

GEOTECHNICAL ENGINEERING REPORT

65 Lots Meadowlark Ranch Phase 5 Meadowlark Ranch Subdivision Belgrade, Montana

> April 19, 2024 Project No. G24035

> > Prepared for:

Meadowlark Ranch, Inc. 175 North 27th Street, Suite 900 Billings, MT 59101

Prepared by:



RIMROCK ENGINEERING, INC.

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April 19, 2024

Mr. Landy Leep Meadowlark Ranch, Inc. 175 North 27th Street, Suite 900 Billings, MT 59101

Re: Geotechnical Engineering Report

65 Lots Meadowlark Ranch Phase 5 Meadowlark Ranch Subdivision

Belgrade, Montana

Dear Landy:

Rimrock Engineering, Inc. has completed the geotechnical engineering services for the referenced project. The attached report presents the results of our findings. Our work consisted of subsurface exploration, laboratory testing, engineering analyses, and preparation of this report.

We appreciate this opportunity to be of service to you and are prepared to provide construction materials testing services during the construction phase of the project. If you have any questions regarding this report or need additional information or services, please contact us.

Sincerely,

RIMROCK ENGINEERING, INC.

MATTHEW R

Matt Geering, P.E.

Principal/Vice President

Wade Reynolds
Principal/President

1/2/10

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<u>APPENDICES</u>

Appendix A Vicinity/Site Map, Logs, USCS Description/Log Key

Appendix B Laboratory Test Results

EXECUTIVE SUMMARY

Rimrock Engineering has completed the geotechnical engineering services for 65 Lots for the Meadowlark Ranch Phase 5 project located within Meadowlark Ranch Subdivision in Belgrade, Montana. Based on the results of our geotechnical investigation, the site can be developed for the proposed project consistent with the recommendations provided in this report. The following geotechnical conditions and considerations were identified:

- Based on materials encountered in our borings, the subsurface profile across the site
 generally consists of about 1 to 7 feet of medium stiff to stiff sandy lean clay soils overlying
 medium dense to dense sand with gravel soils. Some loose sand layers were encountered as
 well. Groundwater was encountered at approximately 9.5 to 13 feet below grade while drilling
 or for the short duration the borings were allowed to remain open.
- Sand and gravel soils were encountered at depths ranging from about 1 to 7 feet below grade. These course grained soils were encountered deeper than 5 feet on Lots 97, 98, 99, 102, and 104 of Block 3; Lot 18 of Block 7; Lots 6 and 9 of Block 8; and Lots 3, 7, and 8 of Block 11. The sand and gravel soils generally are medium dense to dense in relative density. Some loose zones were encountered as well. The overburden clayey soils are expected to be weak and highly compressible.
- We recommend supporting structures using spread footings established on reconditioned native sand and gravel soils or on granular imported structural fill or engineering fill (site sand and gravel soils placed in a controlled manner) extending to the native sand and gravels.
 Performance of this system is directly related to the proper treatment and re-compaction of the native soils. If granular soils are deeper than our investigation identified, additional geotechnical input will be required and alternate deep foundation options may be considered.
- Alternatively, if coarse-grained soils are deeper than 2 feet below bottom of footings, structures can be supported using a shallow spread footing foundation system bearing on a zone of geotextile-reinforced structural fill. Performance of this system is directly related to the proper treatment and re-compaction of the native soils, placement and control of geotextiles and structural fill, and good positive drainage for the life of the structures.

It should be noted that specific project details were not fully developed or included in this section. The information provided in this executive summary should be used in conjunction with the entire report for design purposes.

G24035 i April 19, 2024

GEOTECHNICAL ENGINEERING REPORT

65 Lots Meadowlark Ranch Phase 5
Meadowlark Ranch Subdivision
Belgrade, Montana

1.0 INTRODUCTION AND SCOPE

1.1 Project Description

The project consists of 65 residential lots for phase 5 of Meadowlark Ranch Subdivision in Belgrade, Montana. The lots included are listed below.

Lots	Block
7, 8, 9, 10, 14, 16, 18, 24, 25, 26, 27, 28	6
2, 3, 4, 5, 6, 7, 8, 9, 10	8
1, 2, 3, 4, 5, 6, 7, 8	11
96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 126	3
1, 2, 14, 15, 16, 18	7

At this time, we have not been provided with anticipated structural loads. Based upon previous experience with similar projects, we estimate relatively light loadings for structures of this type. Therefore, we have assumed that wall loads will be less than 2 kips per lineal foot. Additionally, we estimate that floor slab loads will be less than 150 pounds per square foot. Please notify us if these assumptions are not valid so that we may re-evaluate and, if necessary, revise our geotechnical recommendations.

1.2 Purpose and Scope of Work

The purpose of this study is to evaluate the feasibility of the proposed development with respect to the observed subsurface conditions and to provide information, opinions, and geotechnical engineering recommendations relative to:

- General site, soil and groundwater conditions
- Site and subgrade preparation
- Recommended foundation type(s) and design parameters
- Estimated settlement of foundations
- Corrosivity of site soils
- General earthwork and site drainage

Our scope of services consisted of background review, site reconnaissance, field exploration, laboratory testing, engineering analyses, and preparation of this report.

2.0 INVESTIGATION

2.1 Field Exploration

The subsurface exploration consisted of drilling sixty-five (65) borings from March 6 to April 4, 2024 to approximately 15 to 21 feet below existing grades. The borings were drilled using our truck mounted drill rig equipped with solid flight and hollow stem augers. Groundwater levels were measured during drilling operations, if encountered. Upon completion of drilling and/or groundwater measurements, the borings were backfilled with drill cuttings and compacted with the equipment at hand.

Logs of the borings along with a Vicinity/Site Map are included in Appendix A. The borings were located in the field by Rimrock Engineering based on a site plan provided. Ground surface elevations were set at 100 for purposes of this investigation. The locations and elevations of the borings should be considered accurate only to the degree implied by the means and methods used to define them.

Rimrock Engineering personnel logged the soil conditions encountered in the borings. At selected intervals, samples of the subsurface materials were taken by driving split-spoon samplers, pushing Shelby tube samplers, and collecting auger cuttings. Penetration resistance measurements were obtained by driving the samplers into the subsurface materials with a 140-pound automatic hammer falling 30 inches. The penetration resistance value is a useful index in estimating the relative density, or consistency, of the materials encountered. The sample was tagged for identification, sealed to reduce moisture loss, and taken to our laboratory for further examination, testing, and classification.

2.2 Laboratory Testing

The purpose of the laboratory testing is to assess the physical and engineering properties of the soil samples collected in the field to be used in our geotechnical evaluations and analyses. Laboratory testing was performed on selected soil samples to assess the following:

- Visual classification (USCS)
- Moisture content
- Sieve analysis

- Atterberg limits
- Consolidation/swell
- Water soluble sulfate, pH & resistivity

The soil descriptions presented on the boring logs are in accordance with the Unified Soil Classification System (USCS). Individual laboratory test results can be found in Appendix B at the end of this report.

3.0 SITE & SUBSURFACE CONDITIONS

3.1 Site Conditions

The project site is located north of the existing Meadowlark Ranch Subdivision in Belgrade, Montana. The site consists of existing roads and residential lots. The site generally slopes to the northwest with approximately 13 feet of elevation difference estimated across the site. The site is surrounded by residential developments and undeveloped agricultural property.

3.2 Subsurface Soil Conditions

Based on materials encountered in our borings, the subsurface profile across the site generally consists of about 1 to 7 feet of medium stiff to stiff sandy lean clay or lean clay with sand soils overlying medium dense to dense silty/clayey sand and well to poorly graded gravel soils. Some loose sand layers were encountered as well.

The clay soils had Standard Penetration Test (SPT) N-values ranging from 4 to 38 with values usually less than 10 indicating the soils are mostly medium stiff to stiff in consistency, compressible, and have relatively low shear strength. The coarse-grained soils had SPT N-values in the range of 6 to 50+ blows per foot with values usually greater than 10 which indicates the soils to be medium dense to dense in relative density, low in compressibility, and high shear strength characteristics. For a more detailed description of the subsurface conditions, please refer to the logs provided in Appendix A.

3.3 Groundwater Conditions

The borings were observed while drilling and after completion for the presence and level of groundwater. Groundwater was encountered at approximately 9.5 to 13 feet below existing grades while drilling or for the short duration the borings were allowed to remain open. These observations represent groundwater conditions at the time of the field exploration and may not be indicative of other times, or at other locations. Groundwater can be expected to fluctuate with varying seasonal and weather conditions and other factors not evident at the time of the investigation. Evaluation of the factors that affect groundwater fluctuations is beyond the scope of this report.

3.4 Laboratory Test Results

The site soils were tested for grain size distribution (sieve analysis) and Atterberg Limits. Atterberg limits are a basic measure of the critical water contents of a fine-grained soils. The clayey soils encountered in the borings generally have low to medium plasticity. Results are summarized below:

Location	Dep th (ft)	uscs	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Gravel (%)	Sand (%)	Clay/Silt (%)
Blk 3-Lot 99	4.5	CL	28	16	12	4.2	39.1	56.7
Blk 3-Lot 104	7.5	GW-GM	NP	NP	NP	59.7	33.8	6.5
Blk 3-Lot 115	2.5	GP-GM	NP	NP	NP	46.9	41.2	12
Blk 3-Lot 121	2.5	CL	38	18	20	0	18.6	81.4
Blk 6-Lot 25	9	GM	NP	NP	NP	52.1	27.8	20.1
Blk 7-Lot 1	4.5	SC	33	17	16	9.8	47.1	43.1
Blk 7-Lot 15	4.5	GW-GM	NP	NP	NP	61.4	33.1	5.5
Blk 8-Lot 3	2.5	CL	29	18	11	0	35.4	64.6
Blk 8-Lot 5	4	GP-GM	NP	NP	NP	58.6	29.9	11.5
Blk 8-Lot 8	4.5	SC-SM	22	16	6	0	66.4	33.6
Blk 11-Lot 1	4.5	GP-GM	NP	NP	NP	47.8	40.8	11.4
Blk 11-Lot 2	4	SM	NP	NP	NP	26.4	37.7	35.8
Blk 11-Lot 4	4	GM	NP	NP	NP	49.6	37	13.4
Blk 11-Lot 7	2.5	CL	37	19	18	0	21.1	78.9

Samples of the lean clay soils were tested for consolidation/swell potential. The samples were allowed to consolidate under a confining pressure of 1,000 pounds per square foot (psf). Once consolidation under the surcharge load was complete, the samples were inundated with water and allowed to swell/collapse. After movement from the addition of water ceased, incremental loads were then applied to further consolidate the samples.

Consolidation/swell test results indicate that the fine-grained soils exhibit high compressibility (See Consolidation Tests in Appendix B). Results are summarized below:

Location	Depth (ft)	Material	Dry Unit Weight (pcf)	Strain @ 2,000 psf (%)	Collapse(-)/Swell(+) (%)
Blk 8-Lot 3	2.5	CL	97	2.1	-
Blk 11-Lot 7	2.5	CL	90	3.5	-

4.0 RECOMMENDATIONS

4.1 Geotechnical Concerns/Considerations

Sand and gravel soils were encountered at depths ranging from about 1 to 7 feet below grade. These course grained soils were encountered deeper than 5 feet on Lots 97, 98, 99, 102, and 104 of Block 3; Lot 18 of Block 7; Lots 6 and 9 of Block 8; and Lots 3, 7, and 8 of Block 11. The sand and gravel soils generally are medium dense to dense in relative density. Some loose zones

were encountered as well. The overburden clayey soils are expected to be weak and highly compressible

We recommend supporting structures using spread footings established on reconditioned native sand and gravel soils or on granular imported structural fill or engineering fill (site sand and gravel soils placed in a controlled manner) extending to the native sand and gravels. Performance of this system is directly related to the proper treatment and re-compaction of the native soils. If granular soils are deeper than our investigation identified, additional geotechnical input will be required and alternate deep foundation options may be considered.

Alternatively, if coarse-grained soils are deeper than 2 feet below bottom of footings, structures can be supported using a shallow spread footing foundation system bearing on a zone of geotextile-reinforced structural fill. Performance of this system is directly related to the proper treatment and re-compaction of the native soils, placement and control of geotextiles and structural fill, and good positive drainage for the life of the structures.

4.2 Earthwork

The following sections present recommendations for site and subgrade preparation and placement of fill materials on the project. Earthwork on the project should be observed and tested by Rimrock Engineering.

4.2.1 Site and Subgrade Preparation

Vegetation, topsoil, existing utilities (if present), and other unsuitable materials (e.g. debris, desiccated soil, frozen soil, etc.) should be removed from the proposed construction area. It is anticipated that general excavations for the proposed construction can be accomplished with conventional earthmoving equipment such as tractor mounted backhoes and tracked excavators.

The excavated site soils, cleaned of all organic/deleterious material, and any construction debris, may be stockpiled on-site for possible re-use. The site clay soils can be used as wall/trench backfill or for landscaping purposes. The site sand and gravel soils can be used as engineered fill beneath foundations and slabs.

In order to mitigate construction disturbance and improve uniformity of subgrade support, prior to placement of structural or engineered fill, foundations and/or slabs, subgrade soils should be scarified a minimum of 12 inches, moisture conditioned to near optimum, and compacted in accordance with Section 4.2.3. Rimrock Engineering should be contacted to observe the subgrade surface to ascertain integrity consistent with the design assumptions.

Excavations below floor slabs also should allow for placement of at least 8 inches of structural or engineered fill. Over-excavation for structural fill placement below footings to native gravels should extend laterally beyond all edges of the footings at least 8 inches per foot of over-excavation depth below footing base elevation.

If the geotextile-reinforced structural fill option is desired, excavations should allow for the placement of at least 1.5 feet of geotextile-reinforced structural fill beneath footings and 8 inches of aggregate base beneath floor slabs. Excavation for structural fill placement should extend laterally beyond all edges of the foundation at least 12 inches per foot of over-excavation depth. Underlying the structural fill, we recommend the separation/stabilization geotextile Mirafi RS380i be placed at the interface between the prepared subgrade and the structural fill zone to help stabilize the subgrade as well as keep the subgrade soils from intruding into the structural fill zone.

4.2.2 Material Requirements

It is anticipated that excavated materials will be used to the extent practical as wall and trench backfill and/or engineered fill. The material suitability should be evaluated by the geotechnical engineer prior to use. Moisture conditioning and processing of on-site soils will likely be required. Imported, structural fill, if required, should meet the criteria outlined below:

<u>Gradation</u>	Percent finer by weight (ASTM C136)
3"	100
No. 4 Sieve	30-75
No. 200 Sieve	15 (max)
Liquid Limit	25 (max)
Plasticity Index	6 (max)

4.2.3 Compaction Requirements

Fill materials should be placed and compacted in loose lift thicknesses of 8 inches or less when heavy, self-propelled compaction equipment is used. When hand-guided equipment such as jumping jack or plate compactor is used, loose lift thicknesses should be on the order of 4 to 6 inches.

The following table lists the compaction requirements for the different types of fill recommended in this report.

Item	Description
	Structural and/or Engineered Fill (beneath footings): 98%
Compaction Requirement	Aggregate Base (beneath slabs): 95%
(ASTM D698)	Scarified Subgrade Soils: 98 % beneath footings, 95% elsewhere
	Wall/Trench Backfill: 95%
Moisture Content (ASTM D698)	±3 % of optimum

The Contractor shall provide and use sufficient equipment of a type and weight suitable for the conditions encountered in the field. The equipment shall be capable of obtaining the required compaction in all areas, including those that are inaccessible to ordinary rolling equipment.

4.2.4 Utility Trench Backfill

All trench excavations should be made with sufficient working space to permit construction including backfill placement and compaction. Utility trenches are a common source of water infiltration and migration. All utility trenches that penetrate beneath the structure should be effectively sealed to restrict water intrusion and flow through the trenches that could migrate beneath the structure. We recommend constructing an effective clay "trench plug" that extends at least 5 feet out from the structure. The plug material should consist of clay compacted at a water content at or above the optimum water content. The clay fill should be placed to completely surround the utility line above the bedding zone and be compacted in accordance with recommendations in this report. Plug material should conform to MPW specifications.

4.2.5 Site Drainage

Positive drainage should be provided during construction and maintained throughout the life of the proposed project. Infiltration of water into utility or foundation excavations must be prevented during construction. All grades must provide effective drainage away from the structures during and after construction. Water permitted to pond next to the structures can result in greater soil movements than those discussed in this report. Estimated movements described in this report are based on effective drainage for the life of the structures and cannot be relied upon if effective drainage is not maintained.

In areas where sidewalks or paving do not immediately adjoin the structures, we recommend that protective slopes be provided with a minimum grade of approximately 10 percent for at least 10 feet from perimeter walls. Backfill against footings, exterior walls, and in utility and sprinkler line trenches should be well compacted and free of all construction debris to reduce the possibility of moisture infiltration.

Downspouts, roof drains or scuppers should be extended and discharged beyond the backfill zone when the ground surface beneath such features is not protected by exterior slabs or paving. Sprinkler systems should not be installed within 10 feet of foundation walls. Landscaped irrigation adjacent to the foundation system should be minimized, eliminated, or regulated.

4.2.6 Construction Considerations

Although the exposed subgrade soils are anticipated to be relatively stable upon initial exposure, unstable subgrade conditions could develop during general construction operations, particularly if the soils are wetted and/or subjected to repetitive construction traffic. The use of light, rubber-tracked construction equipment would aid in reducing subgrade disturbance. Should unstable

subgrade conditions develop, our geotechnical engineer should review conditions and provide recommendations for stabilization.

The site should be graded to prevent ponding of surface water on, or direction of runoff toward, the prepared subgrades or excavations. If the subgrade should become frozen, desiccated, saturated, or disturbed, the affected material should be removed.

As a minimum, all temporary excavations should be sloped or braced as required by Occupational Health and Safety Administration (OSHA) regulations to provide stability and safe working conditions. The grading contractor, by his contract, is usually responsible for designing and constructing stable, temporary excavations and should shore, slope or bench the sides of the excavations, as required, to maintain stability of both the excavation sides and bottom. All excavations should comply with applicable local, state and federal safety regulations, including the current OSHA Excavation and Trench Safety Standards.

Rimrock Engineering should be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during foundation preparation, compaction of backfill, and final preparation for construction of the structures.

4.3 Foundation System

In our opinion, the proposed structures can be supported by shallow spread footing foundation system bearing on prepared native sand and gravel soils or on structural or engineered fill extending to the native sand and gravels. Alternatively, if coarse-grained soils are deeper than 2 feet below bottom of footings, structures can be supported using a shallow spread footing foundation system bearing on a zone of geotextile-reinforced (Mirafi RS380i) structural fill.

The spread footing foundation system constructed as described above, may be designed for a maximum allowable bearing pressure of 2,000 pounds per square foot (psf). The design bearing pressure applies to dead load plus design live load conditions. The design bearing pressure may be increased by one-third when considering total loads that include wind or seismic conditions. A coefficient of friction value of 0.45 can be used for footings bearing on native gravels and granular fill.

Provided the structure is properly constructed, the total movement resulting from the anticipated structural loads is estimated to be on the order of 1 inch or less. Additional foundation movements could occur if water from any source infiltrates the foundation soils; therefore, proper drainage should be provided in the final design, during construction and for the life of the project.

Exterior foundations should be embedded a minimum of 4 feet below lowest adjacent exterior finish grade for frost protection and confinement. Interior footings should be bottomed at least 12 inches below lowest adjacent finish grade for confinement. Wall foundation dimensions should satisfy the requirements listed in the latest edition of the International Building Code. Reinforcing steel requirements for foundations should be provided by the design engineer.

The base of all foundation excavations should be free of water and loose material prior to placing concrete. Concrete should be placed soon after subgrade preparation to reduce the potential for bearing surface disturbance. Should the soil bearing levels become excessively dry, disturbed, saturated, or frozen, the affected material should be removed and replaced with suitable material prior to placing concrete. It is recommended that our geotechnical engineer be retained to observe and approve the foundation materials and their preparation for compliance with our recommendations and design assumptions.

4.4 Concrete Slabs

To reduce the potential for movement related distress to concrete slabs, we recommend that floor slabs bear on reconditioned site sand and gravel soils or a minimum of 8 inches of structural or engineered fill. A leveling course, typically 4 to 6 inches of sand/gravel, should also be provided below the concrete slabs, and can be considered part of the zone of fill.

Additional floor slab design and construction recommendations are as follows:

- Positive separations and/or isolation joints should be provided between slabs and all foundations, columns or utility lines to allow independent movement (when applicable)
- Contraction joints should be provided in slabs to control the location and extent of cracking
- Floor slabs should be structurally independent of any building footings or walls to reduce the possibility of floor slab cracking caused by differential movements between slab and foundation (when applicable)
- The use of a vapor retarder should be considered beneath concrete slabs-on-grade that will be covered with wood, tile, carpet or other moisture sensitive or impervious coverings, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer and slab contractor should refer to ACI 302 for procedures and cautions regarding the use and placement of a vapor retarder
- Floor slabs should not be constructed on frozen subgrade
- Other design and construction considerations, as outlined in Section 302.1R of the ACI Design Manual, are recommended

Exterior slabs-on-grade founded on the site soils may experience some movement due to the volume change of the near surface materials through moisture variation or freeze-thaw cycles. This movement may lead to loss of positive drainage away from the buildings and could present a tripping hazard where slab sections move independently. Potential movement could be reduced by:

- Performing regular joint-sealing maintenance
- Minimizing moisture variations in the subgrade
- Minimizing moisture introduction to slab surfaces
- Controlling moisture-density during placement
- Placing effective control joints on relatively close centers

 Using designs which allow vertical movement between the exterior features and adjoining structural elements

4.5 Corrosion Protection

A soil sample was submitted for water soluble sulfate, pH and resistivity testing. The results are summarized in the following table:

Location	Depth (ft)	Material	Soluble Sulfate Content (%)	Resistivity (ohm-cm)	рН
Blk 8, Lot 6	2.5	CL	<0.10	1,570	7.7

Water soluble sulfate values between 0.00 and 0.10 are considered to have negligible attack on normal strength concrete. As a result, Type I-II Portland cement can be specified for all project concrete. However, if additional protection in this regard is desired, Type V or other sulfate resistant cement should be specified.

Resistivity values between 1,000 and 3,000 are considered to be strongly aggressive with regard to corrosion of buried metals. If corrosion of buried metal is critical, it should be protected using a non-corrosive backfill, wrapping, coating, sacrificial anodes, or a combination of these methods, as designed by a qualified corrosion engineer.

5.0 ADDITIONAL SERVICES

The recommendations made in this report assume that an adequate program of tests and observations will be made during construction to verify compliance with these recommendations. The field observation and testing by Rimrock Engineering are an integral part of the conclusions and recommendations made in this report. If we are not retained for these services, the Client agrees to assume Rimrock Engineering's responsibility for any potential claims that may arise during construction.

6.0 LIMITATIONS

Recommendations contained in this report are based on our field explorations, laboratory tests, and our understanding of the proposed construction. The study was performed using a mutually agreed upon scope of work. It is our opinion that this study was a cost-effective method to evaluate the subject site and evaluate some of the potential geotechnical concerns. More detailed, focused, and/or thorough investigations can be conducted. Further studies will tend to increase the level of assurance; however, such efforts will result in increased costs. If the Client wishes to reduce the uncertainties beyond the level associated with this study, Rimrock Engineering should be contacted for additional consultation.

The soils data used in the preparation of this report were obtained from borings made for this investigation. It is possible that variations in soils exist between the points explored. The nature and extent of soil variations may not be evident until construction occurs. If any soil conditions are

encountered at this site which is different from those described in this report, our firm should be immediately notified so that we may make any necessary revisions to our recommendations. In addition, if the scope of the proposed project changes, our firm should be notified. This report has been prepared for design purposes for specific application to this project in accordance with the generally accepted standards of practice at the time the report was written. No warranty, express or implied, is made.

Other standards or documents referenced in any given standard cited in this report, or otherwise relied upon by the authors of this report, are only mentioned in the given standard; they are not incorporated into it or "included by reference," as that latter term is used relative to contracts or other matters of law.

This report may be used only by the Client and for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both on- and off-site), or other factors including advances in man's understanding of applied science may change over time and could materially affect our findings. Therefore, this report should not be relied upon after 36 months from its issue. Rimrock Engineering should be notified if the project is delayed by more than 24 months from the date of this report so that a review of site conditions can be made, and recommendations revised if appropriate.

It is the Client's responsibility to see that all parties to the project including the designer, contractor, subcontractors, etc., are made aware of this report in its entirety. The use of information contained in this report for bidding purposes should be done at the Contractor's option and risk. Any party other than the Client who wishes to use this report shall notify Rimrock Engineering of such intended use. Based on the intended use of the report, Rimrock Engineering may require that additional work be performed and that an updated report be issued. Noncompliance with any of these requirements by the Client or anyone else will release Rimrock Engineering from any liability resulting from the use of this report by any unauthorized party.

APPENDIX A

Field Exploration

MASTER PLAN



BORING NUMBER Blk 3-Lot 96 PAGE 1 OF 1

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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

			PROJECT NAME Meadowlark Ranch 65 Lots										
			PROJECT LOCATION Belgrade, MT										
			GROUND ELEVATION 100 ft HOLE SIZE 5 inches										
		NTRACTOR Rimrock Engineering, Inc.					NO 44 / F	-101	200#				
		THOD Solid Stem Auger				LING 12.0							
		T.F. CHECKED BY M.G.				ING							
IVOIL			<u> </u>		LLING					ΔΤΤ	ERBE		
o DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIMIT	IMITS	PLASTICITY S	FINES CONTENT (%)
	71 1/2 1/1	TOPSOIL											
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.				4.5.4							
				SPT	100	4-5-4 (9)			23				
5		(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine t course gravel.	0	SPT		15-15-25 (40) 20-20-25 (45)			4				
		Bottom of borehole at 16.0 feet.											

BORING NUMBER Blk 3-Lot 97 PAGE 1 OF 1



CLILI	IT Mea	dowlark Ranch Inc.	PROJECT	NAME	Mead	lowlark Ra	nch 65	Lots					
PROJ	ECT NU	MBER <u>G24035</u>	PROJECT	LOCAT	TION _	Belgrade, l	MT						
DATE	START	ED 4/3/24 COMPLETED 4/3/24							HOLE SIZE _5 inches				
DRILL	ING CO	NTRACTOR Rimrock Engineering, Inc.	GROUND WATER LEVELS:										
DRILL	ING ME	THOD Solid Stem Auger	$ar{igstyle}$ at t	IME OF	DRIL	LING 13.0	00 ft / E	Elev 8	7.00 ft				
LOGG	ED BY	T.F. CHECKED BY M.G.	AT END OF DRILLING										
NOTE	s		AFTE	ER DRI	LLING								
				111	%					AT	ΓERBE	RG	Þ
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC WIT	PLASTICITY INDEX	FINES CONTENT
	1/2 1/2	TOPSOIL											
 	12.24	(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
				AU	100				23				
5				٨٥	100				20				
		(GW-GM) WELL-GRADED GRAVEL with SILT and SANE Brown, medium dense to dense, coarse to fine sand, fine course gravel.											
10				AU	100				4				
	Ž	<u>Z</u>		\						_			
15				AU	100				8				

BORING NUMBER Blk 3-Lot 98 PAGE 1 OF 1

	1	
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GEOTECH BH COLUMNS - GINT STD US LAB. GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIEN	NT Me	adowlark Ranch Inc.											
PROJ	ECT N	UMBER <u>G24035</u>	PROJECT	LOCAT	ION _	Belgrade, I	MT						
DATE	STAR	TED <u>4/3/24</u> COMPLETED <u>4/3/24</u>	GROUND ELEVATION 100 ft HOLE SIZE 5 inches										
DRILL	ING C	ONTRACTOR Rimrock Engineering, Inc.											
DRILL	ING M	ETHOD Solid Stem Auger	\veebar AT	TIME OF	DRIL	LING _13.0	00 ft / E	Elev 8	7.00 ft				
LOGO	SED BY	T.F. CHECKED BY M.G.	AT	END OF	DRILL	.ING							
NOTE	S		AF	TER DRII	LLING								
I	Ş			TYPE ER	RY %	√ TS UE)	PEN.	T WT.	JRE T (%)	AT7	ERBE IMITS	3	VTENT
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNI (pcf.	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
0	71 18 .71	TOPSOIL											_
5 10		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine course gravel.) to	AU	100				7				
15		Bottom of borehole at 15.0 feet.		AU	100				8				

BORING NUMBER Blk 3-Lot 99 PAGE 1 OF 1

	A.	Á.
_		Ĺ

c	LIEN	NT Mea				dowlark Rai							
			JMBER _G24035										
- 1			TED 4/3/24 COMPLETED 4/3/24					HOLE	SIZE	_5 inc	hes		
- 1			ONTRACTOR Rimrock Engineering, Inc. ETHOD Solid Stem Auger			LING <u>12.0</u>	\∩ ft / F	Elov 8:	g nn fi				
			T.F. CHECKED BY M.G.			.ING							
			THE CHECKED BY IVI.G.										
Ë									Ι	ΔΤ	ΓERΒΕ	RG	
H	0 (#)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)		LIMITS	PLASTICITY INDEX	FINES CONTENT (%)
-	-		TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.										
-	-			SPT	100	3-3-3 (6)			14				
_	5 _			SPT	100	4-3-4 (7)			13	28	16	12	57
-	_		(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine course gravel.							-			
-	-			SPT	100	8-10-17 (27)			5				
	<u>10</u> -		abla	SPT	100	17-30-25 (55)			5				
GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS):2024\G24035.GPJ	- - 15												
4/19/24 08			Bottom of borehole at 15.0 feet.										
LAB.GDT - 4													
INT STD US													
COLUMNS - G													
ЕОТЕСН ВН С													

BORING NUMBER Blk 3-Lot 100 PAGE 1 OF 1

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIEN	NT Me	eadowlark Ranch Inc.	PROJEC	T NAME	Meac	lowlark Ra	nch 65	Lots					
PROJ	ECT N	UMBER <u>G24035</u>	PROJEC	T LOCAT	ION _	Belgrade, I	ИΤ						
DATE	STAR	TED <u>4/3/24</u> COMPLETED <u>4/3/24</u>	GROUND	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRILL	ING C	ONTRACTOR Rimrock Engineering, Inc.	GROUND	WATER	LEVE	LS:							
DRILL	ING M	ETHOD Solid Stem Auger	$ar{igstyle}$ at	TIME OF	DRIL	LING _12.0	00 ft / E	Elev 88	3.00 ft				
LOGG	SED BY	CHECKED BY M.G.	AT	END OF	DRILL	.ING							
NOTE	s		AF"	TER DRI	LLING								
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	/ UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATT UIL WIL	ASTIC MIT	PLASTICITY SA INDEX	FINES CONTENT (%)
0				SAN	REC	02	P _O	R	ŽŌ	5 =	PL/ LI	PLAS	FINE
	1. 3.7.1 1. 3.7.1	TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
	• 1	(GW-GM) WELL-GRADED GRAVEL with SILT and SAN	D	AU	100				3				
 		Brown, medium dense to dense, coarse to fine sand, fine course gravel.	to										
10		_		AU	100				4				
 		$ar{\Lambda}$		N	400								
15				AU	100				5				
		Bottom of borehole at 15.0 feet.											

BORING NUMBER Blk 3-Lot 101 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIENT Meadowlark Ranch Inc.			PROJECT NAME _Meadowlark Ranch 65 Lots										
PROJ	ECT N	UMBER <u>G24035</u>	PROJEC	LOCAT	ION _	Belgrade, N	ИΤ						
DATE	STAR	TED <u>4/3/24</u> COMPLETED <u>4/3/24</u>	GROUND	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRILL	ING C	ONTRACTOR Rimrock Engineering, Inc.	GROUND	WATER	LEVE	LS:							
DRILL	ING M	ETHOD Solid Stem Auger	oxtimes at	TIME OF	DRIL	LING 12.5	60 ft / E	lev 87	7.50 ft				
LOGG	ED BY	<u> </u>	AT	END OF	DRILL	ING							
NOTE	s		AF.	TER DRI	LLING								
				Щ	%		j	<u>.</u>	(9)	ATT	ERBE IMITS	RG	NT
O DEPTH	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT W (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
U	1/2. 1/2	TOPSOIL											
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
5 10 15		(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine course gravel.	to	SPT SPT	100	5-5-6 (11) 15-20-20 (40)			7				
		Bottom of borehole at 16.0 feet.				(47)							

BORING NUMBER Blk 3-Lot 102 PAGE 1 OF 1



PROJE	LIENT Meadowlark Ranch Inc.												
1	CT NU	MBER _G24035	PROJEC	T LOCA	TION _	Belgrade, l	МТ						
DATE S	STARTI	ED 4/3/24 COMPLETED 4/3/24	GROUNI	ELEVA	TION	100 ft		HOLE	SIZE	5 inc	hes		
DRILLII	NG CO	NTRACTOR Rimrock Engineering, Inc.	GROUNI	WATER	R LEVE	LS:							
1		THOD Solid Stem Auger				LING 13.0	00 ft / E	Elev 8	7.00 ft				
LOGGE	ED BY	T.F. CHECKED BY M.G.	AT	END OF	DRILL	.ING							
1				TER DR	ILLING								
				111	.0					AT	TERBE	RG	F
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC III	_	FINES CONTENT (%)
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	12. 18.16	TOPSOIL											
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
				AU	100				23				
5													
		(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine t course gravel.											
		7		AU	100				7				
15				AU	100				5				
	7						1						

BORING NUMBER Blk 3-Lot 103 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIEN	IT Me	eadowlark Ranch Inc.	PROJEC ¹	Γ NAME	Mead	lowlark Ra	nch 65	Lots					
PROJ	ECT N	UMBER <u>G24035</u>	PROJECT	LOCAT	ION _	Belgrade, I	ΜТ						
DATE	STAR	TED 3/28/24 COMPLETED 3/28/24	GROUND	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRILL	ING C	ONTRACTOR Rimrock Engineering, Inc.	GROUND	WATER	LEVE	LS:							
DRILL	ING M	ETHOD Solid Stem Auger	$ar{igstyle}$ at	TIME OF	DRIL	LING _10.0	00 ft / E	Elev 90	0.00 ft				
LOGG	ED BY	T.F. CHECKED BY M.G.	AT	END OF	DRILL	.ING							
NOTE	s		AF	TER DRI	LLING								
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC MINIT STAND	PLASTICITY BUINDEX	FINES CONTENT (%)
0	1/2. X	TOPSOIL										<u> </u>	ш.
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine t course gravel.		AU	100				10				
15				AU	100				5				
		Bottom of borehole at 15.0 feet.											

BORING NUMBER Blk 3-Lot 104 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIENT	i ivie:	adowlark Ranch Inc.	PROJECT NAME _Meadowlark Ranch 65 Lots										
		MBER _G24035				Belgrade, I							
DATE S	START	ED 3/28/24 COMPLETED 3/28/24	GROUNI	D ELEVA	TION	100 ft		HOLE	SIZE	5 inc	hes		
DRILLII	NG CO	NTRACTOR Rimrock Engineering, Inc.	GROUN	O WATER	LEVE	LS:							
DRILLII	NG ME	THOD Solid Stem Auger	$ar{oxtimes}$ at	TIME OF	DRIL	LING _9.50	ft / El	ev 90	.50 ft				
		T.F. CHECKED BY M.G.		END OF	DRILL	.ING							
NOTES	·		AF	TER DRI	LLING								
				씸	%		z	<u> </u>		AT1	TERBE LIMITS		CONTENT (%)
H (GRAPHIC LOG			: TY		BLOW COUNTS (N VALUE)	r PE	<u>ب</u> ا≟ ک	15. 18.5		C	T	INC (
DEPTH (ft)	[은 호	MATERIAL DESCRIPTION		1PLE IUMI	Š&	BLC SOUIS	KE.	2 g	SIST	LIQUID	PLASTIC LIMIT	EX.	%) (%
	⁹			SAMPLE TYPE NUMBER	RECOVERY (RQD)	02	POCKET PEN. (tsf)	DR	MOISTURE CONTENT (%)	= =	PP.	PLASTICITY INDEX	FINES
<u>2</u>	17. 11	TOPSOIL										ш	ш
	11/												
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
				SPT	100	2-2-2 (4)			13				
5													
				SPT	100	2-3-5 (8)			15				
		(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine course gravel.											
				SPT	100	20-25-19 (44)			3	NP	NP	NP	6
10		<u>Z</u>											
15													
		Bottom of borehole at 15.0 feet.											

BORING NUMBER Blk 3-Lot 105 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIENT	Mea	adowlark Ranch Inc.	PROJECT NAME _Meadowlark Ranch 65 Lots										
		MBER <u>G24035</u>											
		ED 3/28/24 COMPLETED 3/28/24						HOLE	SIZE	5 inc	hes		
		NTRACTOR Rimrock Engineering, Inc.											
		THOD Solid Stem Auger				LING _11.0							
		T.F. CHECKED BY M.G.				.ING							
NOTES			AF	TER DRI	LLING								
	.,			/PE	% ,	(O III	Ä Ä	MT.	யூ 🛞	AII	ERBE LIMITS	3	ENT-
	GKAPHIC	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
<u>2</u> .	17% 77	TOPSOIL											
- 1/2	11//	(CL) SANDY LEAN CLAY											
		Dark brown, stiff, medium plasticity, fine sand.											
		(GW-GM) WELL-GRADED GRAVEL with SILT and SAN Brown, medium dense to dense, coarse to fine sand, fine	D e to	-									
1		course gravel.			100				10				
5				AU	100				10				
[•													
				AU	100				2				
10				AU	100				3				
	JII,	7											
· -		<u>v</u>											
					400								
15		Bottom of borehole at 15.0 feet.		AU	100								
		Bottom of borenole at 15.0 feet.											

BORING NUMBER Blk 3-Lot 106 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIENT Meadowlark Ranch Inc	PROJECT NAME Meadowlark Ranch 65 Lots
	PROJECT LOCATION Belgrade, MT
	24 GROUND ELEVATION 100 ft HOLE SIZE 5 inches
DRILLING CONTRACTOR Rimrock Engineering, Inc.	
DRILLING METHOD Solid Stem Auger	
LOGGED BY _T.F. CHECKED BY _M.G	
NOTES	
H (#) CRAPHIC GRAPHIC O MATERIAL DESCRIPTIO	Y
TOPSOIL	
(GW-GM) WELL-GRADED GRAVEL with S Brown, medium dense to dense, coarse to f course gravel.	AU 100 AU 100 AU 100 AU 100 AU 100
Bottom of borehole at 15.0	feet.

BORING NUMBER Blk 3-Lot 107 PAGE 1 OF 1



	T Mea	adowlark Ranch Inc.	_ PROJE	CT NAME	Mead	dowlark Rai	nch 65	Lots					
PROJI	ECT NU	MBER <u>G24035</u>	PROJE	CT LOCAT	TION _	Belgrade, N	МT						
DATE	START	ED <u>3/27/24</u> COMPLETED <u>3/27/24</u>	GROUN	D ELEVA	TION	100 ft		HOLE	SIZE	_5 inc	ches		
DRILL	ING CO	NTRACTOR Rimrock Engineering, Inc.	GROUN	D WATER	LEVE	LS:							
DRILL	ING ME	THOD Solid Stem Auger	_ <u>∑</u> A	T TIME OF	DRIL	LING 12.0	00 ft / E	Elev 8	8.00 ft				
LOGG	ED BY	T.F. CHECKED BY M.G.	_ A	T END OF	DRILL	ING							
				T						AT	TERBE	ERG	—
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC WIT		FINES CONTENT
U	1/2. N. 1/2	TOPSOIL											
_		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
_				SPT	100	13-12-13 (25)	_		17	_			
5 -		(GW-GM) WELL-GRADED GRAVEL with SILT and SAN Brown, medium dense to dense, coarse to fine sand, fin course gravel, some cobbles.		SPT	100	11-15-25 (40)	_		12				
-				SPT	100	6-6-13 (19)	-		9	-			
10 - -		<u>7</u>		SPT	100	16-21-15 (36)			6	_			
15													
		Bottom of borehole at 15.0 feet.											

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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIENT	Mead	owlark Ranch Inc.	PROJEC	T NAME	Mead	lowlark Ra	nch 65	Lots					
		IBER <u>G24035</u>											
DATE S	TARTE	D 3/27/24 COMPLETED 3/27/24	GROUNE	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRILLIN	IG CON	ITRACTOR Rimrock Engineering, Inc.	GROUNE	WATER	LEVE	LS:							
DRILLIN	IG MET	HOD Solid Stem Auger	$ar{oxday}$ at	TIME OF	DRIL	LING 12.0	00 ft / E	Elev 8	3.00 ft				
LOGGE	D BY _	T.F. CHECKED BY M.G.	AT	END OF	DRILL	.ING							
NOTES			AF	TER DRI	LLING								
				УĒ	%		ż	Τ.	(0)	ATT	ERBE IMITS		:NT
DEPTH (ft)	DOJ FOR	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	RY UNIT W (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
0	<i>l</i> ₄ : 3	TOROGU		S	IL.		ь.	Ш	0			PL	듄
1/2	1/2 1/2	TOPSOIL											
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
		(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine course gravel.	0										
				AU	100				12				
_5													
_													
				AU	100				5				
10				AO	100								
- - -	abla												
				AU	100				7				
15		Bottom of borehole at 15.0 feet.											

BORING NUMBER Blk 3-Lot 109 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIEN	IT Me	eadowlark Ranch Inc. PR	OJECT NAME	Mead	dowlark Rai	nch 65	Lots					
PROJ	ECT N	UMBER G24035 PR	OJECT LOCAT	ION _	Belgrade, I	ΜТ						
DATE	STAR	TED <u>3/27/24</u> COMPLETED <u>3/27/24</u> GR	OUND ELEVA	TION	100 ft		HOLE	SIZE	5 inc	hes		
DRILL	ING C	ONTRACTOR Rimrock Engineering, Inc. GR	OUND WATER	LEVE	LS:							
DRILL	ING M	ETHOD Solid Stem Auger	abla at time of	DRIL	LING _11.0	00 ft / E	Elev 89	9.00 ft				
LOGG	ED BY	T.F. CHECKED BY M.G.	AT END OF	DRILL	.ING							
NOTE	s		AFTER DRI	LLING								
o DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC WINDERSTRAND	} ≻	FINES CONTENT (%)
 		TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND		400				10				
5		Brown, medium dense to dense, coarse to fine sand, fine to course gravel.	AU	100				10				
		$ar{ar{ abla}}$	AU	100				3				
		Bottom of borehole at 15.0 feet.										

BORING NUMBER Blk 3-Lot 110 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIENT Meadowlark Ranch Inc.														
PROJ	ECT N	NUMBER G24035	PROJEC	T LOCA	TION _	Belgrade, N	ИΤ							
DATE	STAF	RTED 3/27/24 COMPLETED 3/27/24	GROUNI	D ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes			
DRILL	ING C	CONTRACTOR Rimrock Engineering, Inc.	GROUNI	WATER	LEVE	LS:								
		METHOD Solid Stem Auger		TIME OF	DRIL	LING _10.5	60 ft / E	Elev 89	9.50 ft					
LOGG	ED B	BY T.F. CHECKED BY M.G.												
NOTE	s		AF	TER DRI	LLING									
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)		PLASTIC WIND TIMES TO THE PROPERTY OF THE PROP	PLASTICITY B SI INDEX	FINES CONTENT (%)	
	<u>1</u> 7	TOPSOIL												
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.												
				SPT	100	8-5-8 (13)			19					
5		(GW-GM) WELL-GRADED GRAVEL with SILT and SAN Brown, medium dense to dense, coarse to fine sand, fine course gravel.		SPT	100	16-15-18 (33)			5					
				SPT	100	12-22-20 (42)			3					
10		ӯ		SPT	100	20-17-15 (32)			14					
15				SPT	100	11-14-14			13					
 						(28)								
20				SPT	100	16-22-20 (42)			10					
		Bottom of borehole at 21.0 feet.							l					

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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

LOGGED BY T.F. CHECKED BY M.G. AT NOTES AFT	ELEVATER WATER TIME OF END OF TER DRII	TION _ LEVE DRILL DRILL LLING	100 ft LS: _ING _10.5 ING	0 ft / E	HOLE	SIZE 9.50 ft	5 inc											
DRILLING CONTRACTOR Rimrock Engineering, Inc. DRILLING METHOD Solid Stem Auger LOGGED BY T.F. CHECKED BY M.G. AT NOTES MATERIAL DESCRIPTION O MATERIAL DESCRIPTION	WATER TIME OF END OF TER DRII	LEVE DRILI DRILL LLING	LS: _ING <u>_10.5</u> ING	0 ft / E	Elev 89	9.50 ft												
DRILLING METHOD Solid Stem Auger LOGGED BY T.F. CHECKED BY M.G. AT NOTES AFT HEAD OF THE SOLID SOLID STEM AUGER MATERIAL DESCRIPTION MATERIAL DESCRIPTION	TIME OF END OF TER DRII	DRILI DRILL LLING	ING <u>10.5</u>															
LOGGED BY T.F. CHECKED BY M.G. AT NOTES AFT	END OF	DRILL LLING	ING															
NOTES AFT H_(±) OCCUPATION MATERIAL DESCRIPTION	TER DRII	LLING																
(f) (H) (H) (H) (H) (H) (H) (H) (H) (H) (H		%						AT END OF DRILLING										
0	TYPE	%				AFTER DRILLING												
0	TYP 3ER			-	Τ.	(9)		ERBE IMITS		NT								
	SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)		PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)								
TOPSOIL																		
(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND																		
Brown, medium dense to dense, coarse to fine sand, fine to course gravel.																		
5_5_	AU	100				4												
10	AU	100				4												
- - 19		460																
Bottom of borehole at 15.0 feet.	AU	100				4												

BORING NUMBER Blk 3-Lot 112 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIEN	IT Me	adowlark Ranch Inc.	PROJEC	T NAME	Mead	lowlark Raı	nch 65	Lots					
		JMBER <u>G24035</u>											
DATE	STAR	TED 3/28/24 COMPLETED 3/28/24	GROUND ELEVATION 100 ft HOLE SIZE 5 inches										
DRILL	ING CO	ONTRACTOR Rimrock Engineering, Inc.											
DRILL	ING MI	ETHOD Solid Stem Auger											
LOGG	ED BY	T.F. CHECKED BY M.G.	AT END OF DRILLING										
NOTE	s		AF	TER DRI	LLING								
_	O			YPE R	% ≿:	S E)	EN.	WT.	(%) (%)	ATT L	ERBE	3	TENT
O DEPTH	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
U	7/1/	TOPSOIL											
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
		(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine course gravel.	to	SPT	100	3-4-8			3				
				A		(12)							
5				SPT	100	10-19-21 (40)			3				
				SPT	100	8-10-20 (30)			6				
10		$ar{\Sigma}$		SPT	100	21-19-22 (41)			9				
15				SPT	100	30-31-42 (73)			9				
		Bottom of borehole at 16.0 feet.			•								

BORING NUMBER Blk 3-Lot 113 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

DATE STA	NI IMREP C24035	PROJECT NAME Meadowlark Ranch 65 Lots										
		PROJECT LOCATION Belgrade, MT										
		GROUND ELEVATION _100 ft HOLE SIZE _5 inches										
	CONTRACTOR Rimrock Engineering, Inc.	_										
	METHOD Solid Stem Auger											
	SY _T.F. CHECKED BY _M.G.											
NOIES _		AFTER DR	ILLING				1					
		l H	%		z	DRY UNIT WT. (pcf)	@	AII	ERBE IMITS	RG S	CONTENT (%)	
DEPTH (ft) GRAPHIC		T		BLOW COUNTS (N VALUE)		> ±⊊	18. 18. 19.	_	O	≽	NT (
OEPTH (ft) SRAPHIC	MATERIAL DESCRIPTION	PLE	NS S	BLO OUI VAI	A 환	<u>5</u> 8	TST TE	LIQUID	STI		%) %)	
ت اق		SAMPLE TYPE NUMBER	RECOVERY (RQD)	υZ	POCKET PEN. (tsf)	X	MOISTURE CONTENT (%)	= =	PLASTIC LIMIT	PLASTICITY INDEX	FINES	
0	TOPSOIL		+			_				Ь	됴	
1\(\cdot \cdot \frac{1}{2} \c												
	(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
-	(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine course gravel.	to										
		N ALL	100									
5		AU	100				4					
. 1												
- +												
40		AU	100				4					
10			+									
	abla											
1												
_												
- +7		N	100				_					
15	Bottom of borehole at 15.0 feet.	AU	100				4					

BORING NUMBER Blk 3-Lot 114 PAGE 1 OF 1

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\20024\G24035.GPJ

CLIEN	T Mea	adowlark Ranch Inc.	PROJEC	T NAME	Mead	lowlark Ra	nch 65	Lots					
		JMBER <u>G24035</u>	PROJEC	T LOCAT	TION _	Belgrade, l	МТ						
DATE	START	ED <u>3/27/24</u> COMPLETED <u>3/27/24</u>	GROUND	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRILL	ING CO	NTRACTOR Rimrock Engineering, Inc.	GROUND	WATER	LEVE	LS:							
DRILL	ING ME	Solid Stem Auger	$ar{igstyle}$ at	TIME OF	DRIL	LING _11.0	00 ft / E	Elev 89	9.00 ft				
LOGG	ED BY		AT	END OF	DRILL	.ING							
NOTE	s		AF'	TER DRI	LLING								
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC IMIT LIMIT	PLASTICITY Z	FINES CONTENT (%)
	17. 18.	TOPSOIL											
· –		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine t	to										
		course gravel.											
				AU	100				6				
5													
				AU	100				6				
_10													
		<u>Z</u>											
. –													
. =				AU	100								

BORING NUMBER Blk 3-Lot 115 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIEN	IT M	eadowlark Ranch Inc.	PROJEC	T NAME	Meac	lowlark Raı	nch 65	Lots					
PROJ	ECT N	IUMBER <u>G24035</u>	PROJEC	T LOCAT	ION _	Belgrade, N	ИΤ						
DATE	STAR	TED 3/28/24 COMPLETED 3/28/24	GROUNE	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRILL	ING C	CONTRACTOR Rimrock Engineering, Inc.	GROUNE	WATER	LEVE	LS:							
DRILL	ING N	Solid Stem Auger	$ar{oxtsymbol{oxed}}$ at	TIME OF	DRIL	LING _11.0	00 ft / E	Elev 8	9.00 ft				
LOGG	ED B	Y _T.F. CHECKED BY _M.G.	AT	END OF	DRILL	.ING							
NOTE	s		AF	TER DRI	LLING								
				Щ	%		ż	<u>.</u>	@	ATT	ERBE		LN:
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
0	71 1/1	TOPSOIL										_	
	1 ₁ . <u>3 1,</u> 777777	(CL) CANDY I FAN CLAY											
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
		(GP-GM) POORLY GRADED GRAVEL with SILT and SAN Brown, medium dense to dense, coarse to fine sand, fine to	ID										
		course gravel.	O	SPT	100	15-12-15 (27)			3	NP	NP	NP	12
5				V		10.0.1=							
				SPT	100	10-8-17 (25)			3				
				SPT	100	18-20-22 (42)			2				
10		Σ		SPT	100	22-18-20 (38)			14				
15				SPT	100	10-26-33 (59)			12				
		Bottom of borehole at 16.0 feet.		SPT	100	10-26-33 (59)			12				

BORING NUMBER Blk 3-Lot 116 PAGE 1 OF 1

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

PROJECT NUMBER DATE STARTED	ark Ranch Inc. R _G24035			Mead	owlark Rai	nch 65	Lots					
DRILLING CONTRA		_ PROJEC	LOCAT	ION _	Belgrade, N	ИΤ						
	3/28/24 COMPLETED 3/28/24	GROUND	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
	ACTOR Rimrock Engineering, Inc.	_ GROUND	WATER	LEVE	LS:							
DRILLING METHO	Solid Stem Auger	$oxedsymbol{oxed}$ at	TIME OF	DRILI	ING _11.0	00 ft / E	lev 89	9.00 ft				
LOGGED BY T.F.	CHECKED BY M.G.	_ AT	END OF	DRILL	ING							
NOTES		AF	TER DRII	LING								
			Н.	% .		ż	ΥŢ.	(%) (%)		ERBE	;	ENT
GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
0 TO	PSOIL											ш
(CL	L) SANDY LEAN CLAY rk brown, stiff, medium plasticity, fine sand.											
(G\ Bro	W-GM) WELL-GRADED GRAVEL with SILT and SAI own, medium dense to dense, coarse to fine sand, fir urse gravel.	ND ne to										
			AU	100				6				
10			AU	100				10				
			N au	400								
15	Bottom of borehole at 15.0 feet.		AU	100				6				

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	L.
- 24	k

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

PROJECT NUI	dowlark Ranch Inc.	PROJEC	T NAME	Mead	lowlark Ra	nch 65	Lots					
DATE STARTE	MBER <u>G24035</u>	PROJEC	T LOCA	TION _	Belgrade, l	МТ						
	ED <u>3/28/24</u> COMPLETED <u>3/28/24</u>	GROUNE	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRILLING CO	NTRACTOR Rimrock Engineering, Inc.	GROUNE	WATER	R LEVE	LS:							
DRILLING ME	THOD Solid Stem Auger	$ar{oxtimes}$ at	TIME OF	DRIL	LING _10.5	50 ft / E	Elev 89	9.50 ft				
LOGGED BY	T.F. CHECKED BY M.G.	AT	END OF	DRILL	ING							
NOTES												
									ATT	ERBE	RG	╘
O DEPTH (ft) GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIMIT LIMIT	PLASTIC	PLASTICITY INDEX	FINES CONTENT (%)
\(\frac{1}{2\psi_1\psi_2}\cdot\frac{1}{2\psi_1\psi_2\psi_2}\cdot\frac{1}{2\psi_1\psi_2\psi_2\psi_2\psi_2\psi_2\psi_2\psi_2\psi_2\psi_2\psi_2\p	TOPSOIL											
	(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SANI Brown, medium dense to dense, coarse to fine sand, fine) to										
	course gravel.	10										
5			AU	100				7				
10	7_		AU	100				5				
			AU	100				5				
15	Bottom of borehole at 15.0 feet.											

BORING NUMBER Blk 3-Lot 118 PAGE 1 OF 1

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\20024\G24035.GPJ

PROJECT NUMBER G24035 DATE STARTED 3/28/24 COMPLETED 3/28/24 GROUND ELEVATION 100 ft HOLE SIZE 5 inches DRILLING CONTRACTOR Rimrock Engineering, Inc. DRILLING METHOD Solid Stem Auger LOGGED BY _T.F. CHECKED BY _M.G. NOTES	CLIENT M	leadowlark Ranch In	Ranch Inc. PROJECT NAME Meadowlark Ranch 65 Lots													
AT END OF DRILLING AFTER DRILLING ATTER DRILLING ATTER DRILLING ATTERBERG LIMITS ATTERBERG	PROJECT N	NUMBER <u>G24035</u>		PROJEC	T LOCAT	ION _	Belgrade, I	ΜТ								
DRILLING METHOD Solid Stem Auger LOGGED BY T.F. CHECKED BY M.G. AT END OF DRILLING	DATE STAF	RTED 3/28/24	COMPLETED 3/28/24	GROUNI	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes				
AT END OF DRILLING AFTER DRILLING ATTERDERG AT	DRILLING (CONTRACTOR Rim	nrock Engineering, Inc.	GROUNI	WATER	LEVE	LS:									
NOTES AFTER DRILLING HE (1) A THERBERG LIMITS MATERIAL DESCRIPTION MATERIAL DESCRIPT	DRILLING N	METHOD Solid Ster	m Auger	$ar{ar{ar{ar{ar{ar{ar{ar{ar{ar{$	TIME OF	DRIL	LING _10.5	50 ft / E	Elev 8	9.50 ft						
MATERIAL DESCRIPTION A	LOGGED B	Y <u>T.F.</u>	CHECKED BY M.G.	АТ	END OF	DRILL	ING									
MATERIAL DESCRIPTION A	NOTES			AF	TER DRI	LLING										
(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. SPT 100 10-9-14 (23) SPT 100 14-26-20 (46) SPT 100 19-16-14 (30) SPT 100 22-20-27	0		MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	LIMITS	S	FINES CONTENT (%)		
SPT 100 (23) 4	<u> </u>	(CL) SANDY LE														
SPT 100 (46) SPT 100 19-16-14 (30) SPT 100 22-20-27		Brown, medium	L-GRADED GRAVEL with SILT and SAN dense to dense, coarse to fine sand, fine	D e to	SPT	100		_		4						
10 (30) 4 SPT 100 (22-20-27 11)	5				SPT	100				4						
• N SPT 100 22-20-27 11 11 11 11 11 11 11 11 11 11 11 11 11					SPT	100				4						
	10	Ā			SPT	100				11						
15	. –															
Bottom of borehole at 15.0 feet.			Bottom of borehole at 15.0 feet.													

BORING NUMBER Blk 3-Lot 119 PAGE 1 OF 1

GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIENT Meadowlark Ranch Inc.				_ PROJEC	T NAME	Mead	lowlark Raı	nch 65	Lots				
PROJ	ECT N	JMBER <u>G24035</u>		PROJEC	T LOCAT	TION _	Belgrade, N	ИΤ					
DATE	START	ED 3/28/24	COMPLETED _3/28/24	GROUNI	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes	
DRILL	ING CO	ONTRACTOR Rin	nrock Engineering, Inc.	GROUN	WATER	LEVE	LS:						
DRILL	ING MI	ETHOD Solid Ste	em Auger	$_{-}$ $ar{oldsymbol{ol{ol}}}}}}}}}}}}}}}$	TIME OF	DRIL	LING 11.5	50 ft / E	Elev 88	3.50 ft			
LOGG	ED BY	T.F.	CHECKED BY M.G.	_ AT	END OF	DRILL	.ING						
NOTE	s			_ AF	TER DRI	LLING							
o DEPTH (ft)	GRAPHIC LOG		MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC HIMIT LIMIT	FINES CONTENT (%)
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TOPSOIL											
			iff, medium plasticity, fine sand.	10									
		Brown, mediun course gravel.	LL-GRADED GRAVEL with SILT and SAN n dense to dense, coarse to fine sand, fin	e to									
5					AU	100				6			
10					AU	100				4			
		∑											
15	25				AU	100				6			
-10			Bottom of borehole at 15.0 feet.		I = I			-					
			Bottom of porenole at 15.0 feet.										

BORING NUMBER Blk 3-Lot 120 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIENT Meadowlark Ranch Inc.	PROJECT NAME Meadowlark Ranch 65 Lots
PROJECT NUMBER G24035	PROJECT LOCATION Belgrade, MT
DATE STARTED <u>3/27/24</u> COMPLETED <u>3/27/24</u>	GROUND ELEVATION _100 ft HOLE SIZE _5 inches
DRILLING CONTRACTOR Rimrock Engineering, Inc.	GROUND WATER LEVELS:
DRILLING METHOD Solid Stem Auger	AT TIME OF DRILLING 11.50 ft / Elev 88.50 ft
LOGGED BY _T.F. CHECKED BY _M.G.	AT END OF DRILLING
NOTES	AFTER DRILLING
	HE WILLIAM STREET
H (#) (#) MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER (RQD) BLOW COUNTS (N VALUE) POCKET PEN. (Isf) DRY UNIT WT. (pcf) MOISTURE CONTENT (%) LIQUID LIMIT PLASTICITY PLASTICITY PLASTICITY BLASTICITY SAMPLE TYPE NUMBER (ST) (pcf) MOISTURE CONTENT (%) SAMPLE TYPE (pcf) DRY UNIT WT. (pcf) MOISTURE CONTENT PLASTICITY PLASTICITY SAMPLE TYPE NUMBER NUMBER SAMPLE TYPE NUMBER SAMPLE TYPE NUMBER SAMPLE TYPE S
0 TOPSOIL	
(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SANI Brown, medium dense to dense, coarse to fine sand, fine course gravel.	AU 100 AU 100 8
15 Bottom of borehole at 15.0 feet.	AU 100 5

BORING NUMBER Blk 3-Lot 121 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIEN	II NE	eadowlark Ranch Inc.	PROJECT NAME	_Mead	dowlark Ra	nch 65	Lots					
PROJ	ECT N	NUMBER <u>G24035</u>	PROJECT LOCA	TION _	Belgrade, I	ИΤ						
DATE	STAR	RTED 3/27/24 COMPLETED 3/27/24	GROUND ELEVA	TION	100 ft		HOLE	SIZE	5 inc	hes		
DRILL	ING C	CONTRACTOR Rimrock Engineering, Inc.	GROUND WATER	R LEVE	LS:							
DRILL	ING M	METHOD Solid Stem Auger	$\overline{igspace}$ at time o	F DRIL	LING _11.0	00 ft / E	Elev 8	9.00 ft				
LOGG	ED B	Y _T.F. CHECKED BY _M.G.	AT END OF	DRILL	_ING							
NOTE	s		AFTER DR	LLING								
			ш	%					AT	ERBE	RG	þ
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY 9 (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC IIMIT LIMIT		FINES CONTENT (%)
0	7	TOPSOIL										
		(CL) LEAN CLAY with SAND Brown, stiff, medium plasticity, fine sand.				_						
			SPT	100	5-5-4 (9)	-		23	38	18	20	81
5 _		(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel.		100	12-16-17 (33)			4				
- 			SPT	100	22-13-16 (29)	_		14				
10		Σ	SPT	100	8-8-10 (18)							
15			SPT	100	10-10-11 (21)			12				
20			SPT	100	25-24-20 (44)			6				

BORING NUMBER Blk 3-Lot 122 PAGE 1 OF 1

_	. 4

THOD Solid Stem Auger T.F. CHECKED BY M.G. MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to	GROUND ELEVAGROUND WATE $\overline{ abla}$ AT TIME C	ATION _ R LEVE DF DRIL F DRILL	100 ft :LS: LING 12.0	00 ft / E	HOLE	SIZE 3.00 ft	5 inc	ches		
THOD Solid Stem Auger T.F. CHECKED BY M.G. MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to	GROUND WATE AT TIME OF THE CONTROL OF T	R LEVE OF DRILL F DRILL RILLING	ELS: LING <u>12.0</u> LING	00 ft / E	Elev 88	3.00 ft				
THOD Solid Stem Auger T.F. CHECKED BY M.G. MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to	AT TIME C AT END O	F DRILL	LING _12.0 LING 							
T.F. CHECKED BY M.G. MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to	AT END O	F DRILL								
MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to	AFTER DR	RILLING		Ι						
MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to	AFTER DR	RILLING		Ι						
MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to	T	%				MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	LASTICITY SHINDEX	VES CONTENT (%)
TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to	SAMPLE TYPE	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	LASTICITY INDEX	VES CONTEN
(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to									ᅵ	ె
Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to										
Brown, medium dense to dense, coarse to fine sand, fine to										
course gravel.	, AU	100				8				
	AU	100				7				
	AU	100				13				
Rottom of horehole at 15.0 feet										
	Bottom of borehole at 15.0 feet.	AU	AU 100	AU 100	AU 100	AU 100	AU 100 13	AU 100 13	AU 100 13	AU 100 13

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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIEN	IT Me	eadowlark Ranch Inc.	PROJECT I	NAME	Mead	lowlark Rai	nch 65	Lots					
		UMBER <u>G24035</u>											
		TED <u>3/27/24</u> COMPLETED <u>3/27/24</u>						HOLE	SIZE	5 inc	hes		
		ONTRACTOR Rimrock Engineering, Inc.											
		IETHOD Solid Stem Auger				LING _11.0							
		CHECKED BY M.G.				.ING							
NOTE	ა		-		LLING					A T 7	ERBE	-DC	
o DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	LIMITS	PLASTICITY NO INDEX	FINES CONTENT (%)
	7. N. 7.	TOPSOIL											
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
		(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine t course gravel.	to										
5 _				SPT	100	8-8-9 (17)			9				
10		abla	X	SPT	100	8-15-18 (33)			4				
15_			X	SPT	100	10-19-20 (39)			4				
		Bottom of borehole at 16.0 feet.											

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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\20024\G24035.GPJ

CLIENT Meadowlark Ranch Inc.	PROJECT NAME Meadowlark Ranch 65 Lots
PROJECT NUMBER G24035	
DATE STARTED 3/27/24 COMPLETED 3/27/24	
DRILLING CONTRACTOR Rimrock Engineering, Inc.	
DRILLING METHOD Solid Stem Auger	
LOGGED BY T.F. CHECKED BY M.G.	
NOTES	
GRAPHC (ft) (ft) (ft) (material description (ft)	SAMPLE TYPE NUMBER RECOVERY % (RQD) BLOW COUNTS (N VALUE) POCKET PEN. (Isf) DRY UNIT WT. (pcf) DRY UNIT WT. (pcf) LIQUID LIMIT PLASTIC MEATICITY ENDEX INDEX FINES CONTENT (%)
	S
TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.	
(GW-GM) WELL-GRADED GRAVEL with SILT and SANI Brown, medium dense to dense, coarse to fine sand, fine course gravel.	AU 100
	N AU 100
	AU 100 5
15	AU 100 5
Bottom of borehole at 15.0 feet.	

BORING NUMBER Blk 3-Lot 126 PAGE 1 OF 1

			PROJECT NAM PROJECT LOC					LOIS					
			ROUND ELE					HOLE	SIZE	5 inc	ches		
		NTRACTOR Rimrock Engineering, Inc.											
		THOD Solid Stem Auger	$\overline{}$				00 ft / E	Elev 8	5.00 ft				
		T.F. CHECKED BY M.G.				NG							
			AFTER [RILLI	NG _								
о DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE	RECOVERY %	(RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)		PLASTIC WITE LIMIT LIMIT	3	FINES CONTENT
	11. 11. 11. 11. 11. 11. 11. 11. 11. 11.	TOPSOIL											
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand, some gravel.											
			S	PT 10	00	15-12-14 (26)			12				
5 _		(SM) SILTY SAND with GRAVEL Brown, loose to medium dense, coarse to fine sand, fine gra	avel.	PT 10	00	8-5-7 (12)			7	_			
 			s	PT 10	00	4-3-3 (6)			9	-			
10			s	PT 10	00	5-6-5 (11)			13	-			
 		(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel.											
15	7	Ζ	s	PT 10	00	15-13-17 (30)			11	_			
		Bottom of borehole at 16.0 feet.											

BORING NUMBER BIk 6-Lot 7 PAGE 1 OF 1

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	A.S	Ŀ
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DO JECT NIJ	adowlark Ranch Inc.	PROJECT NAM	= iviea	dowlark Ra	nch 65	Lots					
PROJECT NO	MBER <u>G24035</u>	PROJECT LOC	ATION _	Belgrade,	MT						
DATE START	ED <u>4/4/24</u> COMPLETED <u>4/4/24</u>	GROUND ELEVATION _100 ft HOLE SIZE _5 inches									
DRILLING CO	NTRACTOR Rimrock Engineering, Inc.	GROUND WATE	R LEVE	LS:							
DRILLING ME	THOD Solid Stem Auger	$\overline{igspace}$ at time (OF DRIL	LING _11.0	00 ft / E	Elev 8	9.00 ft	:			
LOGGED BY	T.F. CHECKED BY M.G.	AT END C	F DRIL	_ING							
NOTES											
					Ι.	l .		AT	TERBE	RG	<u></u>
DEPTH (ft) GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT
0	TOPSOIL				-					<u> </u>	正
1. 1.1.											
-	(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.										
- 4///		AU	J 100	_			17				
5	(GW-GM) WELL-GRADED GRAVEL with SILT and SAND)		-							
	Brown, medium dense to dense, coarse to fine sand, fine course gravel.	to									
			1 100					1			
10 2	<u>7</u>	AU	J 100				8				
		AU	J 100				7				
			, , 100			1	ı ,				

BORING NUMBER BIk 6-Lot 8 PAGE 1 OF 1

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eadowlark Ranch Inc.										
		_								—
					HOLE	SIZE	5 inc	nes		
				50 ft / I	Elev 8	8 50 ft				
					l .		AT	ΓERΒΕ	RG	<u> </u>
MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT (pcf)	MOISTURE CONTENT (%)	LIQUID			FINES CONTENT (%)
TOPSOIL										
(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.										
Brown, medium dense to dense, coarse to fine sand, fine										
course gravel.	AU	100				5				
	AU	100				6				
Ţ										
	AU	100				8				
	COMPLETED 4/4/24 COMPLETED 4/	TED 4/4/24 COMPLETED 4/4/24 GROUND ELEVA ONTRACTOR Rimrock Engineering, Inc. ETHOD Solid Stem Auger ✓ T.F. CHECKED BY M.G. MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel.	TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. GROUND WATER LEVE GROUND WATER LEVE GROUND WATER LEVE AT TIME OF DRILL AT END OF DRILL AT END OF DRILL AT END OF DRILL AFTER DRILLING (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.	TOD 4/4/24 COMPLETED 4/4/24 GROUND ELEVATION 100 ft GROUND SOLID S	TED 4/4/24 COMPLETED 4/4/24 GROUND ELEVATION 100 ft GROUND WATER LEVELS: ETHOD Solid Stem Auger T.F. CHECKED BY M.G. AT END OF DRILLING AFTER DRILLING AFTER DRILLING AFTER DRILLING MOTE AND AUGUST	TED_4/4/24 COMPLETED_4/4/24 COMPLETED_4/4/24 COMPLETED_4/4/24 COMPLETED_4/4/24 COMPLETED_4/4/24 COMPLETED_4/4/24 GROUND ELEVATION_100 ft HOLE GROUND WATER LEVELS: AT TIME OF DRILLING AFTER DRILLING AFTER DRILLING MORE CLECKED BY _M.G. MATERIAL DESCRIPTION MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. AU 100	TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel.	TED 4/4/24 COMPLETED 4/4/24 GROUND ELEVATION 100 ft HOLE SIZE 5 inc ONTRACTOR Rimrock Engineering, Inc. ETHOD Solid Stem Auger T.F. CHECKED BY M.G. MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel.	TOPSOIL (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. (A14/24 COMPLETED 4/4/24 GROUND ELEVATION 100 ft HOLE SIZE 5 inches GROUND WATER LEVELS: (GWUND WATER LEVELS: (AT TIME OF DRILLING	GROUND ELEVATION 100 ft HOLE SIZE 5 inches STHOD Solid Stem Auger T.F. CHECKED BY M.G. AFTER DRILLING MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel.

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PROJEC						iowiark Ra							
	CT NU	MBER _G24035	PROJEC	T LOCAT	ION _	Belgrade, l	MT						
DATE S	TARTI	ED <u>4/4/24</u> COMPLETED <u>4/4/24</u>	GROUND ELEVATION _100 ft HOLE SIZE _5 inches										
DRILLIN	IG CO	NTRACTOR Rimrock Engineering, Inc.	GROUN	D WATER	LEVE	LS:							
DRILLIN	IG ME	THOD Solid Stem Auger	_ ∑ A⁻	TIME OF	DRIL	LING 11.0	00 ft / E	Elev 8	9.00 ft				
		T.F. CHECKED BY M.G.		END OF	DRILL	.ING							
				T						AT	ΓERΒΕ	RG	-
c	,			SAMPLE TYPE NUMBER	% >	w iii	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	₩ <u></u>		LIMITS	3	FINES CONTENT
DEPTH (ft)	LOG	MATERIAL DESCRIPTION		E T	ŽĘ,	BLOW COUNTS (N VALUE)	KET P (tsf)	<u></u> = €		٥.	ౖౖ.	Ϋ́	NO (
DEF (f		WATERIAL DESCRIPTION		APL MUM	ŠĔ	<u>9</u> 05₹	유	5.0	SE	景	AST	STIC DE)	၂၀
اع	'			SAN	RECOVERY (RQD)	٥٤	P _Q	DR	ŽŌ	==	P.	PLASTICITY INDEX	빌
0	1×. ·/f	TOPSOIL		-								Ф	Щ
. <u>. </u>	11/	TOFSOIL											
		(CL) SANDY LEAN CLAY		1									
-//		Dark brown, stiff, medium plasticity, fine sand.											
-{//													
		(GW-GM) WELL-GRADED GRAVEL with SILT and SAN Brown, medium dense to dense, coarse to fine sand, fine	D	AU	100				5				
5		course gravel.	<i>-</i> 10										
-, (
				AU	100				5				
10				T AO	100					-			
		7											
- [• ($\P_{J_{\overline{A}}}$	<u>'</u>											
•													
-													
				AU	100				5				
15				AU	100				5				

BORING NUMBER Blk 6-Lot 10 PAGE 1 OF 1

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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIEN	IT Me	adowlark Ranch Inc.	PROJEC	T NAME	Mead	lowlark Ra	nch 65	Lots					
PROJ	ECT N	JMBER <u>G24035</u>	PROJEC	T LOCAT	ION _	Belgrade, I	МТ						
DATE	STAR	TED _4/4/24	GROUND	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRILL	ING CO	ONTRACTOR Rimrock Engineering, Inc.	GROUND	WATER	LEVE	LS:							
DRILL	ING MI	ETHOD Solid Stem Auger	$ar{igstyle}$ at	TIME OF	DRIL	LING _12.0	00 ft / E	Elev 8	8.00 ft				
LOGG	ED BY	T.F. CHECKED BY M.G.	AT	END OF	DRILL	.ING							
NOTE	s		AF	TER DRII	LLING								
				Ш	%			Ŀ	<u></u>	ATT	TERBE	RG	۲
o DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY 9 (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
	1/2. 1/1/2	TOPSOIL											
 5	4.34	(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.		AU	100				19				
		(SM) SILTY SAND with GRAVEL Brown, medium dense to dense, fine sand, fine gravel.											
 		(GP) POORLY GRADED GRAVEL with SAND Brown, dense, coarse to fine sand, fine to course gravel.											
10				AU	100				3				
		Ţ		AU	100				5				
		Bottom of borehole at 15.0 feet.											

BORING NUMBER Blk 6-Lot 14 PAGE 1 OF 1



CLIENT Mea					lowlark Ra							
1		PROJECT LOCATION Belgrade, MT										
	ED 3/6/24 COMPLETED 3/6/24						HOLE	SIZE	_5 inc	hes		
1	ONTRACTOR Rimrock Engineering, Inc.											
DRILLING ME	ETHOD Solid Stem Auger	\veebar AT	TIME OF	F DRIL	LING _12.0	00 ft / E	Elev 8	8.00 ft				
1	T.F. CHECKED BY M.G.	AT	END OF	DRILL	.ING							
NOTES		ATTERREDC										
O DEPTH (ft) GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)		PLASTIC FINIT LIMIT	3	FINES CONTENT (%)
	TOPSOIL (CL) LEAN CLAY with SAND Dark brown, stiff, medium plasticity, fine sand.											
5			AU	100				14				
	(SM) SILTY SAND with GRAVEL Brown, medium dense, fine sand, fine gravel.								-			
	(GP) POORLY GRADED GRAVEL with SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel.	0										
	⊻		AU	100				7				
15			AU	100				6				
2724 0	Bottom of borehole at 15.0 feet.											
	Bottom of borehole at 15.0 feet.		AU	100				0				

BORING NUMBER Blk 6-Lot 16 PAGE 1 OF 1

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					PROJEC	I INAIVIE	IVICAL	dowlark Ra	ncn 65	LOIS					
DATE STA	NUMBER <u>G24</u>	035			PROJEC	T LOCAT	TION _	Belgrade, l	MT						
	RTED 4/4/24		COMPLET	ED 4/4/24	GROUN	D ELEVA	TION _	100 ft		HOLE	SIZE	_5 inc	ches		
DRILLING (CONTRACTOR	Rimrock I	Engineering,	Inc.	GROUN	D WATER	R LEVE	LS:							
DRILLING I	METHOD Solid	d Stem Aug	jer		\(\sum_{\subset} \sum_{\begin{subset} \times \\ \times \end{subset} \]	TIME OF	DRIL	LING _10.5	50 ft / E	Elev 8	9.50 ft				
LOGGED E	BY <u>T.F.</u>		CHECKED	BY M.G.	A	END OF	DRILL	.ING							
NOTES															
						Ī			Ι.		_	AT	ΓERBE	RG	╘
GRAPHIC LOG		MA	TERIAL DES	SCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC HIMIT STIMIT	PLASTICITY INDEX	FINES CONTENT
0 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	TOPSOIL														
- (1 · · · · · · · · · · · · · · · · · ·	(CL) LEAN Dark brow	N CLAY with	n SAND dium plasticit	y, fine sand.		_									
5			ith GRAVEL e to dense, f	ine sand, fine gra	vel.	AU	100				14	-			
	Brown, me course gra	edium dens		L with SAND coarse to fine sand	d, fine to										
10						AU	100				5				
15	∀					AU	100				12				
		Bott	tom of boreh	ole at 15.0 feet.											

BORING NUMBER Blk 6-Lot 18 PAGE 1 OF 1

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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\20024\G24035.GPJ

CLIEN	IT Me	eadowlark Ranch Inc.	PROJEC	T NAME	Meac	lowlark Ra	nch 65	Lots					
		UMBER <u>G24035</u>	PROJEC	T LOCAT	ION _	Belgrade, I	МТ						
DATE	STAR	TED <u>4/4/24</u> COMPLETED <u>4/4/24</u>	GROUND	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRILL	ING C	ONTRACTOR Rimrock Engineering, Inc.	GROUND	WATER	LEVE	LS:							
DRILL	ING M	ETHOD Solid Stem Auger	$ar{igstyle}$ at	TIME OF	DRIL	LING 10.5	50 ft / E	Elev 89	9.50 ft				
LOGG	ED BY	/ _T.F.	AT	END OF	DRILL	.ING							
NOTE	s		AF	TER DRII	LLING								
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	IQUID I	PLASTIC HISTORY TIMIT	PLASTICITY SA INDEX	FINES CONTENT (%)
0				S	R		M M	5	-8		곱	9_	르
	1/2 1/2	TOPSOIL											
5		(CL) LEAN CLAY with SAND Dark brown, stiff, medium plasticity, fine sand. (SM) SILTY SAND with GRAVEL Brown, medium dense to dense, fine sand, fine gravel.		AU	100				8				
		(GP) POORLY GRADED GRAVEL with SAND Brown, medium dense to dense, coarse to fine sand, fine course gravel. ▼	to	AU	100				9				
15	[o(\o)	Bottom of borehole at 15.0 feet.											

BORING NUMBER Blk 6-Lot 24 PAGE 1 OF 1

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_	Meadowlark Ranch Inc.	PROJECT NAME	Mead	dowlark Rai	nch 65	Lots					
	NUMBER G24035	PROJECT LOCAT									
	RTED 3/6/24 COMPLETED 3/6/24					HOLE	SIZE	_5 inc	hes		
	CONTRACTOR Rimrock Engineering, Inc.										
	METHOD Solid Stem Auger										
	BY _T.F. CHECKED BY _M.G.										
NOTES _		AFTER DRI	LLING	_ 					TERBE	- DC	
O DEPTH (ft) GRAPHIC		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)		PLASTIC LIMIT	3	FINES CONTENT (%)
\lambda \cdot \frac{7}{7} \cdot \frac{7}{1} \cdot \frac\text{\left} \cdot \frac{7}{1} \cdot \frac{7}{1} \cdot \frac{7}{1											
	(CL) LEAN CLAY with SAND Dark brown, stiff, medium plasticity, fine sand.										
		SPT	100	7-10-10 (20)			6				
5	(SM) SILTY SAND with GRAVEL Brown, medium dense to dense, fine sand, fine gravel.	SPT	100	12-22-20 (42)	_		8	_			
10		to									
15	Bottom of borehole at 15.0 feet.										

BORING NUMBER Blk 6-Lot 25 PAGE 1 OF 1

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7		
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CLIENT _	Meadowlark Ranch Inc.	PROJECT NAME Meadowlark Ranch 65 Lots									
	T NUMBER <u>G24035</u>										
	ARTED <u>3/6/24</u> COMPLETED <u>3/6/24</u>					HOLE	SIZE	_5 inc	hes		
	CONTRACTOR Rimrock Engineering, Inc.	—									
	METHOD Solid Stem Auger										
	BY T.F. CHECKED BY M.G.										
NOTES _			LLING				l		ERBE	EPC	
O DEPTH (ft) GRAPHIC	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	LIMITS		FINES CONTENT (%)
1/2 / 1/2	TOPSOIL										
- <u>***</u>	(CL) LEAN CLAY with SAND Dark brown, stiff, medium plasticity, fine sand.	_									
		AU	100				19	_			
5	(SM) SILTY GRAVEL with SAND Brown, medium dense to dense, coarse to fine sand, fine	e gravel.	100				8				
10	¥	AU	100				5	NP	NP	NP	20
15		AU	100				4				
						1					

BORING NUMBER Blk 6-Lot 26 PAGE 1 OF 1

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PROD DATE DRIL DRIL LOG	JECT NE STAR LING C LING M GED BY	eadowlark Ranch Inc. UMBER G24035 TED 3/6/24 COMPLETED 3/6/24 ONTRACTOR Rimrock Engineering, Inc. IETHOD Solid Stem Auger / T.F. CHECKED BY M.G.	PROJECT LOCATION Belgrade, MT GROUND ELEVATION 100 ft HOLE SIZE 5 inches GROUND WATER LEVELS: AT TIME OF DRILLING 11.00 ft / Elev 89.00 ft AT END OF DRILLING AFTER DRILLING							DO ft				
O DEPTH (ft)		MATERIAL DESCRIPTION	SAMPLE TYPE NI IMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	LIMITS	S	FINES CONTENT (%)		
-	7.7.7.7	TOPSOIL (CL) LEAN CLAY with SAND Dark brown, stiff, medium plasticity, fine sand.												
_	-		SF	PT 100	5-3-7 (10)			19	-					
5			SF	PT 100	7-7-8 (15)			20	-					
_		(GP) POORLY GRADED GRAVEL with SAND Brown, medium dense, coarse to fine sand, fine to course (SM) SILTY SAND with GRAVEL	gravel.											
-		Brown, loose to medium dense, fine sand, fine gravel.	SF	PT 100	3-4-3 (7)			7						
10 - -		$ar{ar{ u}}$	SF	PT 100	5-6-5 (11)	-								
3:17ROJECI 8/2024		(GP) POORLY GRADED GRAVEL with SAND Brown, medium dense to dense, coarse to fine sand, fine course gravel.	to											
15		D. (1) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SF	PT 100	25-20-17 (37)			12						
GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G./PROJECTS/2024/G24035.GPJ		Bottom of borehole at 16.0 feet.												

BORING NUMBER Blk 6-Lot 27 PAGE 1 OF 1



CLIENT	Mea	adowlark Ranch Inc.	PROJECT	NAME	Mead	lowlark Ra	nch 65	Lots					
			PROJECT										
		ED 3/6/24 COMPLETED 3/6/24						HOLE	SIZE	5 inc	hes		
		NTRACTOR Rimrock Engineering, Inc.											
		Solid Stem Auger											
		T.F. CHECKED BY M.G.											
NOTES					LLING				l		ΓERΒΙ	- PG	
O DEPTH (ft)	DOJ TOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)		LIMITS		FINES CONTENT (%)
\(\frac{1}{2}\)	1/2 . 1/2	TOPSOIL											
		(CL) LEAN CLAY with SAND Dark brown, stiff, medium plasticity, fine sand.											
				AU	100				19				
- 10	20	(GP) POORLY GRADED GRAVEL with SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel, some cobbles.	0	AU	100				6				
0	0,00			AU	100				4				
	2000			AU	100				7				
	0,9 ⁷	<u>7</u>											
6	0,1 0,1												
15				AU	100				5	-			
		Bottom of borehole at 15.0 feet.											

BORING NUMBER Blk 6-Lot 28 PAGE 1 OF 1



CLIE	NT M	eadowlark Ranch Inc.	PROJEC	T NAME	Mead	lowlark Ra	nch 65	Lots					
PRO.	JECT N	UMBER <u>G24035</u>	PROJEC	T LOCAT	ION _	Belgrade, N	MT						
		TED <u>3/6/24</u> COMPLETED <u>3/6/24</u>						HOLE	SIZE	5 inc	hes		
		ONTRACTOR Rimrock Engineering, Inc.											
		Solid Stem Auger				LING _12.0							
		CHECKED BY M.G.				.ING							
NOTE	ES		AF'	TER DRI	LLING								
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC HIMIT LIMIT	PLASTICITY S	FINES CONTENT (%)
- · - ·		FILL (CL) LEAN CLAY with SAND Dark brown, stiff, medium plasticity, fine sand.		SPT	100	7-7-8 (15)			14				
5		(GP) POORLY GRADED GRAVEL with SAND Brown, medium dense to dense, coarse to fine sand, fine	to	SPT	100	9-12-10 (22)	_		3				
109:07 - G:PROJECTS/2024/024035,GPJ		© Bottom of borehole at 15.0 feet.		SPT	100	24-25-25 (50)	-		4				
GEOTECH BH COLUMNS - GINT STD US LAB GDT - 4/19/24 09:07 - G'PROJECTS/2024/G24036.GPJ													

BORING NUMBER Blk 7-Lot 1 PAGE 1 OF 1

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DATE STARTI	MBER G24035		IVICA	dowlark Ra	ncn 65	Lots					
DRILLING CO		PROJECT LOCA	TION _	Belgrade, I	МT						
	ED <u>4/4/24</u>	GROUND ELEVA	TION	100 ft		HOLE	SIZE	_5 inc	ches		
	NTRACTOR Rimrock Engineering, Inc.	GROUND WATE	R LEVE	LS:							
DRILLING ME	THOD Solid Stem Auger	$\overline{igspace}$ at time o	F DRIL	LING _11.0	00 ft / E	Elev 89	9.00 ft				
LOGGED BY	T.F. CHECKED BY M.G.	AT END OF	DRILL								
		AFTER DR									
		T	Ι.				Π	AT	ΓERBE	RG	⊢
GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT
1/1. 1/1/	TOPSOIL										
- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.										
		SPT	100	2-3-3 (6)			25				
- ///	(SC) CLAYEY SAND Brown, medium dense, fine sand, some coarse sand, med	dium									
5	plasticity, some fine gravel.	SPT	100	2-4-8 (12)			18	33	17	16	43
	(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine	SPT	100	10-12-14 (26)			5				
10	course gravel.	X SPT	100	50/5"			6				
15	<u>7</u>										
10 1111	Bottom of borehole at 15.0 feet.										

BORING NUMBER Blk 7-Lot 2 PAGE 1 OF 1



						Lots					
		T LOCAT	TION _	Belgrade, I	MT						
TED 4/4/24 COMPLETED 4/4/24	GROUND	ELEVA [*]	TION _	100 ft		HOLE	SIZE	5 inc	ches		
ONTRACTOR Rimrock Engineering, Inc.											
ETHOD Solid Stem Auger	$oxed{oxtsymbol{oxed}}$ at	TIME OF	DRIL	LING _11.5	50 ft / E	Elev 88	3.50 ft				
T.F. CHECKED BY M.G.	AT	END OF	DRILL	.ING							
	AF"	TER DRI	LLING								
		Ш	9			Ŀ	<u> </u>	AT			F
MATERIAL DESCRIPTION		SAMPLE TYP NUMBER	RECOVERY 9 (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN (tsf)	DRY UNIT WI (pcf)	MOISTURE CONTENT (%	LIQUID			FINES CONTENT (%)
TOPSOIL											
(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
Brown, medium dense to dense, coarse to fine sand, fine	o to	ALI	100				15				
								_			
		AU	100				6				
⊻											
		AU	100				6				
Bottom of borehole at 15.0 feet.		•									
	UMBER G24035 TED 4/4/24 COMPLETED 4/4/24 DINTRACTOR Rimrock Engineering, Inc. ETHOD Solid Stem Auger T.F. CHECKED BY M.G. MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SANI Brown, medium dense to dense, coarse to fine sand, fine course gravel.	UMBER G24035 ITED 4/4/24 COMPLETED 4/4/24 GROUND CONTRACTOR Rimrock Engineering, Inc. ETHOD Solid Stem Auger ✓ T.F. CHECKED BY M.G. MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel.	UMBER G24035 TED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 GROUND BLEVA GROUND WATER GROUND WATER GROUND WATER AT TIME OF AFTER DRI WATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. AU AU	DIMBER G24035 TED 4/4/24 COMPLETED 4/4/24 CONTRACTOR Rimrock Engineering, Inc. ETHOD Solid Stem Auger T.F. CHECKED BY M.G. MATERIAL DESCRIPTION MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. AU 100	UMBER G24035 ITED 4/4/24 COMPLETED 4/4/24 CONTRACTOR Rimrock Engineering, Inc. ETHOD Solid Stem Auger ✓ T.F. CHECKED BY M.G. MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. AU 100	UMBER G24035 ITED 4/4/24 COMPLETED 4/4/24 CONTRACTOR Rimrock Engineering, Inc. ETHOD Solid Stem Auger T.F. CHECKED BY M.G. MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. AU 100	UMBER G24035 TED 4/4/24 COMPLETED 4/4/24 CONTRACTOR Rimrock Engineering, Inc. ETHOD Solid Stem Auger T.F. CHECKED BY M.G. MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. AU 100	UMBER G24035 TED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 CROUND ELEVATION 100 ft HOLE SIZE GROUND WATER LEVELS: ✓ AT TIME OF DRILLING 11.50 ft / Elev 88.50 ft AT END OF DRILLING 11.50 ft / Elev 88.50 ft / E	UNBER G24035 TED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 COMPLETED 4/4/24 CROUND ELEVATION 100 ft HOLE SIZE 5 inc CROUND WATER LEVELS: AT TIME OF DRILLING	DUNBER G24035	UNIBER G24035 FED4/4/24

BORING NUMBER Blk 7-Lot 14 PAGE 1 OF 1

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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIENT Meadowlark Ranch Inc.	PROJECT NAME Meadowlark Ranch 65 Lots
	PROJECT LOCATION Belgrade, MT
DATE STARTED 4/3/24 COMPLETED 4/3/24	GROUND ELEVATION 100 ft HOLE SIZE 5 inches
DRILLING CONTRACTOR Rimrock Engineering, Inc.	GROUND WATER LEVELS:
DRILLING METHOD Solid Stem Auger	AT TIME OF DRILLING 11.00 ft / Elev 89.00 ft
LOGGED BY _T.F. CHECKED BY _M.G.	AT END OF DRILLING
NOTES	AFTER DRILLING
H (#) (#) MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER (RQD) BLOW COUNTS (N VALUE) POCKET PEN. (Isf) DRY UNIT WT. (pcf) MOISTURE CONTENT (%) LIQUID LIMIT PLASTIC ITY PLASTICITY BLASTICITY BLASTICITY FINES CONTENT
0 (立文文 TOPSOIL	
(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SANI Brown, medium dense to dense, coarse to fine sand, fine course gravel.	AU 100 9
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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

PROJECT NUMBER 024035 PROJECT LOCATION Belgrade, MT	PROJECT NAME Meadowlark Ranch 65 Lots	Meadowlark Ranch Inc.
DRILLING CONTRACTOR Rimrock Engineering, Inc. DRILLING METHOD Solid Stem Auger LOGGED BY T.F. CHECKED BY M.G. NOTES MATERIAL DESCRIPTION MATERIAL DES		
DRILLING METHOD Solid Stem Auger CHECKED BY M.G. NOTES AT TIME OF DRILLING	4/4/24 GROUND ELEVATION _100 ft HOLE SIZE _5 inches	ARTED <u>4/4/24</u> COMPLETED <u>4/4/24</u>
AT END OF DRILLING HEAD OF DRILLING AFTER DRILLING HATER PRILLING HATER PRILLING ATTERBERG LIMITS LIMIT		
NOTES AFTER DRILLING —— HELE STATES AND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. AFTER DRILLING —— WALTERBERG LIMITS ACTUAL MANDO DAY MATERIAL DESCRIPTION MATE		
MATERIAL DESCRIPTION TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. SPT 100 11-14-12 (26) SPT 100 24-17-22 (39) ATTERBERG LIMITS ATTERBERG LIM		
MATERIAL DESCRIPTION A		
TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. SPT 100 12-17-18 (35) SPT 100 11-14-12 (26) SPT 100 24-17-22 (39) SPT 100 24-17-22 (39)		MATERIAL DESCRIPTION
TOPSOIL (CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. SPT 100 11-14-12 (26) SPT 100 24-17-22 (39) 3	SAMP NU RECC (CO NO CONT LIM	
(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel. SPT 100 12-17-18 (35) SPT 100 11-14-12 (26) SPT 100 24-17-22 (39) SPT 100 24-17-22 (39)		• • [
Brown, medium dense to dense, coarse to fine sand, fine to course gravel. SPT 100 (35) 2 NP NP NP SPT 100 24-17-22 (39) 3	e sand.	(CL) SANDY LEAN CLAY
SPT 100 (26)		Brown, medium dense to dense, coarse to fine sand, fine to
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		$ar{ar{Z}}$
Bottom of borehole at 15.0 feet.	t 15.0 feet.	Bottom of borehole at 15.0 feet.

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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\20024\G24035.GPJ

CLIEN	IT Me	eadowlark Ranch Inc.	PROJEC	T NAME	Mead	dowlark Ra	nch 65	Lots					
PROJ	ECT N	UMBER <u>G24035</u>	PROJEC	T LOCAT	ION _	Belgrade, l	МТ						
DATE	STAR	TED <u>4/4/24</u> COMPLETED <u>4/4/24</u>	GROUNI	ELEVA1	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRILL	ING C	ONTRACTOR Rimrock Engineering, Inc.	GROUNI	WATER	LEVE	LS:							
DRILL	ING M	ETHOD Solid Stem Auger	$ar{ar{ar{ar{ar{ar{ar{ar{ar{ar{$	TIME OF	DRIL	LING 12.5	50 ft / E	Elev 8	7.50 ft				
LOGG	ED BY	' T.F. CHECKED BY M.G.	AT	END OF	DRILL	.ING							
NOTE	s		AF	TER DRII	LLING								
_	<u>0</u>			YPE R	۲۲ %	, S E)	PEN.	WT.	RE (%)	AT1	TERBE LIMITS	3	TENT
O DEPTH	GRAPH LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
	1/ 1/ 1/	TOPSOIL											
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
		(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine course gravel.	to										
 5				AU	100				7				
10				AU	100				3				
		$ar{\Box}$											
15				AU	100				5				
		Bottom of borehole at 15.0 feet.											

BORING NUMBER Blk 7-Lot 18 PAGE 1 OF 1

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	T Mea	adowlark Ranch Inc.	PROJEC	T NAME	Mead	dowlark Ra	nch 65	Lots					
PROJE	ECT NU	MBER <u>G24035</u>	PROJEC	T LOCA	TION _	Belgrade, l	МТ						
DATE	START	ED <u>4/4/24</u> COMPLETED <u>4/4/24</u>	GROUN	D ELEVA	TION	100 ft		HOLE	SIZE	5 inc	hes		
DRILL	ING CO	NTRACTOR Rimrock Engineering, Inc.	GROUN	O WATER	R LEVE	LS:							
1		THOD Solid Stem Auger				LING _11.0	00 ft / E	Elev 8	9.00 ft				
1		T.F. CHECKED BY M.G.		END OF	DRILL	.ING							
1													
				111			Ι.			AT	TERBE	RG	F
O DEPTH (#)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT		FINES CONTENT (%)
	1/2 1/2	TOPSOIL											
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
 				AU	100				21				
5													
		(GW-GM) WELL-GRADED GRAVEL with SILT and SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel.	0										
10		<u>Z</u>		AU	100				6	-			
15				AU	100				10				
		Bottom of borehole at 15.0 feet.											

BORING NUMBER Blk 8-Lot 2 PAGE 1 OF 1

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CLIEN	IT Me	eadowlark Ranch Inc.	PROJEC	T NAME	Mead	lowlark Raı	nch 65	Lots					
PROJ	ECT N	UMBER <u>G24035</u>	PROJEC	T LOCAT	ION _	Belgrade, N	ЛΤ						
DATE	STAR	TED <u>3/6/24</u> COMPLETED <u>3/6/24</u>	GROUNE	ELEVA	TION _	100 ft		HOLE	SIZE	_5 inc	hes		
DRILL	ING C	ONTRACTOR Rimrock Engineering, Inc.	GROUNE	WATER	LEVE	LS:							
DRILL	ING M	ETHOD Solid Stem Auger	$ar{oxday}$ at	TIME OF	DRIL	LING _11.0	00 ft / E	Elev 89	9.00 ft				
LOGG	ED BY	/ _T.F. CHECKED BY _M.G.	AT	END OF	DRILL	.ING							
NOTE	s		AF	TER DRII	LLING								
о DEРТН (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC HIMIT LIMIT	3	FINES CONTENT (%)
0	7/1/2	TOPSOIL											
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.								_			
				SPT	100	15-19-19 (38)			12	-			
5 _		(GP-GM) POORLY GRADED GRAVEL with SILT and SA Brown, medium dense to dense, coarse to fine sand, fine course gravel.		SPT	100	9-16-21 (37)			5	-			
				AU	100				3	-			
10		abla		SPT	100	30-33-30 (63)			6	-			
· -													
4.5				AU	100				3				
10	i, MI	Bottom of borehole at 15.0 feet.			<u> </u>		<u> </u>		<u> </u>				

BORING NUMBER BIK 8-Lot 3 PAGE 1 OF 1

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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\20024\G24035.GPJ

CLIEN	NT Me	adowlark Ranch Inc.	PROJEC	NAME	Mead	owlark Ra	nch 65	Lots					
PROJ	ECT N	UMBER <u>G24035</u>	PROJECT LOCATION Belgrade, MT										
DATE	START	TED 3/6/24 COMPLETED 3/6/24	GROUND	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRILL	ING CO	ONTRACTOR Rimrock Engineering, Inc.	GROUND	WATER	LEVE	LS:							
DRILL	ING MI	ETHOD Solid Stem Auger	$ar{igstyle}$ at	TIME OF	DRILI	_ ING 12.0	00 ft / E	Elev 88	3.00 ft				
LOGG	SED BY	T.F. CHECKED BY M.G.	AT	END OF	DRILL	ING							
NOTE	S		AF.	TER DRII	LLING								
т	<u></u>			ŊPE :R	۲۲ %)	rs JE)	PEN.	. WT.	RE 「%)	ATT I	TERBE LIMITS	3	TENT
o DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYP NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
	71 1N 71	TOPSOIL											
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
				ST	100			97	15	29	18	11	65
5		(GP-GM) POORLY GRADED GRAVEL with SILT and SAI Brown, medium dense to dense, coarse to fine sand, fine course gravel.		AU	100				5				
15	6	Bottom of borehole at 15.0 feet.		AU	100				7				

BORING NUMBER Blk 8-Lot 4 PAGE 1 OF 1

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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIEN	IT Me	eadowlark Ranch Inc.	PROJEC	NAME	Mead	dowlark Raı	nch 65	Lots					
						Belgrade, N							
		TED <u>3/6/24</u> COMPLETED <u>3/6/24</u>						HOLE	SIZE	5 inc	hes		
		ONTRACTOR Rimrock Engineering, Inc.											
		ETHOD Solid Stem Auger				LING _11.0							
LOGG	ED BY	CHECKED BY M.G.	AT	END OF	DRILL	.ING							
NOTE	s		AF.	TER DRII	LLING								
o DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)		PLASTIC MINIT LIMIT	PLASTICITY BUT INDEX	FINES CONTENT (%)
	7. 18. 7.	TOPSOIL											
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.								-			
		(GP-GM) POORLY GRADED GRAVEL with SILT and SAI	ND	SPT	100	7-16-25 (41)			14				
 <u>5</u> 		Brown, medium dense to dense, coarse to fine sand, fine course gravel.		SPT	100	27-49-17 (66)			2				
 				AU	100				3				
10		$ar{\Delta}$		SPT	100	11-17-24 (41)			7				
				AU	100				1				
15	מגד נו	Bottom of borehole at 15.0 feet.											

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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIEN.	T <u>Me</u>	eadowlark Ranch Inc.	PROJEC [*]	NAME	Mead	lowlark Ra	nch 65	Lots					
			PROJECT LOCATION _Belgrade, MT										
DATE	STAR	TED <u>3/6/24</u> COMPLETED <u>3/6/24</u>	GROUND	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
		ONTRACTOR Rimrock Engineering, Inc.											
		ETHOD Solid Stem Auger	<u> </u>										
		T.F. CHECKED BY M.G.		END OF	DRILL	.ING							
NOTES	<u> </u>		AF	TER DRII	LLING								
				Щ	%	_	ż	Ë.	@		ERBE		ΞNΤ
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
	Θ			SAN	RE(ر کے ا	PO	DR	≥ō		PL	PLAS	INE:
0		FILL										ц	ш
		(CL) SANDY LEAN CLAY											
{		Dark brown, stiff, medium plasticity, fine sand.											
		(GP-GM) POORLY GRADED GRAVEL with SILT and SAI Brown, medium dense to dense, coarse to fine sand, fine course gravel.	ND to										
				AU	100				4	NP	NP	NP	11
_ 5													
c													
				AU	100				7				
10									-				
c													
c		Ā											
_ }													
				AU	100				6				
15	<u>Ma)</u>	Bottom of borehole at 15.0 feet.		/ /.0	100				"				

BORING NUMBER Blk 8-Lot 6 PAGE 1 OF 1

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GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

		eadowlark Ranch Inc. PR				lowlark Rai Belgrade, N							
		UMBER _G24035 PR TED _3/6/24 COMPLETED _3/6/24 GF											
		ONTRACTOR Rimrock Engineering, Inc.							0	0 1110	1100		
LOGG	ED BY	CHECKED BY M.G.	AT E	ND OF	DRILL	ING							
NOTE	s		AFTE	R DRII	LLING								
				Й	%		ż	<u>-</u>	(9)	ATT	ERBE	RG	:NT
	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT W (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
0		FILL											
 		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.		SPT	100	3-3-4 (7)			12				
5		(SM) SILTY SAND with GRAVELS Brown, loose to medium dense, coarse to fine sand, fine grav	rel.	SPT	100	6-5-4 (9) 4-6-6			7				
 10					100	(12)							
		$ar{\Delta}$		SPT	100	7-7-7 (14)			15				
		(GP) POORLY GRADED GRAVEL with SAND Brown, medium dense to dense, coarse to fine sand, fine to course gravel.											
		Bottom of borehole at 15.0 feet.											

BORING NUMBER Blk 8-Lot 7 PAGE 1 OF 1



l ppo		eadowlark Ranch Inc.	FROJEC	I IVAIVIL	iviead	lowlark Ra	HCH 03	LOIS					
PROJ	IECT N	UMBER _G24035	PROJECT LOCATION Belgrade, MT										
DATE	STAR	TED 3/6/24 COMPLETED 3/6/24	GROUNE	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRIL	LING C	ONTRACTOR Rimrock Engineering, Inc.	GROUNE	WATER	LEVE	LS:							
DRIL	LING M	ETHOD Solid Stem Auger	$ar{igstyle}$ at	TIME OF	DRIL	L ING 10.0	00 ft / E	Elev 90	0.00 ft				
		'_T.F. CHECKED BY _M.G.				.ING							
1				TER DRII	LLING								
										AT	ΓERBE	RG	-
 E _	일본			TYPE	ERY % D)	W TTS -UE)	PEN.	IT WT.	URE NT (%)		LIMITS	3	NTEN
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	FINES CONTENT (%)
0	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	TOPSOIL		Ŋ	<u>«</u>		۵		O		п.	-P.	E E
L .	17. 11.												
 		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.											
		(GP-GM) POORLY GRADED GRAVEL with SILT and SAI Brown, medium dense to dense, coarse to fine sand, fine	ND to	AU	100				9				
5		course gravel.	io										
				N	100								
10		Ā		AU	100				9				
1 1 5	3			AU	100				12				
15		Bottom of borehole at 15.0 feet.		AU	100				12				

BORING NUMBER BIK 8-Lot 8 PAGE 1 OF 1

_		4
7		* 1
		

			PROJECT NA										
			PROJECT LO										
			GROUND EL					HOLE	SIZE	5 inc	hes		
		ONTRACTOR Rimrock Engineering, Inc.											
		ETHOD Solid Stem Auger											
		T.F. CHECKED BY M.G.				ING							
NOTE	s		AFTER	DRII	LING								
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	AMPLE TYPE	NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC HIMIT LIMIT		FINES CONTENT (%)
0			Ŋ	j	М.		۵	۵	O		<u>п</u>	7	를
		(CL) SANDY LEAN CLAY Dark brown, medium stiff, medium plasticity, fine sand.											
				SPT	100	3-3-3 (6)			13				
5		(SC-SM) SILTY, CLAYEY SAND Brown, loose, fine sand, low plasticity.		SPT	100	3-5-13 (18)			13	22	16	6	34
		(GP-GM) POORLY GRADED GRAVEL with SILT and SAI Brown, medium dense to dense, coarse to fine sand, fine course gravel.					-						
				SPT	100	20-21-24 (45)			13				
10				AU	100				12				
		<u> </u>											
 15													
		Bottom of borehole at 15.0 feet.											

BORING NUMBER Blk 8-Lot 9 PAGE 1 OF 1

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	<u> </u>	

GEOTECH BH COLUMNS - GINT STD US LAB. GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

		eadowlark Ranch Inc.											
		UMBER <u>G24035</u>											
		TED <u>3/6/24</u>						HOLE	SIZE	_5 inc	hes		
		ONTRACTOR Rimrock Engineering, Inc.					00 ft / F	-1 0/	2 22 51				
		IETHOD Solid Stem Auger				LING 10.0							
		CHECKED BY M.G.				ING							
NOTE	ა		AF	EK DKII	LLING		1		ı	A T-7			1.
o DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC MENT LIMIT	PLASTICITY NATIONAL PROPERTY N	FINES CONTENT (%)
	71 1/2	TOPSOIL											
5 10		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand. (GP-GM) POORLY GRADED GRAVEL with SILT and SA Brown, medium dense to dense, coarse to fine sand, fine course gravel.		AU	100				7				
				AU	100				3				
15	D YIV	Bottom of borehole at 15.0 feet.											

BORING NUMBER Blk 8-Lot 10 PAGE 1 OF 1



CLIENT IVIE	eadowlark Ranch Inc.				dowlark Rai							
	UMBER <u>G24035</u>											
	TED <u>3/6/24</u> COMPLETED <u>3/6/24</u>						HOLE	SIZE	_5 inc	ches		
	ONTRACTOR Rimrock Engineering, Inc.											
	ETHOD Solid Stem Auger				LING _11.0							
	CHECKED BY M.G.				.ING							
NOTES		Al	TER DRI	LLING								
O DEPTH (ft) GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIMIT	PLASTIC HIMIT LIMIT	3	FINES CONTENT (%)
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	TOPSOIL											
	(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.					-						
			SPT	100	3-3-4 (7)			15	-			
5	(GP-GM) POORLY GRADED GRAVEL with SILT and SA Brown, medium dense to dense, coarse to fine sand, fine course gravel.	ND to	SPT	100	26-22-23 (45)			3				
			AU	100				3	_			
10			AU	100				5	_			
	∑											
15			AU	100				13				
	Bottom of borehole at 15.0 feet.											

BORING NUMBER BIk 11-Lot 1 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

		eadowlark Ranch Inc.	PROJECT										
			PROJECT										
		CONTRACTOR Rimrock Engineering, Inc.						HOLE	SIZE	3 1110	nes		
		METHOD Solid Stem Auger				LING <u>12.0</u>	00 ft / F	Elev 8	3 00 ft				
		Y T.F. CHECKED BY M.G.				ING							
										ATT	ΓERΒΕ	ERG	<u> </u>
_	O			SAMPLE TYPE NUMBER	% ∖.	ωΩ	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)		LIMITS	3	FINES CONTENT (%)
DEPTH (ft)	PH	MATERIAL DESCRIPTION		E T ABE	VER QD)	NO. JNT	et (js	E (jo		□⊢	일	le×	NO ®
DE (GRAPHIC LOG			M	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	S Z	⊃ ڬ ≿	S T	골	PLASTIC LIMIT	ST) SE
0	_			SA	RE	<u> </u>	β	씸	28		곱_	PLASTICITY INDEX	
	71 1V 71	TOPSOIL											
	17 <u>1</u> 1////	(CL) SANDY LEAN CLAY											
		Dark brown, stiff, medium plasticity, fine sand.											
				SPT	100	3-4-5			5				
		(OD ON) DOODLY ODADED ODAYEL with OUT and ON	NID.			(9)	-						
5		(GP-GM) POORLY GRADED GRAVEL with SILT and SAI Brown, medium dense to dense, coarse to fine sand, fine		7			-						
		course gravel.	 	SPT	100	6-8-7 (15)			4	NP	NP	NP	11
	9		4	\		(10)	-					-	
							1						
				SPT	100	17-18-19			10				
				J	100	(37)							
10				AU	100				13				
10_			•										
		77											
													
15				SPT	100	9-36-27 (63)			8				
	~ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Bottom of borehole at 16.0 feet.											

BORING NUMBER Blk 11-Lot 2 PAGE 1 OF 1

	A.	Á.
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CLIENT Me													
PROJECT N	UMBER _G24035 I	PROJECT LO	CATION	Belgrade,	MT								
DATE STAR	TED <u>3/7/24</u> COMPLETED <u>3/7/24</u> 0	GROUND ELE	VATION	100 ft		HOLE	SIZE	_5 inc	ches				
DRILLING C	ONTRACTOR Rimrock Engineering, Inc.	GROUND WAT	TER LEV	ELS:									
DRILLING M	ETHOD Solid Stem Auger	$rac{ extstyle extstyle$	OF DRII	LLING _11.0	00 ft / E	Elev 8	9.00 ft						
LOGGED BY	T.F. CHECKED BY M.G.	AT END	OF DRIL	LING									
NOTES		AFTER [DRILLING	} <u></u>									
		Ш	%		_;	Ŀ	<u></u>	AT	TERBE LIMITS		Ę		
O DEPTH (ft) GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE	RECOVERY 9	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID			FINES CONTENT		
7 1/2 · · · · · · · · · · · · · · · · · · ·	TOPSOIL												
	(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.												
5	(SM) SILTY SAND with GRAVEL Brown, medium dense to dense, coarse to fine sand, fine g	ravel.	AU 100				8	NP	NP	NP	36		
10	(GP-GM) POORLY GRADED GRAVEL with SILT and SAN Brown, medium dense to dense, coarse to fine sand, fine to course gravel.		AU 100				7						
- 15	Bottom of borehole at 15.0 feet.		100										

BORING NUMBER Blk 11-Lot 3 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

CLIEN	IT Me	adowlark Ranch Inc.	PROJEC	Г NAME	Mead	owlark Rar	nch 65	Lots					
		MBER <u>G24035</u>											
DATE	START	ED <u>3/7/24</u> COMPLETED <u>3/7/24</u>	GROUND	ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRILL	ING CO	NTRACTOR Rimrock Engineering, Inc.	GROUND	WATER	LEVE	LS:							
DRILL	ING ME	THOD Solid Stem Auger	$_{-}$ $_{ar{ar{ar{ar{ar{ar{ar{ar{ar{ar$	TIME OF	DRILI	ING 12.0	00 ft / E	Elev 88	3.00 ft				
LOGG	ED BY	T.F. CHECKED BY M.G.	_ AT	END OF	DRILL	ING							
NOTE	s		_ AF	TER DRII	LLING								
	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC MISTER STIMIT PLINIT	PLASTICITY B	FINES CONTENT (%)
	1/2 . 1/2	TOPSOIL											
 		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.		SPT	100	6-6-5 (11)			5				
5				V		7.0.0							
10		(GP-GM) POORLY GRADED GRAVEL with SILT and S Brown, medium dense to dense, coarse to fine sand, fin course gravel.	e to	▼ SPT	100	7-8-9 (17) 50/5"			4				

BORING NUMBER Blk 11-Lot 4 PAGE 1 OF 1

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	<u> </u>	

CLIENT Me	adowlark Ranch Inc.											
	UMBER <u>G24035</u>											
	TED 3/7/24 COMPLETED 3/7/24						HOLE	SIZE	_5 inc	hes		
	ONTRACTOR Rimrock Engineering, Inc.											
	ETHOD Solid Stem Auger											
	T.F. CHECKED BY M.G.				.ING							
NOTES		AFTER	DRIL	LING								
O DEPTH (ft) GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE	NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC MINIT LIMIT	S 	FINES CONTENT (%)
	TOPSOIL (GM) SILTY GRAVEL with SAND Brown, medium dense to dense, coarse to fine sand, fine some course gravel.	gravel,										
5 0			AU	100				5	NP	NP	NP	13
	(GP-GM) POORLY GRADED GRAVEL with SILT and SA Brown, medium dense to dense, coarse to fine sand, fine course gravel.	e to	AU	100				4				
15 1311	Bottom of borehole at 15.0 feet.											
15 15 15 15 15 15 15 15 15 15 15 15 15 1												

BORING NUMBER Blk 11-Lot 5 PAGE 1 OF 1



GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ

		eadowlark Ranch Inc.				lowlark Raı						
		UMBER				Belgrade, N						
		TED 3/7/24 COMPLETED 3/7/24						HOLE	SIZE	5 inc	hes	
		CONTRACTOR Rimrock Engineering, Inc.										
		IETHOD Solid Stem Auger				LING 13.0						
		CHECKED BY M.G.				ING						
NOTE	<u> </u>		AF	ER DRII	LLING		I					 1.
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC WEST	FINES CONTENT (%)
0	1/ 1/2 1/2	TOPSOIL										 _
		(CL) SANDY LEAN CLAY Dark brown, stiff, medium plasticity, fine sand.				6.9.40						
		(GP-GM) POORLY GRADED GRAVEL with SILT and SAI Brown, medium dense to dense, coarse to fine sand, fine		SPT	100	6-8-10 (18)			4			
5		course gravel.		SPT	100	11-16-20 (36)			3			
				SPT	100	30-29-25 (54)			3			
<u>10</u> 				AU	100				3			
 <u>15</u>		Σ		AU	100				4			
		Bottom of borehole at 15.0 feet.										

BORING NUMBER Blk 11-Lot 6 PAGE 1 OF 1

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CLIENT Meadowlark Ranch Inc.											
	P										
DATE STARTED 3/7/24						HOLE	SIZE	_5 inc	hes		
DRILLING CONTRACTOR Rimrock Er											
DRILLING METHOD Solid Stem Auge	<u>r</u>	$rac{ extstyle extstyle$	OF DRIL	LING 12.0	00 ft / E	Elev 88	3.00 ft				
LOGGED BY _T.F.		AT END	OF DRIL	LING							
NOTES		AFTER	DRILLING	·							
O DEPTH (ft) (GRAPHIC LOG	ERIAL DESCRIPTION	SAMPLE TYPE	NUMBER RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	PLASTIC WIND TIMES TO THE PROPERTY OF THE PROP	3	FINES CONTENT (%)
TOPSOIL (CL) SANDY LEAN CL	AY um plasticity, fine sand.										
- (CD CM) POORLY CE	ADED CDAVEL with SILT and SAME		AU 100	_			13	_			
(GP-GM) POORLY GR Brown, medium dense course gravel.	ADED GRAVEL with SILT and SANE to dense, coarse to fine sand, fine to	′ ∎		-				_			
10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	m of horehole at 15.0 feet		AU 100				7				
Botto	m of borehole at 15.0 feet.										
	m of borehole at 15.0 feet.		AU 100				8				

BORING NUMBER Blk 11-Lot 7 PAGE 1 OF 1

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	<u> </u>	k

	CLIE	NT _M	eadowlark Ranch Inc.	PROJEC	T NAME	Mead	dowlark Ra	nch 65	Lots					
	PRO	JECT N	NUMBER <u>G24035</u>	PROJEC	T LOCAT	TION _	Belgrade, I	MT						
			RTED <u>3/7/24</u> COMPLETED <u>3/7/24</u>						HOLE	SIZE	_5 inc	hes		
			CONTRACTOR Rimrock Engineering, Inc.											
			METHOD Solid Stem Auger				LING _12.0							
			Y T.F. CHECKED BY M.G.	AT	END OF	DRILL	ING							
	NOTE	ES		AF'	TER DRI	LLING								
	o DEPTH (ft)		MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIMIT	PLASTIC HIMIT LIMIT	S 	FINES CONTENT (%)
Ī	-	71 18 . 71	TOPSOIL											
-		12.3.1	(CL) LEAN CLAY with SAND Dark brown, stiff, medium plasticity, fine sand.											
					ST	100			90	21	37	19	18	79
	5				SPT	100	8-11-16 (27)			6				
			(GP-GM) POORLY GRADED GRAVEL with SILT and SAN Brown, medium dense to dense, coarse to fine sand, fine t course gravel.											
					SPT	100	13-17-27 (44)			3				
GPJ	10				AU	100				4	-			
2024\G24035.			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\											
PROJECTS\2														
7 - G:	45													
03:0	15	KOIN	Bottom of borehole at 15.0 feet.											
GEOTECH BH COLUMNS - GINT STD US LAB.GDT - 4/19/24 09:07 - G:\PROJECTS\2024\G24035.GPJ														

BORING NUMBER Blk 11-Lot 8 PAGE 1 OF 1



		dowlark Ranch Inc.		PROJEC	T NAME	Mead	dowlark Ra	nch 65	Lots					
DATE ST	T NU	MBER <u>G24035</u>		PROJEC	T LOCA	TION _	Belgrade, l	МТ						
DAILOI	ART	ED <u>3/7/24</u>	COMPLETED 3/7/24	GROUN	D ELEVA	TION _	100 ft		HOLE	SIZE	5 inc	hes		
DRILLING	G CO	NTRACTOR Rimrock	Engineering, Inc.	GROUN	O WATER	R LEVE	LS:							
DRILLING	G ME	THOD Solid Stem Au	ıger	\(\frac{\sqrt{2}}{2} A \)	TIME O	F DRIL	LING 11.5	50 ft / E	Elev 8	3.50 ft				
LOGGED	BY	T.F.	CHECKED BY M.G.	A	END OF	DRILL	.ING							
NOTES _				AF	TER DR	ILLING								
					Й	%		j	Ŀ.	(9)	ATT	TERBE	RG	LN:
O DEPTH (ft)	10G	М	ATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	LIQUID	1	PLASTICITY INDEX	FINES CONTENT (%)
<u> </u>	12. · X	TOPSOIL												
<u> (</u>		(CL) SANDY LEAN Dark brown, stiff, me	CLAY edium plasticity, fine sand.		_									
					AU	100				6				
		(GP-GM) POORLY Brown, medium den course gravel.	GRADED GRAVEL with SILT asse to dense, coarse to fine sar	and SAND id, fine to										
10					AU	100				6	_			
15		<u>7</u>			AU	100				3				
		Вс	ttom of borehole at 15.0 feet.					•						



Rimrock Engineering, Inc. 5440 Holiday Avenue Billings, MT 59101

CLIENT Meadowlark Ranch Inc.
PROJECT NUMBER G24035

PROJECT NAME Meadowlark Ranch 65 Lots

PROJECT LOCATION Belgrade, MT

LITHOLOGIC SYMBOLS (Unified Soil Classification System)

CL: USCS Low Plasticity Clay

CLS: USCS Low Plasticity Sandy Clay

FILL: Fill (made ground)

GM: USCS Silty Gravel

GP: USCS Poorly-graded Gravel

GP-GM: USCS Poorly-graded Gravel

with Silt

GW-GM: USCS Well-graded Gravel with

Silt

SC: USCS Clayey Sand

SC-SM: USCS Clayey Sand

SM: USCS Silty Sand

1/ 1/1/ 1/ 1/1/

TOPSOIL: Topsoil

SAMPLER SYMBOLS



Auger Cuttings



Standard Penetration Test



Shelby Tube

WELL CONSTRUCTION SYMBOLS

ABBREVIATIONS

LL - LIQUID LIMIT (%)

PI - PLASTIC INDEX (%)

W - MOISTURE CONTENT (%)

DD - DRY DENSITY (PCF)

NP - NON PLASTIC

-200 - PERCENT PASSING NO. 200 SIEVE

PP - POCKET PENETROMETER (TSF)

TV - TORVANE

PID - PHOTOIONIZATION DETECTOR

UC - UNCONFINED COMPRESSION

ppm - PARTS PER MILLION

Water Level at Time

Drilling, or as Shown

Water Level at End of

Drilling, or as Shown

Water Level After 24 Hours, or as Shown

APPENDIX B

Laboratory Test Results

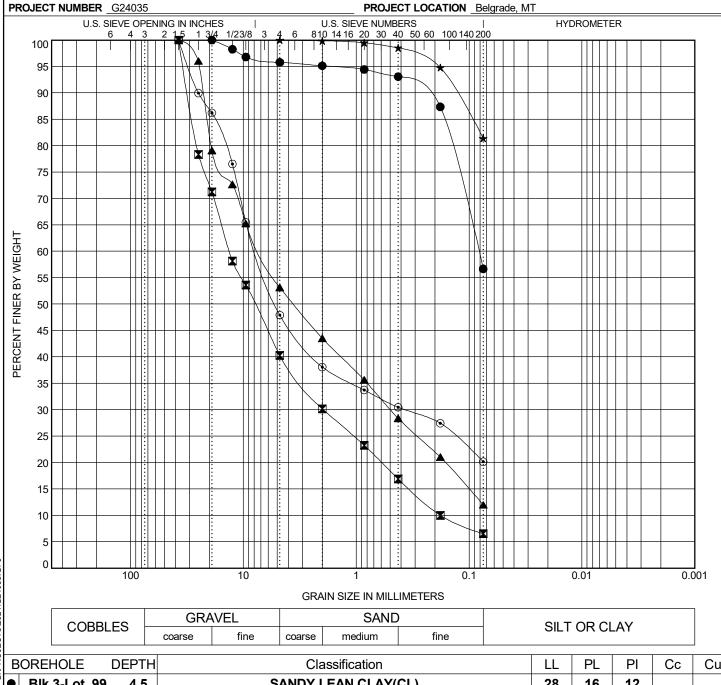
GRAIN SIZE DISTRIBUTION



Rimrock Engineering, Inc. 5440 Holiday Avenue Billings, MT 59101

CLIENT Meadowlark Ranch Inc.

PROJECT NAME Meadowlark Ranch 65 Lots



G:\PRO	В	ORE	HOLE	[DEPTH			Classification	on		LL	PL	PI	Сс	Cu
	ullet	Blk	3-Lot	99	4.5		SANI	OY LEAN CL	28	16	12				
13:52	×	Blk	3-Lot	104	7.5	WELL-GI	RADED GRA	AVEL with S	NP	NP	NP	1.61	73.65		
4/18/24	•	Blk	3-Lot	115	2.5	POORLY (GRADED G	RAVEL with	SILT and S	AND(GP-GM)	NP	NP	NP	0.57	113.47
- 1	*	Blk	3-Lot	121	2.5		LEAN (CLAY with S	SAND(CL)		38	18	20		
B.G	ullet	Blk	6-Lot	25	9.0		SILTY GI	RAVEL with	SAND(GM)		NP	NP	NP		
US LAB.GDT	В	ORE	HOLE	I	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	k	%Silt	%	Clay
STD	•	Blk	3-Lot	99	4.5	19	0.083			4.2	39.1		;	56.7	
GINT		Blk	3-Lot	104	7.5	37.5	13.265	1.96	0.18	59.7	33.8			6.5	
		Blk	3-Lot	115	2.5	37.5	7.036	0.497		46.9	41.2		•	12.0	
GRAIN SIZE	*	Blk	3-Lot	121	2.5	4.75				0.0	18.6		8	31.4	
GRAI	•	Blk	6-Lot	25	9.0	37.5	7.654	0.374		52.1	27.8		2	20.1	

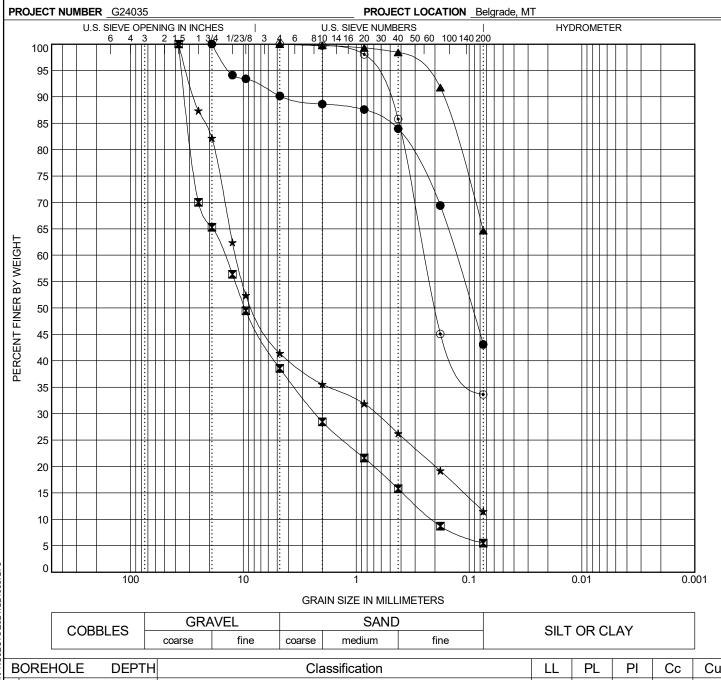
GRAIN SIZE DISTRIBUTION



Rimrock Engineering, Inc. 5440 Holiday Avenue Billings, MT 59101

CLIENT Meadowlark Ranch Inc.

PROJECT NAME Meadowlark Ranch 65 Lots



13:52 - G:NPRO.	BOF	REH	OLE		DEPTH			Classification	on		LL	PL	PI	Сс	Cu
	E	3lk 7	-Lot	1	4.5		CL	AYEY SANI	33	17	16				
13:5	I E	3lk 7	-Lot	15	4.5	WELL-G	RADED GRA	AVEL with S	NP	NP	NP	1.67	70.10		
77/81	E	3lk 8	-Lot	3	2.5		SAN	DY LEAN CL	_AY(CL)		29	18	11		
4	r E	3lk 8	-Lot	5	4.0	POORLY	GRADED GI	RAVEL with	SILT and SA	AND(GP-GM)	NP	NP	NP	0.61	184.93
9.E	E	3lk 8	-Lot	8	4.5		SILTY, 0	CLAYEY SAI	ND(SC-SM)		22	16	6		
S.L.A	BOF	REH	OLE		DEPTH	D100	D60	D30	D10	%Gravel	%Sand	k	%Silt	%	Clay
<u> </u>	E	3lk 7	-Lot	1	4.5	19	0.132			47.1		4	43.1		
2	I E	3lk 7	-Lot	15	4.5	37.5	14.794	2.281	0.211	61.4	33.1		5.5		
ان 🗚	E	3lk 8	-Lot	3	2.5	4.75				0.0	35.4			64.6	
GRAIN SIZE - GINI SID US LAB.GDI - 4/18/24	r E	3lk 8	-Lot	5	4.0	37.5	11.694	0.673		58.6			11.5		
₹ 	E	3lk 8	-Lot	8	4.5	4.75	0.247			0.0	66.4		33.6		

GRAIN SIZE - GINT STD US LAB.GDT - 4/18/24 13:52 - G:\PROJECTS\2024\G24035.GPJ

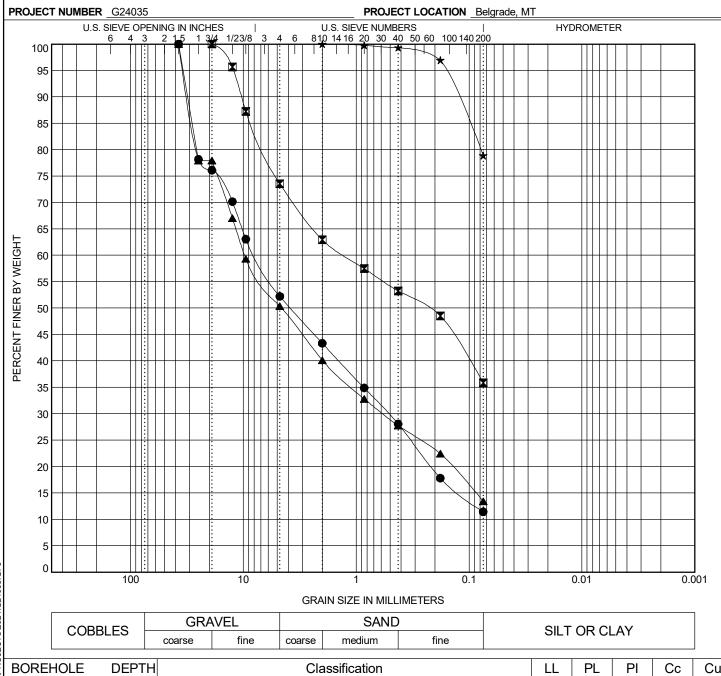
GRAIN SIZE DISTRIBUTION



Rimrock Engineering, Inc. 5440 Holiday Avenue Billings, MT 59101

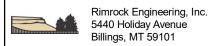
CLIENT Meadowlark Ranch Inc.

PROJECT NAME Meadowlark Ranch 65 Lots



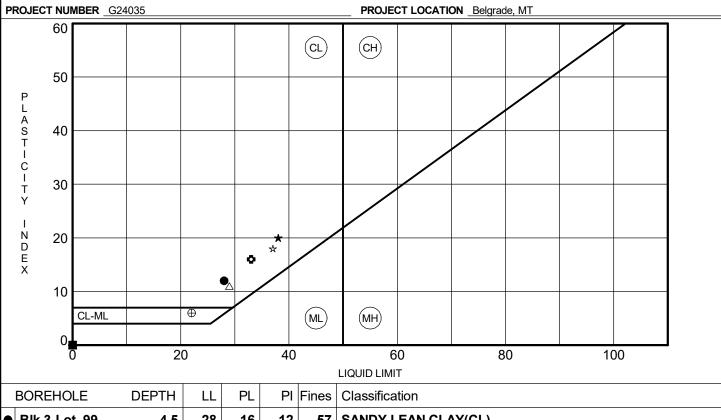
13:52 - G:\PRO	В	OREHOLE	DEPTH			Classification	LL	PL	PI	Сс	Cu			
5-G	•	Blk 11-Lot 1	4.5	POORLY	GRADED G	RAVEL with	NP	NP	NP	0.55	126.44			
13:5	X	Blk 11-Lot 2	4.0		SILTY S	AND with G	NP	NP	NP					
18/5	•	Blk 11-Lot 4	4.0		SILTY G	RAVEL with	SAND(GM)		NP	NP	NP			
₽ - 4	*	Blk 11-Lot 7	2.5		LEAN	CLAY with S	AND(CL)		37	19	18			
B.GE														
NS LA	В	OREHOLE	DEPTH	D100	D60	D30	D10	%Gravel	%Sand	I	%Silt	%	Clay	
ji O		Blk 11-Lot 1	4.5	37.5	7.818	0.518		47.8	40.8		11.4			
	X	Blk 11-Lot 2	4.0	19	1.263			26.4	37.7	35.8				
9 L	•	Blk 11-Lot 4	4.0	37.5	9.739	0.579		49.6	37.0		•	13.4		
NSIZ	*	Blk 11-Lot 7	2.5	2				0.0	21.1			78.9		
GRAIN SIZE - GINT STD US LAB.GDT - 4/18/24													·	

ATTERBERG LIMITS' RESULTS



CLIENT Meadowlark Ranch Inc.

PROJECT NAME Meadowlark Ranch 65 Lots



	BOREHOLE	DEPTH	LL	PL	PI	Fines	Classification
•	Blk 3-Lot 99	4.5	28	16	12	57	SANDY LEAN CLAY(CL)
X	Blk 3-Lot 104	7.5	NP	NP	NP	6	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)
A	Blk 3-Lot 115	2.5	NP	NP	NP	12	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)
*	Blk 3-Lot 121	2.5	38	18	20	81	LEAN CLAY with SAND(CL)
•	Blk 6-Lot 25	9.0	NP	NP	NP	20	SILTY GRAVEL with SAND(GM)
0	Blk 7-Lot 1	4.5	33	17	16	43	CLAYEY SAND(SC)
	Blk 7-Lot 15	4.5	NP	NP	NP	5	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)
	Blk 8-Lot 3	2.5	29	18	11	65	SANDY LEAN CLAY(CL)
8	Blk 8-Lot 5	4.0	NP	NP	NP	11	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)
€	Blk 8-Lot 8	4.5	22	16	6	34	SILTY, CLAYEY SAND(SC-SM)
	Blk 11-Lot 1	4.5	NP	NP	NP	11	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)
8	Blk 11-Lot 2	4.0	NP	NP	NP	36	SILTY SAND with GRAVEL(SM)
e	Blk 11-Lot 4	4.0	NP	NP	NP	13	SILTY GRAVEL with SAND(GM)
\$ ☆	Blk 11-Lot 7	2.5	37	19	18	79	LEAN CLAY with SAND(CL)

ATTERBERG LIMITS - GINT STD US LAB.GDT - 4/18/24 13:53 - G:\PROJECTS\2024\G24035.GPJ

CONSOLIDATION TEST



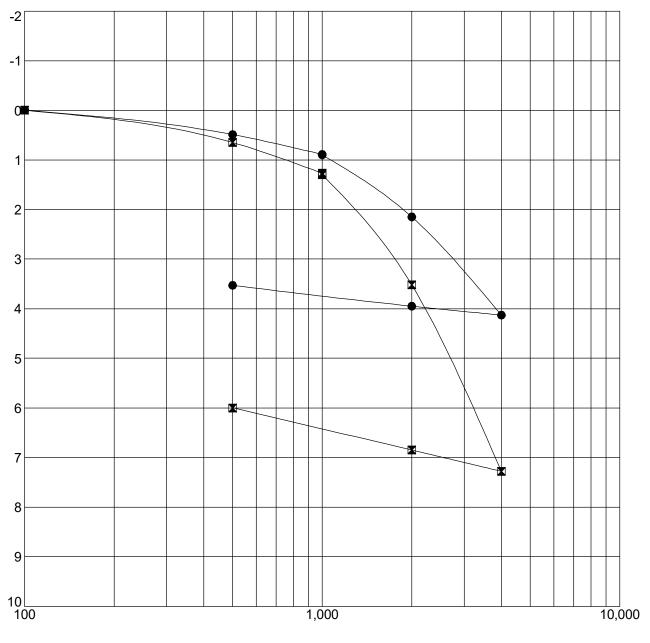
Rimrock Engineering, Inc. 5440 Holiday Avenue Billings, MT 59101

CLIENT Meadowlark Ranch Inc.

PROJECT NAME Meadowlark Ranch 65 Lots

PROJECT NUMBER G24035

PROJECT LOCATION Belgrade, MT



STRESS, psf

В	OREHOLE	DEPTH	Classification	γ_{d}	MC%
	Blk 8-Lot 3	2.5	SANDY LEAN CLAY(CL)	97	15
×	Blk 11-Lot 7	2.5	LEAN CLAY with SAND(CL)	90	21
П					

CONSOL STRAIN - GINT STD US LAB.GDT - 4/18/24 13:53 - G:\PROJECTS\2024\G24035.GPJ

STRAIN, %