Appendix N
Well Logs and Testing Results

GeoEngineers, Inc., January 26, 2022

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	SOD	Sod/Forest Duff
	TS	Topsoil

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata

Approximate contact between soil strata

Material Description Contact

Contact between geologic units

Contact between soil of the same geologic unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel / Dames & Moore (D&M)

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Continuous Coring

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

"P" indicates sampler pushed using the weight of the drill rig.

"WOH" indicates sampler pushed using the weight of the hammer.

Laboratory / Field Tests

%F	Percent fines
%G	Percent gravel
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DD	Dry density
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
Mohs	Mohs hardness scale
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PL	Point lead test
PP	Pocket penetrometer
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
UU	Unconsolidated undrained triaxial compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

Key to Exploration Logs

GeoEngineers

Figure A-1

Associated Earth Sciences, Inc.

Geologic & Monitoring Well Construction Log

Project Number	Well Number	Sheet
KE090231A	MW-1	1 of 3

Project Name: Go East Landfill
Elevation (Top of Well Casing): ~262'
Water Level Elevation: ~211'
Drilling/Equipment: Cascade CME 75
Hammer Weight/Drop: 140# / 30"

Location: Snohomish County, WA
Surface Elevation (ft): ~259'
Date Start/Finish: 8/11/09 8/12/09
Hole Diameter (in): 6 1/4" I.D.

Depth (ft)	Water Level	WELL CONSTRUCTION	ST	Blows/ 6"	Graphic Symbol	DESCRIPTION
		Well monument (aboveground) Concrete				Vashon Advance Outwash
5		Bentonite chips		8 12 28		Moist, slightly rust-stained brownish gray, fine to medium SAND, with trace gravel.
10				14 28 40		Moist, brownish gray, fine to medium SAND, with silty zones and coarse sand beds.
15				10 15 25		Wet, slightly rust-stained brownish gray, fine to medium SAND, with trace gravel.
20		Bentonite grout		8 18 21		Moist, bluish gray, SILT.
25				50/6"		Moist, brownish gray, fine to medium SAND.
30				25 50/5"		Moist, slightly rust-stained brownish gray, fine to medium SAND, with a silt lens containing trace charcoal.
35				18 33 34		Moist, brownish gray, fine to medium SAND, with silttier zones.

Sampler Type (ST):
- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample
- No Recovery
- Ring Sample
- Shelby Tube Sample

M - Moisture
Water Level (8/19/09)
Water Level at time of drilling (ATD)

Logged by: JPL
Approved by:

APPENDIX

NWWELL 090231A.GPJ BORING.GDT 9/10/09

Associated Earth Sciences, Inc.

Geologic & Monitoring Well Construction Log

Project Number	Well Number	Sheet
KE090231A	MW-1	2 of 3

Project Name	Go East Landfill	Location	Snohomish County, WA
Elevation (Top of Well Casing)	~262'	Surface Elevation (ft)	~259'
Water Level Elevation	~211'	Date Start/Finish	8/11/09 8/12/09
Drilling/Equipment	Cascade CME 75	Hole Diameter (in)	6 1/4" I.D.
Hammer Weight/Drop	140# / 30"		

Depth (ft)	Water Level	WELL CONSTRUCTION	S T	Blows/ 6"	Graphic Symbol	DESCRIPTION
				36 50/5"		Moist, bluish gray, fine to medium SAND, with siltier zones.
						Driller reports significant water.
45				50/6"		Above bottom 6": Same as above (filled sampler [heave?]). Bottom 6": Moist, bluish gray, SILT, with a few light gray, very fine sand partings.
	▽					
50				24 27 41		Moist, bluish gray, silty very fine SAND interbedded with sandy SILT.
55				14 17 32		Moist, bluish gray, SILT.
60		Bentonite chips Silica sand 2/12		10 23 26		Moist to wet, bluish gray, fine SAND.
65				18 28 39		Wet, same.
70		2" I.D. Schedule 40 PVC machine slotted well screen with 0.010" slots (65' to 75')		16 24 36		Wet, bluish gray, silty very fine SAND interbedded with SILT, with fine sand.
						Pre-Vashon Glacial Lacustrine
75		Threaded end cap		10 22 27		Wet, bluish gray, SILT, with very fine sand, a few very fine sand partings and beds of fine to medium sand.

Sampler Type (ST):

- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample
- No Recovery
- Ring Sample
- Shelby Tube Sample

M - Moisture

▽ Water Level (8/19/09)

▼ Water Level at time of drilling (ATD)

Logged by: JPL

Approved by:

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NWWELL 090231A.GPJ BORING.GDT 9/10/09

Associated Earth Sciences, Inc.

Geologic & Monitoring Well Construction Log

Project Number	Well Number	Sheet
KE090231A	MW-1	3 of 3

Project Name: Go East Landfill
Elevation (Top of Well Casing): ~262'
Water Level Elevation: ~211'
Drilling/Equipment: Cascade CME 75
Hammer Weight/Drop: 140# / 30"

Location: Snohomish County, WA
Surface Elevation (ft): ~259'
Date Start/Finish: 8/11/09 8/12/09
Hole Diameter (in): 6 1/4" I.D.

Depth (ft)	Water Level	WELL CONSTRUCTION	S T	Blows/ 6"	Graphic Symbol	DESCRIPTION
				14 22 28		Moist, bluish gray, SILT, with scattered white sand-sized grains.
85				18 23 24		Moist, bluish gray, SILT, with a few very fine sand partings.
90				15 21 25		Moist, bluish gray, SILT.
95				9 17 30		Moist, bluish gray, SILT, with a few very fine sand partings and a fine sand bed.
100				12 19 26		Moist, bluish gray, SILT, with a few very fine sand partings.
						Boring terminated at 101.5 feet on 8/12/09
105						
110						
115						

Sampler Type (ST):
- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample
- No Recovery
- Ring Sample
- Shelby Tube Sample

M - Moisture
Water Level (8/19/09)
Water Level at time of drilling (ATD)

Logged by: JPL
Approved by:

NWWELL 090231A.GPJ BORING.GDT 9/10/09

Associated Earth Sciences, Inc.

Geologic & Monitoring Well Construction Log

Project Number	Well Number	Sheet
KE090231A	MW-2	1 of 2

Project Name: Go East Landfill
Elevation (Top of Well Casing): ~234'
Water Level Elevation: ~183'
Drilling/Equipment: Cascade CME 75
Hammer Weight/Drop: 140# / 30"

Location: Snohomish County, WA
Surface Elevation (ft): ~232'
Date Start/Finish: 8/12/09 8/12/09
Hole Diameter (in): 6 1/4" I.D.

Depth (ft)	Water Level	WELL CONSTRUCTION	S T	Blows/ 6"	Graphic Symbol	DESCRIPTION
		Well monument (aboveground) Concrete				Vashon Advance Outwash
5		Bentonite chips		10 12 14		~4" moist, rust-stained brownish gray, fine to medium SAND over moist, brownish gray to bluish gray (with depth), SILT.
10				11 11 13		Moist, brownish gray, fine SAND.
15				9 19 29		Moist, brownish gray, fine SAND interbedded with brownish gray, SILT, rust staining at contacts.
20		Bentonite grout		8 12 17		Moist to wet, brownish gray, silty fine SAND, with a medium sand bed, interbedded with brownish gray, SILT.
25				5 14 22		Moist, brownish gray, fine SAND.
30				13 21 33		Wet, same, with slight rust staining.
35				21 26 33		Wet, same with siltier zones.

Sampler Type (ST):
- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample
- No Recovery
- Ring Sample
- Shelby Tube Sample

M - Moisture
Water Level (8/19/09)
Water Level at time of drilling (ATD)

Logged by: JPL
Approved by:

NWWELL 090231A.GPJ BORING.GDT 9/10/09

APPENDIX

Associated Earth Sciences, Inc.

Geologic & Monitoring Well Construction Log

Project Number	Well Number	Sheet
KE090231A	MW-2	2 of 2

Project Name: Go East Landfill
Elevation (Top of Well Casing): ~234'
Water Level Elevation: ~183'
Drilling/Equipment: Cascade CME 75
Hammer Weight/Drop: 140# / 30"

Location: Snohomish County, WA
Surface Elevation (ft): ~232'
Date Start/Finish: 8/12/09 8/12/09
Hole Diameter (in): 6 1/4" I.D.

Depth (ft)	Water Level	WELL CONSTRUCTION	SS	Blows/ 6"	Graphic Symbol	DESCRIPTION
				11 21 21		Moist to wet, brownish gray, SILT, with fine sand beds.
45		Bentonite chips		12 26 37		Moist to wet, brownish gray to bluish gray, silty very fine SAND interbedded with SILT, with fine sand.
	▽	Silica sand 2/12				
50				11 19 22		Wet, bluish gray, fine SAND, medium sand laminae with organics at 50.5'.
		2" I.D. Schedule 40 PVC machine slotted well screen with 0.010" slots (50' to 60')				
55				12 20 24		Wet, bluish gray, silty very fine SAND.
						Pre-Vashon Glacial Lacustrine
60		Threaded end cap		7 19 22		Moist, bluish gray, SILT.
						Boring terminated at 61.5 feet on 8/12/09
65						
70						
75						

Sampler Type (ST):
- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample
- No Recovery
- Ring Sample
- Shelby Tube Sample

M - Moisture
▽ Water Level (8/19/09)
▼ Water Level at time of drilling (ATD)

Logged by: JPL
Approved by:

NWWELL 090231A.GPJ BORING.GDT 9/10/09

Associated Earth Sciences, Inc.

Geologic & Monitoring Well Construction Log

Project Number	Well Number	Sheet
KE090231A	MW-3	1 of 2

Project Name	Go East Landfill	Location	Snohomish County, WA
Elevation (Top of Well Casing)	~245'	Surface Elevation (ft)	~243'
Water Level Elevation	~214'	Date Start/Finish	8/13/09 8/13/09
Drilling/Equipment	Cascade CME 75	Hole Diameter (in)	6 1/4" I.D.
Hammer Weight/Drop	140# / 30"		

Depth (ft)	Water Level	WELL CONSTRUCTION	S T	Blows/ 6"	Graphic Symbol	DESCRIPTION
		Well monument (aboveground) Concrete				Vashon Advance Outwash
5		Bentonite chips		2 4 6		Wet, slightly rust-stained brownish gray, fine to medium SAND.
10				6 11 13		Moist, rust-stained bluish gray, bedded SILT.
						Bottom 3": Moist, brownish gray, fine to medium SAND, with trace gravel.
15				10 16 21		Moist, brownish gray, fine to medium SAND, with trace gravel.
20		Bentonite grout		8 13 13		Moist, brownish gray, fine to medium SAND.
25	▽			10 13 16		Moist, same.
30				20 29 22		Wet, brownish gray, fine SAND, with siltier zones.
35				11 18 29		Top 4": Wet, rust-stained brownish gray, fine to medium SAND, with silt. Wet, bluish gray, silty very fine SAND interbedded with SILT, with fine sand.

Sampler Type (ST):

- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample
- No Recovery
- Ring Sample
- Shelby Tube Sample

M - Moisture

▽ Water Level (8/19/09)

▽ Water Level at time of drilling (ATD)

Logged by: JPL

Approved by:

APPENDIX

NWWELL 090231A.GPJ BORING.GDT 9/10/09

Associated Earth Sciences, Inc.

Geologic & Monitoring Well Construction Log

Project Number	Well Number	Sheet
KE090231A	MW-3	2 of 2

Project Name: Go East Landfill
Elevation (Top of Well Casing): ~245'
Water Level Elevation: ~214'
Drilling/Equipment: Cascade CME 75
Hammer Weight/Drop: 140# / 30"

Location: Snohomish County, WA
Surface Elevation (ft): ~243'
Date Start/Finish: 8/13/09 8/13/09
Hole Diameter (in): 6 1/4" I.D.

Depth (ft)	Water Level	WELL CONSTRUCTION	ST	Blows/ 6"	Graphic Symbol	DESCRIPTION
				12 20 26		Moist, bluish gray, SILT.
45		Bentonite chips Silica sand 2/12		12 21 29		Wet, bluish gray, fine SAND, with silt.
50		2" I.D. Schedule 40 PVC machine slotted well screen with 0.010" slots (50' to 60')		14 18 21		Wet, same.
55				12 24 30		Moist to wet, bluish gray, laminated SILT, with very fine sand.
						Pre-Vashon Glacial Lacustrine
60		Threaded end cap		14 24 28		Moist, bluish gray, SILT, with a few very fine sand partings and a bed of fine sand.
						Boring terminated at 61.5 feet on 8/13/09
65						
70						
75						

Sampler Type (ST):
- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample
- No Recovery
- Ring Sample
- Shelby Tube Sample

M - Moisture
Water Level (8/19/09)
Water Level at time of drilling (ATD)

Logged by: JPL
Approved by:

NWWELL 090231A.GPJ BORING.GDT 9/10/09

Associated Earth Sciences, Inc.

Geologic & Monitoring Well Construction Log

Project Number	Well Number	Sheet
KE090231A	MW-4	1 of 2

Project Name: Go East Landfill
Elevation (Top of Well Casing):
Water Level Elevation: No water (8/19/09)
Drilling/Equipment: Cascade CME 75
Hammer Weight/Drop: 140# / 30"

Location: Snohomish County, WA
Surface Elevation (ft): ~206'
Date Start/Finish: 8/14/09 8/14/09
Hole Diameter (in): 6 1/4" I.D.

Depth (ft)	Water Level	WELL CONSTRUCTION	S-T	Blows/ 6"	Graphic Symbol	DESCRIPTION
		Locking cap Concrete Bentonite chips				Vashon Advance Outwash
5		Bentonite grout		6 8 10		Moist, grayish brown, fine SAND, little silt (SM).
10		2" I.D. Schedule 40 PVC blank		7 9 10		Moist, grayish brown, fine SAND, few silt (SP).
15		Bentonite chips		7 11 12		Becomes slightly more gray, trace silt, trace rust mottling.
		#2/12 silica sand				Moist to very moist, grayish tan, silty fine SAND (SM).
20				9 15 18		
		2" I.D. Schedule 40 PVC machine slotted well screen with 0.010" slots (20' to 30')				
25				6 14 19		
						Pre-Vashon Glacial Lacustrine
30		Threaded end cap		6 8 16		Wet, grayish tan, SILT (ML); non-plastic, contains dilatant zones.
35		Bentonite chips		5 9 11		Becomes blue-gray and very moist to wet.

Sampler Type (ST):
- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample
- No Recovery
- Ring Sample
- Shelby Tube Sample

M - Moisture
Water Level ()
Water Level at time of drilling (ATD)

Logged by: TJP
Approved by:

APPENDIX

NWWELL 090231A.GPJ BORING.GDT 9/10/09

Associated Earth Sciences, Inc.

Geologic & Monitoring Well Construction Log

Project Number	Well Number	Sheet
KE090231A	MW-4	2 of 2

Project Name: Go East Landfill
Elevation (Top of Well Casing):
Water Level Elevation: No water (8/19/09)
Drilling/Equipment: Cascade CME 75
Hammer Weight/Drop: 140# / 30"

Location: Snohomish County, WA
Surface Elevation (ft): ~206'
Date Start/Finish: 8/14/09 8/14/09
Hole Diameter (in): 6 1/4" I.D.

Depth (ft)	Water Level	WELL CONSTRUCTION	ST	Blows/ 6"	Graphic Symbol	DESCRIPTION
				11 13 17		
45				9 12 18		
						Boring terminated at 46.5 feet on 8/14/09
50						
55						
60						
65						
70						
75						

Sampler Type (ST):
- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample
- No Recovery
- Ring Sample
- Shelby Tube Sample

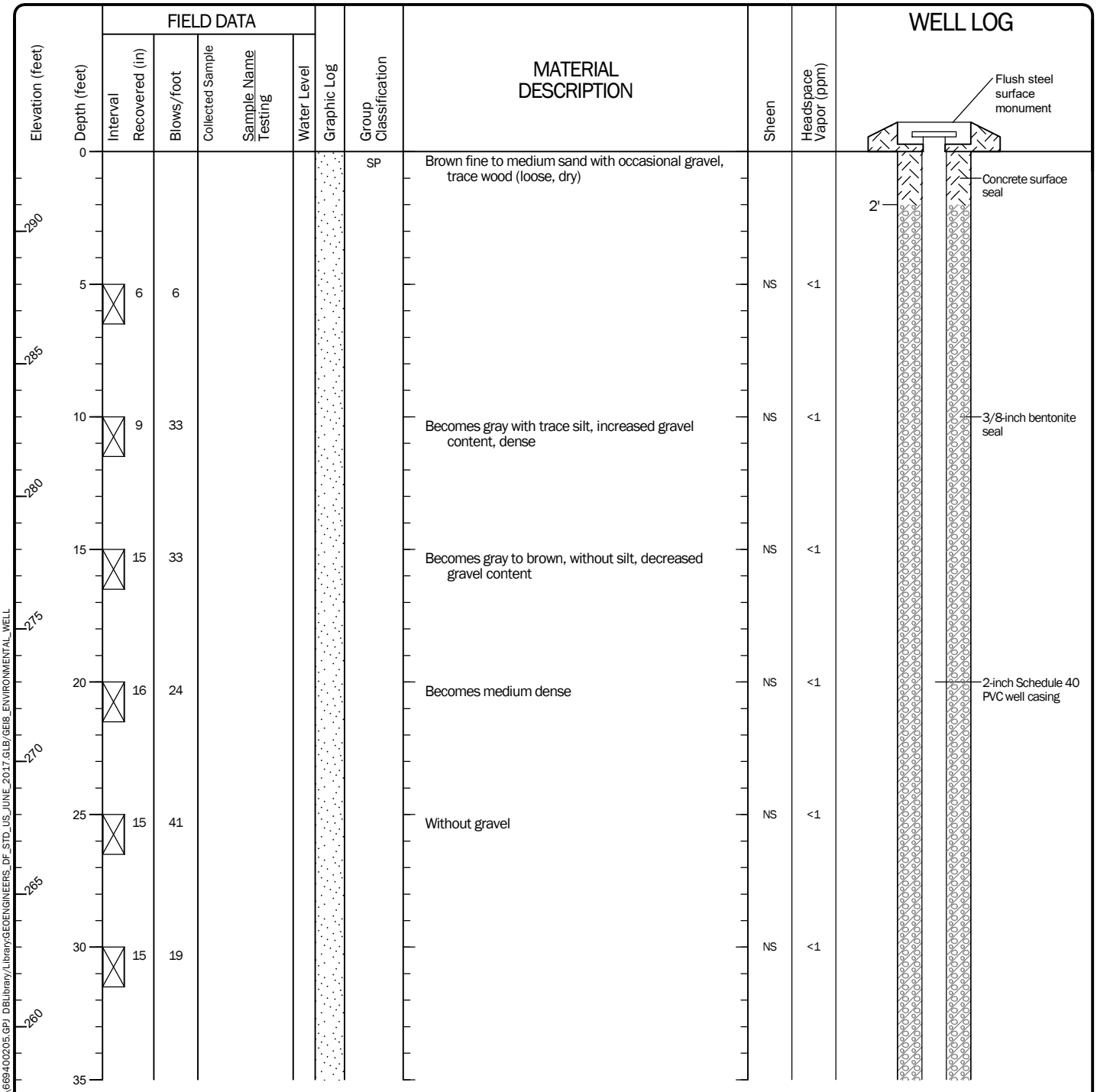
M - Moisture
Water Level ()
Water Level at time of drilling (ATD)

Logged by: TJP
Approved by:

NWWELL 090231A.GPJ BORING.GDT 9/10/09

Drilled Start 8/13/2021 End 8/17/2021	Total Depth (ft) 106.5	Logged By AG Checked By GRL	Driller Holt Services	Drilling Method Hollow-stem Auger	
Hammer Data: Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment: Mobile Drill B57		DOE Well I.D.: BNN 139 A 2-in well was installed on 8/10/2021 to a depth of 80 ft.	
Surface Elevation (ft) Vertical Datum: 293 NAVD88		Top of Casing Elevation (ft): 292.10		Groundwater Date Measured: 8/16/2021	Depth to Water (ft): 40.00 / Elevation (ft): 253.00
Easting (X) 1311526 Northing (Y) 330977		Horizontal Datum: WA State Plane North NAD83 (feet)			

Notes:



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on data provided by PACE Engineers. Vertical approximated based on data provided by PACE Engineers.

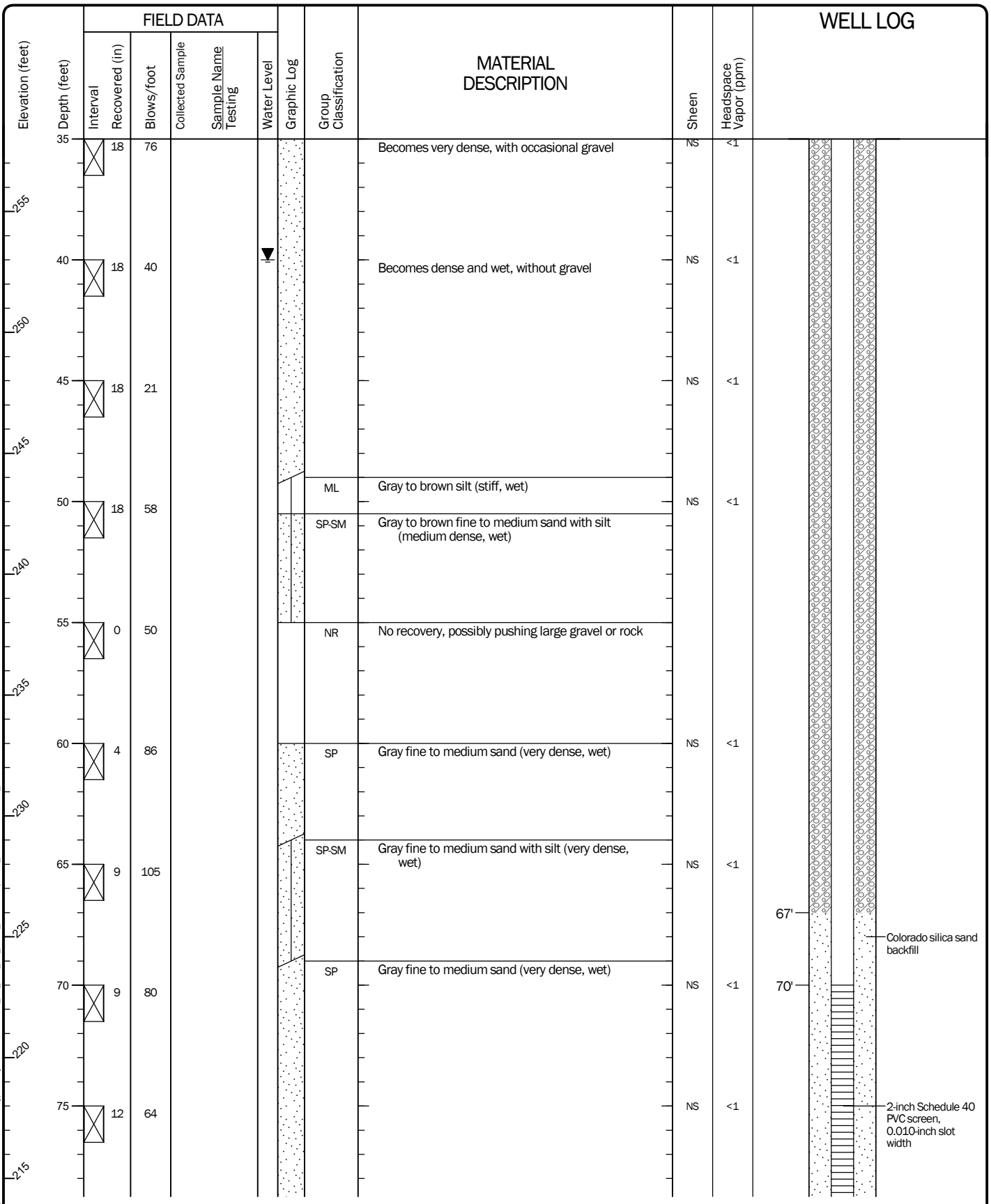
Date:1/26/22 Path:P:\6\6694002\GINT\669400205.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Log of Monitoring Well MW-5

GeoEngineers

Project: Go East Landfill
Project Location: Snohomish County, Washington
Project Number: 6694-002-05

Figure A-2
Sheet 1 of 3



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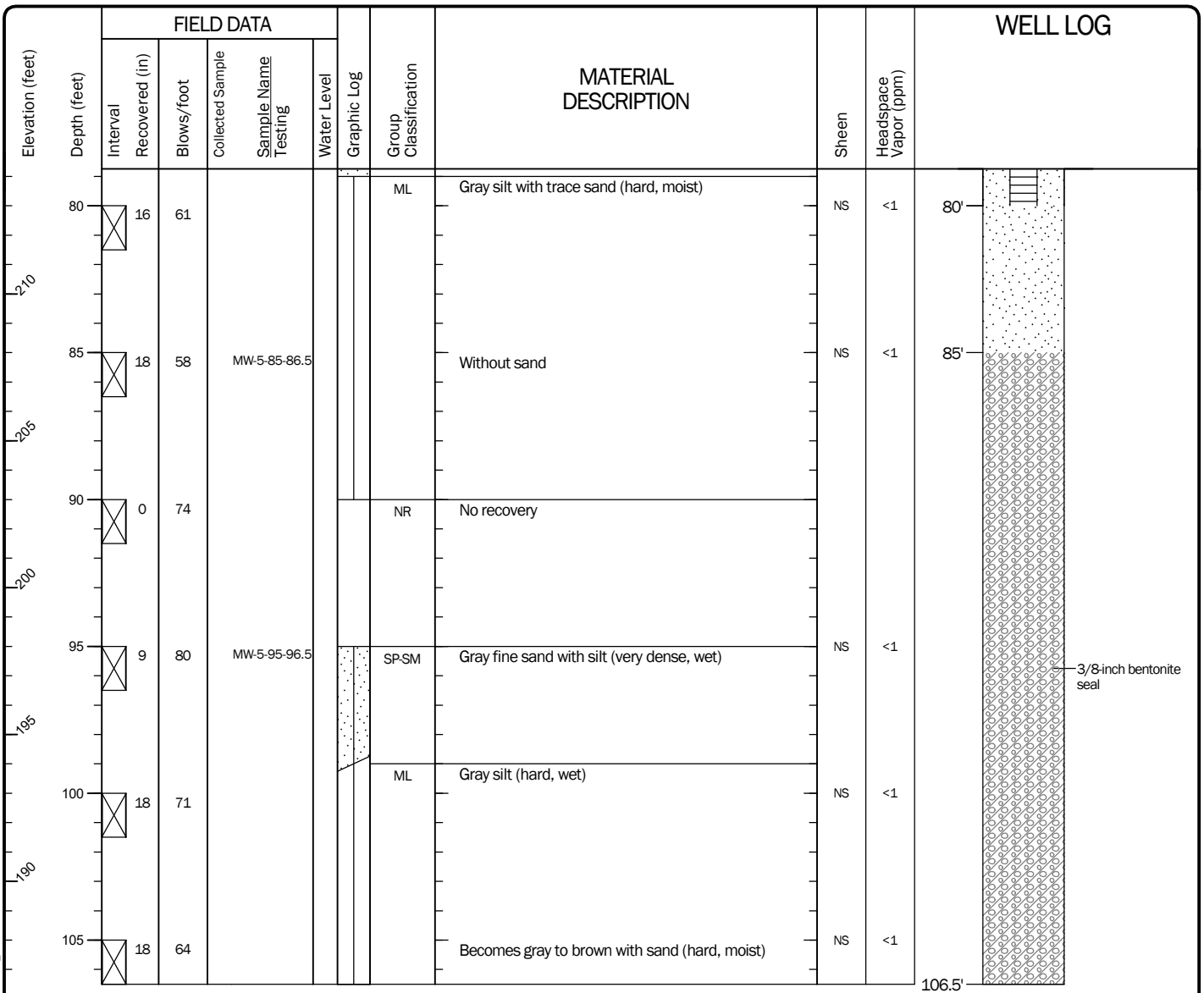
Log of Monitoring Well MW-5 (continued)

GeoEngineers

Project: Go East Landfill
Project Location: Snohomish County, Washington
Project Number: 6694-002-05

Figure A-2
Sheet 2 of 3



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Log of Monitoring Well MW-5 (continued)

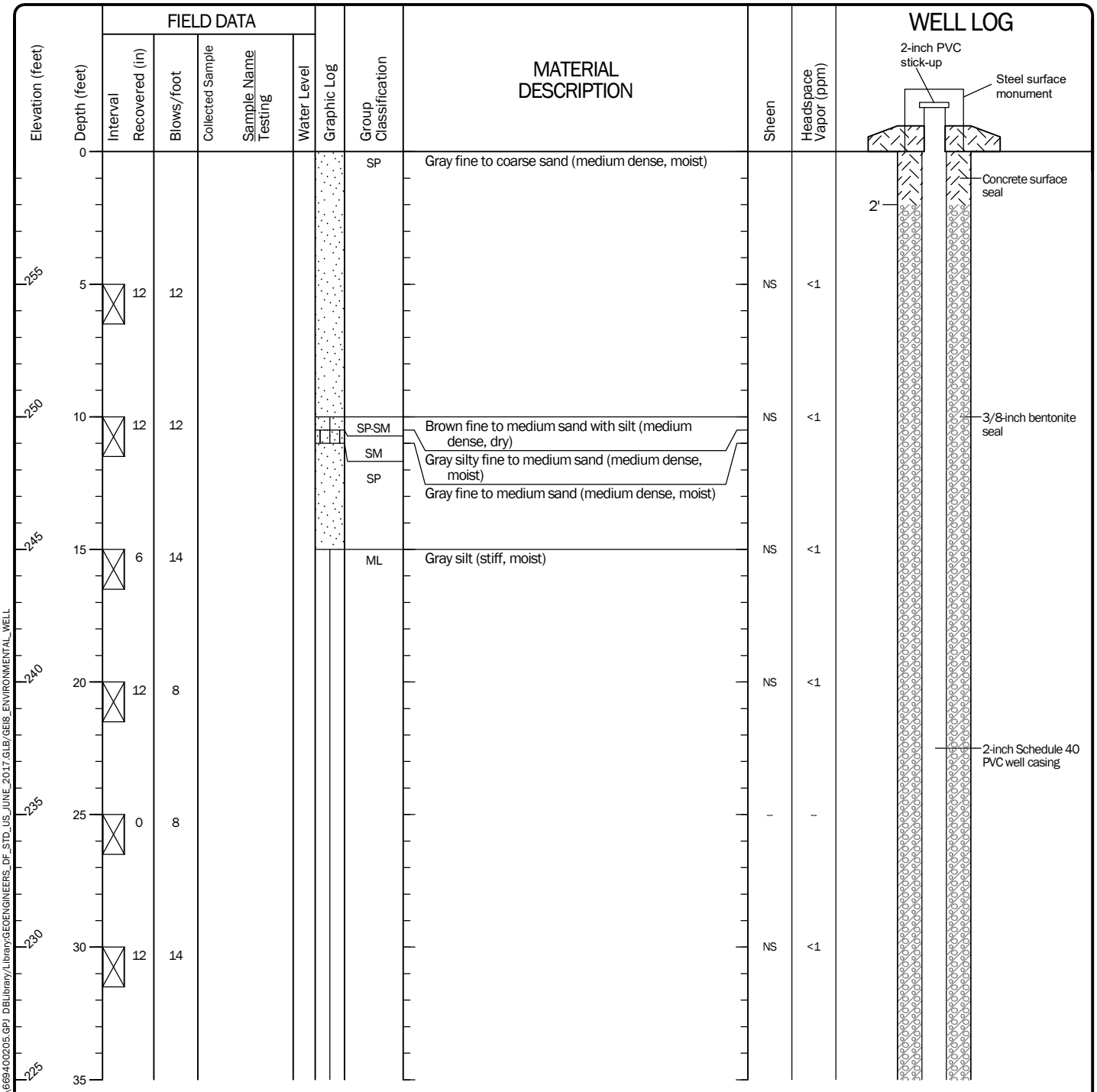
GeoEngineers

Project: Go East Landfill
Project Location: Snohomish County, Washington
Project Number: 6694-002-05

Figure A-2
Sheet 3 of 3

Drilled Start 11/22/2021 End 11/22/2021	Total Depth (ft) 56.5	Logged By AG Checked By GRL	Driller Holt Services	Drilling Method Hollow-stem Auger	
Hammer Data: Autohammer 140 (lbs) / 30 (in) Drop		Drilling Equipment: Mobile Drill B57		A 2-in well was installed on 11/22/2021 to a depth of 56.5 ft.	
Surface Elevation (ft) Vertical Datum: 260 NAVD88		Top of Casing Elevation (ft): 259.93		Groundwater: Date Measured 11/22/2021; Depth to Water (ft) 45.00; Elevation (ft) 215.00	
Easting (X) 1311798 Northing (Y) 330581		Horizontal Datum: WA State Plane North NAD83 (feet)			

Notes:



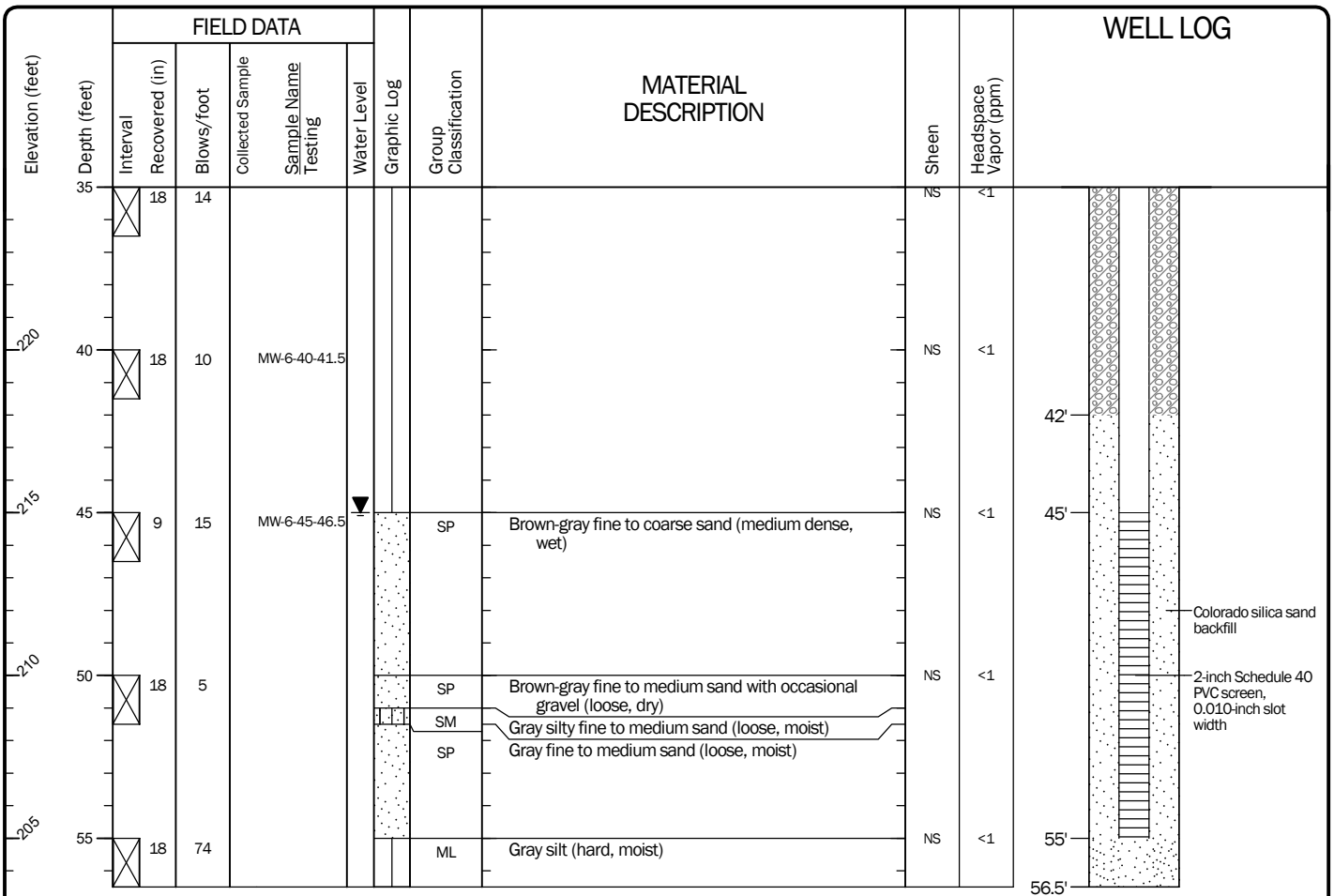
Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on data provided by PACE Engineers. Vertical approximated based on data provided by PACE Engineers.

Log of Monitoring Well MW-6

GeoEngineers

Project: Go East Landfill
Project Location: Snohomish County, Washington
Project Number: 6694-002-05

Figure A-3
Sheet 1 of 2



Log of Monitoring Well MW-6 (continued)

GeoEngineers

Project: Go East Landfill
Project Location: Snohomish County, Washington
Project Number: 6694-002-05

Figure A-3
Sheet 2 of 2

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	8/9/2021	8/10/2021	66.5	AG	GRL	Holt Services	Hollow-stem Auger

Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	Mobile Drill B57
Surface Elevation (ft) Vertical Datum	243 NAVD88	Top of Casing Elevation (ft)	243.00
Easting (X) Northing (Y)	1311947 330440	Horizontal Datum	WA State Plane North NAD83 (feet)

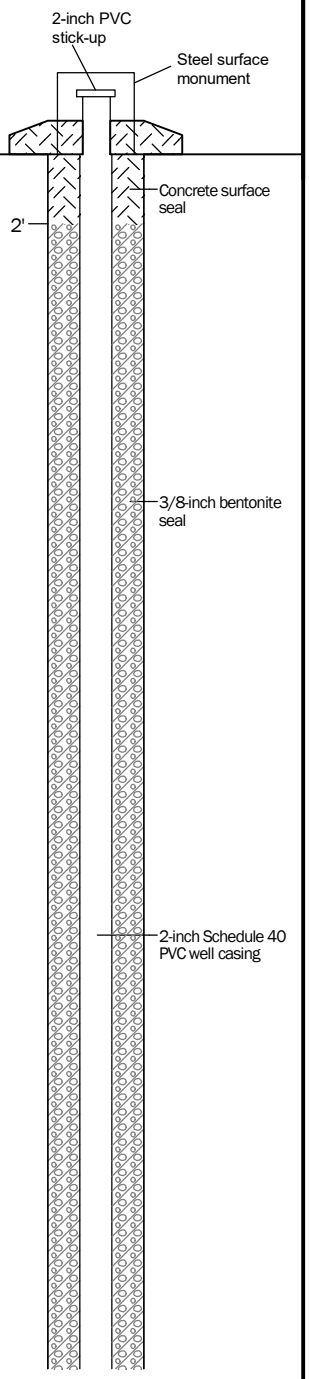
DOE Well I.D.: BNN 137
A 2-in well was installed on 8/17/2021 to a depth of 60 ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
8/9/2021	25.60	217.40

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0						SP	Brown fine to medium sand with trace silt (medium dense, moist)		
240										
	5	14	12						NS	<1
235										
	10	12	14						NS	<1
230							SM	Dark brown silty fine to medium sand (medium dense, moist)		
	15	18	29						NS	<1
225							ML	Brown-gray silt (very stiff, moist)		
	20	16	41				SP	Brown and gray fine to medium sand (dense, moist)	NS	<1
220										
	25	18	32		▼				NS	<1
215										
	30	18	49	MW-7-30-31.5					NS	<1
210										
	35									

WELL LOG



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on data provided by PACE Engineers. Vertical approximated based on data provided by PACE Engineers.

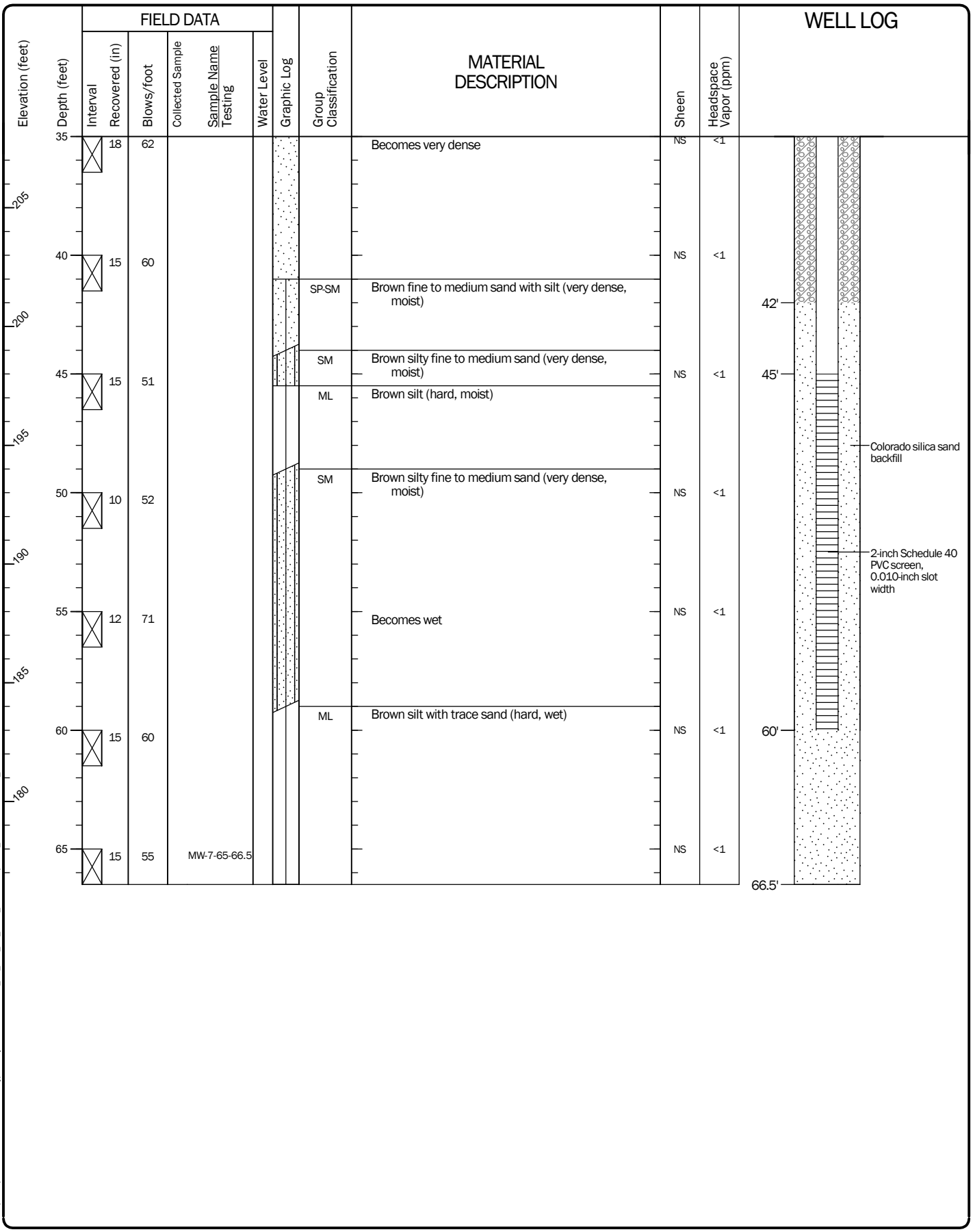
Date:1/26/22 Path:P:\6\6694002\GINT\669400205.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Log of Monitoring Well MW-7

GeoEngineers

Project: Go East Landfill
Project Location: Snohomish County, Washington
Project Number: 6694-002-05

Figure A-4
Sheet 1 of 2



Log of Monitoring Well MW-7 (continued)

GeoEngineers

Project: Go East Landfill
Project Location: Snohomish County, Washington
Project Number: 6694-002-05

Figure A-4
Sheet 2 of 2

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	8/11/2021	8/12/2021	61.5	AG	GRL	Holt Services	Hollow-stem Auger

Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	Mobile Drill B57
Surface Elevation (ft) Vertical Datum	231 NAVD88	Top of Casing Elevation (ft)	230.80
Easting (X) Northing (Y)	1312466 330604	Horizontal Datum	WA State Plane North NAD83 (feet)

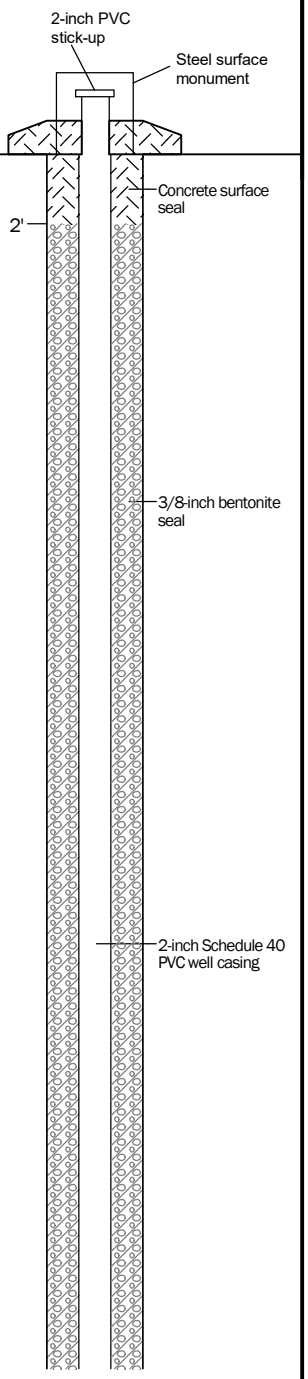
DOE Well I.D.: BNN 138
A 2-in well was installed on 8/12/2021 to a depth of 61.5 ft.

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
8/11/2021	49.20	181.80

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
230	0							SP	Gray fine to coarse sand with occasional gravel (medium dense, dry)		
225	5		not recorded							NS	<1
220	10	12	16						Becomes brown	NS	<1
215	15	15	28						Becomes brown and gray, moist	NS	<1
210	20	0	35					NR	No recovery		
205	25	6	16					SP	Brown fine to medium sand with occasional gravel (medium dense, moist)	NS	<1
200	30	12	27						Without gravel	NS	<1
	35										

WELL LOG



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on data provided by PACE Engineers. Vertical approximated based on data provided by PACE Engineers.

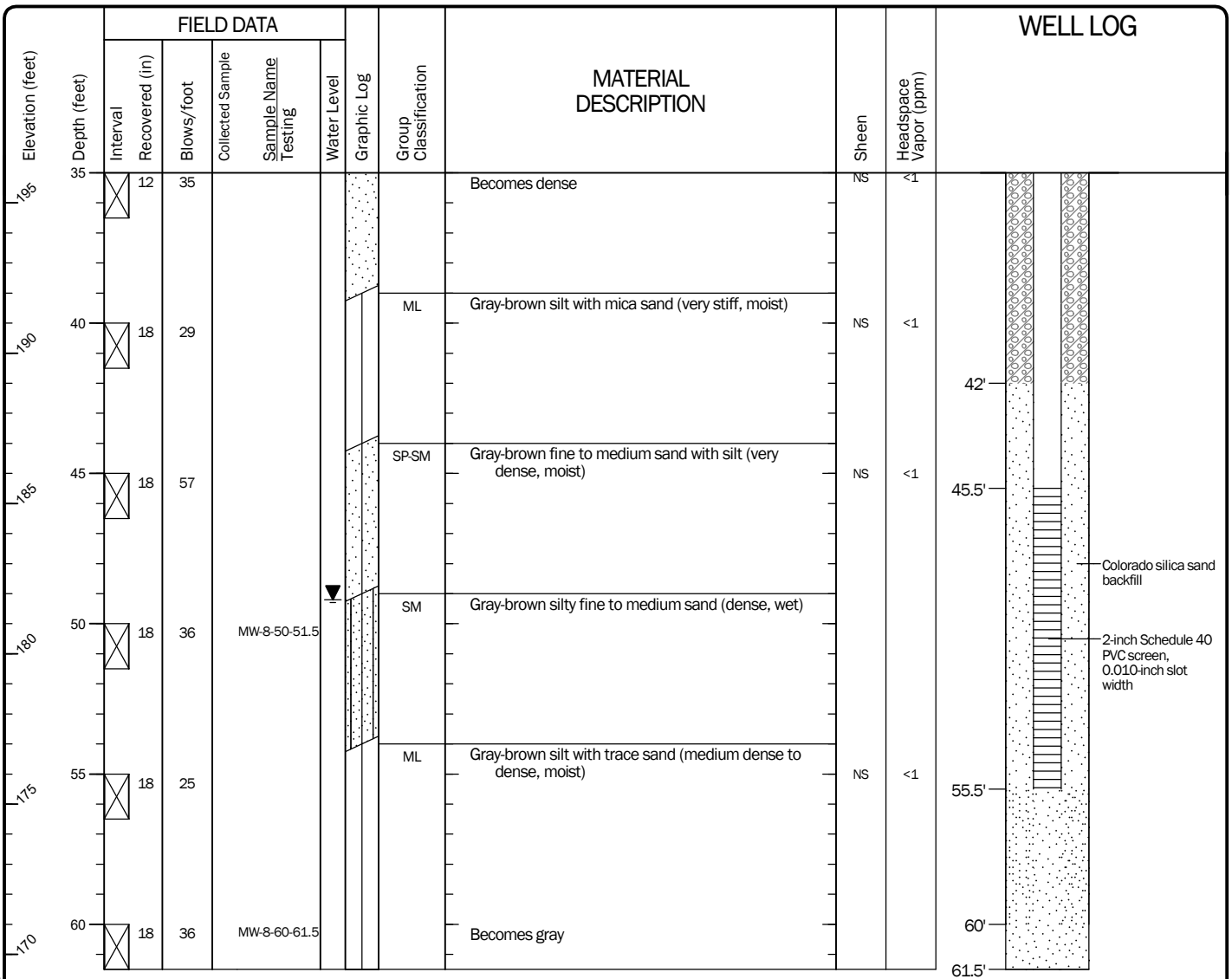
Date:1/26/22 Path:P:\6\6694002\GINT\669400205.GPJ DBLibrary/Library:GEOENGINEERS_DF_STD_US_JUNE_2017.GLB/GEI8_ENVIRONMENTAL_WELL

Log of Monitoring Well MW-8

GeoEngineers

Project: Go East Landfill
Project Location: Snohomish County, Washington
Project Number: 6694-002-05

Figure A-5
Sheet 1 of 2



Log of Monitoring Well MW-8 (continued)

GeoEngineers

Project: Go East Landfill
Project Location: Snohomish County, Washington
Project Number: 6694-002-05

Figure A-5
Sheet 2 of 2

DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

☒ Construction
☐ Decommission ⇒ Original NOI No. PE 22065

Ecology Well ID Tag No. BNC 754

Site Well Name Go east Landfill

Consulting Firm Pace

Was a variance approved for this well/boring? ☐ Yes ☐ No

If yes, what was the variance for? _____

Notice of Intent No _____

Type of Well:

☒ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner _____

Well Street Address _____

City _____ County _____

Tax Parcel No. _____

Location (see instructions): WWM ☐ or EWM ☐

SE ¼-¼ NW ¼, Section 21 Town 20N Range 5E

Latitude (Example: 47.12345) _____

Longitude (Example: -120.12345) _____

(WGS 84 Coordinate System)

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

☒ Driller ☐ Trainee ☐ Engineer

Name (Print Last, First Name) Lee

Driller/Engineer/Trainee Signature _____

License No. 3178

Company Name Holt

If trainee box is checked, sponsor's license number: _____

Sponsor's signature _____

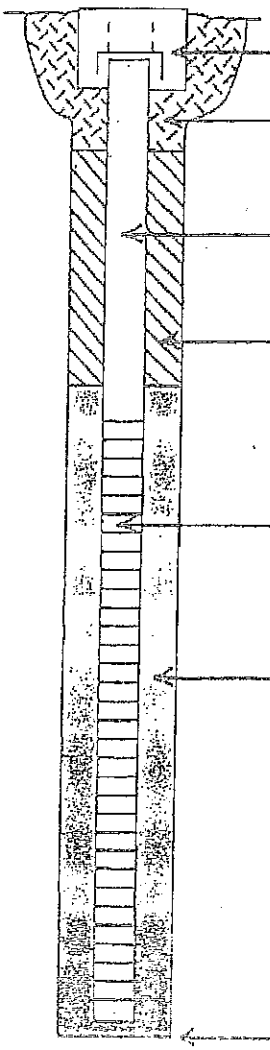
Borehole diameter 3 inches Casing diameter 2 inches

Static water level 2 ft below top of casing Date 3/17/2022

☒ Above-ground completion with bollards ☐ Flush monument

↳ Stick-up of top of well casing 5 ft above ground surface

Start Date 3/17/2022 Completed Date 3/17/2022

Construction/Design	Well Data	Formation Description
	MONUMENT TYPE: Above CONCRETE SURFACE SEAL 2 ft. PVC BLANK 2"x 5' BACKFILL 5 ft. TYPE: Bentonite PVC SCREEN 2"x 5' SLOT SIZE: 10 TYPE: PVC Pre Pack GRAVEL PACK 5 ft. MATERIAL: 12/20 WELL DEPTH	0 - ft. No Samples Pushed Casing - ft. - ft. - ft. - ft.

REMARKS

MW10 DRILLER'S LOG

DEPARTMENT OF ECOLOGY
State of Washington

Resource Protection Well Report

Submit one well report per well installed. See page two for instructions.

Type of Work:

☒ Construction
☐ Decommission ⇨ Original NOI No. PE 22665

Ecology Well ID Tag No. BNC 755

Site Well Name Eco east Landfill

Consulting Firm Pace 1

Was a variance approved for this well/boring? ☐ Yes ☐ No

If yes, what was the variance for? _____

Notice of Intent No. _____

Type of Well:

☒ Resource Protection Well ☐ Injection Point
☐ Remediation Well ☐ Grounding Well
☐ Geotechnical Soil Boring ☐ Ground Source Heat Pump
☐ Environmental Boring ☐ Other _____
↳ ☐ Soil- ☐ Vapor- ☐ Water-sampling

Property Owner _____

Well Street Address _____

City _____ County _____

Tax Parcel No. _____

Location (see instructions): WWM ☐ or EWM ☐

SE ¼-¼ NW ¼, Section 21 Town 30N Range 5E

Latitude (Example: 47.12345) _____

Longitude (Example: -120.12345) _____

(WGS 84 Coordinate System)

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported are true to my best knowledge and belief.

☒ Driller ☐ Trainee ☐ Engineer

Name (Print Last, First Name) Lee

Driller/Engineer/Trainee Signature _____

License No. 3178

Company Name Holt

If trainee box is checked, sponsor's license number: _____

Sponsor's signature _____

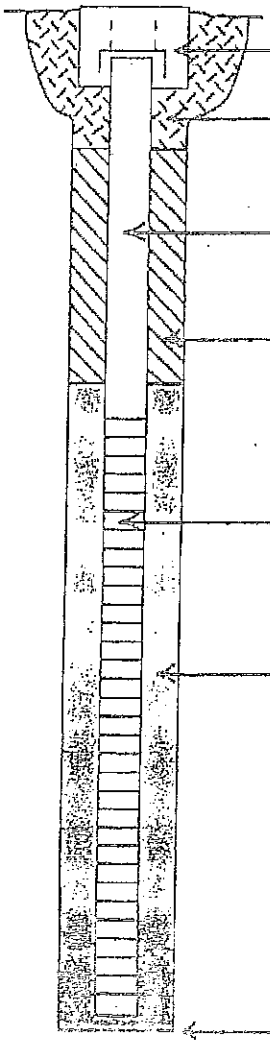
Borehole diameter 3 inches Casing diameter 2 inches

Static water level 2 ft below top of casing Date 3/17/2022

☒ Above-ground completion with bollards ☐ Flush monument

↳ Stick-up of top of well casing 5 ft above ground surface

Start Date 3/17/2022 Completed Date 5/17/2022

Construction/Design	Well Data	Formation Description
	MONUMENT TYPE: Above CONCRETE SURFACE SEAL 2 ft. PVC BLANK 2" x 5' BACKFILL 5 ft. TYPE: Bentonite PVC SCREEN 2" x 5' SLOT SIZE: 10 TYPE: PVC Pre Pack GRAVEL PACK 5 ft. MATERIAL: 12/20 WELL DEPTH ' "	0 - ft. No Samples Pushed Casing ft. - ft. - ft. - ft. REMARKS