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Well Location Sketch:



Compliance - Engineering - Remediation

LT Environmental, Inc.

4600 W. 60th Avenue

see MW01

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: <i>MW02</i>	Project: <i>Riu #1</i>
Date: <i>1-29-19</i>	Project Number: <i>014018008</i>
Logged By: <i>Daniel Thomas</i>	Drilled By: <i>Drill Pro</i>
Elevation: <i>N/A</i>	Detector: <i>PID</i>
Drilling Method: <i>Direct Push/Geoprobe</i>	Sampling Method: <i>Continuous</i>
Gravel Pack: <i>Silica Sand</i>	Seal: <i>Bentonite</i>
Casing Type: <i>PVC</i>	Grout:
Screen Type: <i>PVC</i>	Slot: <i>0.01</i>
Diameter: <i>1"</i>	Length: <i>5'</i>
Diameter: <i>1"</i>	Length: <i>15'</i>
Hole Diameter: <i>2.75"</i>	Depth to Liquid: <i>-</i>
Total Depth: <i>20'</i>	Depth to Water: <i>14'</i>

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2				Potholed to 6' bgs, not logged	
					4					
					6					
	moist	0.4	N		8	4'	4'	CL	6' - 14.5' Silty clay some vfg. - ng sand little gravels, brown, moist, low plastic, low cohesion, no stain, no odor → Saturated @ -14'	
		0.4			10			CLS	14.5' - 20' clay/claystone some silt, brown/greyish, moist, low plasticity, low cohesion, no stain, no odor - weathered w/ depth a intermittent calcification → Iron staining	
		0.3			12	4'	4'			
		0.4			14					
	Saturated	0.9			16	4'	4'			
	↓ moist	0.4			18					
	↓ Dry	0.3								
	↓	0.4				2'	4'		Finished as Flush	

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW03 Project: Rice #1

Date: 1-29-2019 Project Number: 019018228

Logged By: Daniel Thomas Drilled By: Drill Pro

Elevation: N/A Detector: PID Drilling Method: Direct Push/Geoprobe Sampling Method: Continuous

Gravel Pack: Silica Sand Seal: Bentonite Grout:

Casing Type: PVC Diameter: 1" Length: 5' Hole Diameter: 2.75" Depth to Liquid: -

Screen Type: PVC Slot: 0.01 Diameter: 1" Length: 15' Total Depth: 20' Depth to Water:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2				Potholed to 6' bgs, not logged	
					4					
					6					
	Moist	0.4	N		8	4'	15'	CL	6'-7' Clay little silt, brown, moist, mod. plasticity, cohesive, no stain, no odor	
		0.3			10			CL	7'-13' Silty clay/claystone, brown/grey, low plasticity, low cohesion, moist, stain, odor	
		52.3			12	4'	4'			
		1,200			14			CLS	13'-20' Silty clay/claystone trace Vls Sand, dark brown/grey, low plastic, moist, stain ends with, low cohesion, no odor past 16'	
		883			16	4'	4'		Intermittent calcification at lower silt concentration w/ depth.	
	0.4	2.4	N		18					
		4.6								
		1.2							Finished as Flush	

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW04	Project: Ric #1
Date: 1-30-19	Project Number: C14218228
Logged By: Daniel Thomas	Drilled By: Drill Pro
Elevation: N/A	Detector: PID
Drilling Method: Direct Push/Geoprobe	Sampling Method: Continuous
Gravel Pack: Silica Sand	Seal: Bentonite
Casing Type: PVC	GROUT: 2.75"
Screen Type: PVC	Slot: 0.01
Diameter: 1"	Length: 5'
Diameter: 1"	Length: 15'
Total Depth: 20'	Depth to Liquid: -
	Depth to Water: -

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2					
					4					
					6					
					8	4' 3"		CL	6'-11' clay like silt little grey to sand, brown, moist, low plasticity, cohesive, no stain, no odor.	
					10			CLS	11'-20' clay/claystone little silt, greyish brown, moist, low plasticity, low cohesion, no stain, no odor.	
					12	4' 3"				
					14				@ 14' calc. fixation	
					16	4' 4"			green staining & weathered w/ depth	
					18					
					20	4'				

Finished as Flush

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MN05	Project: Rin #1
Date: 1-30-19	Project Number: 014218228
Logged By: Daniel Thomas	Drilled By: Drill Pro
Elevation: N/A	Detector: PID
Drilling Method: Direct Push/Geoprobe	Sampling Method: Continuous
Gravel Pack: Silica Sand	Seal: Bentonite
Casing Type: PVC	Diameter: 1" Length: 5'
Screen Type: PVC	Diameter: 1" Length: 15'
Slot: 0.01	Hole Diameter: 2.75"
	Total Depth: 20'
	Depth to Liquid: -
	Depth to Water: -

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2				Potholed to 6' bgs, not logged	
					4					
					6					
	Moist	0.6	N		8	4' 4'		CL	6'-9' clay little silt, brown, moist, low-med. plasticity, cohesive, no stain, no odor.	
		0.7			10			CLS	9'-20' clay/claystone, grey + brown, moist, low plasticity, cohesive, no stain, no odor	
		0.6			12	4' 4'			* iron staining	
		0.6			14				* weathered w/ depth	
		0.4			16	4' 4'				
		0.6			18					
		0.7								
		0.4				2' 4'				
									Finished as Flush	

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW06	Project: Rice #1
Date: 1-30-19	Project Number: C14218228
Logged By: Daniel Thomas	Drilled By: Drill Pro
Elevation: N/A	Detector: PID
Drilling Method: Direct Push/Geoprobe	Sampling Method: Continuous
Gravel Pack: Silica Sand	Seal: Bentonite
Casing Type: PVC	Grout:
Screen Type: PVC	Slot: 0.01
Diameter: 1"	Length: 5'
Hole Diameter: 2.75"	Depth to Liquid: -
Diameter: 1"	Length: 15'
Total Depth: 20'	Depth to Water:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2					
					4					
					6					
					8	4'	4'	CL	6'-9' clay with silt with Vfg-fg sand, brown/white, dry, low plasticity, low cohesion, no stain, no odor, weathered	
					10					
					12	4'	4'	CLS	9'-20' claystone, brown/gray, moist, weathered, low plasticity, cohesive, no stain, no odor.	
					14					
					16	3'	4'		iron staining	
					18	3'	4'		calcification.	
									Finished as Flush	

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: MW07	Project: Riu #1
Date: 1-30-19	Project Number: 014218228
Logged By: Daniel Thomas	Drilled By: Drill Pro
Elevation: N/A	Detector: PID
Drilling Method: Direct Push/Geoprobe	Sampling Method: Continuous

Gravel Pack: Silica Sand	Seal: Bentonite	Grout:
Casing Type: PVC	Diameter: 1"	Length: 5'
Screen Type: PVC	Slot: 0.01	Diameter: 1"
	Length: 15'	Hole Diameter: 2.75"
		Total Depth: 20'
		Depth to Liquid: -
		Depth to Water:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion Diagram
					0					
					2				Potholed to 6' bgs, not logged	
					4				Nothing Observed	
					6					
	Moist	1.6	~		8	4'	4'	CL	6'-9.5' clay some silt trace	
		0.9	↓		10			CLS	Vfs-Fg Sand, brown, moist, low plasticity, cohesive, no stain, no odor.	
		1.68	↓		12	4'	4'		9.5'-20' clay/claystone, greyish brown, moist to dry, low plasticity, low cohesion, stained @ 9.5'-10', odor @ 9'-10'	
		8.2	~		14				* @ 9.5'-10' hard/crumbley claystone	
		1.8	↓		16	4'	4'		* Iron staining	
	Dry	1.0	↓		18				Finished as Flush	
		0.6	↓							
		0.6	↓							

