOCATION
ONYX PAD
NW 1/4 NW 1/4 SECTION 26, T7N, R66W, 6TH P.M.
WELD COUNTY, COLORADO

REV.	DATE	REVISION DESCRIPTION	INT.
0	5/23/22	ISSUED FOR CONSTRUCTION	AMS
1	10/17/22	ISSUED FOR CONSTRUCTION	AMS

FIELD DATE: 2-20-2022
DRAWING DATE: 5-23-2022
DRAFTED BY: AMS
SHEET NO. 11 OF 15

ONYX PAD
GRADING PLAN



NOTES:
1. ASCENT GEOMATICS SOLUTIONS WAS NOT PROVIDED A TITLE REPORT FOR THIS SITE. ALL RECORDED DOCUMENTS REFERENCED ON THESE PLANS WERE DOWNLOADED FROM RESEARCH VIA THE WELD COUNTY CLERK AND RECORDER. ASCENT GEOMATICS SOLUTIONS MAKES NO GUARANTY OR WARRANTY, EITHER EXPRESSED OR IMPLIED, TO THE COMPLETENESS OF ENCUMBRANCES TO THE SUBJECT PROPERTY.

DATA SOURCE:
WATER WELL: DEPARTMENT OF WATER RESOURCES

PUBLICLY AVAILABLE DATA SOURCES HAVE NOT BEEN INDEPENDENTLY VERIFIED BY ASCENT.

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PREPARED FOR:
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SHEET NAME: EROSION & SEDIMENT CONTROL PLAN - FINAL

SURFACE LOCATION
ONYX PAD
NW 1/4 NW 1/4 SECTION 26, T7N, R66W, 6TH P.M.
WELD COUNTY, COLORADO

REV.	DATE	REVISION DESCRIPTION	INT.
0	5/23/22	ISSUED FOR CONSTRUCTION	AMS
1	10/17/22	ISSUED FOR CONSTRUCTION	AMS
2	6/2/23	ISSUED FOR CONSTRUCTION	AMS
–	–	–	–
–	–	–	–

FIELD DATE: 2-20-2022
DRAWING DATE: 5-23-2022
DRAFTED BY: AMS
SHEET NO. 12 OF 15

ONYX PAD
GRADING PLAN

STANDARD EROSION AND SEDIMENT CONTROL PLAN NOTES

1. THE OPERATOR HOLDS A CURRENT STORMWATER CONSTRUCTION PERMIT AND STORMWATER MANAGEMENT PLAN (SWMP) IN ACCORDANCE WITH COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT REQUIREMENTS. CONSTRUCTION, MATERIALS MANAGEMENT, AND BMP INSTALLING/MAINTENANCE WILL BE CONDUCTED ACCORDING THE SWMP. BMPS WILL BE ROUTINELY INSPECTED AS ESTABLISHED IN THE SWMP INSPECTION SCHEDULE. INSPECTION REPORTS, REPAIR LOGS, ETC. ARE MAINTAINED IN AN ONLINE DATABASE, AND AVAILABLE TO THE DEPARTMENT OR OTHER AGENCIES UPON REQUEST.
2. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM WELD COUNTY PUBLIC WORKS.
3. CLEARING, GRUBBING, AND TOPSOIL STRIPPED SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THE E&S PLAN.
4. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
5. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION.
6. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
7. ALL SEDIMENT REMOVED FROM BMPS SHALL BE PLACED WITHIN THE RIGHT-OF-WAY EXCEPT IN WETLAND AREAS OR AS OTHERWISE DESCRIBED IN THE PLAN DRAWINGS.
8. AREAS WHICH ARE TO BE TOP SOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
9. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
10. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.
11. UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE LINING. ANY BASE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.
12. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
13. AT STREAM CROSSINGS, 50' BUFFER AREAS SHOULD BE MAINTAINED. ON BUFFERS, CLEARING, SOD DISTURBANCES, EXCAVATION, AND EQUIPMENT TRAFFIC SHOULD BE MINIMIZED. ACTIVITIES SUCH AS STACKING LOGS, BURNING CLEARED BRUSH, DISCHARGING RAINWATER FROM TRENCHES, WELDING PIPE SECTIONS, REFUELING AND MAINTAINING EQUIPMENT SHOULD BE ACCOMPLISHED OUTSIDE OF BUFFERS.
14. MULCH WITH NETTING OR EROSION CONTROL MATS MUST BE INSTALLED ON ALL SLOPES 3:1 AND STEEPER AND WITHIN 100' OF SPECIAL PROTECTION WATERS OR 50' OF SURFACE WATERS.
15. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.

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(303) 893-2503

SHEET NAME: EROSION & SEDIMENT CONTROL NOTES
SURFACE LOCATION
ONYX PAD
NW 1/4 NW 1/4 SECTION 26, T7N, R66W, 6TH P.M.
WELD COUNTY, COLORADO

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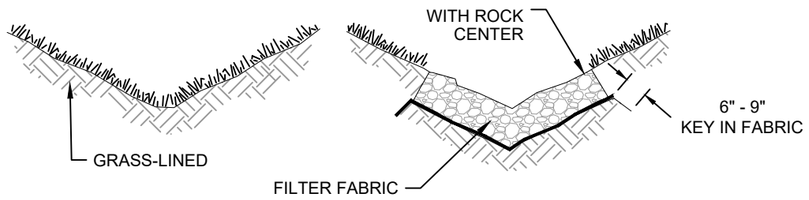
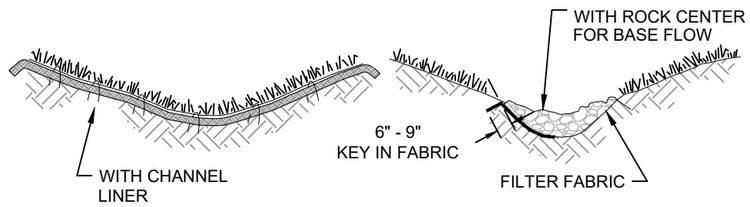
SHEET NO. 13 OF 15

ONYX PAD
GRADING PLAN

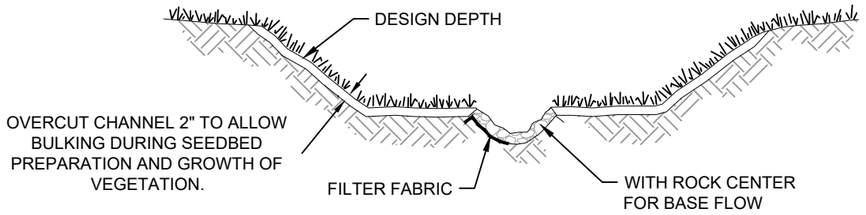
TYPICAL V-SHAPED CHANNEL CROSS-SECTION



TYPICAL PARABOLIC CHANNEL CROSS-SECTION

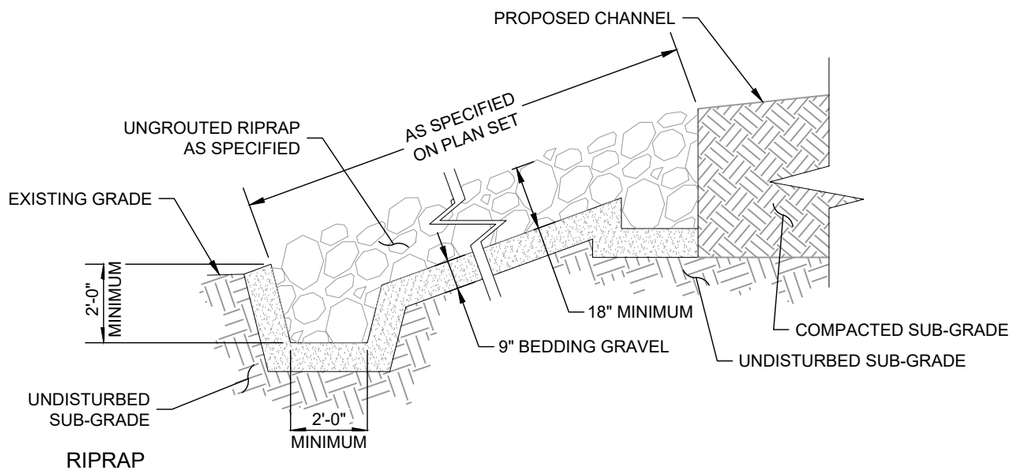


TYPICAL TRAPEZOIDAL CHANNEL CROSS-SECTION



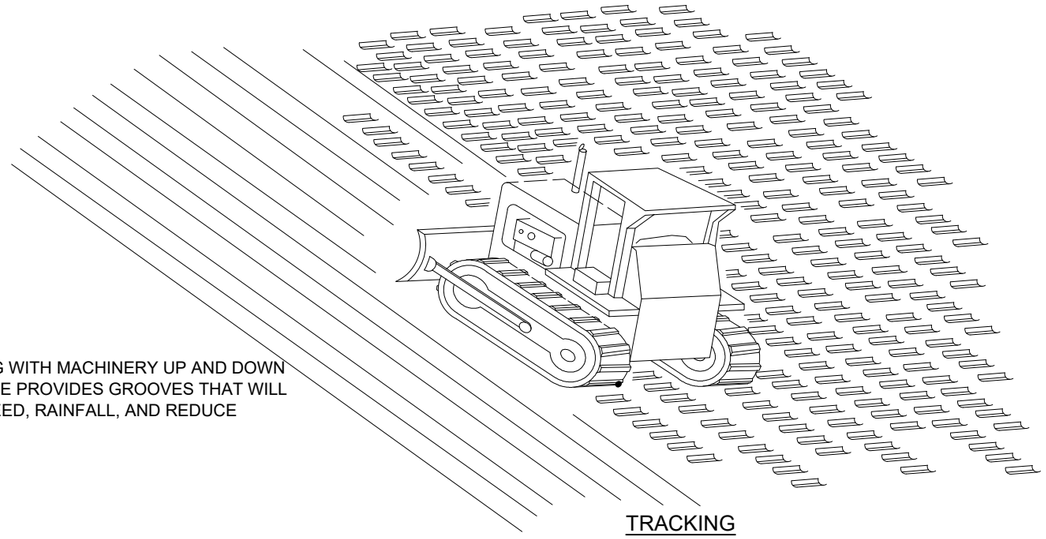
TYPICAL GRASS-LINED CHANNELS

SCALE: NOT TO SCALE



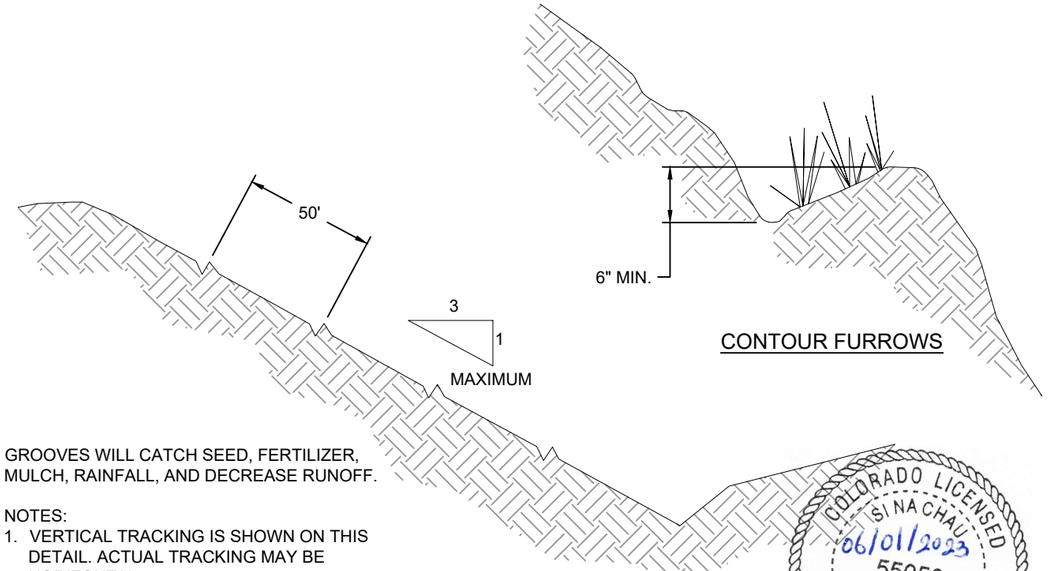
RIPRAP

SCALE: NOT TO SCALE



TRACKING WITH MACHINERY UP AND DOWN THE SLOPE PROVIDES GROOVES THAT WILL CATCH SEED, RAINFALL, AND REDUCE RUNOFF.

TRACKING



GROOVES WILL CATCH SEED, FERTILIZER, MULCH, RAINFALL, AND DECREASE RUNOFF.

NOTES:
1. VERTICAL TRACKING IS SHOWN ON THIS DETAIL. ACTUAL TRACKING MAY BE HORIZONTAL.

CONTOUR FURROWS

SURFACE ROUGHENING BY TRACKING AND CONTOUR FURROWS

SCALE: NOT TO SCALE

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SHEET NAME: BMP TYPICAL DETAILS

SURFACE LOCATION
ONYX PAD
NW 1/4 NW 1/4 SECTION 26, T7N, R66W, 6TH P.M.
WELD COUNTY, COLORADO

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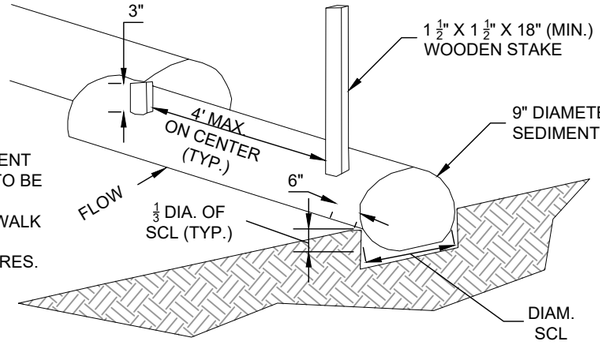
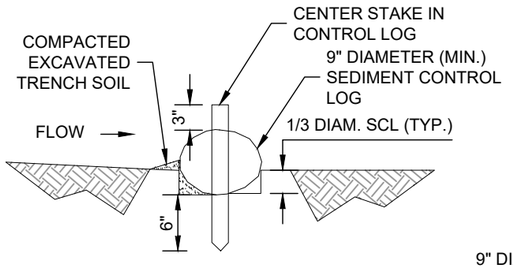
SHEET NO. 14 OF 15

ONYX PAD
GRADING PLAN

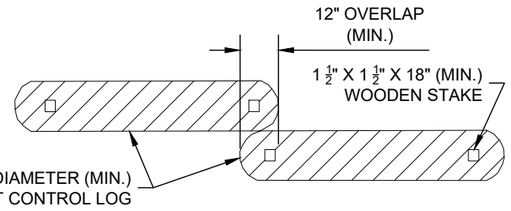


NOTES:
1. LARGER DIAMETER SEDIMENT CONTROL LOGS MAY NEED TO BE EMBEDDED DEEPER.
2. PLACE LOG AGAINST SIDEWALK OR BACK OF CURB WHEN ADJACENT TO THESE FEATURES.

TRENCHED SEDIMENT CONTROL LOG



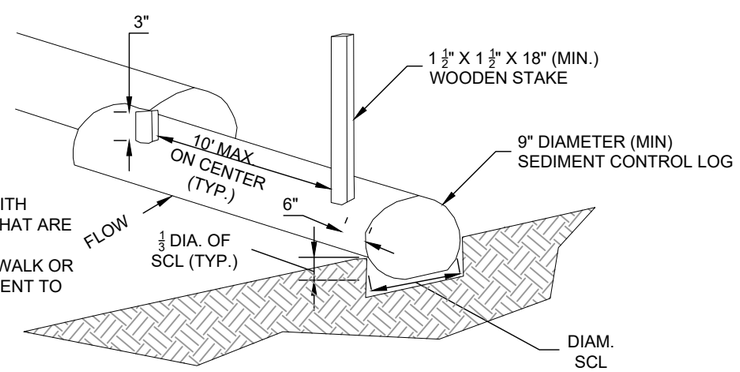
SECTION A
TRENCHED SEDIMENT CONTROL LOG



LOG JOINTS

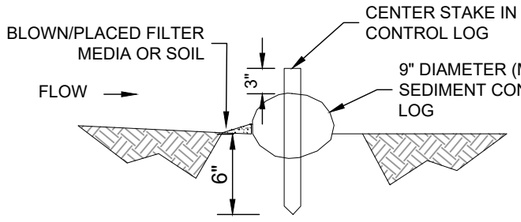
TRENCHED SEDIMENT CONTROL LOG

SCALE: NOT TO SCALE

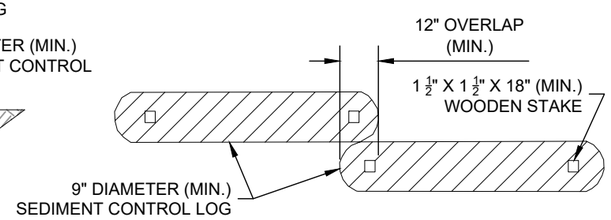


NOTES:
3. THIS DETAIL IS FOR USE WITH SEDIMENT CONTROL LOGS THAT ARE A MINIMUM OF 8 LB/FT
4. PLACE LOG AGAINST SIDEWALK OR BACK OF CURB WHEN ADJACENT TO THESE FEATURES.

COMPOST SEDIMENT CONTROL LOG (WEIGHTED)



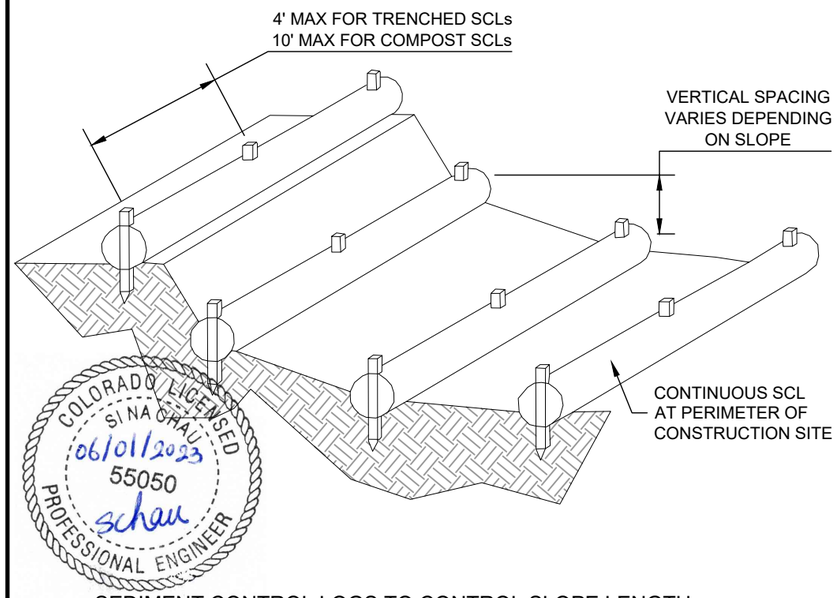
SECTION A
COMPOST SEDIMENT CONTROL LOG



LOG JOINTS

COMPOST SEDIMENT CONTROL LOG (WEIGHTED)

SCALE: NOT TO SCALE



SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

SCALE: NOT TO SCALE

SEDIMENT CONTROL LOG INSTALLATION NOTES:

5. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.
6. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND-DISTURBING ACTIVITIES.
7. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES, AND OBVIOUS WEAR.
8. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS.
9. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY 1/3 OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING. COMPOST LOGS THAT ARE 8 LB/FT DO NOT NEED TO BE TRENCHED.
10. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL OR FILTER MATERIAL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER OR BLOWN IN PLACE.
11. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED. COMPOST LOGS SHOULD BE STAKED 10' ON CENTER.

SEDIMENT CONTROL LOG MAINTENANCE NOTES:

12. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
13. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
14. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
15. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
16. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. COMPOST FROM COMPOST LOGS MAY BE LEFT IN PLACES AS LONG AS BAGS ARE REMOVED AND THE AREA SEEDED. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

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SHEET NAME:
BMP TYPICAL DETAILS

SURFACE LOCATION
ONYX PAD
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WELD COUNTY, COLORADO

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FIELD DATE: 2-20-2022

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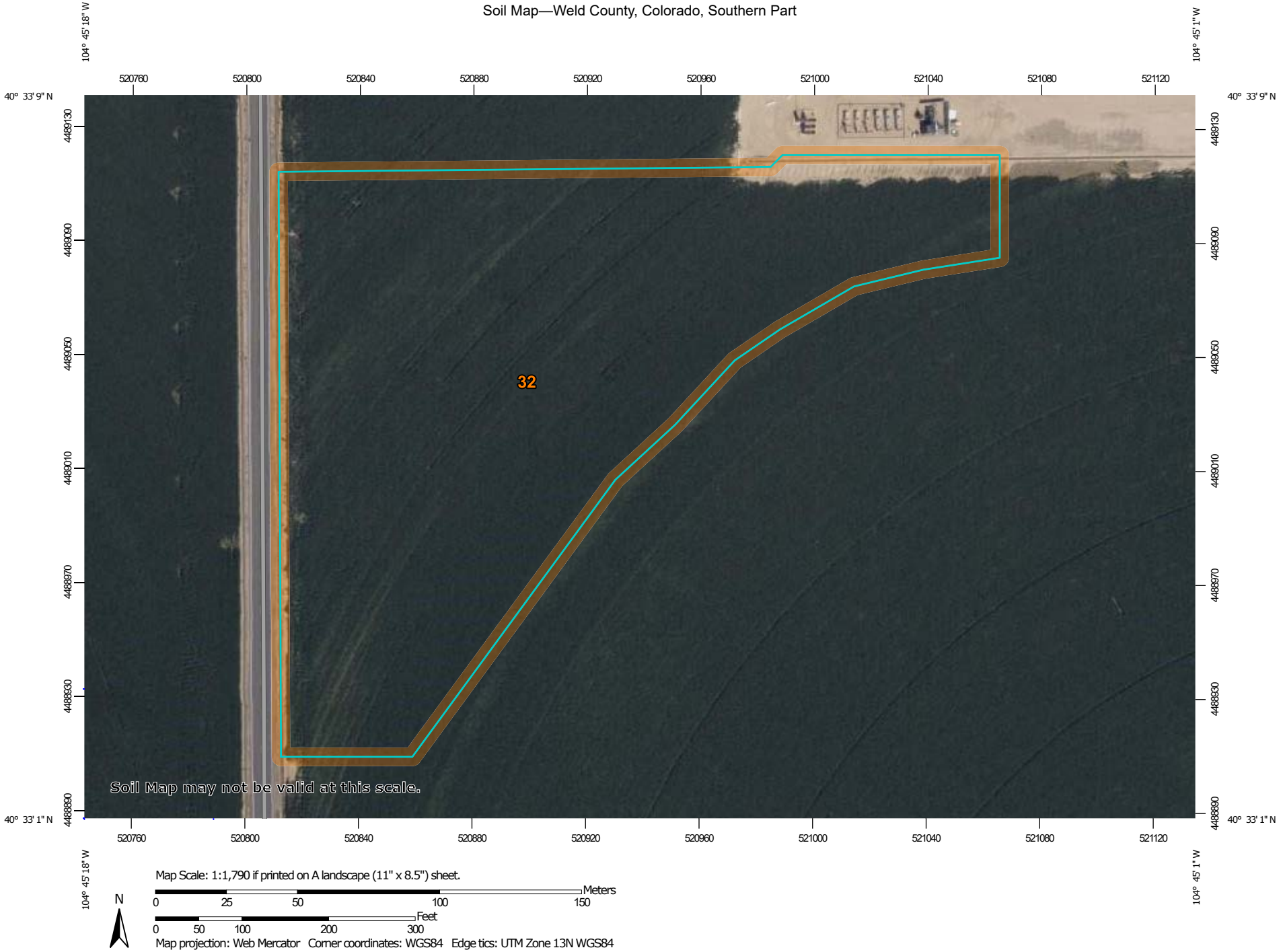
DRAFTED BY: AMS

SHEET NO. 15 OF 15



Map Scale: 1:1,790 if printed on A landscape (11" x 8.5") sheet.

N

0 25 50 100 150 Meters

0 50 100 200 300 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Weld County, Colorado, Southern Part
Survey Area Data: Version 20, Aug 31, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 19, 2018—Aug 10, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
32	Kim loam, 1 to 3 percent slopes	7.2	100.0%
Totals for Area of Interest		**7.2**	**100.0%**

Weld County, Colorado, Southern Part

32—Kim loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 362b
Elevation: 4,900 to 5,250 feet
Mean annual precipitation: 13 to 17 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 125 to 150 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Kim and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kim

Setting

Landform: Alluvial fans, plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed eolian deposits derived from sedimentary rock

Typical profile

H1 - 0 to 12 inches: loam
H2 - 12 to 40 inches: loam
H3 - 40 to 60 inches: fine sandy loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: Moderate (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Ecological site: R067BY002CO - Loamy Plains
Hydric soil rating: No

Minor Components

Otero

Percent of map unit: 10 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Weld County, Colorado, Southern Part
Survey Area Data: Version 20, Aug 31, 2021