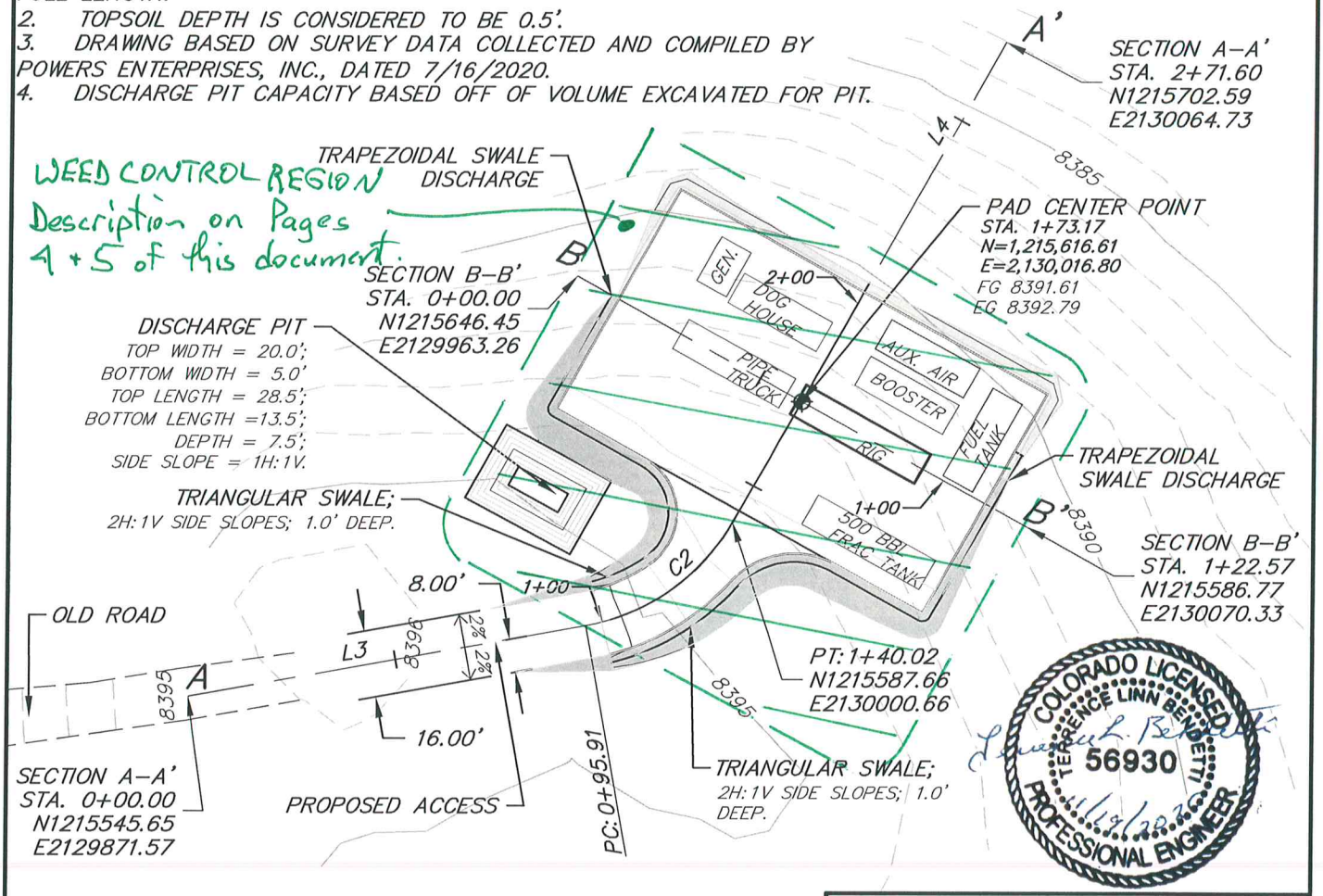
| CURVE TABLE | | | | | | |
|---|---|---|---|---|---|---|
| CURVE | RADIUS | LENGTH | TANGENT | CHORD | BEARING | DELTA |
| C2 | 50.00' | 44.11' | 23.61' | 42.70' | N54°24'49"E | 50° 32' 59" |

| LINE TABLE | | |
|---|---|---|
| LINE | BEARING | LENGTH |
| L3 | N79°41'18"E | 95.91' |
| L4 | N29°08'19"E | 131.58' |

NOTES:
1. PLACE SILT FENCING OR STRAW WATTLES AT TOE OF FILL SLOPES, FULL LENGTH.
2. TOPSOIL DEPTH IS CONSIDERED TO BE 0.5'.
3. DRAWING BASED ON SURVEY DATA COLLECTED AND COMPILED BY POWERS ENTERPRISES, INC., DATED 7/16/2020.
4. DISCHARGE PIT CAPACITY BASED OFF OF VOLUME EXCAVATED FOR PIT.




| Earthwork Quantities | |
|---|---|
| Earthen Cut (10-15% Over Fill Yardage) | 148 CY |
| Earthen Fill (Compacted) | 133 CY |
| Topsoil (in place) | 171 CY |
| Topsoil Stockpiled (20% Swell Factor) | 205 CY |
| Pit Cut | 79 CY |
| Pit Cut Stockpiled (20% Swell Factor) | 94.6 CY |

| | |
|---|---|
| County: Rio Blanco | |
| Township 2S | Range 100W |
| Section: 10 | Quarter: SWSE |
| P.M. 6th | |
| FG CENTER PAD: 8391.61 | |
| Drawn By: TLB | PE: TLB |
| QC: Xx | Project: 2020-530.001 |
| Sheet 04 of 06 | Date: 11/17/2020 |

**Legend**
- CUT SLOPES
- FILL SLOPES
- WELL PAD CENTER POINT

| Affected Area | |
|---|---|
| Affected Area in Acres | 0.21 |
| Affected Area in SF | 9235 |

| Containment Pit Quanities (Each Pit) | |
|---|---|
| Pit Capacity | 11,871 gal. |
| Freeboard Capacity (1 ft) | 4,084 gal. |
| Pit Capacity w/Freeboard | 15,955 gal. |

SGM
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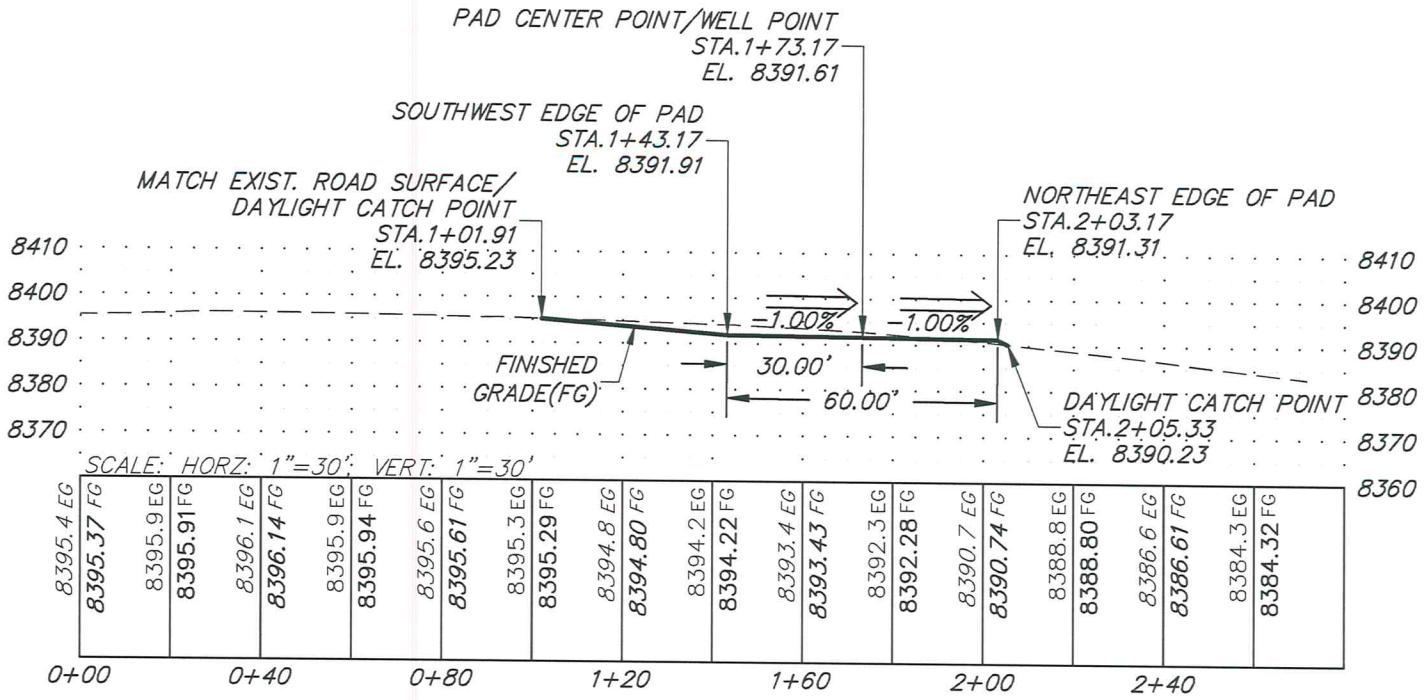
PROPOSED PAD FOR CORE HOLE MER 2020.03




SECTION A-A' - MER 2020.03

COLORADO LICENSED
TERRENCE LINN BENEDETTI
56930
PROFESSIONAL ENGINEER
11/17/2020

| | |
|---|---|
| County: Rio Blanco | |
| Township 2S | Range 100W |
| Section: 10 | Quarter: SWSE |
| P.M. 6th | |
| Ground Elevation: 8391.61 | |
| Drawn By: TLB | PE: TLB |
| QC: Xx | Project: 2020-530.001 |
| Sheet 05 of 06 | Date: 11/17/2020 |

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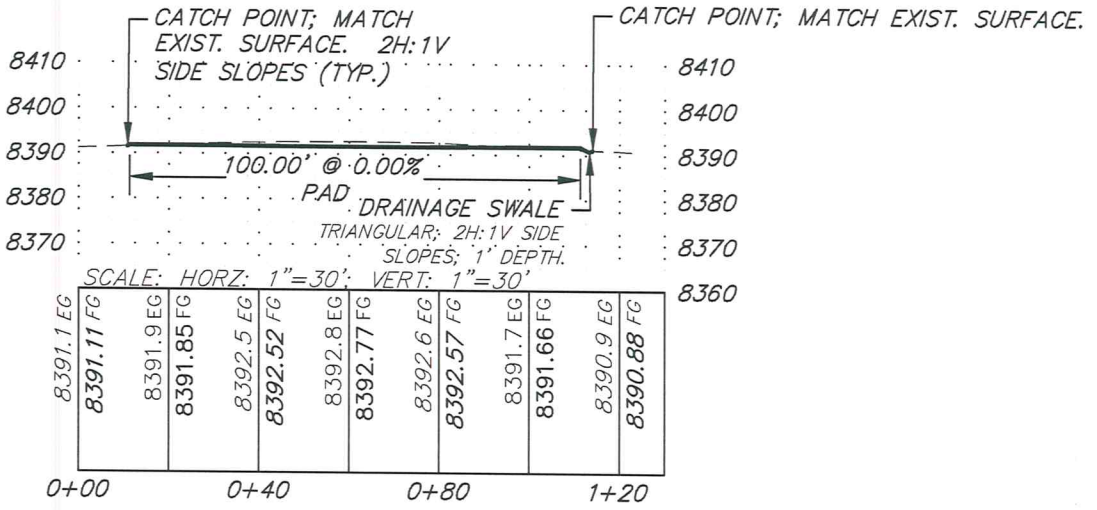
Shale Tech International Services LLC.
PROPOSED PAD FOR CORE HOLE MER 2020.03




SECTION B-B' - MER 2020.03

| | |
|---|---|
| County: Rio Blanco | |
| Township 2S | Range 100W |
| Section: 10 | Quarter: SWSE |
| P.M. 6th | |
| FG CENTER PAD: 8391.59 | |
| Drawn By: TLB | PE: TLB |
| QC: Xx | Project: 2020-530.001 |
| Sheet 06 of 06 | Date: 11/17/2020 |

COLORADO LICENSED
TERRENCE LINN BENNETT
56930
11/17/2020
PROFESSIONAL ENGINEER

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Shale Tech International Services LLC.
PROPOSED PAD FOR CORE HOLE MER 2020.03

MEMO

Date: May 23, 2024

To: Mahogany Energy Resources

From: Rusty Roberts

Subject: Site Visit to Shale Core sites 2020-01 and 2020-03

I conducted a site visit to the two shale core sites on May 20, 2024, to evaluate the present conditions of the reclamation on the two sites. The reclamation activities conducted on these sites have resulted in plant communities of perennial plant species that have stabilized both sites. The perennial grasses from the seed mix as well as native grasses from the seed bank in the redistributed topsoil are well established and have good distribution across both sites. In addition to grasses, there are numerous native forbs and several shrubs that have established on both sites either from their seed bank in the redistributed topsoil or have pioneered from plant communities adjacent to each site.

The following table lists the plant species I observed on the two sites and their estimated abundance on each site.

| **Plant Species Observed on Two Reclaimed Shale Core Sites on May 20, 2024** | | | |
|---|---|---|---|
| **Scientific Name** | **Common Name** | **Shale Core 2020-01*** | **Shale Core 2020-03*** |
| **Grass and Grasslike Species** | | | |
| *Carex geyeri* | Geyer's sedge | xx | x |
| *Elymus trachycaulus* | slender wheatgrass | xxx | xxx |
| *Koeleria macrantha* | prairie junegrass | xx | xx |
| *Nassella viridula* | green needlegrass | x | |
| *Pascopyrum smithii* | western wheatgrass | | x |
| *Poa secunda* | Sandberg bluegrass | xx | x |
| *Pseudoroegneria spicata* ssp. *inermis* | beardless bluebunch wheatgrass | x | xx |
| **Forb Species** | | | |
| *Achillea millefolium var. alpicola* | common yarrow | xx | x |
| *Alyssum desertorum* | desert madwort | x | x |
| *Antennaria rosea* | rosey pussytoes | | x |
| *Artemisia frigida* | fringed sage | xx | xx |
| *Astragalus tenellus* | looseflower milkvetch | x | x |
| *Balsamorhiza sagittata* | arrowleaf balsamroot | x | x |
| *Castilleja linariifolia* | Wyoming Indian paintbrush | x | |
| *Comandra umbellata* | bastard toadflax | x | x |
| *Crepis acuminata* | longleaf hawksbeard | x | |
| *Cryptantha flavoculata* | roughseed cryptanth | x | x |
| *Cryptantha stricta* | Yampa River cryptanth | x | |
| *Cymopterus duchesnensis* | Duchesne springparsley | x | x |
| *Descurainia pinnata* | western tansymustard | x | x |
| *Erigeron compositus* | cutleaf daisy | | x |
| *Eriogonum lonchophyllum* | spearleaf buckwheat | x | x |
| *Eriogonum umbellatum* | sulphur buckwheat | x | |

| | | | |
|---|---|---|---|
| *Galium bifolium* | twinleaf bedstraw | x | x |
| *Hedysarum boreale* | Utah sweetvetch | xx | x |
| *Heuchera parvifolia* | common alumroot | x | |
| *Lepidium densiflorum* | common pepperweed | x | x |
| *Lomatium macrocarpum* | big seed biscuitroot | x | x |
| *Lupinus argenteus* | silvery lupine | xx | |
| *Machaeranthera grindelioides* | rayless tansyaster | | x |
| *Mertensia brevistyla* | shortstyle bluebells | xx | x |
| *Physaria acutifolia* | common twinpod | x | x |
| *Phlox longifolia* | longleaf phlox | x | x |
| *Taraxacum officinale* | dandielion | x | x |
| *Trifolium gymnocarpon* | hollyleaf clover | xx | x |
| *Zigadenus paniculatus* | foothill deathcamas | x | x |
| **Shrub Species** | | | |
| *Amelanchier utahensis* | Utah serviceberry | x | |
| *Artemisia tridentata var. vaseyana* | mountain big sagebrush | xx | x |
| *Chrysothamnus greenei* | Greene's rabbitbrush | x | xx |
| *Krascheninnikovia lanata* | winterfat | x | x |
| *Symphoricarpos oreophilus var. utahensis* | mountain snowberry | x | x |
| *Abundance:<br>xxx= High frequency with uniform distribution<br>xx= Moderate frequency: occurrence scattered throughout<br>x= Infrequent: only a small number of individuals noted | | | |

In summary, I did not observe any plant species that are listed as an invasive, noxious species by the State of Colorado. The plant communities on both sites fairly represent the cover and mix of plant species that occurred on each site prior to disturbance.