

Farmington Regional Center

About 500 North Lagoon Drive, Farmington, Utah

Bore Hole Log







B-1

Total Depth: 51.5'

Water Depth: 17'

Date: 5/24/24

Job #: 22203

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Blows (N)		Moisture (%)	Dry Density(pcf)	Gradation			Atterberg		
						Total			Gravel %	Sand %	Fines %	LL	PL	PI
0		Dark Brown to Brown CLAY (CL) with sand, roots, organics, and mica fragments, moist medium stiff		1	4 4 2	6								
		grades some gravel		2			21	97				36	21	15
4		grades with oxidation		3	4 4 2	6								
		grades gray brown with oxidation and roots		4										
8				5	4 3 2	5	32	91			91			
12				6										
16				7			31	93	0	19	81	28	20	8
20				8	7 9 15	24								
24														
28		Blue Gray Poorly Graded SAND with silt (SP-SM) and gravel, wet medium dense												

Remarks: Groundwater encountered during drilling at depth of 17 feet.

Slotted PVC pipe installed to depth of 51.5 feet to facilitate water level measurements.

Coordinates: 40.9904574°, -111.9002282°

Surface Elev. (approx): Not Given

Equipment: Hollow-Stem Auger

Automatic Hammer, Wt=140 lbs, Drop=30"

Excavated By: Direct Push Services

Logged By: Jake E.

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Figure:

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Farmington Regional Center

About 500 North Lagoon Drive, Farmington, Utah

Bore Hole Log

B-1

Total Depth: 51.5'

Water Depth: 17'

Date: 5/24/24

Job #: 22203

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Blows (N)		Moisture (%)	Dry Density(pcf)	Gradation			Atterberg		
					Total				Gravel %	Sand %	Fines %	LL	PL	PI
28		Blue Gray Poorly Graded SAND with silt (SP-SM) and gravel, wet												
		medium dense												
				9	10 12 15	27	12		31	58	11			
32		grades brown to black												
		medium dense to dense												
				10	9 12 18	30								
36		Brown Silty SAND (SM) with gravel, wet												
		grades gray to black												
		medium dense												
40		Brown Sandy SILT (ML) with gravel, wet												
		medium stiff												
				11	15 12 5	17	18		12	56	32		NP	NP
44		Gray Brown Sandy GRAVEL (GP), wet												
		loose												
				12	3 7 9	16	21	111						
48		Gray Brown Sandy CLAY (CL) with oxidation												
52		Tan to Gray Brown Poorly Graded SAND with silt (SP-SM) and gravel, oxidation, wet												
		dense												
				13	6 12 27	39	10		38	56	6			
56		END AT 51.5'												

Remarks: Groundwater encountered during drilling at depth of 17 feet.

Slotted PVC pipe installed to depth of 51.5 feet to facilitate water level measurements.

Coordinates: 40.9904574°, -111.9002282°

Surface Elev. (approx): Not Given

Equipment: Hollow-Stem Auger

Automatic Hammer, Wt=140 lbs, Drop=30"

Excavated By: Direct Push Services

Logged By: Jake E.

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Figure:

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CMT TECHNICAL SERVICES

Farmington Regional Center

About 500 North Lagoon Drive, Farmington, Utah

Bore Hole Log

B-2

Total Depth: 16.5'

Water Depth: (see Remarks)

Date: 5/24/24

Job #: 22203

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Blows (N)		Moisture (%)	Dry Density(pcf)	Gradation			Atterberg		
						Total			Gravel %	Sand %	Fines %	LL	PL	PI
0		Dark Brown to Black Clayey SILT (ML), some sand, roots and organics, moist												
4		grades light brown, sandy with oxidation	soft	14	2 1 1	2								
				15	2 2 1	3								
8		Light Brown CLAY (CL) with mica, trace sand and oxidation	soft	16	3 2 4	6	28	94			90			
12		grades with interbedded layers of sand	very soft	17	0 0 0	0								
16		soft to medium stiff		18	3 3 5	8	30	85						
		END AT 16.5'												
20														
24														
28														

Remarks: Groundwater not encountered during drilling.

Coordinates: 40.9902395°, -111.8997712°

Surface Elev. (approx): Not Given

Equipment: Hollow-Stem Auger

Automatic Hammer, Wt=140 lbs, Drop=30"

Excavated By: Direct Push Services

Logged By: Jake E.

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Figure:

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Farmington Regional Center

About 500 North Lagoon Drive, Farmington, Utah

Bore Hole Log





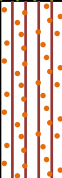



B-3

Total Depth: 11.5'

Water Depth: 9.5', 5.6'

Date: 5/24/24

Job #: 22203

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Blows (N)		Moisture (%)	Dry Density(pcf)	Gradation			Atterberg			
						Total				Gravel %	Sand %	Fines %	LL	PL	PI
0		Dark Brown to Black Sandy CLAY (CL) with gravel, mica, roots and organics, moist	soft		19	3	5	16	110						
						3									
						2									
4															
					20			16	115						
8		Brown Silty SAND (SM), moist	loose		21	3	8	25	105	0	69	31			
						4									
						4									
					22										
12	END AT 11.5'														
16															
20															
24															
28															

Remarks: Groundwater encountered during drilling at depth of 9.5 feet and measured on 6/11/24 at depth of 5.6 feet.

Slotted PVC pipe installed to depth of 11.5 feet to facilitate water level measurements.

Coordinates: 40.9900021°, -111.9003489°

Surface Elev. (approx): Not Given

Equipment: Hollow-Stem Auger

Automatic Hammer, Wt=140 lbs, Drop=30"

Excavated By: Direct Push Services

Logged By: Jake E.

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CMT TECHNICAL SERVICES

Figure:

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Farmington Regional Center

About 500 North Lagoon Drive, Farmington, Utah

Bore Hole Log








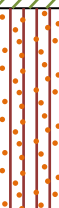
B-4

Total Depth: 31.5'

Water Depth: 21'

Date: 5/24/24

Job #: 22203

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Blows (N)		Moisture (%)	Dry Density(pcf)	Gradation			Atterberg		
						Total			Gravel %	Sand %	Fines %	LL	PL	PI
0		Brown to Black Clayey SILT (ML) with sand, gravel, roots and organics, moist	soft	23	2	3								
					2									
					1									
4		medium stiff		24	4	5								
					3									
					2									
8		Gray Brown Sandy CLAY (CL), trace gravel, oxidation and organics, moist	soft	25	3	7	16	107						
					5									
					2									
		grades brown with interbedded sand and oxidation	soft to medium stiff	26	0	4								
					0									
					4									
12		soft		27	2	6	29	95						
					2									
					4									
16		medium stiff to stiff		28	3	8	29					30	17	13
					3									
					5									
20		wet												
24		Gray Brown Silty SAND (SM) with gravel, wet	medium dense	29	12	14	16		29	53	18			
					8									
					6									
28														

Remarks: Groundwater encountered during drilling at depth of 21 feet.

Slotted PVC pipe installed to depth of 31.5 feet to facilitate water level measurements.

Coordinates: 40.9907995°, -111.9003818°

Surface Elev. (approx): Not Given

Equipment: Hollow-Stem Auger

Automatic Hammer, Wt=140 lbs, Drop=30"

Excavated By: Direct Push Services

Logged By: Jake E.

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Figure:

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Farmington Regional Center

About 500 North Lagoon Drive, Farmington, Utah

Bore Hole Log

B-4

Total Depth: 31.5'

Water Depth: 21'

Date: 5/24/24

Job #: 22203

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Blows (N)		Moisture (%)	Dry Density(pcf)	Gradation			Atterberg		
					Total				Gravel %	Sand %	Fines %	LL	PL	PI
28		Gray Brown Silty SAND (SM) with gravel, wet												
		grades less silt												
		very dense		30	4 20 33	53								
32		END AT 31.5'												
36														
40														
44														
48														
52														
56														

Remarks: Groundwater encountered during drilling at depth of 21 feet.

Slotted PVC pipe installed to depth of 31.5 feet to facilitate water level measurements.

Coordinates: 40.9907995°, -111.9003818°

Surface Elev. (approx): Not Given

Equipment: Hollow-Stem Auger

Automatic Hammer, Wt=140 lbs, Drop=30"

Excavated By: Direct Push Services

Logged By: Jake E.

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Figure:

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CMT TECHNICAL SERVICES

Farmington Regional Center

About 500 North Lagoon Drive, Farmington, Utah

Bore Hole Log




B-5

Total Depth: 6.5'

Water Depth: (see Remarks)

Date: 5/24/24

Job #: 22203

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Blows (N)		Moisture (%)	Dry Density(pcf)	Gradation			Atterberg			
						Total			Gravel %	Sand %	Fines %	LL	PL	PI	
0		Brown CLAY (CL) with sand and gravel, moist													
			soft		31	3 2 1	3								
4															
			soft to medium stiff		32	1 1 3	4								
		END AT 6.5'													
8															
12															
16															
20															
24															
28															

Remarks: Groundwater not encountered during drilling.

Coordinates: 40.9909273°, -111.8996365°

Surface Elev. (approx): Not Given

Equipment: Hollow-Stem Auger

Automatic Hammer, Wt=140 lbs, Drop=30"

Excavated By: Direct Push Services

Logged By: Jake E.

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CMT TECHNICAL
SERVICES

Figure:

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Farmington Regional Center

About 500 North Lagoon Drive, Farmington, Utah

Bore Hole Log





B-6

Total Depth: 6.5'

Water Depth: (see Remarks)

Date: 5/24/24

Job #: 22203

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Blows (N)		Moisture (%)	Dry Density(pcf)	Gradation			Atterberg		
						Total			Gravel %	Sand %	Fines %	LL	PL	PI
0		Dark Brown CLAY (CL) with sand, roots and organics, moist												
4		medium stiff		33	0	5								
		grades with gravel and mica		34	1	3								
		grades with peat			1									
		END AT 6.5'												
8														
12														
16														
20														
24														
28														

Remarks: Groundwater not encountered during drilling.

Coordinates: 40.9901215°, -111.9008451°

Surface Elev. (approx): Not Given

Equipment: Hollow-Stem Auger

Automatic Hammer, Wt=140 lbs, Drop=30"

Excavated By: Direct Push Services

Logged By: Jake E.

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CMT TECHNICAL SERVICES

Figure:

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Farmington Regional Center

About 500 North Lagoon Drive, Farmington, Utah

Bore Hole Log

B-7

Total Depth: 6.5'

Water Depth: (see Remarks)

Date: 5/24/24

Job #: 22203

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Blows (N)		Moisture (%)	Dry Density(pcf)	Gradation			Atterberg		
						Total			Gravel %	Sand %	Fines %	LL	PL	PI
0		Dark Brown Sandy SILT (ML), trace gravel, mica, roots and organics												
4		soft		35	3 2 1	3								
		Gray Brown Silty SAND (SM) with gravel and organics, moist medium dense		36	6 5 7	12	7		29	55	16			
		END AT 6.5'												
8														
12														
16														
20														
24														
28														

Remarks: Groundwater not encountered during drilling.

Coordinates: 40.9896923°, -111.900537°

Surface Elev. (approx): Not Given

Equipment: Hollow-Stem Auger

Automatic Hammer, Wt=140 lbs, Drop=30"

Excavated By: Direct Push Services

Logged By: Jake E.

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CMT TECHNICAL
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Figure:

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Farmington Regional Center

About 500 North Lagoon Drive, Farmington, Utah

Bore Hole Log


B-8

Total Depth: 6.5'

Water Depth: (see Remarks)

Date: 5/24/24

Job #: 22203

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Blows (N)		Moisture (%)	Dry Density(pcf)	Gradation			Atterberg		
						Total			Gravel %	Sand %	Fines %	LL	PL	PI
0		Dark Brown CLAY (CL) with sand, trace gravel, roots, moist												
			soft											
4				37	3 2 1	3								
		grades trace sand, with mica, oxidation												
				38	2 1 1	2								
		END AT 6.5'												
8														
12														
16														
20														
24														
28														

Remarks: Groundwater not encountered during drilling.

Coordinates: °, °

Surface Elev. (approx): Not Given

Equipment: Hollow-Stem Auger

Automatic Hammer, Wt=140 lbs, Drop=30"

Excavated By: Direct Push Services

Logged By: Jake E.

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CMT TECHNICAL
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Figure:

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① Depth (ft)	② GRAPHIC LOG	③ Soil Description	④ Sample Type	⑤ Sample #	⑥ Blows(N)	⑦ Total	⑧ Moisture (%)	⑨ Dry Density(pcf)	⑩ Gradation Gravel % Sand % Fines %	⑪ Atterberg LL PL PI	
COLUMN DESCRIPTIONS											
①	Depth (ft.): Depth (feet) below the ground surface (including groundwater depth - see below right).					⑩	Gradation: Percentages of Gravel, Sand and Fines (Silt/Clay), from lab test results of soil passing No. 4 and No. 200 sieves.				
②	Graphic Log: Graphic depicting type of soil encountered (see ② below).					⑪	Atterberg: Individual descriptions of Atterberg Tests are as follows: LL = Liquid Limit (%): Water content at which a soil changes from plastic to liquid behavior. PL = Plastic Limit (%): Water content at which a soil changes from liquid to plastic behavior. PI = Plasticity Index (%): Range of water content at which a soil exhibits plastic properties (= Liquid Limit - Plastic Limit).				
③	Soil Description: Description of soils, including Unified Soil Classification Symbol (see below).										
④	Sample Type: Type of soil sample collected; sampler symbols are explained below-right.										
⑤	Sample #: Consecutive numbering of soil samples collected during field exploration.										
⑥	Blows: Number of blows to advance sampler in 6" increments, using a 140-lb hammer with 30" drop.										
⑦	Total Blows: Number of blows to advance sampler the 2nd and 3rd 6" increments.										
⑧	Moisture (%): Water content of soil sample measured in laboratory (percentage of dry weight).										
⑨	Dry Density (pcf): The dry density of a soil measured in laboratory (pounds per cubic foot).										

STRATIFICATION	MODIFIERS	MOISTURE CONTENT																		
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Description</th> <th>Thickness</th> </tr> <tr> <td>Seam</td> <td>Up to ½ inch</td> </tr> <tr> <td>Lense</td> <td>Up to 12 inches</td> </tr> <tr> <td>Layer</td> <td>Greater than 12 in.</td> </tr> <tr> <td>Occasional</td> <td>1 or less per foot</td> </tr> <tr> <td>Frequent</td> <td>More than 1 per foot</td> </tr> </table>	Description	Thickness	Seam	Up to ½ inch	Lense	Up to 12 inches	Layer	Greater than 12 in.	Occasional	1 or less per foot	Frequent	More than 1 per foot	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Trace</th> </tr> <tr> <td><5%</td> </tr> <tr> <th>Some</th> </tr> <tr> <td>5-12%</td> </tr> <tr> <th>With</th> </tr> <tr> <td>> 12%</td> </tr> </table>	Trace	<5%	Some	5-12%	With	> 12%	Dry: Absence of moisture, dusty, dry to the touch. Moist: Damp / moist to the touch, but no visible water. Saturated: Visible water, usually soil below groundwater.
Description	Thickness																			
Seam	Up to ½ inch																			
Lense	Up to 12 inches																			
Layer	Greater than 12 in.																			
Occasional	1 or less per foot																			
Frequent	More than 1 per foot																			
Trace																				
<5%																				
Some																				
5-12%																				
With																				
> 12%																				

MAJOR DIVISIONS			USCS SYMBOLS	②	TYPICAL DESCRIPTIONS	
COARSE-GRAINED SOILS More than 50% of material is larger than No. 200 sieve size.	GRAVELS The coarse fraction retained on No. 4 sieve.	CLEAN GRAVELS (< 5% fines)	GW		Well-Graded Gravels, Gravel-Sand Mixtures, Little or No Fines	
		GRAVELS WITH FINES (≥ 12% fines)	GP		Poorly-Graded Gravels, Gravel-Sand Mixtures, Little or No Fines	
		SANDS The coarse fraction passing through No. 4 sieve.	CLEAN SANDS (< 5% fines)	GM		Silty Gravels, Gravel-Sand-Silt Mixtures
			SANDS WITH FINES (≥ 12% fines)	GC		Clayey Gravels, Gravel-Sand-Clay Mixtures
	FINE-GRAINED SOILS More than 50% of material is smaller than No. 200 sieve size.	SILTS AND CLAYS Liquid Limit less than 50%	CLEAN SANDS (< 5% fines)	SW		Well-Graded Sands, Gravelly Sands, Little or No Fines
			SANDS WITH FINES (≥ 12% fines)	SP		Poorly-Graded Sands, Gravelly Sands, Little or No Fines
			SANDS WITH FINES (≥ 12% fines)	SM		Silty Sands, Sand-Silt Mixtures
			SANDS WITH FINES (≥ 12% fines)	SC		Clayey Sands, Sand-Clay Mixtures
SILTS AND CLAYS Liquid Limit greater than 50%		ML		Inorganic Silts and Very Fine Sands, Silty or Clayey Fine Sands or Clayey Silts with Slight		
		CL		Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean		
		OL		Organic Silts and Organic Silty Clays of Low Plasticity		
		MH		Inorganic Silts, Micaceous or Diatomaceous Fine Sand or Silty Soils with Plasticity (Elastic Silts)		
HIGHLY ORGANIC SOILS	CH		Inorganic Clays of High Plasticity, Fat Clays			
	OH		Organic Silts and Organic Clays of Medium to High Plasticity			
	PT		Peat, Humus, Swamp Soils with High Organic Contents			

SAMPLER SYMBOLS

Block Sample

Bulk/Bag Sample

Modified California Sampler 3.5" OD, 2.42" ID

D&M Sampler

Rock Core

Standard Penetration Split Spoon Sampler

Thin Wall (Shelby Tube)

WATER SYMBOL

Encountered Water Level

Measured Water Level

(see Remarks on Logs)

Note: Dual Symbols are used to indicate borderline soil classifications (i.e. GP-GM, SC-SM, etc.).

- The results of laboratory tests on the samples collected are shown on the logs at the respective sample depths.
- The subsurface conditions represented on the logs are for the locations specified. Caution should be exercised if interpolating between or extrapolating beyond the exploration locations.
- The information presented on each log is subject to the limitations, conclusions, and recommendations presented in this report.