Layer	Soil Type	Thickness (ft)	Shear Modulus (ksf)	Damping	Unit Weight (kcf)	Shear Wave Velocity (fps)
Layer	Soil Type	Thickness	Shear Modulus	Damping	Unit Weight	Shear Wave Velocity
		(ft)	(ksf)		(kcf)	(fps)
1	1	2.5	257	.05	.118	
2	2	2.5	715	.05	.108	
3	2	5	896	.05	.122	
4	2	5	1044	.05	.122	
5	2	5	1150	.05	.122	
6	2	5	1331	.05	.122	
7	2	5	1786	.05	.122	
8	2	5	1711	.05	.122	
9	2	5	1659	.05	.122	
10	2	5	1805	.05	.122	
11	2	5	2198	.05	.122	
12	2	5	2576	.05	.122	
13	2	10	2477	.05	.122	
14	2	10	2414	.05	.122	
15	2	10	2804	.05	.122	
16	2	10	3085	.05	.122	
17	2	10	3439	.05	.122	
18	2	6	3378	.05	.122	
19	3			.02	.145	2500

Option 3 - Set No. 1
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 9.1 km, Re: 229.5
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_01r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 2
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 5.4, h: 2.1 km, Re: 28.7
No. of acceleration values to be read for input motion: 2048
No. of values for use in Fourier Transform: 4096
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_02r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 3
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 7.1, h: 5.5 km, Re: 253.
No. of acceleration values to be read for input motion: 8192
No. of values for use in Fourier Transform: 16384
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_03r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25

Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 4
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 25.6 km, Re: 213.9
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_04r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 5
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 6.8, h: 5.8 km, Re: 224.
No. of acceleration values to be read for input motion: 8192
No. of values for use in Fourier Transform: 16384
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_05r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 6
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 33.9 km, Re: 196.3
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_06r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 7
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 9.1 km, Re: 186.5
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_07r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 8
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 9.1 km, Re: 260.7
No. of acceleration values to be read for input motion: 15000

No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_08r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 9
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 9.1 km, Re: 280.5
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_09r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 10
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 5.9, h: 4.4 km, Re: 47.7
No. of acceleration values to be read for input motion: 4096
No. of values for use in Fourier Transform: 8192
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_10r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 4 - Set No. 1
Option 4 - Input Motion at Layer 19 - Outcrop
No. of sublayer at the top of which the object motion is assigned: 19
Object motion is assigned as outcrop motion.

Option 5 - Set No. 1
Option 5 - Number of Iterations & Strain Ratio Set No. 2
Strain-compatible soil properties are not saved after the final iteration.
Number of Iterations: 10
Ratio of equivalent uniform strain divided by maximum strain: .65

Option 6 - Set No. 1
Option 6 - Soil Profile No. 2 - Layers 1 to 15

Layer	Type	Maximum Acceleration	Time History of Acceleration
1	Outcrop	x	x
2	Within	x	
3	Within	x	
4	Within	x	
5	Within	x	
6	Within	x	

Layer	Type	Maximum Acceleration	Time History of Acceleration
7	Within	x	
8	Within	x	
9	Within	x	
10	Within	x	
11	Within	x	
12	Within	x	
13	Within	x	
14	Within	x	
15	Within	x	

Option 6 - Set No. 2
Option 6 - Soil Profile No. 2 - Layers 16 to 19

Layer	Type	Maximum Acceleration	Time History of Acceleration
16	Within	x	
17	Within	x	
18	Within	x	
19	Within	x	x

Option 1 - Set No. 1 - Material No.: 1
G/Gmax - C3 (CLAY PI =20-40, Sun et al. 198)
Damping - Soil with PI=30, OCR=1-8 (Vucetic & Dobry, JGE 1/91)

Point No.	Shear Strain (%)	G/Gmax	Point No.	Shear Strain (%)	Damping Ratio (%)
1	.0001	1	1	.002	1.7
2	.001	.999	2	.003	2.1
3	.00316	.98	3	.004	2.5
4	.01	.92	4	.005	2.6
5	.0316	.78	5	.006	2.9
6	.1	.532	6	.008	3.3
7	.316	.293	7	.01	3.7
8	1	.137	8	.02	5.05
9	3.16	.075	9	.03	5.7
10	10	.025	10	.04	6.4
			11	.05	6.9
			12	.06	7.3
			13	.08	8.1
			14	.1	8.7
			15	.2	10.8
			16	.3	12.3
			17	.4	13.3
			18	.5	14.1
			19	.7	15.6
			20	1	16.9

Option 1 - Set No. 1 - Material No.: 2
G/Gmax - SAND, Average (Seed & Idriss 1970)
Damping for SAND, February 1971

Point No.	Shear Strain (%)	G/Gmax	Point No.	Shear Strain (%)	Damping Ratio (%)
1	.0001	1	1	.0001	1
2	.0003	.98	2	.001	1.6
3	.001	.95	3	.003	3.12
4	.003	.89	4	.01	5.8
5	.01	.73	5	.03	9.5
6	.03	.52	6	.1	15.4
7	.1	.29	7	.3	20.9
8	.3	.14	8	1	25
9	1	.06	9	10	30

Option 1 - Set No. 1 - Material No.: 3
G/Gmax - ROCK (Schnabel 1973)
Damping for ROCK (Schnabel 1973)

Point No.	Shear Strain (%)	G/Gmax	Point No.	Shear Strain (%)	Damping Ratio (%)
1	.0001	1	1	.0001	.4
2	.0003	1	2	.001	.8
3	.001	.99	3	.01	1.5
4	.003	.95	4	.1	3
5	.01	.9	5	1	4.6
6	.03	.81			
7	.1	.725			
8	1	.55			

Option 2 - Set No. 1
Option 2 -Soil Profile B/C-100 w Ash
Soil Deposit No.: 1 - Soil Profile No. 2

Layer	Soil Type	Thickness (ft)	Shear Modulus (ksf)	Damping	Unit Weight (kcf)	Shear Wave Velocity (fps)
Layer	Soil Type	Thickness	Shear Modulus	Damping	Unit Weight	Shear Wave Velocity
		(ft)	(ksf)		(kcf)	(fps)
1	2	10	827	.05	.09	
2	2	10	1170	.05	.09	
3	2	10	1433	.05	.09	
4	2	10	1655	.05	.09	
5	2	10	1850	.05	.09	
6	2	10	2027	.05	.09	
7	2	10	2189	.05	.09	
8	2	10	2341	.05	.09	
9	2	10	2483	.05	.09	
10	2	10	2617	.05	.09	
11	1	2.5	257	.05	.118	
12	2	2.5	715	.05	.108	
13	2	5	896	.05	.122	
14	2	5	1044	.05	.122	
15	2	5	1150	.05	.122	
16	2	5	1331	.05	.122	
17	2	5	1786	.05	.122	
18	2	5	1711	.05	.122	
19	2	5	1659	.05	.122	
20	2	5	1805	.05	.122	
21	2	5	2198	.05	.122	
22	2	5	2576	.05	.122	
23	2	10	2477	.05	.122	
24	2	10	2414	.05	.122	
25	2	10	2804	.05	.122	
26	2	10	3085	.05	.122	
27	2	10	3439	.05	.122	
28	2	6	3378	.05	.122	
29	3			.02	.145	2500

Option 3 - Set No. 1
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 9.1 km, Re: 229.5
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_01r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 2
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 5.4, h: 2.1 km, Re: 28.7
No. of acceleration values to be read for input motion: 2048
No. of values for use in Fourier Transform: 4096
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_02r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 3
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 7.1, h: 5.5 km, Re: 253.
No. of acceleration values to be read for input motion: 8192
No. of values for use in Fourier Transform: 16384
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_03r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 4
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 25.6 km, Re: 213.9
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_04r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 5
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 6.8, h: 5.8 km, Re: 224.
No. of acceleration values to be read for input motion: 8192
No. of values for use in Fourier Transform: 16384
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_05r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 6
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 33.9 km, Re: 196.3
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_06r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 7
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 9.1 km, Re: 186.5
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_07r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1

Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 8
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 9.1 km, Re: 260.7
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_08r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 9
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 9.1 km, Re: 280.5
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_09r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 10
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 5.9, h: 4.4 km, Re: 47.7
No. of acceleration values to be read for input motion: 4096
No. of values for use in Fourier Transform: 8192
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_10r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 4 - Set No. 1
Option 4 - Input Motion at Layer 29 - Outcrop
No. of sublayer at the top of which the object motion is assigned: 29
Object motion is assigned as outcrop motion.

Option 5 - Set No. 1
Option 5 - Number of Iterations & Strain Ratio Set No. 2
Strain-compatible soil properties are not saved after the final iteration.
Number of Iterations: 10
Ratio of equivalent uniform strain divided by maximum strain: .65

Option 6 - Set No. 1

Option 6 - Soil Profile No. 2 - Layers 1 to 15

Layer	Type	Maximum Acceleration	Time History of Acceleration
1	Outcrop	x	x
2	Within	x	
3	Within	x	
4	Within	x	
5	Within	x	
6	Within	x	
7	Within	x	
8	Within	x	
9	Within	x	
10	Within	x	
11	Within	x	x
12	Within	x	
13	Within	x	
14	Within	x	
15	Within	x	

Option 6 - Set No. 2
Option 6 - Soil Profile No. 2 - Layers 16 to 29

Layer	Type	Maximum Acceleration	Time History of Acceleration
16	Within	x	
17	Within	x	
18	Within	x	
19	Within	x	
20	Within	x	
21	Within	x	
22	Within	x	
23	Within	x	
24	Within	x	
25	Within	x	
26	Within	x	
27	Within	x	
28	Within	x	
29	Within	x	

Option 1 - Set No. 1 - Material No.: 1
G/Gmax - C3 (CLAY PI =20-40, Sun et al. 198)
Damping - Soil with PI=30, OCR=1-8 (Vucetic & Dobry, JGE 1/91)

Point No.	Shear Strain (%)	G/Gmax	Point No.	Shear Strain (%)	Damping Ratio (%)
1	.0001	1	1	.002	1.7
2	.001	.999	2	.003	2.1
3	.00316	.98	3	.004	2.5
4	.01	.92	4	.005	2.6
5	.0316	.78	5	.006	2.9
6	.1	.532	6	.008	3.3
7	.316	.293	7	.01	3.7
8	1	.137	8	.02	5.05
9	3.16	.075	9	.03	5.7
10	10	.025	10	.04	6.4
			11	.05	6.9
			12	.06	7.3
			13	.08	8.1
			14	.1	8.7
			15	.2	10.8
			16	.3	12.3
			17	.4	13.3
			18	.5	14.1
			19	.7	15.6
			20	1	16.9

Option 1 - Set No. 1 - Material No.: 2
G/Gmax - SAND, Average (Seed & Idriss 1970)
Damping for SAND, February 1971

Point No.	Shear Strain (%)	G/Gmax	Point No.	Shear Strain (%)	Damping Ratio (%)
1	.0001	1	1	.0001	1
2	.0003	.98	2	.001	1.6
3	.001	.95	3	.003	3.12
4	.003	.89	4	.01	5.8
5	.01	.73	5	.03	9.5
6	.03	.52	6	.1	15.4
7	.1	.29	7	.3	20.9
8	.3	.14	8	1	25
9	1	.06	9	10	30

Option 1 - Set No. 1 - Material No.: 3
G/Gmax - ROCK (Schnabel 1973)
Damping for ROCK (Schnabel 1973)

Point No.	Shear Strain (%)	G/Gmax	Point No.	Shear Strain (%)	Damping Ratio (%)
1	.0001	1	1	.0001	.4
2	.0003	1	2	.001	.8
3	.001	.99	3	.01	1.5
4	.003	.95	4	.1	3
5	.01	.9	5	1	4.6
6	.03	.81			
7	.1	.725			
8	1	.55			

Option 1 - Set No. 1 - Material No.: 4
G/Gmax - C2 (CLAY PI =10-20, Sun et al. 198)
Damping - Soil with PI=15, OCR=1-8 (Vucetic & Dobry, JGE 1/91)

Point No.	Shear Strain (%)	G/Gmax	Point No.	Shear Strain (%)	Dampin g Ratio (%)
Point No.	Shear Strain (%)	G/Gmax	Point No.	Shear Strain (%)	Dampin g Ratio (%)
1	.0001	1	1	.003	2.5
2	.001	.997	2	.004	2.8
3	.00316	.974	3	.005	3.2
4	.01	.881	4	.006	3.5
5	.0316	.674	5	.008	4.1
6	.1	.425	6	.01	4.5
7	.316	.22	7	.02	6.4
8	1	.076	8	.03	7.6
9	3.16	.03	9	.04	8.4
10	10	.01	10	.05	9.2
			11	.07	10.3
			12	.1	11.5
			13	.2	14.3
			14	.3	15.9
			15	.4	17
			16	.5	17.6
			17	.6	18.3
			18	.7	18.8
			19	.8	19.3
			20	1	19.9

Option 2 - Set No. 1
Option 2 -Soil Profile B/C-100 w 24ft berm
Soil Deposit No.: 1 - Soil Profile No. 2

Layer	Soil Type	Thickness (ft)	Shear Modulus (ksf)	Damping	Unit Weight (kcf)	Shear Wave Velocity (fps)
1	4	1.5	2000	.05	.12	
2	4	2.5	2000	.05	.12	
3	4	2.5	2000	.05	.12	
4	4	2.5	2000	.05	.12	
5	4	2.5	2000	.05	.12	
6	4	2.5	2000	.05	.12	
7	4	2.5	2000	.05	.12	
8	4	2.5	2000	.05	.12	
9	4	2.5	2000	.05	.12	
10	4	2.5	2000	.05	.12	
11	1	2.5	257	.05	.118	
12	2	2.5	715	.05	.108	
13	2	5	896	.05	.122	
14	2	5	1044	.05	.122	
15	2	5	1150	.05	.122	
16	2	5	1331	.05	.122	
17	2	5	1786	.05	.122	
18	2	5	1711	.05	.122	
19	2	5	1659	.05	.122	
20	2	5	1805	.05	.122	
21	2	5	2198	.05	.122	
22	2	5	2576	.05	.122	
23	2	10	2477	.05	.122	
24	2	10	2414	.05	.122	
25	2	10	2804	.05	.122	
26	2	10	3085	.05	.122	
27	2	10	3439	.05	.122	
28	2	6	3378	.05	.122	
29	3			.02	.145	2500

Option 3 - Set No. 1

Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 9.1 km, Re: 229.5
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_01r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 2
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 5.4, h: 2.1 km, Re: 28.7
No. of acceleration values to be read for input motion: 2048
No. of values for use in Fourier Transform: 4096
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_02r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 3
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 7.1, h: 5.5 km, Re: 253.
No. of acceleration values to be read for input motion: 8192
No. of values for use in Fourier Transform: 16384
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_03r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 4
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 25.6 km, Re: 213.9
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_04r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 5
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 6.8, h: 5.8 km, Re: 224.
No. of acceleration values to be read for input motion: 8192
No. of values for use in Fourier Transform: 16384
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_05r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----

Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 6
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 33.9 km, Re: 196.3
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_06r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 7
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 9.1 km, Re: 186.5
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_07r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 8
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 9.1 km, Re: 260.7
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_08r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 9
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 8, h: 9.1 km, Re: 280.5
No. of acceleration values to be read for input motion: 15000
No. of values for use in Fourier Transform: 32768
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_09r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 3 - Set No. 10
Option 3 - St. Louis, MO; 2% in 50 years, Bedrock (Hard Rock); Mw: 5.9, h: 4.4 km, Re: 47.7

No. of acceleration values to be read for input motion: 4096
No. of values for use in Fourier Transform: 8192
Time interval between acceleration values (sec): .01
Name of file for input motion: c:\Program Files\GeoMotions\Quakes\SHAKE\Simulated\l02_10r.eq
Format for reading acceleration values: (8F9.6)
Multiplication factor for adjusting acceleration values: 1
Maximum acceleration to be used (g's): -----
Maximum frequency to be used in the analysis: 25
Number of header lines in object motion file: 4
Number of acceleration values per line in object motion file: 8

Option 4 - Set No. 1
Option 4 - Input Motion at Layer 29 - Outcrop
No. of sublayer at the top of which the object motion is assigned: 29
Object motion is assigned as outcrop motion.

Option 5 - Set No. 1
Option 5 - Number of Iterations & Strain Ratio Set No. 2
Strain-compatible soil properties are not saved after the final iteration.
Number of Iterations: 10
Ratio of equivalent uniform strain divided by maximum strain: .65

Option 6 - Set No. 1
Option 6 - Soil Profile No. 2 - Layers 1 to 15

Layer	Type	Maximum Acceleration	Time History of Acceleration
1	Outcrop	x	
2	Within	x	
3	Within	x	
4	Within	x	
5	Within	x	
6	Within	x	
7	Within	x	
8	Within	x	
9	Within	x	
10	Within	x	
11	Within	x	
12	Within	x	
13	Within	x	
14	Within	x	
15	Within	x	

Option 6 - Set No. 2
Option 6 - Soil Profile No. 2 - Layers 16 to 29

Layer	Type	Maximum Acceleration	Time History of Acceleration
16	Within	x	
17	Within	x	
18	Within	x	
19	Within	x	
20	Within	x	
21	Within	x	
22	Within	x	
23	Within	x	
24	Within	x	
25	Within	x	
26	Within	x	
27	Within	x	

Layer	Type	Maximum Acceleration	Time History of Acceleration
28	Within	x	
29	Within	x	

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
C:\PROGRAM FILES\GEOMOTIONS\QUAKES\SHAKE\SIMULATED\L02_01R.EQ

Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	1.25	.118	2.9	243.5	.00906	22.06	257.7724	0	.14737	Clay PI=20	Soil PI=30	Outcrop
2	3.75	.108	5.2	547.4	.01177	64.42	403.988	2.5	.14498	Sand Avg.	Sand	Within
3	7.5	.122	6.9	596.4	.02154	128.48	396.7499	5	.14138	Sand Avg.	Sand	Within
4	12.5	.122	8.6	598.3	.03497	209.2	397.3814	10	.12519	Sand Avg.	Sand	Within
5	17.5	.122	9.4	601.6	.04541	273.19	398.4758	15	.10383	Sand Avg.	Sand	Within
6	22.5	.122	9.4	696.7	.04533	315.83	428.8159	20	.11127	Sand Avg.	Sand	Within
7	27.5	.122	8.4	1038.2	.03349	347.73	523.4661	25	.12279	Sand Avg.	Sand	Within
8	32.5	.122	9.2	915.6	.04264	390.44	491.5876	30	.12384	Sand Avg.	Sand	Within
9	37.5	.122	10.4	805	.05537	445.74	460.9417	35	.1215	Sand Avg.	Sand	Within
10	42.5	.122	10.7	854.1	.05898	503.74	474.7909	40	.11608	Sand Avg.	Sand	Within
11	47.5	.122	9.9	1106.6	.05033	556.97	540.4349	45	.10903	Sand Avg.	Sand	Within
12	52.5	.122	9.4	1357.4	.04451	604.14	598.5521	50	.109	Sand Avg.	Sand	Within
13	60	.122	10.4	1202.3	.05532	665.13	563.3191	55	.11236	Sand Avg.	Sand	Within
14	70	.122	11.4	1072.1	.06868	736.28	531.9437	65	.11131	Sand Avg.	Sand	Within
15	80	.122	11	1298.1	.06222	807.69	585.3318	75	.1056	Sand Avg.	Sand	Within
16	90	.122	10.7	1459.7	.05897	860.8	620.6973	85	.0944	Sand Avg.	Sand	Within
17	100	.122	10.1	1708.6	.0521	890.18	671.5344	95	.08462	Sand Avg.	Sand	Within
18	108	.122	10.3	1652.5	.05423	896.08	660.4178	105	.08484	Sand Avg.	Sand	Within
19	Base							111	.08729			Within

Notes:
Period for Soil Column: .84 sec
Average Shear Wave Velocity for Soil Column: 531 ft/sec

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
C:\PROGRAM FILES\GEOMOTIONS\QUAKES\SHAKE\SIMULATED\L02_10R.EQ

Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	1.25	.118	3.2	240.4	.01145	27.53	256.1263	0	.18732	Clay PI=20	Soil PI=30	Outcrop
2	3.75	.108	5.5	534.9	.01342	71.81	399.3488	2.5	.14461	Sand Avg.	Sand	Within
3	7.5	.122	6.5	619.7	.0188	116.53	404.4257	5	.11592	Sand Avg.	Sand	Within
4	12.5	.122	7.1	686.5	.02247	154.27	425.6653	10	.11421	Sand Avg.	Sand	Within
5	17.5	.122	7.7	714.9	.02712	193.87	434.3809	15	.1151	Sand Avg.	Sand	Within
6	22.5	.122	7.8	819.8	.02794	229.06	465.1596	20	.10994	Sand Avg.	Sand	Within
7	27.5	.122	6.9	1188.1	.02159	256.5	559.9826	25	.11351	Sand Avg.	Sand	Within
8	32.5	.122	7.7	1068.4	.02672	285.52	531.025	30	.1199	Sand Avg.	Sand	Within
9	37.5	.122	8.299999	971	.0328	318.5	506.2414	35	.11349	Sand Avg.	Sand	Within
10	42.5	.122	8.299999	1064.9	.032	340.82	530.1545	40	.11594	Sand Avg.	Sand	Within
11	47.5	.122	7.6	1382.7	.02609	360.69	604.1044	45	.12018	Sand Avg.	Sand	Within
12	52.5	.122	7.1	1684.5	.02291	385.84	666.7815	50	.12776	Sand Avg.	Sand	Within
13	60	.122	7.8	1527.4	.02784	425.24	634.9279	55	.12436	Sand Avg.	Sand	Within
14	70	.122	8.1	1441.7	.03081	444.24	616.8584	65	.11424	Sand Avg.	Sand	Within
15	80	.122	7.900001	1717.6	.02844	488.48	673.3007	75	.1481	Sand Avg.	Sand	Within
16	90	.122	7.8	1897.8	.02806	532.42	707.7392	85	.16744	Sand Avg.	Sand	Within
17	100	.122	7.6	2153.3	.02649	570.36	753.8766	95	.17134	Sand Avg.	Sand	Within
18	108	.122	7.900001	2062.1	.02876	592.96	737.7393	105	.14743	Sand Avg.	Sand	Within
19	Base							111	.17222			Within

Notes:
Period for Soil Column: .75 sec
Average Shear Wave Velocity for Soil Column: 591 ft/sec

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
C:\PROGRAM FILES\GEOMOTIONS\QUAKES\SHAKE\SIMULATED\L02_02R.EQ

Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	1.25	.118	3.6	237.1	.01468	34.8	254.3623	0	.23831	Clay PI=20	Soil PI=30	Outcrop
2	3.75	.108	6.2	504.7	.01745	88.06	387.9116	2.5	.18558	Sand Avg.	Sand	Within
3	7.5	.122	7.3	579.7	.02375	137.7	391.1557	5	.14486	Sand Avg.	Sand	Within
4	12.5	.122	7.7	649.2	.02709	175.88	413.9399	10	.12216	Sand Avg.	Sand	Within
5	17.5	.122	8.4	670.8	.03314	222.3	420.7698	15	.10335	Sand Avg.	Sand	Within
6	22.5	.122	8.4	777.2	.03303	256.72	452.9126	20	.13607	Sand Avg.	Sand	Within
7	27.5	.122	7.6	1117.2	.02657	296.83	543.0171	25	.12979	Sand Avg.	Sand	Within
8	32.5	.122	8.7	967.7	.03636	351.85	505.3804	30	.12849	Sand Avg.	Sand	Within
9	37.5	.122	9.3	881.6	.04348	383.33	482.3739	35	.11804	Sand Avg.	Sand	Within
10	42.5	.122	9.5	938.4	.04618	433.4	497.6707	40	.13242	Sand Avg.	Sand	Within
11	47.5	.122	8.900001	1217.1	.03869	470.88	566.7756	45	.16872	Sand Avg.	Sand	Within
12	52.5	.122	8.4	1506.1	.03291	495.6	630.4852	50	.18004	Sand Avg.	Sand	Within
13	60	.122	8.6	1421.3	.03483	495.03	612.4786	55	.16736	Sand Avg.	Sand	Within
14	70	.122	8.299999	1418	.03244	459.96	611.7672	65	.14145	Sand Avg.	Sand	Within
15	80	.122	7.3	1801.9	.0243	437.84	689.6256	75	.18078	Sand Avg.	Sand	Within
16	90	.122	7.2	2014	.02303	463.92	729.0843	85	.20159	Sand Avg.	Sand	Within
17	100	.122	7.6	2164.1	.02606	563.9	755.7648	95	.21307	Sand Avg.	Sand	Within
18	108	.122	8.1	2016.8	.03085	622.12	729.5909	105	.21864	Sand Avg.	Sand	Within
19	Base							111	.25238			Within

Notes:
Period for Soil Column: .76 sec
Average Shear Wave Velocity for Soil Column: 581 ft/sec

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
C:\PROGRAM FILES\GEOMOTIONS\QUAKES\SHAKE\SIMULATED\L02_03R.EQ

Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	1.25	.118	3	242.4	.00983	23.82	257.1895	0	.16146	Clay PI=20	Soil PI=30	Outcrop
2	3.75	.108	5.3	541.5	.01252	67.8	401.805	2.5	.15403	Sand Avg.	Sand	Within
3	7.5	.122	7	592.9	.02199	130.36	395.584	5	.14471	Sand Avg.	Sand	Within
4	12.5	.122	8.4	610.9	.03282	200.5	401.5439	10	.11477	Sand Avg.	Sand	Within
5	17.5	.122	8.900001	634.1	.03917	248.37	409.0976	15	.09705	Sand Avg.	Sand	Within
6	22.5	.122	8.8	747.7	.0371	277.36	444.2339	20	.08879	Sand Avg.	Sand	Within
7	27.5	.122	7.7	1114.7	.02677	298.4	542.4092	25	.08965	Sand Avg.	Sand	Within
8	32.5	.122	8.1	1024.7	.03055	313.02	520.0515	30	.09197	Sand Avg.	Sand	Within
9	37.5	.122	8.4	963.2	.03362	323.81	504.204	35	.08884	Sand Avg.	Sand	Within
10	42.5	.122	8.1	1078.1	.0308	332.09	533.4301	40	.08065	Sand Avg.	Sand	Within
11	47.5	.122	7.3	1416.1	.02409	341.16	611.3571	45	.0739	Sand Avg.	Sand	Within
12	52.5	.122	7	1709.5	.02177	372.19	671.7112	50	.0713	Sand Avg.	Sand	Within
13	60	.122	7.5	1563.5	.0258	403.31	642.3873	55	.07548	Sand Avg.	Sand	Within
14	70	.122	8	1457.8	.02976	433.82	620.2932	65	.07601	Sand Avg.	Sand	Within
15	80	.122	7.7	1743.3	.02711	472.61	678.3192	75	.0827	Sand Avg.	Sand	Within
16	90	.122	7.5	1946.7	.02582	502.66	716.7993	85	.0873	Sand Avg.	Sand	Within
17	100	.122	7.3	2211.8	.02423	535.99	764.0485	95	.0826	Sand Avg.	Sand	Within
18	108	.122	7.6	2129.4	.02591	551.68	749.6812	105	.08033	Sand Avg.	Sand	Within
19	Base							111	.07957			Within

Notes:
Period for Soil Column: .75 sec
Average Shear Wave Velocity for Soil Column: 590 ft/sec

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
C:\PROGRAM FILES\GEOMOTIONS\QUAKES\SHAKE\SIMULATED\L02_04R.EQ

Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	1.25	.118	2.4	250.1	.00555	13.89	261.2425	0	.09404	Clay PI=20	Soil PI=30	Outcrop
2	3.75	.108	3.9	602.8	.00657	39.59	423.9383	2.5	.09084	Sand Avg.	Sand	Within
3	7.5	.122	5.1	689.5	.01142	78.77	426.5944	5	.09099	Sand Avg.	Sand	Within
4	12.5	.122	6.4	729	.01816	132.38	438.6436	10	.0893	Sand Avg.	Sand	Within
5	17.5	.122	7.4	737.2	.0245	180.61	441.1037	15	.08199	Sand Avg.	Sand	Within
6	22.5	.122	7.7	830.5	.02678	222.46	468.1854	20	.07482	Sand Avg.	Sand	Within
7	27.5	.122	7	1182.3	.02196	259.62	558.6141	25	.07027	Sand Avg.	Sand	Within
8	32.5	.122	7.8	1059.6	.02745	290.89	528.8336	30	.07062	Sand Avg.	Sand	Within
9	37.5	.122	8.4	970.5	.03285	318.81	506.111	35	.07159	Sand Avg.	Sand	Within
10	42.5	.122	8.299999	1058.1	.03264	345.37	528.4591	40	.07045	Sand Avg.	Sand	Within
11	47.5	.122	7.7	1363.1	.02733	372.54	599.8075	45	.06761	Sand Avg.	Sand	Within
12	52.5	.122	7.3	1658.8	.02413	400.27	661.6755	50	.06728	Sand Avg.	Sand	Within
13	60	.122	7.900001	1510.6	.02885	435.73	631.4265	55	.066	Sand Avg.	Sand	Within
14	70	.122	8.6	1384.1	.03491	483.2	604.4102	65	.06073	Sand Avg.	Sand	Within
15	80	.122	8.299999	1647.6	.03241	534.01	659.4379	75	.06526	Sand Avg.	Sand	Within
16	90	.122	8.299999	1807.7	.03269	590.87	690.7346	85	.06249	Sand Avg.	Sand	Within
17	100	.122	8.2	2038.2	.03156	643.28	733.4515	95	.06023	Sand Avg.	Sand	Within
18	108	.122	8.6	1929.4	.03532	681.4	713.6071	105	.05591	Sand Avg.	Sand	Within
19	Base							111	.05741			Within

Notes:
Period for Soil Column: .76 sec
Average Shear Wave Velocity for Soil Column: 585 ft/sec

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
C:\PROGRAM FILES\GEOMOTIONS\QUAKES\SHAKE\SIMULATED\L02_05R.EQ

Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	1.25	.118	2.6	246.7	.00717	17.69	259.4607	0	.12156	Clay PI=20	Soil PI=30	Outcrop
2	3.75	.108	4.5	576.9	.00863	49.77	414.7308	2.5	.11449	Sand Avg.	Sand	Within
3	7.5	.122	5.6	663.1	.01427	94.6	418.3478	5	.10652	Sand Avg.	Sand	Within
4	12.5	.122	6.7	709.6	.02001	142.01	432.7677	10	.09428	Sand Avg.	Sand	Within
5	17.5	.122	7.3	743.5	.02381	177.03	442.9845	15	.08422	Sand Avg.	Sand	Within
6	22.5	.122	7.3	861	.02376	204.6	476.7049	20	.08382	Sand Avg.	Sand	Within
7	27.5	.122	6.6	1218.6	.01974	240.6	567.1248	25	.09074	Sand Avg.	Sand	Within
8	32.5	.122	7.7	1062.8	.02719	288.96	529.6315	30	.07979	Sand Avg.	Sand	Within
9	37.5	.122	8.4	966.5	.03326	321.51	505.067	35	.08079	Sand Avg.	Sand	Within
10	42.5	.122	8.2	1073.5	.03122	335.15	532.2909	40	.08361	Sand Avg.	Sand	Within
11	47.5	.122	7.3	1415.1	.02415	341.72	611.1412	45	.0809	Sand Avg.	Sand	Within
12	52.5	.122	6.9	1722.7	.0212	365.16	674.2995	50	.07956	Sand Avg.	Sand	Within
13	60	.122	7.6	1550.4	.02652	411.18	639.6905	55	.08153	Sand Avg.	Sand	Within
14	70	.122	8.2	1431.5	.0315	450.97	614.6724	65	.08391	Sand Avg.	Sand	Within
15	80	.122	7.6	1755.8	.02648	465.01	680.7467	75	.08576	Sand Avg.	Sand	Within
16	90	.122	7.5	1960.2	.02524	494.69	719.2804	85	.0787	Sand Avg.	Sand	Within
17	100	.122	7.1	2255.4	.02268	511.48	771.5424	95	.06712	Sand Avg.	Sand	Within
18	108	.122	7.6	2127	.026	553.1	749.2587	105	.07488	Sand Avg.	Sand	Within
19	Base							111	.0772			Within

Notes:
Period for Soil Column: .74 sec
Average Shear Wave Velocity for Soil Column: 598 ft/sec

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
C:\PROGRAM FILES\GEOMOTIONS\QUAKES\SHAKE\SIMULATED\L02_06R.EQ

Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	1.25	.118	2.7	245	.00813	19.91	258.5652	0	.13612	Clay PI=20	Soil PI=30	Outcrop
2	3.75	.108	4.8	563.1	.00998	56.19	409.7404	2.5	.12969	Sand Avg.	Sand	Within
3	7.5	.122	6.2	634.3	.01727	109.54	409.1621	5	.12381	Sand Avg.	Sand	Within
4	12.5	.122	7.900001	639.3	.02847	182.02	410.7716	10	.11906	Sand Avg.	Sand	Within
5	17.5	.122	8.900001	635.8	.03887	247.11	409.6456	15	.11376	Sand Avg.	Sand	Within
6	22.5	.122	9.3	708.9	.0432	306.3	432.5542	20	.10436	Sand Avg.	Sand	Within
7	27.5	.122	8.6	1023	.03501	358.22	519.62	25	.10418	Sand Avg.	Sand	Within
8	32.5	.122	9.5	894	.04556	407.29	485.7545	30	.1004	Sand Avg.	Sand	Within
9	37.5	.122	10.5	799.2	.0564	450.75	459.2781	35	.09388	Sand Avg.	Sand	Within
10	42.5	.122	10.5	870.4	.05625	489.61	479.3	40	.08252	Sand Avg.	Sand	Within
11	47.5	.122	9.4	1149.3	.04546	522.5	550.763	45	.07888	Sand Avg.	Sand	Within
12	52.5	.122	8.900001	1434.2	.03808	546.12	615.2518	50	.08356	Sand Avg.	Sand	Within
13	60	.122	9.6	1274.3	.04752	605.48	579.9411	55	.08791	Sand Avg.	Sand	Within
14	70	.122	10.8	1135.4	.05986	679.6	547.4223	65	.0815	Sand Avg.	Sand	Within
15	80	.122	10.1	1394.3	.05199	724.86	606.6332	75	.07876	Sand Avg.	Sand	Within
16	90	.122	9.6	1591	.0472	750.89	648.0121	85	.08153	Sand Avg.	Sand	Within
17	100	.122	9.2	1849.1	.04208	778.03	698.5994	95	.07636	Sand Avg.	Sand	Within
18	108	.122	9.6	1746	.04691	819.15	678.8442	105	.08382	Sand Avg.	Sand	Within
19	Base							111	.09626			Within

Notes:
Period for Soil Column: .82 sec
Average Shear Wave Velocity for Soil Column: 544 ft/sec

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
C:\PROGRAM FILES\GEOMOTIONS\QUAKES\SHAKE\SIMULATED\L02_07R.EQ

Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	1.25	.118	2.4	249.8	.00567	14.16	261.0858	0	.09489	Clay PI=20	Soil PI=30	Outcrop
2	3.75	.108	4	599.3	.00682	40.85	422.7058	2.5	.09147	Sand Avg.	Sand	Within
3	7.5	.122	5.2	685.8	.01179	80.84	425.4483	5	.08833	Sand Avg.	Sand	Within
4	12.5	.122	6.4	725	.01853	134.32	437.4385	10	.08246	Sand Avg.	Sand	Within
5	17.5	.122	7.5	730.9	.02522	184.31	439.2148	15	.07831	Sand Avg.	Sand	Within
6	22.5	.122	7.8	819.2	.02801	229.46	464.9893	20	.07265	Sand Avg.	Sand	Within
7	27.5	.122	7.2	1164.3	.02315	269.51	554.3455	25	.06542	Sand Avg.	Sand	Within
8	32.5	.122	8	1031.8	.02989	308.41	521.8502	30	.06672	Sand Avg.	Sand	Within
9	37.5	.122	8.7	937.2	.03649	341.98	497.3523	35	.07045	Sand Avg.	Sand	Within
10	42.5	.122	8.6	1031.3	.03528	363.82	521.7237	40	.07841	Sand Avg.	Sand	Within
11	47.5	.122	7.8	1355.1	.02785	377.45	598.0447	45	.0794	Sand Avg.	Sand	Within
12	52.5	.122	7.2	1678	.02321	389.45	665.4938	50	.07628	Sand Avg.	Sand	Within
13	60	.122	7.8	1522.7	.02812	428.14	633.9503	55	.07453	Sand Avg.	Sand	Within
14	70	.122	8.8	1352	.03743	506.05	597.3603	65	.06605	Sand Avg.	Sand	Within
15	80	.122	8.6	1595.9	.03569	569.57	649.0092	75	.05944	Sand Avg.	Sand	Within
16	90	.122	8.6	1769.3	.03488	617.21	683.3588	85	.05412	Sand Avg.	Sand	Within
17	100	.122	8.299999	2026.5	.03213	651	731.3434	95	.05515	Sand Avg.	Sand	Within
18	108	.122	8.5	1953.7	.03401	664.45	718.0868	105	.05402	Sand Avg.	Sand	Within
19	Base							111	.05358			Within

Notes:
Period for Soil Column: .76 sec
Average Shear Wave Velocity for Soil Column: 582 ft/sec

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
C:\PROGRAM FILES\GEOMOTIONS\QUAKES\SHAKE\SIMULATED\L02_08R.EQ

Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	1.25	.118	2.6	245.5	.00782	19.19	258.8289	0	.12957	Clay PI=20	Soil PI=30	Outcrop
2	3.75	.108	4.8	566.1	.00967	54.72	410.8304	2.5	.12276	Sand Avg.	Sand	Within
3	7.5	.122	6	642.3	.01648	105.86	411.7342	5	.12091	Sand Avg.	Sand	Within
4	12.5	.122	7.7	648.9	.02714	176.09	413.8442	10	.11751	Sand Avg.	Sand	Within
5	17.5	.122	8.8	642.4	.03771	242.26	411.7663	15	.10941	Sand Avg.	Sand	Within
6	22.5	.122	9.2	714.1	.04234	302.33	434.1377	20	.09774	Sand Avg.	Sand	Within
7	27.5	.122	8.5	1027.9	.03451	354.79	520.8629	25	.09419	Sand Avg.	Sand	Within
8	32.5	.122	9.3	905.6	.04396	398.13	488.8957	30	.09496	Sand Avg.	Sand	Within
9	37.5	.122	10.1	823.7	.05219	429.92	466.2647	35	.09464	Sand Avg.	Sand	Within
10	42.5	.122	9.8	917.7	.04904	450.01	492.151	40	.09214	Sand Avg.	Sand	Within
11	47.5	.122	8.8	1227.6	.03773	463.16	569.2151	45	.08941	Sand Avg.	Sand	Within
12	52.5	.122	8.2	1527.4	.03151	481.29	634.9279	50	.08797	Sand Avg.	Sand	Within
13	60	.122	8.8	1384.6	.03764	521.14	604.5193	55	.08687	Sand Avg.	Sand	Within
14	70	.122	9.5	1251.1	.04657	582.64	574.6376	65	.08707	Sand Avg.	Sand	Within
15	80	.122	9.3	1487.2	.04371	650.05	626.5168	75	.086	Sand Avg.	Sand	Within
16	90	.122	9.2	1655.1	.04234	700.72	660.9371	85	.08896	Sand Avg.	Sand	Within
17	100	.122	9.099999	1868.5	.04085	763.36	702.2546	95	.08907	Sand Avg.	Sand	Within
18	108	.122	9.5	1758.5	.04602	809.22	681.2699	105	.09174	Sand Avg.	Sand	Within
19	Base							111	.09083			Within

Notes:
Period for Soil Column: .8 sec
Average Shear Wave Velocity for Soil Column: 556 ft/sec

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
C:\PROGRAM FILES\GEOMOTIONS\QUAKES\SHAKE\SIMULATED\L02_09R.EQ

Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	1.25	.118	2.6	246.9	.00706	17.43	259.5658	0	.12078	Clay PI=20	Soil PI=30	Outcrop
2	3.75	.108	4.5	578.8	.00846	48.97	415.4132	2.5	.11495	Sand Avg.	Sand	Within
3	7.5	.122	5.5	667.8	.01371	91.55	419.8278	5	.10767	Sand Avg.	Sand	Within
4	12.5	.122	6.7	706	.02038	143.87	431.6685	10	.08815	Sand Avg.	Sand	Within
5	17.5	.122	7.6	721.2	.02635	190.06	436.2906	15	.0832	Sand Avg.	Sand	Within
6	22.5	.122	7.900001	812.3	.02878	233.75	463.0269	20	.08748	Sand Avg.	Sand	Within
7	27.5	.122	7.3	1156.1	.02371	274.15	552.3899	25	.0891	Sand Avg.	Sand	Within
8	32.5	.122	8.1	1029.8	.03008	309.75	521.3441	30	.08987	Sand Avg.	Sand	Within
9	37.5	.122	8.6	943.8	.03574	337.32	499.1005	35	.08703	Sand Avg.	Sand	Within
10	42.5	.122	8.8	1006.3	.03793	381.68	515.3613	40	.09109	Sand Avg.	Sand	Within
11	47.5	.122	8.5	1273.4	.03384	430.89	579.7363	45	.09441	Sand Avg.	Sand	Within
12	52.5	.122	8.2	1536.5	.03094	475.33	636.8165	50	.09365	Sand Avg.	Sand	Within
13	60	.122	9	1364	.03931	536.25	600.0055	55	.09207	Sand Avg.	Sand	Within
14	70	.122	9.700001	1235.7	.04816	595.12	571.09	65	.08688	Sand Avg.	Sand	Within
15	80	.122	9.3	1496.3	.04298	643.05	628.4307	75	.09275	Sand Avg.	Sand	Within
16	90	.122	9.2	1663.9	.04171	693.98	662.6918	85	.0911	Sand Avg.	Sand	Within
17	100	.122	8.900001	1910.6	.03832	732.06	710.1219	95	.08734	Sand Avg.	Sand	Within
18	108	.122	9.099999	1837.1	.04074	748.4	696.3289	105	.0823	Sand Avg.	Sand	Within
19	Base							111	.08248			Within

Notes:
Period for Soil Column: .78 sec
Average Shear Wave Velocity for Soil Column: 566 ft/sec

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
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Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	5	.09	3.8	704.4	.00616	43.37	502.0146	0	.09658	Sand Avg.	Sand	Outcrop
2	15	.09	5.3	889.5	.01225	109	564.1306	10	.07779	Sand Avg.	Sand	Within
3	25	.09	5.6	1060	.0143	151.56	615.8282	20	.06757	Sand Avg.	Sand	Within
4	35	.09	5.8	1209.8	.01527	184.69	657.9055	30	.06464	Sand Avg.	Sand	Within
5	45	.09	5.9	1340.8	.01581	211.99	692.6099	40	.06682	Sand Avg.	Sand	Within
6	55	.09	6	1458.6	.01625	236.97	722.3951	50	.05828	Sand Avg.	Sand	Within
7	65	.09	5.9	1579.8	.01607	253.83	751.8094	60	.06301	Sand Avg.	Sand	Within
8	75	.09	5.9	1690.9	.01601	270.8	777.7959	70	.05968	Sand Avg.	Sand	Within
9	85	.09	5.8	1808.1	.01553	280.81	804.2997	80	.04794	Sand Avg.	Sand	Within
10	95	.09	5.6	1937.9	.01422	275.51	832.6689	90	.05804	Sand Avg.	Sand	Within
11	101.25	.118	9.9	115.9	.22709	263.29	177.8397	100	.06842	Clay PI=20	Soil PI=30	Within
12	103.75	.108	12.5	287.7	.08545	245.85	292.8775	102.5	.11404	Sand Avg.	Sand	Within
13	107.5	.122	10.5	431.8	.05633	243.23	337.5898	105	.1167	Sand Avg.	Sand	Within
14	112.5	.122	9.700001	535.7	.04786	256.35	376.0182	110	.11177	Sand Avg.	Sand	Within
15	117.5	.122	9.3	609.8	.04373	266.7	401.1823	115	.1191	Sand Avg.	Sand	Within
16	122.5	.122	8.900001	734.9	.03901	286.7	440.415	120	.12687	Sand Avg.	Sand	Within
17	127.5	.122	7.900001	1091.5	.02865	312.72	536.735	125	.11852	Sand Avg.	Sand	Within
18	132.5	.122	8.4	996.2	.03333	332	512.7684	130	.11558	Sand Avg.	Sand	Within
19	137.5	.122	8.7	941.3	.03602	339.06	498.439	135	.11652	Sand Avg.	Sand	Within
20	142.5	.122	8.2	1066.8	.03183	339.53	530.6273	140	.11977	Sand Avg.	Sand	Within
21	147.5	.122	7.3	1412.8	.02428	343.07	610.6444	145	.12428	Sand Avg.	Sand	Within
22	152.5	.122	6.7	1746.3	.0202	352.81	678.9026	150	.12527	Sand Avg.	Sand	Within
23	160	.122	7.1	1625.5	.02263	367.86	655.0003	155	.12143	Sand Avg.	Sand	Within
24	170	.122	7.1	1579.5	.02286	361.05	645.6659	165	.12993	Sand Avg.	Sand	Within
25	180	.122	6.8	1882.1	.02092	393.81	704.8057	175	.13285	Sand Avg.	Sand	Within
26	190	.122	6.8	2076.7	.02071	430.14	740.3463	185	.16175	Sand Avg.	Sand	Within
27	200	.122	6.5	2368.7	.01909	452.11	790.6842	195	.17664	Sand Avg.	Sand	Within
28	208	.122	6.8	2273.5	.02073	471.21	774.6321	205	.15768	Sand Avg.	Sand	Within
29	Base							211	.17013			Within

Notes:
Period for Soil Column: 1.32 sec
Average Shear Wave Velocity for Soil Column: 640 ft/sec

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
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Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	5	.09	3	741	.00413	30.64	514.8915	0	.06945	Sand Avg.	Sand	Outcrop
2	15	.09	4.5	945.9	.00852	80.57	581.7405	10	.05618	Sand Avg.	Sand	Within
3	25	.09	5.1	1109.3	.01103	122.41	629.9865	20	.05123	Sand Avg.	Sand	Within
4	35	.09	5.4	1243.3	.01311	162.95	666.9521	30	.04656	Sand Avg.	Sand	Within
5	45	.09	5.6	1372	.01409	193.35	700.6219	40	.04084	Sand Avg.	Sand	Within
6	55	.09	5.6	1501.3	.0142	213.19	732.8928	50	.04328	Sand Avg.	Sand	Within
7	65	.09	5.6	1619.6	.01428	231.34	761.2206	60	.04639	Sand Avg.	Sand	Within
8	75	.09	5.6	1730.1	.01437	248.64	786.76	70	.05034	Sand Avg.	Sand	Within
9	85	.09	5.7	1826.4	.01476	269.48	808.3597	80	.05241	Sand Avg.	Sand	Within
10	95	.09	5.8	1914.5	.0152	291.05	827.6265	90	.0554	Sand Avg.	Sand	Within
11	101.25	.118	10.9	98.1	.31769	311.52	163.6144	100	.05468	Clay PI=20	Soil PI=30	Within
12	103.75	.108	15.2	212.6	.14858	315.94	251.7664	102.5	.07969	Sand Avg.	Sand	Within
13	107.5	.122	12.9	346.5	.09268	321.18	302.4124	105	.08735	Sand Avg.	Sand	Within
14	112.5	.122	11.9	445.5	.07515	334.84	342.9035	110	.08438	Sand Avg.	Sand	Within
15	117.5	.122	11.2	520.4	.06565	341.65	370.6096	115	.08067	Sand Avg.	Sand	Within
16	122.5	.122	9.9	669.8	.05036	337.26	420.456	120	.09029	Sand Avg.	Sand	Within
17	127.5	.122	8.1	1067.4	.03073	327.99	530.7764	125	.09424	Sand Avg.	Sand	Within
18	132.5	.122	8.5	982.4	.03477	341.61	509.2045	130	.09449	Sand Avg.	Sand	Within
19	137.5	.122	9	913.3	.03935	359.36	490.9698	135	.09319	Sand Avg.	Sand	Within
20	142.5	.122	8.7	1016	.03688	374.71	517.8392	140	.09439	Sand Avg.	Sand	Within
21	147.5	.122	7.900001	1339.8	.02889	387.09	594.6591	145	.09516	Sand Avg.	Sand	Within
22	152.5	.122	7.4	1651.6	.02449	404.46	660.2379	150	.09124	Sand Avg.	Sand	Within
23	160	.122	7.900001	1509.4	.02891	436.45	631.1756	155	.08791	Sand Avg.	Sand	Within
24	170	.122	8.4	1400.1	.03372	472.05	607.8936	165	.07892	Sand Avg.	Sand	Within
25	180	.122	8	1690.2	.02992	505.75	667.9086	175	.08424	Sand Avg.	Sand	Within
26	190	.122	7.8	1910.1	.02746	524.56	710.029	185	.08702	Sand Avg.	Sand	Within
27	200	.122	7.2	2228.5	.02361	526.21	766.9276	195	.07981	Sand Avg.	Sand	Within
28	208	.122	7.3	2178.4	.02401	522.94	758.2577	205	.07571	Sand Avg.	Sand	Within
29	Base							211	.07564			Within

Notes:
Period for Soil Column: 1.34 sec
Average Shear Wave Velocity for Soil Column: 631 ft/sec

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
C:\PROGRAM FILES\GEOMOTIONS\QUAKES\SHAKE\SIMULATED\L02_10R.EQ

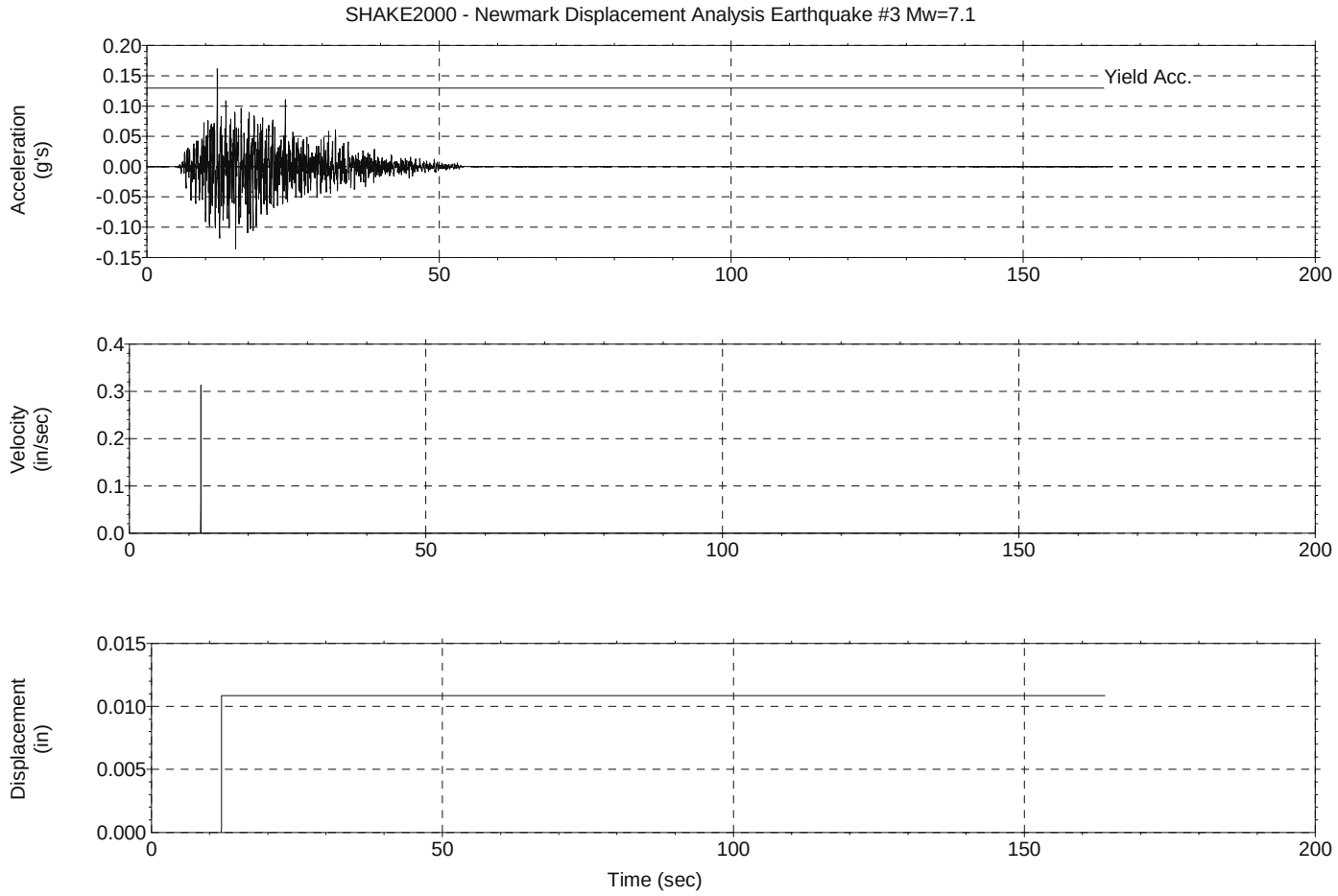
Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	.75	.12	.2	1996.8	.00053	10.58	731.9891	0	.11749	Clay PI=10	Soil PI=15	Outcrop
2	2.75	.12	1.6	1984.4	.00196	38.84	729.7128	1.5	.11681	Clay PI=10	Soil PI=15	Within
3	5.25	.12	2.3	1958.5	.00374	73.16	724.9351	4	.11276	Clay PI=10	Soil PI=15	Within
4	7.75	.12	2.7	1929.3	.00546	105.33	719.5106	6.5	.10531	Clay PI=10	Soil PI=15	Within
5	10.25	.12	3.1	1886.1	.00714	134.57	711.4095	9	.09505	Clay PI=10	Soil PI=15	Within
6	12.75	.12	3.4	1855.2	.00864	160.23	705.5579	11.5	.08651	Clay PI=10	Soil PI=15	Within
7	15.25	.12	3.7	1832.7	.00993	181.99	701.2664	14	.0816	Clay PI=10	Soil PI=15	Within
8	17.75	.12	3.9	1816.1	.01101	199.89	698.0832	16.5	.08035	Clay PI=10	Soil PI=15	Within
9	20.25	.12	4	1803.7	.01188	214.28	695.6959	19	.08349	Clay PI=10	Soil PI=15	Within
10	22.75	.12	4.2	1791.8	.01279	229.22	693.3972	21.5	.08503	Clay PI=10	Soil PI=15	Within
11	25.25	.118	9.4	124.3	.19409	241.29	184.1715	24	.08407	Clay PI=20	Soil PI=30	Within
12	27.75	.108	12.1	299.6	.07829	234.61	298.8732	26.5	.10852	Sand Avg.	Sand	Within
13	31.5	.122	10.2	442.5	.05293	234.19	341.7469	29	.1062	Sand Avg.	Sand	Within
14	36.5	.122	9.700001	533.1	.04848	258.43	375.1046	34	.11496	Sand Avg.	Sand	Within
15	41.5	.122	9.4	604.7	.04477	270.73	399.5011	39	.11573	Sand Avg.	Sand	Within
16	46.5	.122	9.099999	724.8	.04059	294.19	437.3782	44	.117	Sand Avg.	Sand	Within
17	51.5	.122	8	1076.1	.02998	322.56	532.9351	49	.12256	Sand Avg.	Sand	Within
18	56.5	.122	8.7	967.2	.03641	352.22	505.2498	54	.11973	Sand Avg.	Sand	Within
19	61.5	.122	9.099999	897.3	.04139	371.34	486.6501	59	.11834	Sand Avg.	Sand	Within
20	66.5	.122	8.900001	1000.4	.03859	386.02	513.8483	64	.12849	Sand Avg.	Sand	Within
21	71.5	.122	8.2	1306.5	.03127	408.58	587.2225	69	.13454	Sand Avg.	Sand	Within
22	76.5	.122	7.7	1598.5	.02728	436.04	649.5377	74	.14187	Sand Avg.	Sand	Within
23	84	.122	8.4	1446.4	.03303	477.81	617.863	79	.14217	Sand Avg.	Sand	Within
24	94	.122	8.7	1365	.03639	496.68	600.2253	89	.12803	Sand Avg.	Sand	Within
25	104	.122	7.8	1723.1	.02815	485.06	674.3778	99	.14241	Sand Avg.	Sand	Within
26	114	.122	7.5	1958.9	.02529	495.47	719.0418	109	.16544	Sand Avg.	Sand	Within
27	124	.122	7.3	2212.3	.02421	535.67	764.1349	119	.168	Sand Avg.	Sand	Within
28	132	.122	7.4	2151.7	.02503	538.53	753.5965	129	.14751	Sand Avg.	Sand	Within
29	Base							135	.1656			Within

Notes:
Period for Soil Column: .9 sec
Average Shear Wave Velocity for Soil Column: 598 ft/sec

Soil Profile No. 2
Analysis No. 1 - Profile No. 1 - Soil Pro-TUJ352
C:\PROGRAM FILES\GEOMOTIONS\QUAKES\SHAKE\SIMULATED\L02_03R.EQ

Layer	Depth to Middle of Layer (ft)	Total Unit Weight (kcf)	Damping Used (%)	Shear Modulus (ksf)	Maximum Shear Strain (%)	Maximum Shear Stress (psf)	Shear Wave Velocity (fps)	Depth to Top of Layer (ft)	Peak Acceleration (g)	G/Gmax Curve	Damping Curve	Type of Motion
1	.75	.12	------	1997.6	.00039	7.77	732.1357	0	.0863	Clay PI=10	Soil PI=15	Outcrop
2	2.75	.12	1.3	1994.2	.00142	28.25	731.5124	1.5	.08615	Clay PI=10	Soil PI=15	Within
3	5.25	.12	1.9	1971.3	.00271	53.47	727.3002	4	.08526	Clay PI=10	Soil PI=15	Within
4	7.75	.12	2.3	1955.9	.00399	78.1	724.4537	6.5	.08358	Clay PI=10	Soil PI=15	Within
5	10.25	.12	2.6	1935	.00527	101.97	720.5727	9	.08119	Clay PI=10	Soil PI=15	Within
6	12.75	.12	2.9	1898.6	.0066	125.34	713.7631	11.5	.07883	Clay PI=10	Soil PI=15	Within
7	15.25	.12	3.3	1868.9	.00793	148.26	708.1583	14	.07766	Clay PI=10	Soil PI=15	Within
8	17.75	.12	3.5	1843.7	.00927	170.99	703.3677	16.5	.07681	Clay PI=10	Soil PI=15	Within
9	20.25	.12	3.8	1821.6	.01064	193.74	699.1395	19	.07577	Clay PI=10	Soil PI=15	Within
10	22.75	.12	4	1802.4	.01198	215.92	695.4452	21.5	.07415	Clay PI=10	Soil PI=15	Within
11	25.25	.118	9.4	125	.19169	239.59	184.6894	24	.07196	Clay PI=20	Soil PI=30	Within
12	27.75	.108	12.8	279.3	.09088	253.87	288.5702	26.5	.07825	Sand Avg.	Sand	Within
13	31.5	.122	11.2	406.2	.06542	265.75	327.4296	29	.08417	Sand Avg.	Sand	Within
14	36.5	.122	10.2	512.5	.05373	275.4	367.7858	34	.08524	Sand Avg.	Sand	Within
15	41.5	.122	10	575.1	.05123	294.6	389.6007	39	.0768	Sand Avg.	Sand	Within
16	46.5	.122	9.6	686.9	.04712	323.64	425.7893	44	.07675	Sand Avg.	Sand	Within
17	51.5	.122	8.4	1035.4	.03376	349.61	522.7597	49	.08324	Sand Avg.	Sand	Within
18	56.5	.122	8.900001	945.7	.03889	367.82	499.6026	54	.08268	Sand Avg.	Sand	Within
19	61.5	.122	9.2	887.5	.04268	378.75	483.9854	59	.07797	Sand Avg.	Sand	Within
20	66.5	.122	8.900001	1000.8	.03854	385.68	513.9509	64	.07772	Sand Avg.	Sand	Within
21	71.5	.122	8	1326.8	.02979	395.33	591.767	69	.07634	Sand Avg.	Sand	Within
22	76.5	.122	7.4	1642.4	.02495	409.76	658.3965	74	.07616	Sand Avg.	Sand	Within
23	84	.122	7.900001	1517.7	.02841	431.24	632.9086	79	.0733	Sand Avg.	Sand	Within
24	94	.122	8.2	1434.5	.0313	448.96	615.3161	89	.07755	Sand Avg.	Sand	Within
25	104	.122	7.7	1750.2	.02676	468.35	679.6602	99	.07438	Sand Avg.	Sand	Within
26	114	.122	7.4	1979.3	.02443	483.53	722.7762	109	.08411	Sand Avg.	Sand	Within
27	124	.122	7.1	2265.3	.02234	506.03	773.2339	119	.08319	Sand Avg.	Sand	Within
28	132	.122	7.3	2171.5	.02427	527.06	757.0559	129	.08225	Sand Avg.	Sand	Within
29	Base							135	.08006			Within

Notes:
Period for Soil Column: .9 sec
Average Shear Wave Velocity for Soil Column: 600 ft/sec

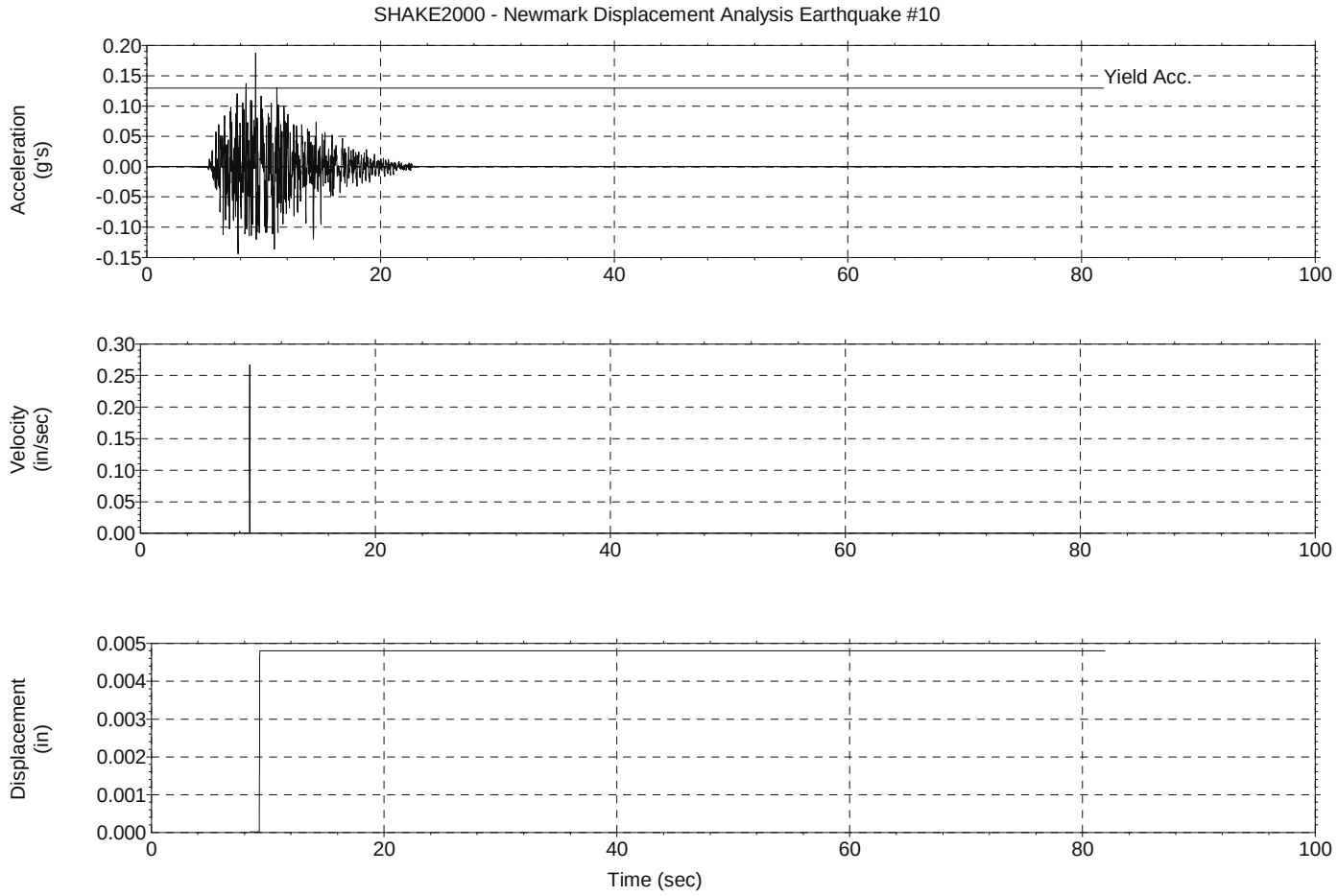


Notes:

Displacement Analysis - Newmark Method
Project: SHAKE2000 - Newmark Displacement Analysis Earthquake #3 Mw=7.1

Newmark Method by Kavazanjian & Matasovic
Constant Yield Acceleration: .13 (g)
Acceleration Time History: Outcrop - Soil Profile No. 2 - AHL - Layer:
1 - Analysis: 1 - Soil Deposit: 1
Acceleration Time History File: C:\Shake\Shake Analysis\Labadie test 3-L1A1D1-1-Soil Pro-TUJ352.ahl
Peak Acceleration Value: .161461 (g)
Upslope Movement not Included in Analysis
Acceleration due to gravity: 386.4 (in/sec^2)

Displacement computed: 1.084597E-02 in

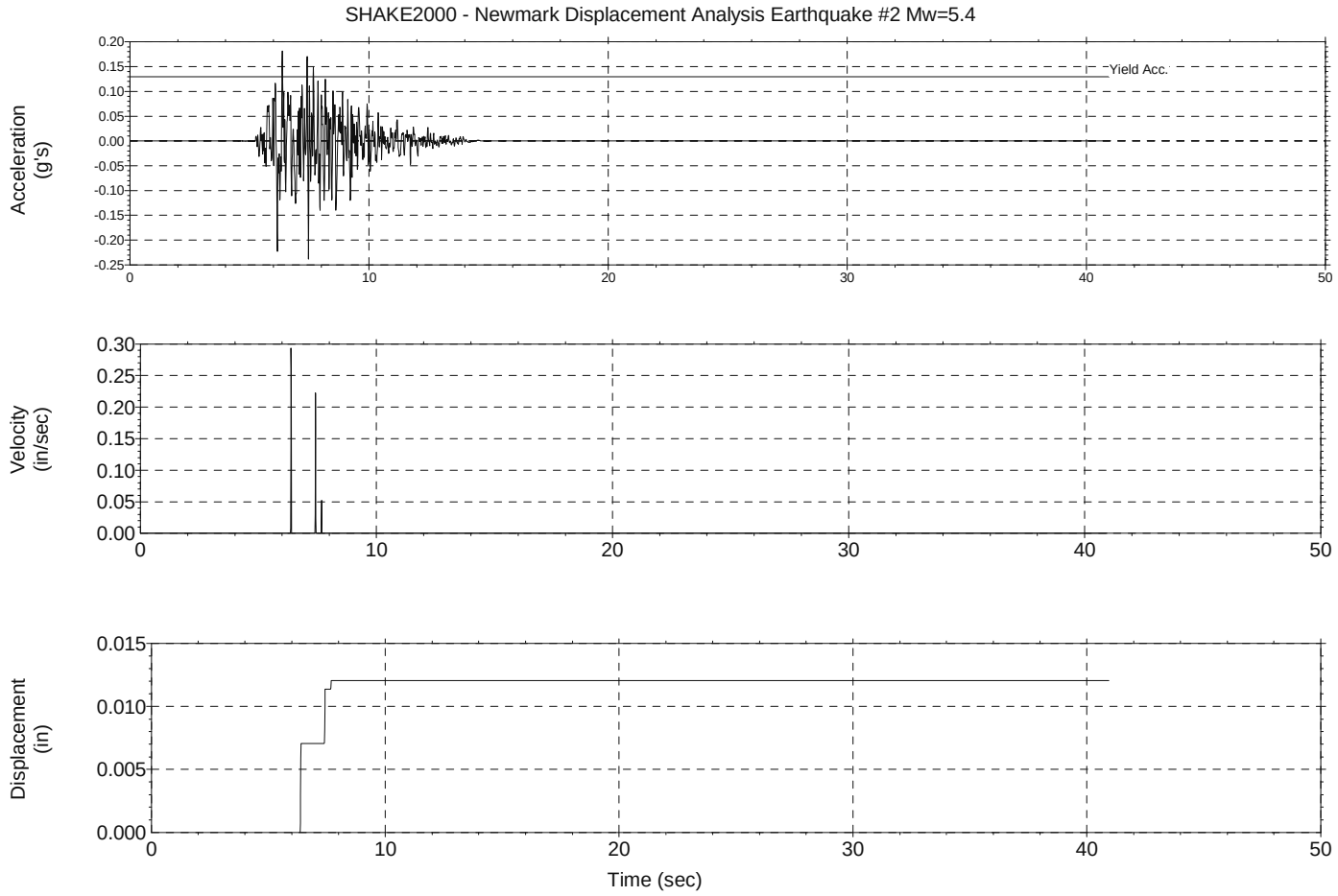


Notes:

Displacement Analysis - Newmark Method
Project: SHAKE2000 - Newmark Displacement Analysis Earthquake #10

Newmark Method by Kavazanjian & Matasovic
Constant Yield Acceleration: .13 (g)
Acceleration Time History: Outcrop - Soil Profile No. 2 - AHL - Layer:
1 - Analysis: 1 - Soil Deposit: 1
Acceleration Time History File: C:\Shake\Shake Analysis\Labadie test 10-L1A1D1-1-Soil Pro-TUJ352.ahl
Peak Acceleration Value: .187322 (g)
Upslope Movement not Included in Analysis
Acceleration due to gravity: 386.4 (in/sec^2)

Displacement computed: 4.802381E-03 in



Notes:

Displacement Analysis - Newmark Method
Project: SHAKE2000 - Newmark Displacement Analysis

Newmark Method by Kavazanjian & Matasovic
Constant Yield Acceleration: .13 (g)
Acceleration Time History: Outcrop - Soil Profile No. 2 - AHL - Layer: 1 - Analysis: 1 - Soil Deposit: 1
Acceleration Time History File: C:\Shake\02-L1A1D1-1-Soil Pro-TUJ352.ahl
Peak Acceleration Value: .238308 (g)
Upslope Movement not Included in Analysis
Acceleration due to gravity: 386.4 (in/sec^2)

Displacement computed: 1.205906E-02 in

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Appendix D

RESULTS OF LIQUEFACTION ANALYSES
Revised August 2013

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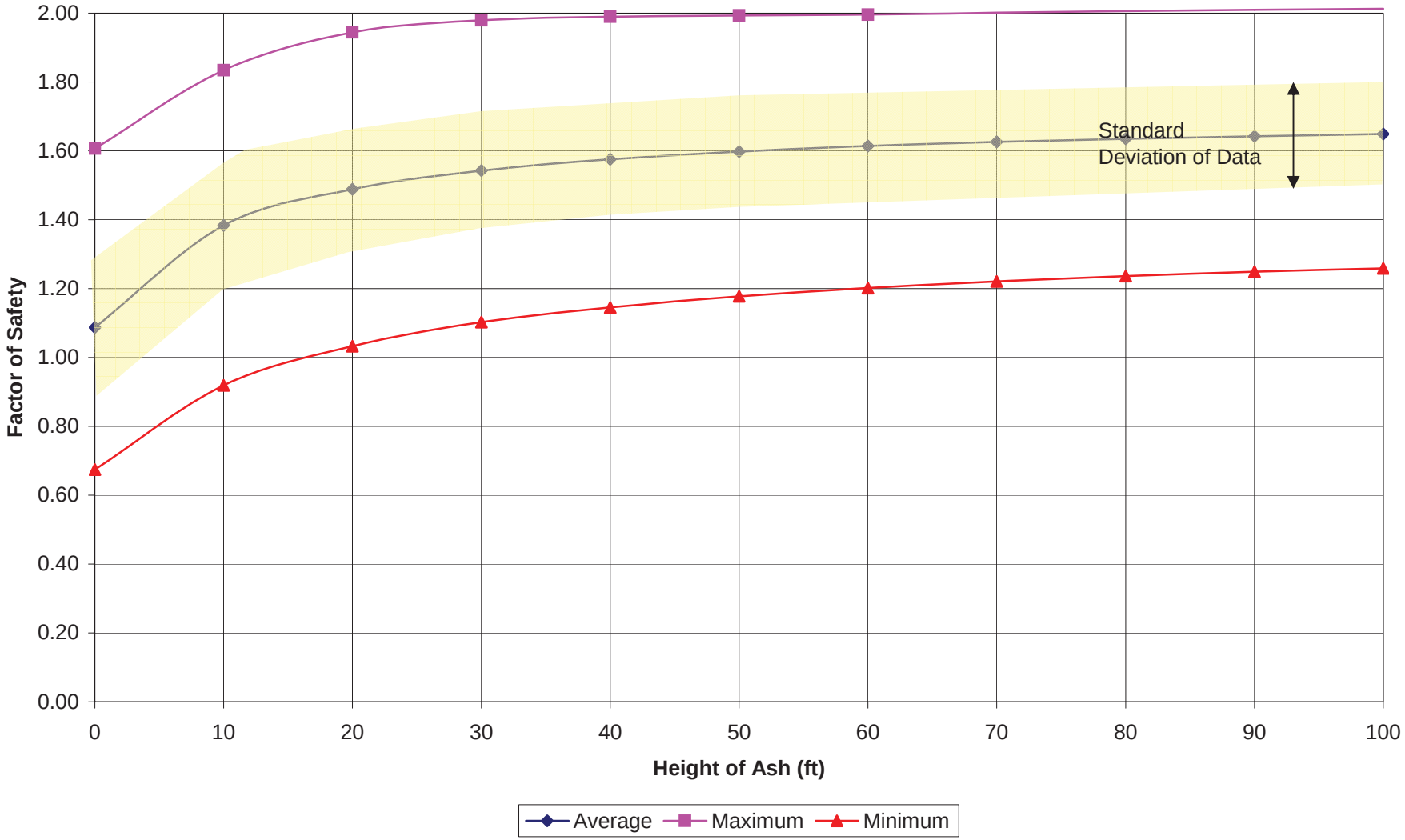
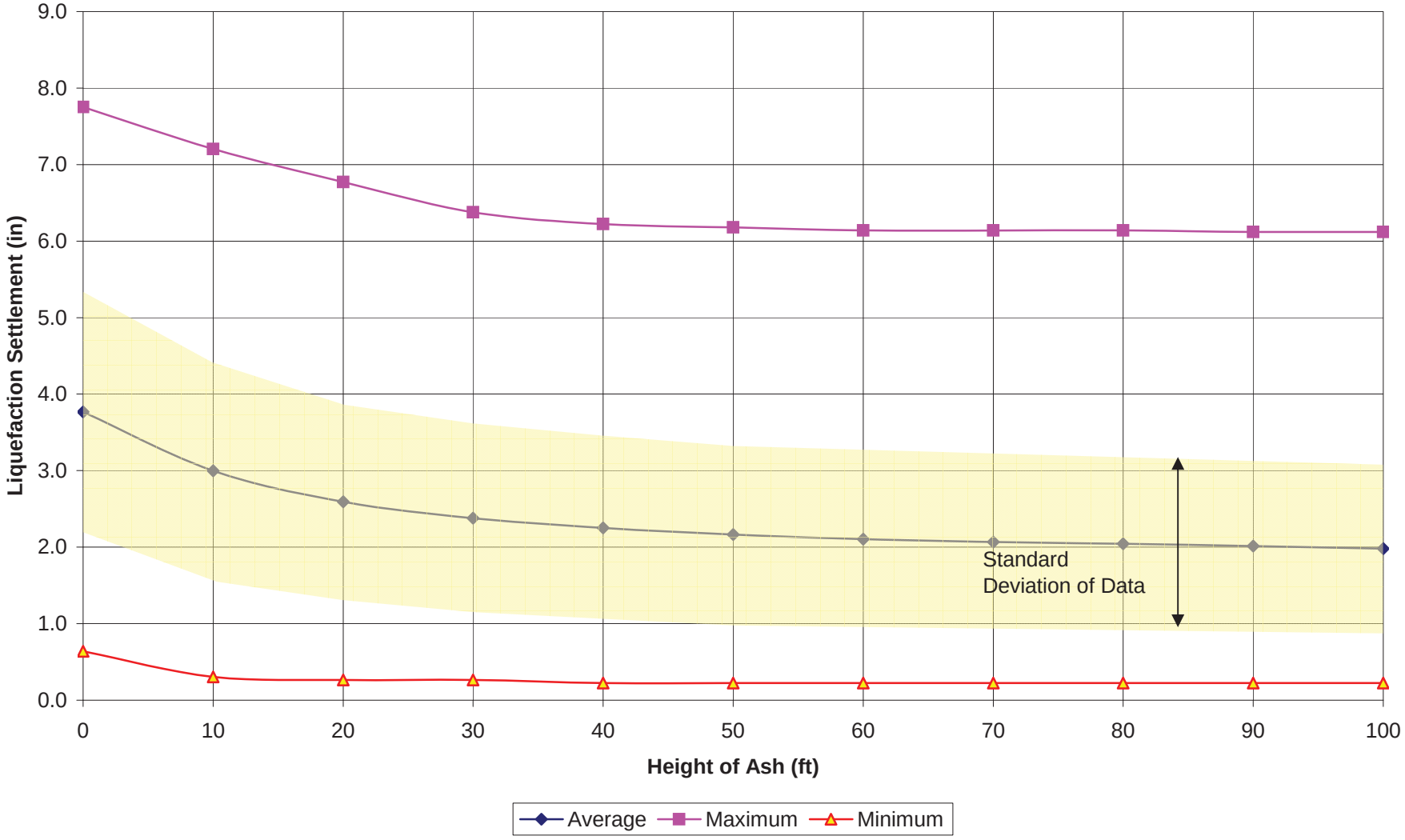
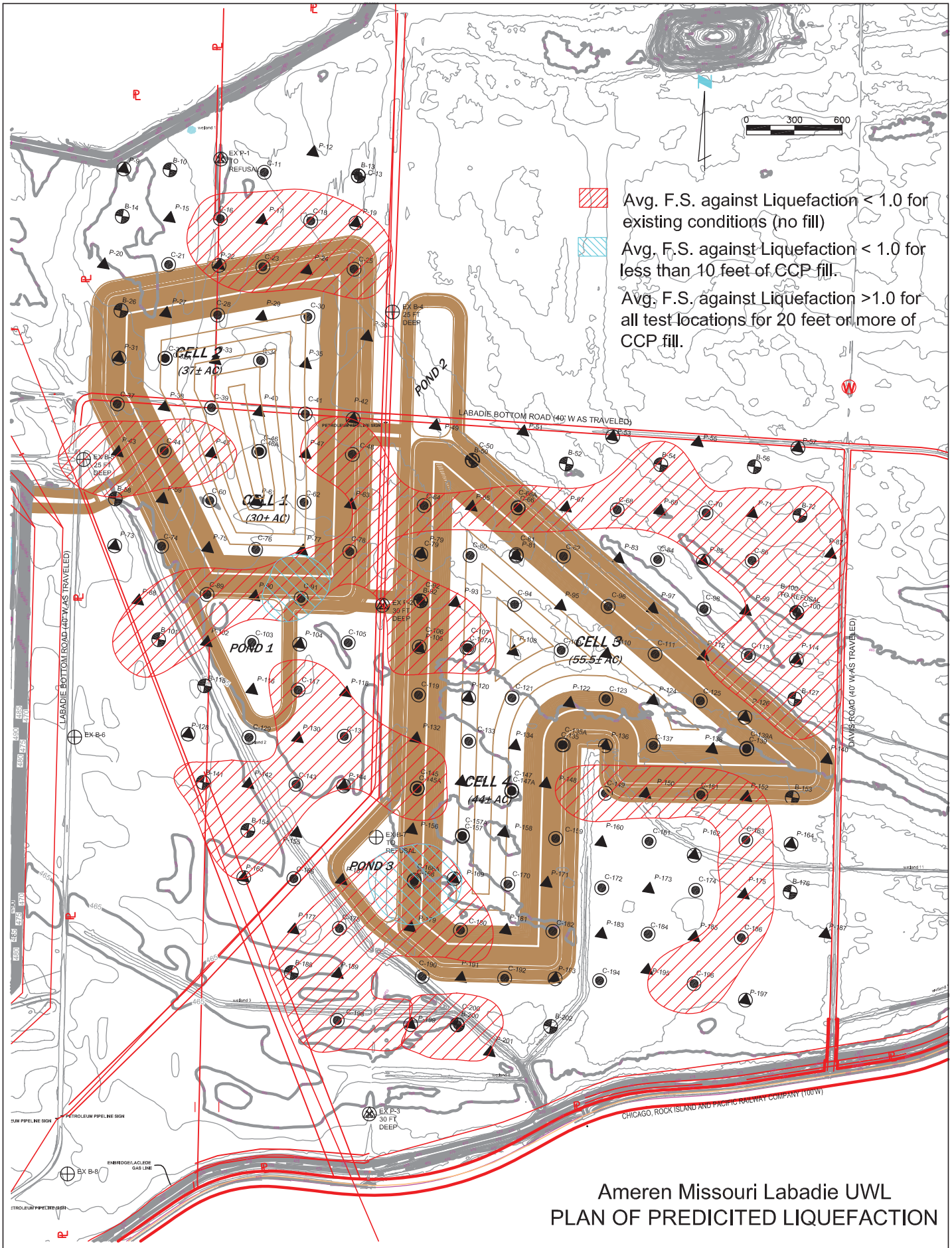
Ameren Missouri: Labadie UWL
Liquefaction Factor of Safety vs. Height of Ash



Ameren Missouri: Labadie UWL
Liquefaction Settlement vs Height of Ash





Ameren Missouri Labadie UWL
PLAN OF PREDICITED LIQUEFACTION

REITZ & JENS, INC.

SCHEDULE CJG-SPT

Figure D-3

Ameren Missouri: Labadie UWL
Liquefaction Analysis
0' of ASH M: 7.5
PGA: 2% probability of exceedence in 50 yrs: 0.1792 GW: 0.0'

C-11		C-13		C-16		C-18		C-21		C-23		C-25		C-28		C-30		C-32		C-34		C-37		C-39	
S (ft)	0.32	S (ft)	0.19	S (ft)	0.40	S (ft)	0.51	S (ft)	0.28	S (ft)	0.45	S (ft)	0.42	S (ft)	0.35	S (ft)	0.33	S (ft)	0.26	S (ft)	0.27	S (ft)	0.31	S (ft)	0.18
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.39	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.45	6.25	0.26	6.25	n.a	6.25	0.53	6.25	0.59	6.25	n.a	6.25	0.31	6.25	n.a	6.25	0.37	6.25	n.a	6.25	n.a
8.75	n.a	8.75	0.66	8.75	0.55	8.75	n.a	8.75	n.a	8.75	0.48	8.75	0.42	8.75	0.32	8.75	0.81	8.75	0.51	8.75	n.a	8.75	0.40	8.75	n.a
11.25	0.26	11.25	2.00	11.25	0.34	11.25	0.47	11.25	0.54	11.25	0.63	11.25	1.97	11.25	n.a	11.25	1.82	11.25	1.39	11.25	n.a	11.25	1.47	11.25	0.60
13.75	n.a	13.75	2.00	13.75	0.53	13.75	0.92	13.75	2.00	13.75	1.03	13.75	0.47	13.75	n.a	13.75	2.00	13.75	1.12	13.75	0.46	13.75	0.97	13.75	1.08
16.25	0.28	16.25	2.00	16.25	0.79	16.25	0.98	16.25	2.00	16.25	1.00	16.25	1.23	16.25	0.76	16.25	0.86	16.25	0.55	16.25	2.11	16.25	2.00	16.25	1.56
18.75	2.00	18.75	2.00	18.75	0.84	18.75	0.61	18.75	1.92	18.75	0.44	18.75	0.69	18.75	0.79	18.75	1.06	18.75	1.27	18.75	1.20	18.75	2.00	18.75	0.82
21.25	1.64	21.25	1.28	21.25	1.42	21.25	0.48	21.25	0.75	21.25	1.08	21.25	1.24	21.25	0.89	21.25	0.93	21.25	1.22	21.25	2.00	21.25	1.07	21.25	2.00
23.75	1.29	23.75	2.00	23.75	2.00	23.75	0.84	23.75	0.96	23.75	2.00	23.75	0.63	23.75	1.34	23.75	1.05	23.75	0.76	23.75	2.00	23.75	0.58	23.75	0.82
26.25	2.00	26.25	0.83	26.25	1.32	26.25	2.00	26.25	0.98	26.25	2.00	26.25	0.67	26.25	1.27	26.25	2.00	26.25	0.74	26.25	2.00	26.25	0.71	26.25	1.40
28.75	2.00	28.75	1.96	28.75	2.00	28.75	2.00	28.75	0.94	28.75	0.84	28.75	0.95	28.75	1.18	28.75	2.00	28.75	2.00	28.75	0.99	28.75	2.00	28.75	2.00
31.25	2.12	31.25	0.84	31.25	2.00	31.25	0.87	31.25	1.43	31.25	2.00	31.25	1.52	31.25	0.86	31.25	1.52	31.25	2.00	31.25	1.78	31.25	0.73	31.25	2.00
33.75	2.00	33.75	0.92	33.75	2.00	33.75	2.00	33.75	0.96	33.75	2.00	33.75	1.71	33.75	2.00	33.75	0.63	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.07
		36.25	2.00	36.25	2.00	36.25	1.12	36.25	0.87	36.25	2.00	36.25	2.00	36.25	0.74	36.25	2.00	36.25	2.00	36.25	0.60	36.25	2.00	36.25	1.92
		38.75	2.00																			38.75	2.00		
		41.25	2.00																			41.25	2.00		
Inv Avg	1.02	Inv Avg	1.44	Inv Avg	0.92	Inv Avg	0.83	Inv Avg	1.18	Inv Avg	0.86	Inv Avg	0.90	Inv Avg	1.02	Inv Avg	1.04	Inv Avg	1.14	Inv Avg	1.11	Inv Avg	1.16	Inv Avg	1.38
Risk	Moderate	Risk	Low	Risk	High	Risk	High	Risk	Moderate	Risk	High	Risk	High	Risk	Moderate	Risk	Moderate	Risk	Moderate	Risk	Moderate	Risk	Moderate	Risk	Low

Figure D-4

SCHEDULE CJG-ST1

C-41		C-44		C-46		C-46A		C-48		C-50		C-60		C-62		C-64		C-66		C-66A		C-68		C-70	
S (ft)	0.24	S (ft)	0.44	S (ft)	0.30	S (ft)	0.34	S (ft)	0.45	S (ft)	0.31	S (ft)	0.21	S (ft)	0.18	S (ft)	0.50	S (ft)	0.05	S (ft)	0.32	S (ft)	0.38	S (ft)	0.41
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	0.38	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.47	6.25	n.a	6.25	n.a	6.25	0.38	6.25	0.28	6.25	n.a	6.25	0.39	6.25	n.a	6.25	n.a	6.25	0.39	6.25	0.33	6.25	0.73
8.75	n.a	8.75	0.47	8.75	n.a	8.75	n.a	8.75	0.47	8.75	1.13	8.75	0.35	8.75	n.a	8.75	0.29	8.75	n.a	8.75	0.41	8.75	0.67	8.75	0.78
11.25	0.36	11.25	0.83	11.25	0.93	11.25	0.75	11.25	0.71	11.25	0.48	11.25	0.72	11.25	n.a	11.25	0.62	11.25	2.00	11.25	2.05	11.25	0.56	11.25	0.81
13.75	0.58	13.75	0.70	13.75	0.53	13.75	0.54	13.75	0.58	13.75	1.91	13.75	0.83	13.75	0.72	13.75	0.59	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.57
16.25	0.58	16.25	0.74	16.25	1.09	16.25	1.00	16.25	0.37	16.25	2.00	16.25	1.43	16.25	2.00	16.25	0.31	16.25	0.93	16.25	0.78	16.25	2.00	16.25	n.a
18.75	1.50	18.75	0.78	18.75	1.16	18.75	1.83	18.75	2.00	18.75	2.00	18.75	1.26	18.75	2.00	18.75	0.98	18.75	1.25	18.75	1.00	18.75	2.14	18.75	0.55
21.25	1.51	21.25	0.58	21.25	0.60	21.25	0.78	21.25	0.67	21.25	2.00	21.25	1.88	21.25	2.00	21.25	1.14	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.39
23.75	1.12	23.75	0.72	23.75	0.84	23.75	0.88	23.75	1.88	23.75	1.17	23.75	2.00	23.75	1.05	23.75	2.00	23.75	1.18	23.75	2.00	23.75	0.65	23.75	1.12
26.25	1.40	26.25	2.00	26.25	0.75	26.25	0.90	26.25	2.00	26.25	2.00	26.25	2.14	26.25	1.18	26.25	2.00			26.25	2.00	26.25	0.67	26.25	1.23
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.14	28.75	2.00	28.75	2.00	28.75	2.00			28.75	1.67	28.75	2.00	28.75	0.74
31.25	1.74	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.91	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.15			31.25	0.98	31.25	2.00	31.25	2.00
33.75	2.00	33.75	n.a	33.75	1.73	33.75	2.00	33.75	2.12	33.75	2.00			33.75	1.83	33.75	0.78			33.75	n.a	33.75	1.37	33.75	1.63
36.25	2.00	36.25	n.a	36.25	1.02	36.25	0.55	36.25	0.95	36.25	0.75			36.25	2.00	36.25	0.60					36.25	0.85	36.25	0.47
				38.75	1.22	38.75	1.73			38.75	2.00														
				41.25	2.13	41.25	1.64			41.25	2.00														
				43.75	2.00	43.75	2.00																		
Inv Avg	1.14	Inv Avg	0.93	Inv Avg	1.18	Inv Avg	1.18	Inv Avg	0.87	Inv Avg	1.13	Inv Avg	1.19	Inv Avg	1.33	Inv Avg	0.82	Inv Avg	1.61	Inv Avg	0.93	Inv Avg	0.99	Inv Avg	0.94
Risk	Moderate	Risk	High	Risk	Moderate	Risk	Moderate	Risk	High	Risk	Moderate	Risk	Moderate	Risk	Low	Risk	High	Risk	Low	Risk	High	Risk	High	Risk	High

Figure D-4

SCHEDULE CJG-ST1

C-74		C-76		C-78		C-79		C-80		C-81		C-82		C-84		C-86		C-89		C-91		C-92		C-94	
S (ft)	0.32	S (ft)	0.16	S (ft)	0.42	S (ft)	0.27	S (ft)	0.28	S (ft)	0.27	S (ft)	0.10	S (ft)	0.26	S (ft)	0.39	S (ft)	0.46	S (ft)	0.65	S (ft)	0.22	S (ft)	0.23
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.41	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.40	6.25	0.47	6.25	0.34	6.25	n.a	6.25	n.a	6.25	n.a	6.25	0.85	6.25	n.a	6.25	n.a	6.25	0.41	6.25	0.41
8.75	n.a	8.75	n.a	8.75	n.a	8.75	0.62	8.75	n.a	8.75	0.46	8.75	n.a	8.75	0.58	8.75	0.43	8.75	0.50	8.75	0.32	8.75	0.61	8.75	0.70
11.25	n.a	11.25	n.a	11.25	0.30	11.25	n.a	11.25	n.a	11.25	0.32	11.25	n.a	11.25	0.82	11.25	0.59	11.25	0.59	11.25	0.43	11.25	0.43	11.25	n.a
13.75	0.29	13.75	0.40	13.75	0.38	13.75	0.56	13.75	0.39	13.75	1.21	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.62	13.75	0.34	13.75	1.74	13.75	n.a
16.25	0.55	16.25	0.75	16.25	2.00	16.25	1.03	16.25	0.59	16.25	1.92	16.25	2.00	16.25	1.15	16.25	1.29	16.25	0.55	16.25	0.62	16.25	2.00	16.25	0.74
18.75	1.13	18.75	1.13	18.75	1.70	18.75	2.00	18.75	2.00	18.75	0.68	18.75	1.23	18.75	1.37	18.75	1.96	18.75	0.44	18.75	0.78	18.75	2.00	18.75	1.03
21.25	0.68	21.25	2.00	21.25	0.73	21.25	1.43	21.25	1.03	21.25	1.15	21.25	2.00	21.25	1.16	21.25	2.00	21.25	0.85	21.25	1.69	21.25	2.00	21.25	2.00
23.75	1.75	23.75	2.00	23.75	2.00	23.75	0.67	23.75	2.00	23.75	1.88	23.75	2.00	23.75	0.91	23.75	0.66	23.75	0.84	23.75	1.26	23.75	2.00	23.75	1.37
26.25	1.29	26.25	2.00	26.25	0.92	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.08	26.25	0.43			26.25	2.00
28.75	1.11	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.95	28.75	1.23	28.75	1.06	28.75	0.57			28.75	2.00
31.25	0.78	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.16	31.25	2.00	31.25	2.11	31.25	2.00	31.25	0.97	31.25	0.78	31.25	0.51			31.25	1.28
33.75	n.a	33.75	2.00	33.75	0.87	33.75	2.00	33.75	1.78	33.75	1.20	33.75	1.43	33.75	2.00	33.75	1.09	33.75	2.00	33.75	1.07			33.75	1.13
36.25	n.a	36.25	2.00	36.25	1.75	36.25	2.00	36.25	2.00	36.25	2.00	36.25	0.48	36.25	0.38	36.25	1.05	36.25	1.96	36.25	0.88			36.25	2.00
Inv Avg	1.03	Inv Avg	1.40	Inv Avg	0.90	Inv Avg	1.14	Inv Avg	1.06	Inv Avg	1.09	Inv Avg	1.57	Inv Avg	1.14	Inv Avg	0.93	Inv Avg	0.88	Inv Avg	0.67	Inv Avg	1.00	Inv Avg	1.19
Risk	Moderate	Risk	Low	Risk	High	Risk	Moderate	Risk	Moderate	Risk	Moderate	Risk	Low	Risk	Moderate	Risk	High	Risk	High	Risk	High	Risk	Moderate	Risk	Moderate

Figure D-4

SCHEDULE CJG-ST1

C-96		C-98		C-100		C-103		C-105		C-106		C-107		C-107A		C-109		C-111		C-113		C-117		C-119	
S (ft)	0.23	S (ft)	0.30	S (ft)	0.28	S (ft)	0.28	S (ft)	0.15	S (ft)	0.48	S (ft)	0.28	S (ft)	0.25	S (ft)	0.30	S (ft)	0.24	S (ft)	0.42	S (ft)	0.44	S (ft)	0.17
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.37	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	1.31	6.25	n.a	6.25	n.a	6.25	0.47	6.25	0.36	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a
8.75	n.a	8.75	0.27	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.38	8.75	0.38	8.75	0.57	8.75	n.a	8.75	n.a	8.75	0.38	8.75	0.24	8.75	0.37
11.25	n.a	11.25	0.59	11.25	1.25	11.25	0.47	11.25	n.a	11.25	0.61	11.25	0.45	11.25	0.64	11.25	0.25	11.25	0.34	11.25	1.08	11.25	1.36	11.25	0.74
13.75	0.36	13.75	1.27	13.75	0.91	13.75	1.72	13.75	n.a	13.75	1.29	13.75	1.02	13.75	0.91	13.75	1.08	13.75	0.43	13.75	0.39	13.75	0.62	13.75	1.14
16.25	0.59	16.25	1.97	16.25	1.04	16.25	1.35	16.25	1.49	16.25	0.89	16.25	1.81	16.25	2.00	16.25	2.00	16.25	0.78	16.25	1.03	16.25	0.55	16.25	1.74
18.75	0.63	18.75	1.83	18.75	2.00	18.75	0.49	18.75	2.00	18.75	0.47	18.75	1.78	18.75	2.00	18.75	0.87	18.75	2.00	18.75	0.64	18.75	0.56	18.75	2.00
21.25	1.70	21.25	2.00	21.25	1.70	21.25	0.54	21.25	2.05	21.25	0.51	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.10	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	1.31	23.75	1.08	23.75	0.89	23.75	1.35	23.75	1.12	23.75	2.00	23.75	0.84	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00
26.25	1.34	26.25	2.00	26.25	1.64	26.25	0.88	26.25	2.00	26.25	0.93			26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.83	26.25	2.00	26.25	2.00
28.75	2.00	28.75	0.78	28.75	0.50	28.75	n.a	28.75	0.49	28.75	2.00			28.75	0.78	28.75	1.14	28.75	2.00	28.75	0.77	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.05	31.25	0.83	31.25	n.a	31.25	1.70	31.25	2.00			31.25	2.00	31.25	1.65	31.25	2.00	31.25	1.42	31.25	2.00	31.25	2.00
33.75	1.63	33.75	2.00			33.75	n.a	33.75	2.00	33.75	0.80			33.75	2.00	33.75	1.29	33.75	2.00	33.75	0.81	33.75	1.47	33.75	2.00
		36.25	2.00			36.25	n.a	36.25	0.74	36.25	1.21			36.25	2.00	36.25	0.92			36.25	0.93	36.25	1.16		
Inv Avg	1.16	Inv Avg	1.09	Inv Avg	0.99	Inv Avg	1.10	Inv Avg	1.44	Inv Avg	0.81	Inv Avg	0.85	Inv Avg	1.26	Inv Avg	1.12	Inv Avg	1.16	Inv Avg	0.90	Inv Avg	0.96	Inv Avg	1.33
Risk	Moderate	Risk	Moderate	Risk	High	Risk	Moderate	Risk	Low	Risk	High	Risk	High	Risk	Low	Risk	Moderate	Risk	Moderate	Risk	High	Risk	High	Risk	Low

Figure D-4

SCHEDULE CJG-ST1

C-121		C-123		C-125		C-129		C-131		C-133		C-135		C-135A		C-137		C-139		C-139A		C-143		C-145	
S (ft)	0.22	S (ft)	0.24	S (ft)	0.30	S (ft)	0.38	S (ft)	0.48	S (ft)	0.18	S (ft)	0.07	S (ft)	0.14	S (ft)	0.08	S (ft)	0.13	S (ft)	0.15	S (ft)	0.40	S (ft)	0.28
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.29	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.37	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	0.27	6.25	0.32
8.75	n.a	8.75	1.99	8.75	n.a	8.75	n.a	8.75	0.32	8.75	0.57	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	0.80	8.75	0.83
11.25	0.58	11.25	1.13	11.25	n.a	11.25	n.a	11.25	0.28	11.25	1.12	11.25	0.54	11.25	0.54	11.25	n.a	11.25	n.a	11.25	n.a	11.25	0.96	11.25	0.51
13.75	2.00	13.75	2.00	13.75	0.47	13.75	n.a	13.75	0.59	13.75	1.30	13.75	2.00	13.75	2.00	13.75	1.19	13.75	0.30	13.75	0.38	13.75	1.44	13.75	2.00
16.25	2.00	16.25	1.79	16.25	0.93	16.25	0.26	16.25	0.72	16.25	2.00	16.25	2.00	16.25	2.00	16.25	0.95	16.25	2.00	16.25	1.31	16.25	1.64	16.25	2.00
18.75	2.00	18.75	1.00	18.75	2.00	18.75	2.00	18.75	0.94	18.75	0.99	18.75	2.00	18.75	2.00	18.75	1.30	18.75	2.00	18.75	2.00	18.75	0.69	18.75	0.66
21.25	2.00	21.25	0.97	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.11			21.25	2.00	21.25	1.08	21.25	2.00	21.25	2.00	21.25	1.05	21.25	2.00
23.75	1.65	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.54	23.75	0.75			23.75	2.00	23.75	2.00			23.75	2.00	23.75	0.76	23.75	2.00
26.25	0.64	26.25	2.00	26.25	2.00	26.25	0.62	26.25	1.08	26.25	1.34			26.25	1.91	26.25	1.26			26.25	2.00	26.25	1.41	26.25	2.00
28.75	0.95	28.75	1.62	28.75	2.00	28.75	0.70	28.75	0.66	28.75	1.30			28.75	0.57	28.75	1.40			28.75	2.00	28.75	1.10		
31.25	0.58	31.25	0.60	31.25	0.71	31.25	2.00	31.25	1.57	31.25	2.00			31.25	1.52	31.25	2.00			31.25	0.76	31.25	0.86		
33.75	2.00	33.75	1.39	33.75	1.38	33.75	0.73	33.75	2.00	33.75	2.00					32.25	2.00					33.75	2.00		
		36.25	1.51	36.25	1.69	36.25	0.68	36.25	1.33	36.25	2.00											36.25	2.00		
Inv Avg	1.25	Inv Avg	1.17	Inv Avg	1.08	Inv Avg	1.02	Inv Avg	0.84	Inv Avg	1.29	Inv Avg	1.50	Inv Avg	1.40	Inv Avg	1.54	Inv Avg	1.23	Inv Avg	1.34	Inv Avg	0.95	Inv Avg	0.97
Risk	Low	Risk	Moderate	Risk	Moderate	Risk	Moderate	Risk	High	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	High	Risk	High

Figure D-4

SCHEDULE CJG-ST1

C-145A		C-147		C-149		C-151		C-157		C-157A		C-159		C-161		C-163		C-166		C-168		C-168A		C-170	
S (ft)	0.36	S (ft)	0.17	S (ft)	0.45	S (ft)	0.50	S (ft)	0.23	S (ft)	0.26	S (ft)	0.37	S (ft)	0.20	S (ft)	0.65	S (ft)	0.28	S (ft)	0.41	S (ft)	0.62	S (ft)	0.32
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.31	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.40	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	1.15	6.25	n.a	6.25	n.a	6.25	0.26	6.25	0.26	6.25	2.00	6.25	0.39	6.25	n.a	6.25	0.63	6.25	0.39	6.25	0.32	6.25	n.a
8.75	0.54	8.75	2.00	8.75	0.40	8.75	n.a	8.75	1.70	8.75	1.56	8.75	0.80	8.75	0.51	8.75	n.a	8.75	2.00	8.75	0.61	8.75	0.60	8.75	0.28
11.25	0.56	11.25	0.60	11.25	0.64	11.25	0.23	11.25	0.84	11.25	0.57	11.25	0.74	11.25	1.46	11.25	n.a	11.25	2.00	11.25	0.66	11.25	0.46	11.25	0.86
13.75	2.00	13.75	1.48	13.75	1.04	13.75	0.56	13.75	2.00	13.75	2.00	13.75	1.16	13.75	1.29	13.75	0.22	13.75	0.93	13.75	0.75	13.75	0.50	13.75	0.81
16.25	2.00	16.25	0.84	16.25	1.64	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.89	16.25	1.13	16.25	1.07	16.25	1.47	16.25	0.48	16.25	0.59	16.25	2.00
18.75	0.55	18.75	2.00	18.75	2.00	18.75	0.65	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.30	18.75	0.91	18.75	2.00	18.75	0.61	18.75	0.70	18.75	2.00
21.25	2.00	21.25	0.75	21.25	1.82	21.25	0.96	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.13	21.25	0.63	21.25	2.00	21.25	0.86	21.25	0.71	21.25	0.67
23.75	2.00	23.75	2.00	23.75	2.12	23.75	0.87	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.58	23.75	0.66	23.75	2.00	23.75	1.93	23.75	1.64	23.75	1.02
26.25	2.00			26.25	0.67	26.25	1.78			26.25	2.00	26.25	0.66	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00
28.75	1.70			28.75	0.57	28.75	1.46			28.75	1.18	28.75	0.68	28.75	2.00	28.75	1.27	28.75	2.00	28.75	2.00	28.75	n.a	28.75	1.50
31.25	0.78			31.25	0.59	31.25	2.00			31.25	1.97	31.25	0.87	31.25	2.00	31.25	1.91	31.25	0.45	31.25	2.00	31.25	0.37	31.25	1.58
33.75	0.57			33.75	2.00	33.75	2.00					33.75	0.79					32.25	0.71	32.25	2.00	33.75	0.55	33.75	2.00
36.25	0.63			36.25	2.00							36.25	0.59					33.25	1.46					36.25	1.05
Inv Avg	1.03	Inv Avg	1.21	Inv Avg	0.87	Inv Avg	0.96	Inv Avg	1.09	Inv Avg	1.12	Inv Avg	1.06	Inv Avg	1.11	Inv Avg	0.93	Inv Avg	1.06	Inv Avg	0.91	Inv Avg	0.68	Inv Avg	1.06
Risk	Moderate	Risk	Low	Risk	High	Risk	High	Risk	Moderate	Risk	Moderate	Risk	Moderate	Risk	Moderate	Risk	High	Risk	Moderate	Risk	High	Risk	High	Risk	Moderate

Figure D-4

SCHEDULE CJG-ST1

C-172		C-174		C-178		C-180		C-182		C-184		C-186		C-190		C-192		C-194		C-196		C-198		C-200	
S (ft)	0.33	S (ft)	0.14	S (ft)	0.35	S (ft)	0.55	S (ft)	0.17	S (ft)	0.37	S (ft)	0.44	S (ft)	0.18	S (ft)	0.23	S (ft)	0.34	S (ft)	0.36	S (ft)	0.46	S (ft)	0.60
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	0.28	6.25	0.62	6.25	n.a	6.25	0.34	6.25	n.a	6.25	n.a	6.25	0.30	6.25	n.a	6.25	0.32	6.25	0.35	6.25	n.a	6.25	0.37	6.25	0.44
8.75	0.70	8.75	1.20	8.75	0.37	8.75	0.90	8.75	0.59	8.75	0.30	8.75	1.70	8.75	n.a	8.75	2.00	8.75	n.a	8.75	0.45	8.75	0.41	8.75	n.a
11.25	1.07	11.25	2.00	11.25	0.84	11.25	0.54	11.25	0.74	11.25	0.71	11.25	1.78	11.25	n.a	11.25	1.25	11.25	0.70	11.25	0.75	11.25	0.67	11.25	n.a
13.75	2.00	13.75	2.00	13.75	0.83	13.75	0.45	13.75	1.15	13.75	1.85	13.75	1.98	13.75	n.a	13.75	2.06	13.75	0.51	13.75	1.65	13.75	2.00	13.75	0.56
16.25	1.73	16.25	1.03	16.25	0.46	16.25	0.42	16.25	1.30	16.25	0.80	16.25	2.00	16.25	0.31	16.25	2.00	16.25	1.02	16.25	0.67	16.25	2.00	16.25	0.62
18.75	2.00	18.75	0.88	18.75	1.32	18.75	0.65	18.75	1.36	18.75	0.82	18.75	0.72	18.75	1.39	18.75	0.45	18.75	0.59	18.75	0.99	18.75	0.93	18.75	1.67
21.25	0.81	21.25	2.05	21.25	0.86	21.25	0.59	21.25	1.08	21.25	2.00	21.25	0.57	21.25	0.81	21.25	2.00	21.25	2.00	21.25	1.04	21.25	n.a	21.25	0.79
23.75	0.84	23.75	1.48	23.75	0.64	23.75	0.62	23.75	2.00	23.75	2.00	23.75	0.67	23.75	1.84	23.75	2.00	23.75	2.00	23.75	1.12	23.75	0.43	23.75	1.06
26.25	1.09	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.49	26.25	2.00	26.25	1.45	26.25	2.00	26.25	2.00	26.25	0.98	26.25	0.84
28.75	1.52	28.75	1.91	28.75	1.21	28.75	2.00	28.75	2.00	28.75	1.21	28.75	0.50	28.75	2.16	28.75	1.55	28.75	2.00	28.75	2.00	28.75	0.72	28.75	2.00
31.25	1.11	31.25	2.14	31.25	2.00	31.25	1.02	31.25	1.68	31.25	0.99	31.25	2.00	31.25	2.00	31.25	1.80	31.25	1.10	31.25	n.a	31.25	0.77	31.25	2.00
33.75	1.64	33.75	2.00	33.75	2.00	33.75	1.03	33.75	1.16	33.75	1.06	33.75	1.33	33.75	2.00	33.75	1.33	33.75	0.97	33.75	0.30	33.75	1.87	33.75	0.80
36.25	2.00			36.25	2.00	36.25	2.00			36.25	0.73			36.25	2.00	36.25	2.00	36.25	2.00			36.25	2.00	36.25	2.00
																								38.75	2.00
																								41.25	2.00
																								43.75	1.52
																								46.25	0.92
																								48.75	0.70
																								51.25	0.84
																								53.75	0.76
																								56.25	2.00
																								58.75	2.00
																								61.25	2.00
																								63.75	2.00
																								66.25	0.83
Inv Avg	1.03	Inv Avg	1.44	Inv Avg	0.99	Inv Avg	0.76	Inv Avg	1.30	Inv Avg	1.01	Inv Avg	0.85	Inv Avg	1.34	Inv Avg	1.17	Inv Avg	1.01	Inv Avg	0.95	Inv Avg	0.87	Inv Avg	1.11
Risk	Moderate	Risk	Low	Risk	High	Risk	High	Risk	Low	Risk	Moderate	Risk	High	Risk	Low	Risk	Moderate	Risk	Moderate	Risk	High	Risk	High	Risk	Moderate

Figure D-4

SCHEDULE CJG-ST1

Ameren Missouri: Labadie UWL
Liquefaction Analysis
10' of ASH M: 7.5
PGA: 2% probability of exceedence in 50 yrs: 0.1792 GW: 0.0'

C-11		C-13		C-16		C-18		C-21		C-23		C-25		C-28		C-30		C-32		C-34		C-37		C-39	
S (ft)	0.32	S (ft)	0.09	S (ft)	0.33	S (ft)	0.40	S (ft)	0.14	S (ft)	0.37	S (ft)	0.34	S (ft)	0.22	S (ft)	0.22	S (ft)	0.21	S (ft)	0.25	S (ft)	0.24	S (ft)	0.10
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.75	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.79	6.25	0.46	6.25	n.a	6.25	0.93	6.25	1.04	6.25	n.a	6.25	0.54	6.25	n.a	6.25	0.64	6.25	n.a	6.25	n.a
8.75	n.a	8.75	1.08	8.75	0.89	8.75	n.a	8.75	n.a	8.75	0.78	8.75	0.69	8.75	0.53	8.75	1.32	8.75	0.84	8.75	n.a	8.75	0.66	8.75	n.a
11.25	0.41	11.25	2.00	11.25	0.53	11.25	0.73	11.25	0.84	11.25	0.97	11.25	2.00	11.25	n.a	11.25	2.00	11.25	2.16	11.25	n.a	11.25	2.00	11.25	0.94
13.75	n.a	13.75	2.00	13.75	0.80	13.75	1.37	13.75	2.00	13.75	1.53	13.75	0.71	13.75	n.a	13.75	2.00	13.75	1.67	13.75	0.68	13.75	1.45	13.75	1.61
16.25	0.40	16.25	2.00	16.25	1.14	16.25	1.42	16.25	2.00	16.25	1.44	16.25	1.78	16.25	1.09	16.25	1.23	16.25	0.80	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	2.00	18.75	1.18	18.75	0.85	18.75	2.00	18.75	0.61	18.75	0.97	18.75	1.10	18.75	1.48	18.75	1.78	18.75	1.67	18.75	2.00	18.75	1.14
21.25	2.00	21.25	1.75	21.25	1.93	21.25	0.66	21.25	1.02	21.25	1.47	21.25	1.69	21.25	1.22	21.25	1.27	21.25	1.66	21.25	2.00	21.25	1.46	21.25	2.00
23.75	1.72	23.75	2.00	23.75	2.00	23.75	1.12	23.75	1.29	23.75	2.00	23.75	0.84	23.75	1.79	23.75	1.41	23.75	1.02	23.75	2.00	23.75	0.78	23.75	1.10
26.25	2.00	26.25	1.09	26.25	1.74	26.25	2.00	26.25	1.29	26.25	2.00	26.25	0.88	26.25	1.67	26.25	2.00	26.25	0.97	26.25	2.00	26.25	0.93	26.25	1.84
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.22	28.75	1.09	28.75	1.23	28.75	1.52	28.75	2.00	28.75	2.00	28.75	1.28	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.07	31.25	2.00	31.25	1.11	31.25	1.83	31.25	2.00	31.25	1.93	31.25	1.10	31.25	1.94	31.25	2.00	31.25	2.00	31.25	0.93	31.25	2.00
33.75	2.00	33.75	1.15	33.75	2.00	33.75	2.00	33.75	1.21	33.75	2.00	33.75	2.15	33.75	2.00	33.75	0.79	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00
		36.25	2.00	36.25	2.00	36.25	1.39	36.25	1.08	36.25	2.00	36.25	2.00	36.25	0.92	36.25	2.00	36.25	2.00	36.25	0.75	36.25	2.00	36.25	2.00
		38.75	2.00																			38.75	2.00		
		41.25	2.00																			41.25	2.00		
Inv Avg	1.27	Inv Avg	1.66	Inv Avg	1.27	Inv Avg	1.14	Inv Avg	1.45	Inv Avg	1.22	Inv Avg	1.24	Inv Avg	1.32	Inv Avg	1.38	Inv Avg	1.47	Inv Avg	1.40	Inv Avg	1.44	Inv Avg	1.66
Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-5

SCHEDULE CJG-ST1

C-41		C-44		C-46		C-46A		C-48		C-50		C-60		C-62		C-64		C-66		C-66A		C-68		C-70	
S (ft)	0.22	S (ft)	0.31	S (ft)	0.21	S (ft)	0.20	S (ft)	0.38	S (ft)	0.28	S (ft)	0.13	S (ft)	0.13	S (ft)	0.45	S (ft)	0.03	S (ft)	0.24	S (ft)	0.32	S (ft)	0.27
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	0.82	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.82	6.25	n.a	6.25	n.a	6.25	0.66	6.25	0.50	6.25	n.a	6.25	0.68	6.25	n.a	6.25	n.a	6.25	0.69	6.25	0.57	6.25	1.27
8.75	n.a	8.75	0.77	8.75	n.a	8.75	n.a	8.75	0.77	8.75	1.85	8.75	0.57	8.75	n.a	8.75	0.48	8.75	n.a	8.75	0.67	8.75	1.10	8.75	1.27
11.25	0.56	11.25	1.29	11.25	1.44	11.25	1.17	11.25	1.10	11.25	0.75	11.25	1.13	11.25	n.a	11.25	0.97	11.25	2.00	11.25	2.00	11.25	0.88	11.25	1.26
13.75	0.87	13.75	1.04	13.75	0.78	13.75	0.80	13.75	0.87	13.75	2.00	13.75	1.23	13.75	1.07	13.75	0.87	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.85
16.25	0.84	16.25	1.07	16.25	1.57	16.25	1.44	16.25	0.53	16.25	2.00	16.25	2.06	16.25	2.00	16.25	0.44	16.25	1.33	16.25	1.13	16.25	2.00	16.25	n.a
18.75	2.10	18.75	1.10	18.75	1.62	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.76	18.75	2.00	18.75	1.37	18.75	1.75	18.75	1.40	18.75	2.00	18.75	0.76
21.25	2.06	21.25	0.79	21.25	0.82	21.25	1.07	21.25	0.92	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.55	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.90
23.75	1.50	23.75	0.96	23.75	1.12	23.75	1.18	23.75	2.00	23.75	1.56	23.75	2.00	23.75	1.40	23.75	2.00	23.75	1.58	23.75	2.00	23.75	0.87	23.75	1.50
26.25	1.83	26.25	2.00	26.25	0.99	26.25	1.18	26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.55	26.25	2.00			26.25	2.00	26.25	0.88	26.25	1.61
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.47	28.75	2.00	28.75	2.00	28.75	2.00			28.75	2.15	28.75	2.00	28.75	0.96
31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00			31.25	1.25	31.25	2.00	31.25	2.00
33.75	2.00	33.75	n.a	33.75	2.17	33.75	2.00	33.75	2.00	33.75	2.00			33.75	2.00	33.75	0.98			33.75	n.a	33.75	1.72	33.75	2.05
36.25	2.00	36.25	n.a	36.25	1.27	36.25	0.68	36.25	1.18	36.25	0.93			36.25	2.00	36.25	0.74					36.25	1.05	36.25	0.58
				38.75	1.50	38.75	2.13			38.75	2.00														
				41.25	2.00	41.25	1.99			41.25	2.00														
				43.75	2.00	43.75	2.00																		
Inv Avg	1.46	Inv Avg	1.26	Inv Avg	1.47	Inv Avg	1.45	Inv Avg	1.18	Inv Avg	1.44	Inv Avg	1.53	Inv Avg	1.62	Inv Avg	1.09	Inv Avg	1.83	Inv Avg	1.33	Inv Avg	1.29	Inv Avg	1.26
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-5

SCHEDULE CJG-ST1

C-74		C-76		C-78		C-79		C-80		C-81		C-82		C-84		C-86		C-89		C-91		C-92		C-94	
S (ft)	0.28	S (ft)	0.12	S (ft)	0.36	S (ft)	0.22	S (ft)	0.26	S (ft)	0.25	S (ft)	0.10	S (ft)	0.18	S (ft)	0.30	S (ft)	0.36	S (ft)	0.58	S (ft)	0.19	S (ft)	0.14
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.77	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.70	6.25	0.83	6.25	0.59	6.25	n.a	6.25	n.a	6.25	n.a	6.25	1.49	6.25	n.a	6.25	n.a	6.25	0.72	6.25	0.71
8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.02	8.75	n.a	8.75	0.75	8.75	n.a	8.75	0.95	8.75	0.70	8.75	0.82	8.75	0.53	8.75	1.00	8.75	1.15
11.25	n.a	11.25	n.a	11.25	0.47	11.25	n.a	11.25	n.a	11.25	0.50	11.25	n.a	11.25	1.27	11.25	0.92	11.25	0.92	11.25	0.67	11.25	0.66	11.25	n.a
13.75	0.44	13.75	0.60	13.75	0.57	13.75	0.84	13.75	0.58	13.75	1.80	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.93	13.75	0.50	13.75	2.00	13.75	n.a
16.25	0.79	16.25	1.07	16.25	2.00	16.25	1.48	16.25	0.85	16.25	2.00	16.25	2.00	16.25	1.65	16.25	1.85	16.25	0.79	16.25	0.89	16.25	2.00	16.25	1.07
18.75	1.59	18.75	1.59	18.75	2.00	18.75	2.00	18.75	2.00	18.75	0.95	18.75	1.73	18.75	1.92	18.75	2.00	18.75	0.62	18.75	1.09	18.75	2.00	18.75	1.43
21.25	0.93	21.25	2.00	21.25	1.00	21.25	1.95	21.25	1.41	21.25	1.57	21.25	2.00	21.25	1.59	21.25	2.00	21.25	1.16	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	0.89	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.22	23.75	0.88	23.75	1.12	23.75	1.68	23.75	2.00	23.75	1.83
26.25	1.70	26.25	2.00	26.25	1.21	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.57			26.25	2.00
28.75	1.44	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.59	28.75	1.37	28.75	0.73			28.75	2.00
31.25	0.99	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.48	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.23	31.25	0.99	31.25	0.65			31.25	1.63
33.75	n.a	33.75	2.00	33.75	1.09	33.75	2.00	33.75	2.00	33.75	1.51	33.75	1.79	33.75	2.00	33.75	1.37	33.75	2.00	33.75	1.34			33.75	1.42
36.25	n.a	36.25	2.00	36.25	2.17	36.25	2.00	36.25	2.00	36.25	2.00	36.25	0.60	36.25	0.47	36.25	1.31	36.25	2.00	36.25	1.09			36.25	2.00
Inv Avg	1.30	Inv Avg	1.63	Inv Avg	1.20	Inv Avg	1.47	Inv Avg	1.37	Inv Avg	1.40	Inv Avg	1.70	Inv Avg	1.42	Inv Avg	1.29	Inv Avg	1.18	Inv Avg	0.92	Inv Avg	1.35	Inv Avg	1.54
Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	High	Risk	Low	Risk	Low

Figure D-5

SCHEDULE CJG-ST1

C-96		C-98		C-100		C-103		C-105		C-106		C-107		C-107A		C-109		C-111		C-113		C-117		C-119	
S (ft)	0.21	S (ft)	0.24	S (ft)	0.21	S (ft)	0.23	S (ft)	0.13	S (ft)	0.39	S (ft)	0.27	S (ft)	0.14	S (ft)	0.24	S (ft)	0.20	S (ft)	0.32	S (ft)	0.42	S (ft)	0.13
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.71	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	0.81	6.25	0.62	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a
8.75	n.a	8.75	0.45	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.62	8.75	0.62	8.75	0.92	8.75	n.a	8.75	n.a	8.75	0.62	8.75	0.39	8.75	0.60
11.25	n.a	11.25	0.92	11.25	1.95	11.25	0.73	11.25	n.a	11.25	0.95	11.25	0.70	11.25	0.99	11.25	0.39	11.25	0.52	11.25	1.68	11.25	2.12	11.25	1.16
13.75	0.53	13.75	1.89	13.75	1.36	13.75	2.00	13.75	n.a	13.75	1.93	13.75	1.51	13.75	1.36	13.75	1.61	13.75	0.63	13.75	0.58	13.75	0.92	13.75	1.70
16.25	0.85	16.25	2.00	16.25	1.50	16.25	1.95	16.25	2.14	16.25	1.28	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.12	16.25	1.48	16.25	0.79	16.25	2.00
18.75	0.88	18.75	2.00	18.75	2.00	18.75	0.69	18.75	2.00	18.75	0.66	18.75	2.00	18.75	2.00	18.75	1.22	18.75	2.00	18.75	0.89	18.75	0.79	18.75	2.00
21.25	2.00	21.25	2.00	21.25	2.00	21.25	0.74	21.25	2.00	21.25	0.69	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	1.74	23.75	1.45	23.75	1.19	23.75	1.80	23.75	1.50	23.75	2.00	23.75	1.13	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00
26.25	1.75	26.25	2.00	26.25	2.15	26.25	1.16	26.25	2.00	26.25	1.22			26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.09	26.25	2.00	26.25	2.00
28.75	2.00	28.75	1.00	28.75	0.65	28.75	n.a	28.75	0.63	28.75	2.00			28.75	1.00	28.75	1.47	28.75	2.00	28.75	0.99	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.33	31.25	1.06	31.25	n.a	31.25	2.16	31.25	2.00			31.25	2.00	31.25	2.11	31.25	2.00	31.25	1.81	31.25	2.00	31.25	2.00
33.75	2.04	33.75	2.00			33.75	n.a	33.75	2.00	33.75	1.01			33.75	2.00	33.75	1.62	33.75	2.00	33.75	1.02	33.75	1.85	33.75	2.00
		36.25	2.00			36.25	n.a	36.25	0.91	36.25	1.51			36.25	2.00	36.25	1.15			36.25	1.16	36.25	1.45		
Inv Avg	1.43	Inv Avg	1.40	Inv Avg	1.37	Inv Avg	1.38	Inv Avg	1.64	Inv Avg	1.13	Inv Avg	1.20	Inv Avg	1.54	Inv Avg	1.41	Inv Avg	1.42	Inv Avg	1.20	Inv Avg	1.26	Inv Avg	1.62
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low

Figure D-5

SCHEDULE CJG-ST1

C-121		C-123		C-125		C-129		C-131		C-133		C-135		C-135A		C-137		C-139		C-139A		C-143		C-145	
S (ft)	0.19	S (ft)	0.19	S (ft)	0.26	S (ft)	0.34	S (ft)	0.40	S (ft)	0.11	S (ft)	0.07	S (ft)	0.14	S (ft)	0.04	S (ft)	0.13	S (ft)	0.14	S (ft)	0.26	S (ft)	0.23
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.55	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.64	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	0.48	6.25	0.56
8.75	n.a	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.52	8.75	0.93	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.31	8.75	1.36
11.25	0.90	11.25	1.76	11.25	n.a	11.25	n.a	11.25	0.43	11.25	1.74	11.25	0.84	11.25	0.84	11.25	n.a	11.25	n.a	11.25	n.a	11.25	1.49	11.25	0.79
13.75	2.00	13.75	2.00	13.75	0.70	13.75	n.a	13.75	0.88	13.75	1.94	13.75	2.00	13.75	2.00	13.75	1.78	13.75	0.45	13.75	0.57	13.75	2.15	13.75	2.00
16.25	2.00	16.25	2.00	16.25	1.34	16.25	0.38	16.25	1.04	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.37	16.25	2.00	16.25	1.89	16.25	2.00	16.25	2.00
18.75	2.00	18.75	1.40	18.75	2.00	18.75	2.00	18.75	1.32	18.75	1.39	18.75	2.00	18.75	2.00	18.75	1.82	18.75	2.00	18.75	2.00	18.75	0.97	18.75	0.93
21.25	2.00	21.25	1.32	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.52			21.25	2.00	21.25	1.47	21.25	2.00	21.25	2.00	21.25	1.43	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.05	23.75	1.01			23.75	2.00	23.75	2.00			23.75	2.00	23.75	1.01	23.75	2.00
26.25	0.84	26.25	2.00	26.25	2.00	26.25	0.81	26.25	1.42	26.25	1.76			26.25	2.00	26.25	1.66			26.25	2.00	26.25	1.85	26.25	2.00
28.75	1.22	28.75	2.09	28.75	2.00	28.75	0.91	28.75	0.85	28.75	1.67			28.75	0.73	28.75	1.81			28.75	2.00	28.75	1.42		
31.25	0.73	31.25	0.76	31.25	0.91	31.25	2.00	31.25	2.00	31.25	2.00			31.25	1.94	31.25	2.00			31.25	0.97	31.25	1.09		
33.75	2.00	33.75	1.75	33.75	1.73	33.75	0.92	33.75	2.00	33.75	2.00					32.25	2.00					33.75	2.00		
		36.25	1.88	36.25	2.10	36.25	0.85	36.25	1.65	36.25	2.00											36.25	2.00		
Inv Avg	1.47	Inv Avg	1.50	Inv Avg	1.41	Inv Avg	1.23	Inv Avg	1.15	Inv Avg	1.63	Inv Avg	1.71	Inv Avg	1.61	Inv Avg	1.82	Inv Avg	1.44	Inv Avg	1.56	Inv Avg	1.32	Inv Avg	1.31
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-5

SCHEDULE CJG-ST1

C-145A		C-147		C-149		C-151		C-157		C-157A		C-159		C-161		C-163		C-166		C-168		C-168A		C-170	
S (ft)	0.34	S (ft)	0.08	S (ft)	0.42	S (ft)	0.43	S (ft)	0.20	S (ft)	0.25	S (ft)	0.24	S (ft)	0.18	S (ft)	0.60	S (ft)	0.22	S (ft)	0.28	S (ft)	0.57	S (ft)	0.22
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.59	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.76	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	2.01	6.25	n.a	6.25	n.a	6.25	0.45	6.25	0.46	6.25	2.00	6.25	0.67	6.25	n.a	6.25	1.09	6.25	0.69	6.25	0.56	6.25	n.a
8.75	0.89	8.75	2.00	8.75	0.65	8.75	n.a	8.75	2.00	8.75	2.00	8.75	1.31	8.75	0.84	8.75	n.a	8.75	2.00	8.75	1.00	8.75	0.99	8.75	0.46
11.25	0.87	11.25	0.94	11.25	0.99	11.25	0.36	11.25	1.30	11.25	0.88	11.25	1.15	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.03	11.25	0.72	11.25	1.34
13.75	2.00	13.75	2.00	13.75	1.56	13.75	0.83	13.75	2.00	13.75	2.00	13.75	1.73	13.75	1.92	13.75	0.33	13.75	1.38	13.75	1.11	13.75	0.74	13.75	1.21
16.25	2.00	16.25	1.20	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.63	16.25	1.54	16.25	2.12	16.25	0.70	16.25	0.84	16.25	2.00
18.75	0.78	18.75	2.00	18.75	2.00	18.75	0.91	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.81	18.75	1.28	18.75	2.00	18.75	0.86	18.75	0.98	18.75	2.00
21.25	2.00	21.25	1.02	21.25	2.00	21.25	1.32	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.55	21.25	0.86	21.25	2.00	21.25	1.17	21.25	0.97	21.25	0.91
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.16	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.12	23.75	0.88	23.75	2.00	23.75	2.00	23.75	2.20	23.75	1.36
26.25	2.00			26.25	0.88	26.25	2.00			26.25	2.00	26.25	0.86	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00
28.75	2.19			28.75	0.73	28.75	1.89			28.75	1.53	28.75	0.87	28.75	2.00	28.75	1.64	28.75	2.00	28.75	2.00	28.75	n.a	28.75	1.93
31.25	1.00			31.25	0.76	31.25	2.00			31.25	2.00	31.25	1.11	31.25	2.00	31.25	2.00	31.25	0.57	31.25	2.00	31.25	0.47	31.25	2.01
33.75	0.71			33.75	2.00	33.75	2.00					33.75	0.99					32.25	0.90	32.25	2.00	33.75	0.69	33.75	2.00
36.25	0.79			36.25	2.00							36.25	0.73					33.25	1.84					36.25	1.30
Inv Avg	1.28	Inv Avg	1.57	Inv Avg	1.18	Inv Avg	1.24	Inv Avg	1.43	Inv Avg	1.45	Inv Avg	1.33	Inv Avg	1.53	Inv Avg	1.19	Inv Avg	1.38	Inv Avg	1.24	Inv Avg	0.95	Inv Avg	1.38
Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low	Risk	High	Risk	Low

Figure D-5

SCHEDULE CJG-ST1

C-172		C-174		C-178		C-180		C-182		C-184		C-186		C-190		C-192		C-194		C-196		C-198		C-200	
S (ft)	0.21	S (ft)	0.07	S (ft)	0.26	S (ft)	0.48	S (ft)	0.10	S (ft)	0.23	S (ft)	0.40	S (ft)	0.15	S (ft)	0.22	S (ft)	0.26	S (ft)	0.27	S (ft)	0.36	S (ft)	0.45
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	0.49	6.25	1.08	6.25	n.a	6.25	0.60	6.25	n.a	6.25	n.a	6.25	0.52	6.25	n.a	6.25	0.55	6.25	0.61	6.25	n.a	6.25	0.64	6.25	0.76
8.75	1.15	8.75	1.96	8.75	0.60	8.75	1.47	8.75	0.97	8.75	0.50	8.75	2.00	8.75	n.a	8.75	2.00	8.75	n.a	8.75	0.74	8.75	0.67	8.75	n.a
11.25	1.67	11.25	2.00	11.25	1.30	11.25	0.84	11.25	1.14	11.25	1.10	11.25	2.00	11.25	n.a	11.25	1.93	11.25	1.09	11.25	1.17	11.25	1.04	11.25	n.a
13.75	2.00	13.75	2.00	13.75	1.24	13.75	0.67	13.75	1.71	13.75	2.00	13.75	2.00	13.75	n.a	13.75	2.00	13.75	0.75	13.75	2.00	13.75	2.00	13.75	0.83
16.25	2.00	16.25	1.49	16.25	0.66	16.25	0.60	16.25	1.87	16.25	1.15	16.25	2.00	16.25	0.44	16.25	2.00	16.25	1.47	16.25	0.96	16.25	2.00	16.25	0.89
18.75	2.00	18.75	1.23	18.75	1.85	18.75	0.92	18.75	1.90	18.75	1.14	18.75	1.00	18.75	1.95	18.75	0.62	18.75	0.82	18.75	1.38	18.75	1.30	18.75	2.00
21.25	1.11	21.25	2.00	21.25	1.18	21.25	0.80	21.25	1.47	21.25	2.00	21.25	0.77	21.25	1.11	21.25	2.00	21.25	2.00	21.25	1.42	21.25	n.a	21.25	1.08
23.75	1.12	23.75	1.98	23.75	0.85	23.75	0.82	23.75	2.00	23.75	2.00	23.75	0.90	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.50	23.75	0.57	23.75	1.42
26.25	1.43	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.65	26.25	2.00	26.25	1.90	26.25	2.00	26.25	2.00	26.25	1.29	26.25	1.10
28.75	1.96	28.75	2.00	28.75	1.56	28.75	2.00	28.75	2.00	28.75	1.56	28.75	0.65	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	0.93	28.75	2.00
31.25	1.41	31.25	2.00	31.25	2.00	31.25	1.30	31.25	2.14	31.25	1.25	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.40	31.25	n.a	31.25	0.97	31.25	2.00
33.75	2.07	33.75	2.00	33.75	2.00	33.75	1.30	33.75	1.46	33.75	1.33	33.75	1.67	33.75	2.00	33.75	1.67	33.75	1.22	33.75	0.38	33.75	2.00	33.75	1.00
36.25	2.00			36.25	2.00	36.25	2.00			36.25	0.90			36.25	2.00	36.25	2.00	36.25	2.00			36.25	2.00	36.25	2.00
																								38.75	2.00
																								41.25	2.00
																								43.75	1.83
																								46.25	1.11
																								48.75	0.83
																								51.25	0.99
																								53.75	0.89
																								56.25	2.00
																								58.75	2.00
																								61.25	2.00
																								63.75	2.00
																								66.25	0.95
Inv Avg	1.40	Inv Avg	1.77	Inv Avg	1.31	Inv Avg	1.05	Inv Avg	1.67	Inv Avg	1.31	Inv Avg	1.12	Inv Avg	1.55	Inv Avg	1.49	Inv Avg	1.33	Inv Avg	1.22	Inv Avg	1.16	Inv Avg	1.35
Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low

Figure D-5

SCHEDULE CJG-ST1

Ameren Missouri: Labadie UWL
Liquefaction Analysis
20' of ASH M: 7.5
PGA: 2% probability of exceedence in 50 yrs: 0.1792 GW: 0.0'

C-11		C-13		C-16		C-18		C-21		C-23		C-25		C-28		C-30		C-32		C-34		C-37		C-39	
S (ft)	0.32	S (ft)	0.06	S (ft)	0.28	S (ft)	0.39	S (ft)	0.10	S (ft)	0.30	S (ft)	0.26	S (ft)	0.17	S (ft)	0.21	S (ft)	0.15	S (ft)	0.24	S (ft)	0.21	S (ft)	0.06
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.82	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.88	6.25	0.51	6.25	n.a	6.25	1.04	6.25	1.16	6.25	n.a	6.25	0.60	6.25	n.a	6.25	0.71	6.25	n.a	6.25	n.a
8.75	n.a	8.75	1.23	8.75	1.01	8.75	n.a	8.75	n.a	8.75	0.89	8.75	0.79	8.75	0.60	8.75	1.50	8.75	0.95	8.75	n.a	8.75	0.75	8.75	n.a
11.25	0.47	11.25	2.00	11.25	0.61	11.25	0.83	11.25	0.97	11.25	1.11	11.25	2.00	11.25	n.a	11.25	2.00	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.08
13.75	n.a	13.75	2.00	13.75	0.91	13.75	1.58	13.75	2.00	13.75	1.76	13.75	0.81	13.75	n.a	13.75	2.00	13.75	1.92	13.75	0.79	13.75	1.66	13.75	1.85
16.25	0.46	16.25	2.00	16.25	1.31	16.25	1.63	16.25	2.00	16.25	1.66	16.25	2.05	16.25	1.26	16.25	1.42	16.25	0.92	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	2.00	18.75	1.36	18.75	0.98	18.75	2.00	18.75	0.71	18.75	1.11	18.75	1.27	18.75	1.71	18.75	2.05	18.75	1.93	18.75	2.00	18.75	1.32
21.25	2.00	21.25	2.02	21.25	2.00	21.25	0.76	21.25	1.18	21.25	1.69	21.25	1.95	21.25	1.40	21.25	1.47	21.25	1.91	21.25	2.00	21.25	1.68	21.25	2.00
23.75	1.98	23.75	2.00	23.75	2.00	23.75	1.29	23.75	1.48	23.75	2.00	23.75	0.96	23.75	2.05	23.75	1.62	23.75	1.17	23.75	2.00	23.75	0.90	23.75	1.26
26.25	2.00	26.25	1.25	26.25	1.99	26.25	2.00	26.25	1.48	26.25	2.00	26.25	1.01	26.25	1.91	26.25	2.00	26.25	1.11	26.25	2.00	26.25	1.06	26.25	2.11
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.39	28.75	1.24	28.75	1.40	28.75	1.74	28.75	2.00	28.75	2.00	28.75	1.46	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.22	31.25	2.00	31.25	1.26	31.25	2.08	31.25	2.00	31.25	2.00	31.25	1.25	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.06	31.25	2.00
33.75	2.00	33.75	1.31	33.75	2.00	33.75	2.00	33.75	1.38	33.75	2.00	33.75	2.00	33.75	2.00	33.75	0.90	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00
		36.25	2.00	36.25	2.00	36.25	1.57	36.25	1.23	36.25	2.00	36.25	2.00	36.25	1.04	36.25	2.00	36.25	2.00	36.25	0.85	36.25	2.00	36.25	2.00
		38.75	2.00																			38.75	2.00		
		41.25	2.00																			41.25	2.00		
Inv Avg	1.36	Inv Avg	1.75	Inv Avg	1.38	Inv Avg	1.25	Inv Avg	1.58	Inv Avg	1.34	Inv Avg	1.36	Inv Avg	1.46	Inv Avg	1.50	Inv Avg	1.59	Inv Avg	1.49	Inv Avg	1.54	Inv Avg	1.77
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-6

SCHEDULE CJG-ST1

C-41		C-44		C-46		C-46A		C-48		C-50		C-60		C-62		C-64		C-66		C-66A		C-68		C-70	
S (ft)	0.21	S (ft)	0.23	S (ft)	0.16	S (ft)	0.16	S (ft)	0.34	S (ft)	0.26	S (ft)	0.13	S (ft)	0.12	S (ft)	0.36	S (ft)	0.02	S (ft)	0.24	S (ft)	0.23	S (ft)	0.24
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	0.85	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.91	6.25	n.a	6.25	n.a	6.25	0.74	6.25	0.55	6.25	n.a	6.25	0.76	6.25	n.a	6.25	n.a	6.25	0.77	6.25	0.64	6.25	1.42
8.75	n.a	8.75	0.88	8.75	n.a	8.75	n.a	8.75	0.88	8.75	2.10	8.75	0.65	8.75	n.a	8.75	0.55	8.75	n.a	8.75	0.76	8.75	1.24	8.75	1.45
11.25	0.65	11.25	1.48	11.25	1.65	11.25	1.34	11.25	1.26	11.25	0.86	11.25	1.29	11.25	n.a	11.25	1.11	11.25	2.00	11.25	2.00	11.25	1.00	11.25	1.44
13.75	1.00	13.75	1.20	13.75	0.90	13.75	0.92	13.75	1.00	13.75	2.00	13.75	1.42	13.75	1.23	13.75	1.01	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.98
16.25	0.97	16.25	1.23	16.25	1.81	16.25	1.66	16.25	0.61	16.25	2.00	16.25	2.00	16.25	2.00	16.25	0.51	16.25	1.54	16.25	1.30	16.25	2.00	16.25	n.a
18.75	2.00	18.75	1.26	18.75	1.86	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.03	18.75	2.00	18.75	1.57	18.75	2.02	18.75	1.61	18.75	2.00	18.75	0.88
21.25	2.00	21.25	0.91	21.25	0.94	21.25	1.23	21.25	1.05	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.79	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.19
23.75	1.72	23.75	1.11	23.75	1.29	23.75	1.36	23.75	2.00	23.75	1.79	23.75	2.00	23.75	1.61	23.75	2.00	23.75	1.82	23.75	2.00	23.75	1.00	23.75	1.72
26.25	2.10	26.25	2.00	26.25	1.13	26.25	1.35	26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.78	26.25	2.00			26.25	2.00	26.25	1.01	26.25	1.85
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.68	28.75	2.00	28.75	2.00	28.75	2.00			28.75	2.00	28.75	2.00	28.75	1.10
31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00			31.25	1.42	31.25	2.00	31.25	2.00
33.75	2.00	33.75	n.a	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00			33.75	2.00	33.75	1.12			33.75	n.a	33.75	1.95	33.75	2.00
36.25	2.00	36.25	n.a	36.25	1.44	36.25	0.77	36.25	1.34	36.25	1.06			36.25	2.00	36.25	0.84					36.25	1.20	36.25	0.66
				38.75	1.70	38.75	2.00			38.75	2.00														
				41.25	2.00	41.25	2.00			41.25	2.00														
				43.75	2.00	43.75	2.00																		
Inv Avg	1.56	Inv Avg	1.38	Inv Avg	1.59	Inv Avg	1.56	Inv Avg	1.29	Inv Avg	1.54	Inv Avg	1.62	Inv Avg	1.70	Inv Avg	1.20	Inv Avg	1.92	Inv Avg	1.41	Inv Avg	1.40	Inv Avg	1.39
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-6

SCHEDULE CJG-ST1

C-74		C-76		C-78		C-79		C-80		C-81		C-82		C-84		C-86		C-89		C-91		C-92		C-94	
S (ft)	0.22	S (ft)	0.11	S (ft)	0.32	S (ft)	0.17	S (ft)	0.25	S (ft)	0.22	S (ft)	0.10	S (ft)	0.15	S (ft)	0.24	S (ft)	0.26	S (ft)	0.53	S (ft)	0.18	S (ft)	0.12
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.84	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.79	6.25	0.92	6.25	0.66	6.25	n.a	6.25	n.a	6.25	n.a	6.25	1.66	6.25	n.a	6.25	n.a	6.25	0.80	6.25	0.80
8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.16	8.75	n.a	8.75	0.85	8.75	n.a	8.75	1.08	8.75	0.79	8.75	0.93	8.75	0.60	8.75	1.14	8.75	1.31
11.25	n.a	11.25	n.a	11.25	0.53	11.25	n.a	11.25	n.a	11.25	0.58	11.25	n.a	11.25	1.45	11.25	1.05	11.25	1.05	11.25	0.77	11.25	0.76	11.25	n.a
13.75	0.50	13.75	0.69	13.75	0.65	13.75	0.96	13.75	0.67	13.75	2.07	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.06	13.75	0.58	13.75	2.00	13.75	n.a
16.25	0.91	16.25	1.24	16.25	2.00	16.25	1.70	16.25	0.98	16.25	2.00	16.25	2.00	16.25	1.90	16.25	2.13	16.25	0.91	16.25	1.03	16.25	2.00	16.25	1.24
18.75	1.83	18.75	1.83	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.10	18.75	1.99	18.75	2.00	18.75	2.00	18.75	0.72	18.75	1.25	18.75	2.00	18.75	1.65
21.25	1.07	21.25	2.00	21.25	1.15	21.25	2.00	21.25	1.62	21.25	1.81	21.25	2.00	21.25	1.83	21.25	2.00	21.25	1.33	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.02	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.40	23.75	1.02	23.75	1.29	23.75	1.93	23.75	2.00	23.75	2.11
26.25	1.94	26.25	2.00	26.25	1.38	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.65			26.25	2.00
28.75	1.64	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.82	28.75	1.56	28.75	0.84			28.75	2.00
31.25	1.13	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.68	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.40	31.25	1.13	31.25	0.75			31.25	1.86
33.75	n.a	33.75	2.00	33.75	1.24	33.75	2.00	33.75	2.00	33.75	1.72	33.75	2.04	33.75	2.00	33.75	1.55	33.75	2.00	33.75	1.52			33.75	1.61
36.25	n.a	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	0.68	36.25	0.54	36.25	1.48	36.25	2.00	36.25	1.24			36.25	2.00
Inv Avg	1.42	Inv Avg	1.70	Inv Avg	1.30	Inv Avg	1.57	Inv Avg	1.46	Inv Avg	1.51	Inv Avg	1.77	Inv Avg	1.54	Inv Avg	1.42	Inv Avg	1.30	Inv Avg	1.03	Inv Avg	1.44	Inv Avg	1.65
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low

Figure D-6

SCHEDULE CJG-ST1

C-96		C-98		C-100		C-103		C-105		C-106		C-107		C-107A		C-109		C-111		C-113		C-117		C-119	
S (ft)	0.17	S (ft)	0.21	S (ft)	0.19	S (ft)	0.21	S (ft)	0.10	S (ft)	0.35	S (ft)	0.27	S (ft)	0.08	S (ft)	0.23	S (ft)	0.20	S (ft)	0.25	S (ft)	0.37	S (ft)	0.12
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.77	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	0.91	6.25	0.69	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a
8.75	n.a	8.75	0.51	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.70	8.75	0.70	8.75	1.05	8.75	n.a	8.75	n.a	8.75	0.71	8.75	0.45	8.75	0.68
11.25	n.a	11.25	1.05	11.25	2.00	11.25	0.84	11.25	n.a	11.25	1.09	11.25	0.80	11.25	1.13	11.25	0.45	11.25	0.60	11.25	1.93	11.25	2.00	11.25	1.32
13.75	0.61	13.75	2.18	13.75	1.56	13.75	2.00	13.75	n.a	13.75	2.00	13.75	1.74	13.75	1.57	13.75	1.86	13.75	0.73	13.75	0.66	13.75	1.06	13.75	1.96
16.25	0.98	16.25	2.00	16.25	1.72	16.25	2.00	16.25	2.00	16.25	1.48	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.29	16.25	1.71	16.25	0.91	16.25	2.00
18.75	1.01	18.75	2.00	18.75	2.00	18.75	0.79	18.75	2.00	18.75	0.76	18.75	2.00	18.75	2.00	18.75	1.40	18.75	2.00	18.75	1.03	18.75	0.91	18.75	2.00
21.25	2.00	21.25	2.00	21.25	2.00	21.25	0.85	21.25	2.00	21.25	0.80	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	1.66	23.75	1.36	23.75	2.07	23.75	1.73	23.75	2.00	23.75	1.29	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.01	26.25	2.00	26.25	2.00	26.25	1.33	26.25	2.00	26.25	1.40			26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.25	26.25	2.00	26.25	2.00
28.75	2.00	28.75	1.14	28.75	0.74	28.75	n.a	28.75	0.72	28.75	2.00			28.75	1.14	28.75	1.68	28.75	2.00	28.75	1.14	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.52	31.25	1.21	31.25	n.a	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.06	31.25	2.00	31.25	2.00
33.75	2.00	33.75	2.00			33.75	n.a	33.75	2.00	33.75	1.15			33.75	2.00	33.75	1.84	33.75	2.00	33.75	1.16	33.75	2.10	33.75	2.00
		36.25	2.00			36.25	n.a	36.25	1.04	36.25	1.71			36.25	2.00	36.25	1.30			36.25	1.32	36.25	1.64		
Inv Avg	1.53	Inv Avg	1.51	Inv Avg	1.48	Inv Avg	1.48	Inv Avg	1.70	Inv Avg	1.26	Inv Avg	1.30	Inv Avg	1.64	Inv Avg	1.51	Inv Avg	1.50	Inv Avg	1.33	Inv Avg	1.37	Inv Avg	1.70
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-6

SCHEDULE CJG-ST1

C-121		C-123		C-125		C-129		C-131		C-133		C-135		C-135A		C-137		C-139		C-139A		C-143		C-145	
S (ft)	0.14	S (ft)	0.18	S (ft)	0.24	S (ft)	0.29	S (ft)	0.35	S (ft)	0.07	S (ft)	0.06	S (ft)	0.13	S (ft)	0.03	S (ft)	0.13	S (ft)	0.11	S (ft)	0.21	S (ft)	0.20
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.60	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.72	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	0.54	6.25	0.62
8.75	n.a	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.59	8.75	1.06	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.49	8.75	1.55
11.25	1.03	11.25	2.01	11.25	n.a	11.25	n.a	11.25	0.49	11.25	1.99	11.25	0.96	11.25	0.96	11.25	n.a	11.25	n.a	11.25	n.a	11.25	1.71	11.25	0.90
13.75	2.00	13.75	2.00	13.75	0.81	13.75	n.a	13.75	1.02	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.05	13.75	0.51	13.75	0.65	13.75	2.00	13.75	2.00
16.25	2.00	16.25	2.00	16.25	1.54	16.25	0.44	16.25	1.20	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.58	16.25	2.00	16.25	2.18	16.25	2.00	16.25	2.00
18.75	2.00	18.75	1.62	18.75	2.00	18.75	2.00	18.75	1.52	18.75	1.60	18.75	2.00	18.75	2.00	18.75	2.09	18.75	2.00	18.75	2.00	18.75	1.11	18.75	1.07
21.25	2.00	21.25	1.52	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.75			21.25	2.00	21.25	1.69	21.25	2.00	21.25	2.00	21.25	1.65	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.16			23.75	2.00	23.75	2.00			23.75	2.00	23.75	1.16	23.75	2.00
26.25	0.96	26.25	2.00	26.25	2.00	26.25	0.93	26.25	1.62	26.25	2.02			26.25	2.00	26.25	1.90			26.25	2.00	26.25	2.12	26.25	2.00
28.75	1.40	28.75	2.00	28.75	2.00	28.75	1.04	28.75	0.98	28.75	1.92			28.75	0.84	28.75	2.07			28.75	2.00	28.75	1.63		
31.25	0.84	31.25	0.86	31.25	1.03	31.25	2.00	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00			31.25	1.11	31.25	1.24		
33.75	2.00	33.75	1.99	33.75	1.97	33.75	1.04	33.75	2.00	33.75	2.00					32.25	2.00					33.75	2.00		
		36.25	2.13	36.25	2.00	36.25	0.96	36.25	1.87	36.25	2.00											36.25	2.00		
Inv Avg	1.57	Inv Avg	1.61	Inv Avg	1.50	Inv Avg	1.32	Inv Avg	1.26	Inv Avg	1.76	Inv Avg	1.76	Inv Avg	1.68	Inv Avg	1.94	Inv Avg	1.51	Inv Avg	1.65	Inv Avg	1.44	Inv Avg	1.41
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-6

SCHEDULE CJG-ST1

C-145A		C-147		C-149		C-151		C-157		C-157A		C-159		C-161		C-163		C-166		C-168		C-168A		C-170	
S (ft)	0.27	S (ft)	0.05	S (ft)	0.36	S (ft)	0.40	S (ft)	0.20	S (ft)	0.22	S (ft)	0.19	S (ft)	0.17	S (ft)	0.56	S (ft)	0.20	S (ft)	0.24	S (ft)	0.48	S (ft)	0.20
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.65	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.82	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	0.50	6.25	0.51	6.25	2.00	6.25	0.75	6.25	n.a	6.25	1.22	6.25	0.77	6.25	0.63	6.25	n.a
8.75	1.01	8.75	2.00	8.75	0.74	8.75	n.a	8.75	2.00	8.75	2.00	8.75	1.48	8.75	0.95	8.75	n.a	8.75	2.00	8.75	1.14	8.75	1.12	8.75	0.52
11.25	1.00	11.25	1.07	11.25	1.13	11.25	0.41	11.25	1.49	11.25	1.01	11.25	1.32	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.18	11.25	0.82	11.25	1.53
13.75	2.00	13.75	2.00	13.75	1.79	13.75	0.96	13.75	2.00	13.75	2.00	13.75	1.99	13.75	2.00	13.75	0.38	13.75	1.59	13.75	1.28	13.75	0.85	13.75	1.39
16.25	2.00	16.25	1.39	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.88	16.25	1.78	16.25	2.00	16.25	0.80	16.25	0.97	16.25	2.00
18.75	0.89	18.75	2.00	18.75	2.00	18.75	1.05	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.09	18.75	1.47	18.75	2.00	18.75	0.99	18.75	1.13	18.75	2.00
21.25	2.00	21.25	1.17	21.25	2.00	21.25	1.51	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.78	21.25	0.99	21.25	2.00	21.25	1.34	21.25	1.12	21.25	1.05
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.33	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.01	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.57
26.25	2.00			26.25	1.01	26.25	2.00			26.25	2.00	26.25	0.99	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00
28.75	2.00			28.75	0.84	28.75	2.16			28.75	1.75	28.75	1.00	28.75	2.00	28.75	1.88	28.75	2.00	28.75	2.00	28.75	n.a	28.75	2.00
31.25	1.14			31.25	0.86	31.25	2.00			31.25	2.00	31.25	1.27	31.25	2.00	31.25	2.00	31.25	0.65	31.25	2.00	31.25	0.54	31.25	2.00
33.75	0.81			33.75	2.00	33.75	2.00					33.75	1.13					32.25	1.02	32.25	2.00	33.75	0.78	33.75	2.00
36.25	0.89			36.25	2.00							36.25	0.82					33.25	2.09					36.25	1.47
Inv Avg	1.38	Inv Avg	1.66	Inv Avg	1.28	Inv Avg	1.36	Inv Avg	1.50	Inv Avg	1.52	Inv Avg	1.45	Inv Avg	1.64	Inv Avg	1.31	Inv Avg	1.48	Inv Avg	1.36	Inv Avg	1.05	Inv Avg	1.49
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low

Figure D-6

SCHEDULE CJG-ST1

C-172		C-174		C-178		C-180		C-182		C-184		C-186		C-190		C-192		C-194		C-196		C-198		C-200	
S (ft)	0.19	S (ft)	0.04	S (ft)	0.24	S (ft)	0.43	S (ft)	0.06	S (ft)	0.19	S (ft)	0.36	S (ft)	0.14	S (ft)	0.21	S (ft)	0.24	S (ft)	0.24	S (ft)	0.31	S (ft)	0.33
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	0.55	6.25	1.21	6.25	n.a	6.25	0.67	6.25	n.a	6.25	n.a	6.25	0.59	6.25	n.a	6.25	0.62	6.25	0.69	6.25	n.a	6.25	0.72	6.25	0.85
8.75	1.31	8.75	2.00	8.75	0.68	8.75	1.67	8.75	1.10	8.75	0.56	8.75	2.00	8.75	n.a	8.75	2.00	8.75	n.a	8.75	0.84	8.75	0.76	8.75	n.a
11.25	1.91	11.25	2.00	11.25	1.49	11.25	0.96	11.25	1.31	11.25	1.26	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.24	11.25	1.34	11.25	1.19	11.25	n.a
13.75	2.00	13.75	2.00	13.75	1.42	13.75	0.77	13.75	1.97	13.75	2.00	13.75	2.00	13.75	n.a	13.75	2.00	13.75	0.87	13.75	2.00	13.75	2.00	13.75	0.95
16.25	2.00	16.25	1.72	16.25	0.75	16.25	0.69	16.25	2.16	16.25	1.33	16.25	2.00	16.25	0.51	16.25	2.00	16.25	1.69	16.25	1.11	16.25	2.00	16.25	1.03
18.75	2.00	18.75	1.41	18.75	2.13	18.75	1.05	18.75	2.19	18.75	1.32	18.75	1.15	18.75	2.00	18.75	0.72	18.75	0.94	18.75	1.59	18.75	1.49	18.75	2.00
21.25	1.27	21.25	2.00	21.25	1.36	21.25	0.92	21.25	1.70	21.25	2.00	21.25	0.89	21.25	1.28	21.25	2.00	21.25	2.00	21.25	1.64	21.25	n.a	21.25	1.24
23.75	1.28	23.75	2.00	23.75	0.98	23.75	0.95	23.75	2.00	23.75	2.00	23.75	1.03	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.72	23.75	0.66	23.75	1.63
26.25	1.63	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.74	26.25	2.00	26.25	2.18	26.25	2.00	26.25	2.00	26.25	1.48	26.25	1.26
28.75	2.00	28.75	2.00	28.75	1.79	28.75	2.00	28.75	2.00	28.75	1.79	28.75	0.74	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.07	28.75	2.00
31.25	1.61	31.25	2.00	31.25	2.00	31.25	1.48	31.25	2.00	31.25	1.43	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.60	31.25	n.a	31.25	1.11	31.25	2.00
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.48	33.75	1.66	33.75	1.51	33.75	1.90	33.75	2.00	33.75	1.90	33.75	1.39	33.75	0.43	33.75	2.00	33.75	1.14
36.25	2.00			36.25	2.00	36.25	2.00			36.25	1.02			36.25	2.00	36.25	2.00	36.25	2.00			36.25	2.00	36.25	2.00
																								38.75	2.00
																								41.25	2.00
																								43.75	2.06
																								46.25	1.24
																								48.75	0.93
																								51.25	1.10
																								53.75	0.99
																								56.25	2.00
																								58.75	2.00
																								61.25	2.00
																								63.75	2.00
																								66.25	1.05
Inv Avg	1.51	Inv Avg	1.84	Inv Avg	1.44	Inv Avg	1.17	Inv Avg	1.80	Inv Avg	1.43	Inv Avg	1.23	Inv Avg	1.62	Inv Avg	1.58	Inv Avg	1.44	Inv Avg	1.34	Inv Avg	1.28	Inv Avg	1.46
Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-6

SCHEDULE CJG-ST1

Ameren Missouri: Labadie UWL
Liquefaction Analysis
30' of ASH M: 7.5
PGA: 2% probability of exceedence in 50 yrs: 0.1792 GW: 0.0'

C-11		C-13		C-16		C-18		C-21		C-23		C-25		C-28		C-30		C-32		C-34		C-37		C-39	
S (ft)	0.31	S (ft)	0.05	S (ft)	0.27	S (ft)	0.36	S (ft)	0.07	S (ft)	0.29	S (ft)	0.23	S (ft)	0.16	S (ft)	0.20	S (ft)	0.11	S (ft)	0.23	S (ft)	0.18	S (ft)	0.05
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.84	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.93	6.25	0.54	6.25	n.a	6.25	1.09	6.25	1.22	6.25	n.a	6.25	0.63	6.25	n.a	6.25	0.75	6.25	n.a	6.25	n.a
8.75	n.a	8.75	1.30	8.75	1.08	8.75	n.a	8.75	n.a	8.75	0.94	8.75	0.83	8.75	0.64	8.75	1.59	8.75	1.01	8.75	n.a	8.75	0.79	8.75	n.a
11.25	0.50	11.25	2.00	11.25	0.65	11.25	0.89	11.25	1.03	11.25	1.19	11.25	2.00	11.25	n.a	11.25	2.00	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.15
13.75	n.a	13.75	2.00	13.75	0.98	13.75	1.70	13.75	2.00	13.75	1.89	13.75	0.87	13.75	n.a	13.75	2.00	13.75	2.06	13.75	0.85	13.75	1.79	13.75	1.99
16.25	0.50	16.25	2.00	16.25	1.41	16.25	1.76	16.25	2.00	16.25	1.79	16.25	2.00	16.25	1.36	16.25	1.53	16.25	0.99	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	2.00	18.75	1.47	18.75	1.06	18.75	2.00	18.75	0.77	18.75	1.21	18.75	1.38	18.75	1.85	18.75	2.00	18.75	2.09	18.75	2.00	18.75	1.43
21.25	2.00	21.25	2.19	21.25	2.00	21.25	0.82	21.25	1.27	21.25	1.83	21.25	2.11	21.25	1.52	21.25	1.59	21.25	2.08	21.25	2.00	21.25	1.82	21.25	2.00
23.75	2.15	23.75	2.00	23.75	2.00	23.75	1.40	23.75	1.60	23.75	2.00	23.75	1.04	23.75	2.00	23.75	1.75	23.75	1.27	23.75	2.00	23.75	0.98	23.75	1.37
26.25	2.00	26.25	1.36	26.25	2.17	26.25	2.00	26.25	1.61	26.25	2.00	26.25	1.10	26.25	2.08	26.25	2.00	26.25	1.21	26.25	2.00	26.25	1.15	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.51	28.75	1.35	28.75	1.53	28.75	1.89	28.75	2.00	28.75	2.00	28.75	1.59	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.32	31.25	2.00	31.25	1.37	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.36	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.15	31.25	2.00
33.75	2.00	33.75	1.43	33.75	2.00	33.75	2.00	33.75	1.50	33.75	2.00	33.75	2.00	33.75	2.00	33.75	0.98	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00
		36.25	2.00	36.25	2.00	36.25	1.71	36.25	1.34	36.25	2.00	36.25	2.00	36.25	1.13	36.25	2.00	36.25	2.00	36.25	0.92	36.25	2.00	36.25	2.00
		38.75	2.00																			38.75	2.00		
		41.25	2.00																			41.25	2.00		
Inv Avg	1.40	Inv Avg	1.80	Inv Avg	1.44	Inv Avg	1.32	Inv Avg	1.65	Inv Avg	1.40	Inv Avg	1.43	Inv Avg	1.53	Inv Avg	1.56	Inv Avg	1.65	Inv Avg	1.54	Inv Avg	1.60	Inv Avg	1.81
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-7

SCHEDULE CJG-ST1

C-41		C-44		C-46		C-46A		C-48		C-50		C-60		C-62		C-64		C-66		C-66A		C-68		C-70	
S (ft)	0.16	S (ft)	0.21	S (ft)	0.13	S (ft)	0.16	S (ft)	0.30	S (ft)	0.24	S (ft)	0.13	S (ft)	0.12	S (ft)	0.35	S (ft)	0.02	S (ft)	0.24	S (ft)	0.20	S (ft)	0.19
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	0.86	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.96	6.25	n.a	6.25	n.a	6.25	0.78	6.25	0.58	6.25	n.a	6.25	0.80	6.25	n.a	6.25	n.a	6.25	0.81	6.25	0.67	6.25	1.49
8.75	n.a	8.75	0.93	8.75	n.a	8.75	n.a	8.75	0.93	8.75	2.00	8.75	0.69	8.75	n.a	8.75	0.58	8.75	n.a	8.75	0.80	8.75	1.32	8.75	1.53
11.25	0.69	11.25	1.58	11.25	1.76	11.25	1.43	11.25	1.34	11.25	0.92	11.25	1.38	11.25	n.a	11.25	1.18	11.25	2.00	11.25	2.00	11.25	1.07	11.25	1.54
13.75	1.07	13.75	1.29	13.75	0.97	13.75	0.99	13.75	1.07	13.75	2.00	13.75	1.52	13.75	1.32	13.75	1.08	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.05
16.25	1.04	16.25	1.33	16.25	1.95	16.25	1.80	16.25	0.66	16.25	2.00	16.25	2.00	16.25	2.00	16.25	0.55	16.25	1.66	16.25	1.40	16.25	2.00	16.25	n.a
18.75	2.00	18.75	1.37	18.75	2.02	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.20	18.75	2.00	18.75	1.70	18.75	2.18	18.75	1.74	18.75	2.00	18.75	0.95
21.25	2.00	21.25	0.99	21.25	1.02	21.25	1.34	21.25	1.14	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.94	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	1.87	23.75	1.20	23.75	1.40	23.75	1.47	23.75	2.00	23.75	1.94	23.75	2.00	23.75	1.75	23.75	2.00	23.75	1.97	23.75	2.00	23.75	1.08	23.75	1.87
26.25	2.00	26.25	2.00	26.25	1.23	26.25	1.47	26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.93	26.25	2.00			26.25	2.00	26.25	1.09	26.25	2.01
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.82	28.75	2.00	28.75	2.00	28.75	2.00			28.75	2.00	28.75	2.00	28.75	1.19
31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00			31.25	1.55	31.25	2.00	31.25	2.00
33.75	2.00	33.75	n.a	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00			33.75	2.00	33.75	1.21			33.75	n.a	33.75	2.12	33.75	2.00
36.25	2.00	36.25	n.a	36.25	1.56	36.25	0.84	36.25	1.46	36.25	1.15			36.25	2.00	36.25	0.91					36.25	1.30	36.25	0.72
				38.75	1.84	38.75	2.00			38.75	2.00														
				41.25	2.00	41.25	2.00			41.25	2.00														
				43.75	2.00	43.75	2.00																		
Inv Avg	1.60	Inv Avg	1.45	Inv Avg	1.67	Inv Avg	1.63	Inv Avg	1.35	Inv Avg	1.58	Inv Avg	1.67	Inv Avg	1.75	Inv Avg	1.27	Inv Avg	1.97	Inv Avg	1.46	Inv Avg	1.46	Inv Avg	1.46
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-7

SCHEDULE CJG-ST1

C-74		C-76		C-78		C-79		C-80		C-81		C-82		C-84		C-86		C-89		C-91		C-92		C-94	
S (ft)	0.21	S (ft)	0.11	S (ft)	0.32	S (ft)	0.13	S (ft)	0.23	S (ft)	0.21	S (ft)	0.09	S (ft)	0.14	S (ft)	0.22	S (ft)	0.24	S (ft)	0.50	S (ft)	0.18	S (ft)	0.12
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.87	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.82	6.25	0.97	6.25	0.70	6.25	n.a	6.25	n.a	6.25	n.a	6.25	1.75	6.25	n.a	6.25	n.a	6.25	0.84	6.25	0.84
8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.23	8.75	n.a	8.75	0.90	8.75	n.a	8.75	1.14	8.75	0.84	8.75	0.99	8.75	0.63	8.75	1.21	8.75	1.39
11.25	n.a	11.25	n.a	11.25	0.57	11.25	n.a	11.25	n.a	11.25	0.62	11.25	n.a	11.25	1.55	11.25	1.13	11.25	1.12	11.25	0.82	11.25	0.81	11.25	n.a
13.75	0.54	13.75	0.74	13.75	0.70	13.75	1.03	13.75	0.72	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.14	13.75	0.62	13.75	2.00	13.75	n.a
16.25	0.99	16.25	1.33	16.25	2.00	16.25	1.84	16.25	1.06	16.25	2.00	16.25	2.00	16.25	2.05	16.25	2.00	16.25	0.98	16.25	1.11	16.25	2.00	16.25	1.33
18.75	1.98	18.75	1.98	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.19	18.75	2.15	18.75	2.00	18.75	2.00	18.75	0.78	18.75	1.36	18.75	2.00	18.75	1.79
21.25	1.16	21.25	2.00	21.25	1.24	21.25	2.00	21.25	1.76	21.25	1.96	21.25	2.00	21.25	1.98	21.25	2.00	21.25	1.44	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.11	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.52	23.75	1.10	23.75	1.40	23.75	2.10	23.75	2.00	23.75	2.00
26.25	2.11	26.25	2.00	26.25	1.50	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.71			26.25	2.00
28.75	1.78	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.98	28.75	1.70	28.75	0.91			28.75	2.00
31.25	1.23	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.83	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.53	31.25	1.23	31.25	0.81			31.25	2.02
33.75	n.a	33.75	2.00	33.75	1.34	33.75	2.00	33.75	2.00	33.75	1.87	33.75	2.00	33.75	2.00	33.75	1.69	33.75	2.00	33.75	1.65			33.75	1.75
36.25	n.a	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	0.73	36.25	0.58	36.25	1.61	36.25	2.00	36.25	1.35			36.25	2.00
Inv Avg	1.49	Inv Avg	1.74	Inv Avg	1.35	Inv Avg	1.62	Inv Avg	1.52	Inv Avg	1.56	Inv Avg	1.80	Inv Avg	1.60	Inv Avg	1.49	Inv Avg	1.38	Inv Avg	1.10	Inv Avg	1.48	Inv Avg	1.71
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low

Figure D-7

SCHEDULE CJG-ST1

C-96		C-98		C-100		C-103		C-105		C-106		C-107		C-107A		C-109		C-111		C-113		C-117		C-119	
S (ft)	0.15	S (ft)	0.19	S (ft)	0.19	S (ft)	0.20	S (ft)	0.10	S (ft)	0.33	S (ft)	0.27	S (ft)	0.06	S (ft)	0.23	S (ft)	0.20	S (ft)	0.22	S (ft)	0.36	S (ft)	0.12
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.79	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	0.96	6.25	0.73	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a
8.75	n.a	8.75	0.54	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.74	8.75	0.74	8.75	1.11	8.75	n.a	8.75	n.a	8.75	0.75	8.75	0.47	8.75	0.72
11.25	n.a	11.25	1.12	11.25	2.00	11.25	0.89	11.25	n.a	11.25	1.16	11.25	0.85	11.25	1.21	11.25	0.48	11.25	0.64	11.25	2.06	11.25	2.00	11.25	1.42
13.75	0.65	13.75	2.00	13.75	1.68	13.75	2.00	13.75	n.a	13.75	2.00	13.75	1.87	13.75	1.68	13.75	1.99	13.75	0.78	13.75	0.71	13.75	1.13	13.75	2.10
16.25	1.06	16.25	2.00	16.25	1.86	16.25	2.00	16.25	2.00	16.25	1.59	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.39	16.25	1.84	16.25	0.98	16.25	2.00
18.75	1.09	18.75	2.00	18.75	2.00	18.75	0.86	18.75	2.00	18.75	0.82	18.75	2.00	18.75	2.00	18.75	1.52	18.75	2.00	18.75	1.11	18.75	0.98	18.75	2.00
21.25	2.00	21.25	2.00	21.25	2.00	21.25	0.92	21.25	2.00	21.25	0.87	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.18	23.75	1.81	23.75	1.48	23.75	2.00	23.75	1.88	23.75	2.00	23.75	1.40	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.19	26.25	2.00	26.25	2.00	26.25	1.44	26.25	2.00	26.25	1.52			26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.36	26.25	2.00	26.25	2.00
28.75	2.00	28.75	1.24	28.75	0.81	28.75	n.a	28.75	0.78	28.75	2.00			28.75	1.24	28.75	1.83	28.75	2.00	28.75	1.24	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.65	31.25	1.32	31.25	n.a	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00
33.75	2.00	33.75	2.00			33.75	n.a	33.75	2.00	33.75	1.24			33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.26	33.75	2.00	33.75	2.00
		36.25	2.00			36.25	n.a	36.25	1.13	36.25	1.85			36.25	2.00	36.25	1.41			36.25	1.43	36.25	1.78		
Inv Avg	1.58	Inv Avg	1.56	Inv Avg	1.54	Inv Avg	1.54	Inv Avg	1.73	Inv Avg	1.33	Inv Avg	1.35	Inv Avg	1.70	Inv Avg	1.58	Inv Avg	1.55	Inv Avg	1.40	Inv Avg	1.42	Inv Avg	1.74
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-7

SCHEDULE CJG-ST1

C-121		C-123		C-125		C-129		C-131		C-133		C-135		C-135A		C-137		C-139		C-139A		C-143		C-145	
S (ft)	0.11	S (ft)	0.17	S (ft)	0.23	S (ft)	0.24	S (ft)	0.33	S (ft)	0.05	S (ft)	0.03	S (ft)	0.09	S (ft)	0.03	S (ft)	0.13	S (ft)	0.11	S (ft)	0.21	S (ft)	0.19
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.62	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.76	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	0.56	6.25	0.65
8.75	n.a	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.62	8.75	1.12	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.58	8.75	1.64
11.25	1.10	11.25	2.15	11.25	n.a	11.25	n.a	11.25	0.52	11.25	2.12	11.25	1.03	11.25	1.03	11.25	n.a	11.25	n.a	11.25	n.a	11.25	1.82	11.25	0.97
13.75	2.00	13.75	2.00	13.75	0.87	13.75	n.a	13.75	1.09	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.20	13.75	0.55	13.75	0.70	13.75	2.00	13.75	2.00
16.25	2.00	16.25	2.00	16.25	1.67	16.25	0.47	16.25	1.29	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.70	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	1.75	18.75	2.00	18.75	2.00	18.75	1.65	18.75	1.73	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.21	18.75	1.16
21.25	2.00	21.25	1.65	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.90			21.25	2.00	21.25	1.83	21.25	2.00	21.25	2.00	21.25	1.79	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.26			23.75	2.00	23.75	2.00			23.75	2.00	23.75	1.26	23.75	2.00
26.25	1.04	26.25	2.00	26.25	2.00	26.25	1.01	26.25	1.76	26.25	2.20			26.25	2.00	26.25	2.06			26.25	2.00	26.25	2.00	26.25	2.00
28.75	1.52	28.75	2.00	28.75	2.00	28.75	1.13	28.75	1.06	28.75	2.08			28.75	0.91	28.75	2.00			28.75	2.00	28.75	1.77		
31.25	0.91	31.25	0.94	31.25	1.12	31.25	2.00	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00			31.25	1.20	31.25	1.35		
33.75	2.00	33.75	2.16	33.75	2.14	33.75	1.13	33.75	2.00	33.75	2.00					32.25	2.00					33.75	2.00		
		36.25	2.00	36.25	2.00	36.25	1.05	36.25	2.03	36.25	2.00											36.25	2.00		
Inv Avg	1.62	Inv Avg	1.67	Inv Avg	1.54	Inv Avg	1.38	Inv Avg	1.33	Inv Avg	1.83	Inv Avg	1.79	Inv Avg	1.72	Inv Avg	1.98	Inv Avg	1.55	Inv Avg	1.68	Inv Avg	1.51	Inv Avg	1.46
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-7

SCHEDULE CJG-ST1

C-145A		C-147		C-149		C-151		C-157		C-157A		C-159		C-161		C-163		C-166		C-168		C-168A		C-170	
S (ft)	0.22	S (ft)	0.04	S (ft)	0.34	S (ft)	0.36	S (ft)	0.20	S (ft)	0.22	S (ft)	0.14	S (ft)	0.14	S (ft)	0.53	S (ft)	0.19	S (ft)	0.21	S (ft)	0.44	S (ft)	0.19
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.67	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.85	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	0.52	6.25	0.54	6.25	2.00	6.25	0.79	6.25	n.a	6.25	1.28	6.25	0.81	6.25	0.66	6.25	n.a
8.75	1.07	8.75	2.00	8.75	0.79	8.75	n.a	8.75	2.00	8.75	2.00	8.75	1.57	8.75	1.01	8.75	n.a	8.75	2.00	8.75	1.21	8.75	1.19	8.75	0.55
11.25	1.07	11.25	1.15	11.25	1.21	11.25	0.44	11.25	1.60	11.25	1.08	11.25	1.41	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.26	11.25	0.88	11.25	1.64
13.75	2.00	13.75	2.00	13.75	1.92	13.75	1.03	13.75	2.00	13.75	2.00	13.75	2.14	13.75	2.00	13.75	0.40	13.75	1.71	13.75	1.37	13.75	0.92	13.75	1.50
16.25	2.00	16.25	1.50	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.03	16.25	1.92	16.25	2.00	16.25	0.87	16.25	1.05	16.25	2.00
18.75	0.97	18.75	2.00	18.75	2.00	18.75	1.14	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.59	18.75	2.00	18.75	1.07	18.75	1.22	18.75	2.00
21.25	2.00	21.25	1.27	21.25	2.00	21.25	1.64	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.93	21.25	1.07	21.25	2.00	21.25	1.46	21.25	1.21	21.25	1.14
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.44	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.10	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.70
26.25	2.00			26.25	1.09	26.25	2.00			26.25	2.00	26.25	1.07	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00
28.75	2.00			28.75	0.91	28.75	2.00			28.75	1.90	28.75	1.08	28.75	2.00	28.75	2.04	28.75	2.00	28.75	2.00	28.75	n.a	28.75	2.00
31.25	1.24			31.25	0.94	31.25	2.00			31.25	2.00	31.25	1.38	31.25	2.00	31.25	2.00	31.25	0.71	31.25	2.00	31.25	0.59	31.25	2.00
33.75	0.88			33.75	2.00	33.75	2.00					33.75	1.23					32.25	1.11	32.25	2.00	33.75	0.85	33.75	2.00
36.25	0.97			36.25	2.00							36.25	0.90					33.25	2.00					36.25	1.60
Inv Avg	1.45	Inv Avg	1.72	Inv Avg	1.34	Inv Avg	1.41	Inv Avg	1.53	Inv Avg	1.56	Inv Avg	1.53	Inv Avg	1.67	Inv Avg	1.37	Inv Avg	1.52	Inv Avg	1.42	Inv Avg	1.11	Inv Avg	1.55
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low

Figure D-7

SCHEDULE CJG-ST1

C-172		C-174		C-178		C-180		C-182		C-184		C-186		C-190		C-192		C-194		C-196		C-198		C-200	
S (ft)	0.19	S (ft)	0.04	S (ft)	0.22	S (ft)	0.35	S (ft)	0.05	S (ft)	0.18	S (ft)	0.34	S (ft)	0.14	S (ft)	0.21	S (ft)	0.21	S (ft)	0.24	S (ft)	0.29	S (ft)	0.24
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	0.58	6.25	1.27	6.25	n.a	6.25	0.70	6.25	n.a	6.25	n.a	6.25	0.61	6.25	n.a	6.25	0.65	6.25	0.72	6.25	n.a	6.25	0.76	6.25	0.89
8.75	1.39	8.75	2.00	8.75	0.72	8.75	1.77	8.75	1.16	8.75	0.60	8.75	2.00	8.75	n.a	8.75	2.00	8.75	n.a	8.75	0.89	8.75	0.81	8.75	n.a
11.25	2.04	11.25	2.00	11.25	1.59	11.25	1.03	11.25	1.40	11.25	1.34	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.33	11.25	1.43	11.25	1.28	11.25	n.a
13.75	2.00	13.75	2.00	13.75	1.53	13.75	0.83	13.75	2.12	13.75	2.00	13.75	2.00	13.75	n.a	13.75	2.00	13.75	0.93	13.75	2.00	13.75	2.00	13.75	1.02
16.25	2.00	16.25	1.85	16.25	0.81	16.25	0.75	16.25	2.00	16.25	1.43	16.25	2.00	16.25	0.55	16.25	2.00	16.25	1.82	16.25	1.19	16.25	2.00	16.25	1.11
18.75	2.00	18.75	1.53	18.75	2.00	18.75	1.14	18.75	2.00	18.75	1.43	18.75	1.25	18.75	2.00	18.75	0.78	18.75	1.02	18.75	1.73	18.75	1.62	18.75	2.00
21.25	1.38	21.25	2.00	21.25	1.47	21.25	1.00	21.25	1.84	21.25	2.00	21.25	0.96	21.25	1.39	21.25	2.00	21.25	2.00	21.25	1.77	21.25	n.a	21.25	1.35
23.75	1.39	23.75	2.00	23.75	1.06	23.75	1.03	23.75	2.00	23.75	2.00	23.75	1.12	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.87	23.75	0.71	23.75	1.77
26.25	1.78	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.81	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.60	26.25	1.37
28.75	2.00	28.75	2.00	28.75	1.95	28.75	2.00	28.75	2.00	28.75	1.94	28.75	0.81	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.16	28.75	2.00
31.25	1.75	31.25	2.00	31.25	2.00	31.25	1.61	31.25	2.00	31.25	1.56	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.73	31.25	n.a	31.25	1.21	31.25	2.00
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.61	33.75	1.80	33.75	1.64	33.75	2.07	33.75	2.00	33.75	2.06	33.75	1.51	33.75	0.47	33.75	2.00	33.75	1.24
36.25	2.00			36.25	2.00	36.25	2.00			36.25	1.11			36.25	2.00	36.25	2.00	36.25	2.00			36.25	2.00	36.25	2.00
																								38.75	2.00
																								41.25	2.00
																								43.75	2.00
																								46.25	1.35
																								48.75	1.00
																								51.25	1.19
																								53.75	1.07
																								56.25	2.00
																								58.75	2.00
																								61.25	2.00
																								63.75	2.00
																								66.25	1.12
Inv Avg	1.57	Inv Avg	1.87	Inv Avg	1.50	Inv Avg	1.24	Inv Avg	1.83	Inv Avg	1.50	Inv Avg	1.29	Inv Avg	1.66	Inv Avg	1.61	Inv Avg	1.50	Inv Avg	1.41	Inv Avg	1.34	Inv Avg	1.52
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-7

SCHEDULE CJG-ST1

Ameren Missouri: Labadie UWL
Liquefaction Analysis
40' of ASH M: 7.5
PGA: 2% probability of exceedence in 50 yrs: 0.1792 GW: 0.0'

C-11		C-13		C-16		C-18		C-21		C-23		C-25		C-28		C-30		C-32		C-34		C-37		C-39	
S (ft)	0.31	S (ft)	0.05	S (ft)	0.23	S (ft)	0.35	S (ft)	0.07	S (ft)	0.27	S (ft)	0.20	S (ft)	0.15	S (ft)	0.18	S (ft)	0.09	S (ft)	0.23	S (ft)	0.15	S (ft)	0.05
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.86	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.95	6.25	0.55	6.25	n.a	6.25	1.12	6.25	1.25	6.25	n.a	6.25	0.65	6.25	n.a	6.25	0.77	6.25	n.a	6.25	n.a
8.75	n.a	8.75	1.35	8.75	1.11	8.75	n.a	8.75	n.a	8.75	0.98	8.75	0.86	8.75	0.66	8.75	1.65	8.75	1.05	8.75	n.a	8.75	0.82	8.75	n.a
11.25	0.52	11.25	2.00	11.25	0.67	11.25	0.92	11.25	1.08	11.25	1.24	11.25	2.00	11.25	n.a	11.25	2.00	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.20
13.75	n.a	13.75	2.00	13.75	1.03	13.75	1.78	13.75	2.00	13.75	1.98	13.75	0.91	13.75	n.a	13.75	2.00	13.75	2.16	13.75	0.88	13.75	1.87	13.75	2.08
16.25	0.52	16.25	2.00	16.25	1.48	16.25	1.85	16.25	2.00	16.25	1.88	16.25	2.00	16.25	1.43	16.25	1.61	16.25	1.04	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	2.00	18.75	1.54	18.75	1.11	18.75	2.00	18.75	0.81	18.75	1.27	18.75	1.45	18.75	1.95	18.75	2.00	18.75	2.20	18.75	2.00	18.75	1.50
21.25	2.00	21.25	2.00	21.25	2.00	21.25	0.86	21.25	1.34	21.25	1.93	21.25	2.00	21.25	1.60	21.25	1.68	21.25	2.19	21.25	2.00	21.25	1.92	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.48	23.75	1.69	23.75	2.00	23.75	1.10	23.75	2.00	23.75	1.85	23.75	1.34	23.75	2.00	23.75	1.03	23.75	1.45
26.25	2.00	26.25	1.43	26.25	2.00	26.25	2.00	26.25	1.70	26.25	2.00	26.25	1.16	26.25	2.20	26.25	2.00	26.25	1.28	26.25	2.00	26.25	1.22	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.60	28.75	1.43	28.75	1.62	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.68	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.40	31.25	2.00	31.25	1.46	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.44	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.22	31.25	2.00
33.75	2.00	33.75	1.51	33.75	2.00	33.75	2.00	33.75	1.59	33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.04	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00
		36.25	2.00	36.25	2.00	36.25	1.81	36.25	1.42	36.25	2.00	36.25	2.00	36.25	1.20	36.25	2.00	36.25	2.00	36.25	0.98	36.25	2.00	36.25	2.00
		38.75	2.00																			38.75	2.00		
		41.25	2.00																			41.25	2.00		
Inv Avg	1.42	Inv Avg	1.83	Inv Avg	1.47	Inv Avg	1.37	Inv Avg	1.70	Inv Avg	1.44	Inv Avg	1.47	Inv Avg	1.58	Inv Avg	1.60	Inv Avg	1.69	Inv Avg	1.58	Inv Avg	1.64	Inv Avg	1.84
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-8

SCHEDULE CJG-ST1

C-41		C-44		C-46		C-46A		C-48		C-50		C-60		C-62		C-64		C-66		C-66A		C-68		C-70	
S (ft)	0.15	S (ft)	0.19	S (ft)	0.10	S (ft)	0.14	S (ft)	0.28	S (ft)	0.23	S (ft)	0.13	S (ft)	0.12	S (ft)	0.33	S (ft)	0.02	S (ft)	0.24	S (ft)	0.17	S (ft)	0.16
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	0.86	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.99	6.25	n.a	6.25	n.a	6.25	0.80	6.25	0.60	6.25	n.a	6.25	0.82	6.25	n.a	6.25	n.a	6.25	0.83	6.25	0.69	6.25	1.53
8.75	n.a	8.75	0.96	8.75	n.a	8.75	n.a	8.75	0.96	8.75	2.00	8.75	0.71	8.75	n.a	8.75	0.60	8.75	n.a	8.75	0.83	8.75	1.37	8.75	1.59
11.25	0.72	11.25	1.65	11.25	1.83	11.25	1.49	11.25	1.40	11.25	0.96	11.25	1.43	11.25	n.a	11.25	1.23	11.25	2.00	11.25	2.00	11.25	1.11	11.25	1.60
13.75	1.12	13.75	1.34	13.75	1.01	13.75	1.03	13.75	1.12	13.75	2.00	13.75	1.59	13.75	1.38	13.75	1.13	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.10
16.25	1.10	16.25	1.40	16.25	2.05	16.25	1.88	16.25	0.69	16.25	2.00	16.25	2.00	16.25	2.00	16.25	0.58	16.25	1.74	16.25	1.47	16.25	2.00	16.25	n.a
18.75	2.00	18.75	1.44	18.75	2.12	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.79	18.75	2.00	18.75	1.83	18.75	2.00	18.75	1.00
21.25	2.00	21.25	1.04	21.25	1.08	21.25	1.41	21.25	1.21	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.04	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	1.98	23.75	1.27	23.75	1.48	23.75	1.56	23.75	2.00	23.75	2.05	23.75	2.00	23.75	1.85	23.75	2.00	23.75	2.08	23.75	2.00	23.75	1.14	23.75	1.97
26.25	2.00	26.25	2.00	26.25	1.30	26.25	1.55	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.05	26.25	2.00			26.25	2.00	26.25	1.16	26.25	2.13
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.93	28.75	2.00	28.75	2.00	28.75	2.00			28.75	2.00	28.75	2.00	28.75	1.26
31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00			31.25	1.64	31.25	2.00	31.25	2.00
33.75	2.00	33.75	n.a	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00			33.75	2.00	33.75	1.29			33.75	n.a	33.75	2.00	33.75	2.00
36.25	2.00	36.25	n.a	36.25	1.66	36.25	0.89	36.25	1.54	36.25	1.22			36.25	2.00	36.25	0.97					36.25	1.38	36.25	0.76
				38.75	1.96	38.75	2.00			38.75	2.00														
				41.25	2.00	41.25	2.00			41.25	2.00														
				43.75	2.00	43.75	2.00																		
Inv Avg	1.63	Inv Avg	1.49	Inv Avg	1.72	Inv Avg	1.67	Inv Avg	1.39	Inv Avg	1.61	Inv Avg	1.68	Inv Avg	1.77	Inv Avg	1.31	Inv Avg	1.98	Inv Avg	1.49	Inv Avg	1.49	Inv Avg	1.52
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-8

SCHEDULE CJG-ST1

C-74		C-76		C-78		C-79		C-80		C-81		C-82		C-84		C-86		C-89		C-91		C-92		C-94	
S (ft)	0.18	S (ft)	0.11	S (ft)	0.32	S (ft)	0.13	S (ft)	0.22	S (ft)	0.20	S (ft)	0.09	S (ft)	0.13	S (ft)	0.22	S (ft)	0.18	S (ft)	0.50	S (ft)	0.18	S (ft)	0.12
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.89	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.85	6.25	1.00	6.25	0.72	6.25	n.a	6.25	n.a	6.25	n.a	6.25	1.79	6.25	n.a	6.25	n.a	6.25	0.86	6.25	0.86
8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.27	8.75	n.a	8.75	0.93	8.75	n.a	8.75	1.18	8.75	0.87	8.75	1.02	8.75	0.66	8.75	1.25	8.75	1.44
11.25	n.a	11.25	n.a	11.25	0.59	11.25	n.a	11.25	n.a	11.25	0.64	11.25	n.a	11.25	1.62	11.25	1.17	11.25	1.17	11.25	0.86	11.25	0.84	11.25	n.a
13.75	0.57	13.75	0.78	13.75	0.74	13.75	1.08	13.75	0.75	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.20	13.75	0.65	13.75	2.00	13.75	n.a
16.25	1.03	16.25	1.40	16.25	2.00	16.25	1.93	16.25	1.11	16.25	2.00	16.25	2.00	16.25	2.15	16.25	2.00	16.25	1.03	16.25	1.16	16.25	2.00	16.25	1.40
18.75	2.08	18.75	2.08	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.25	18.75	2.00	18.75	2.00	18.75	2.00	18.75	0.82	18.75	1.43	18.75	2.00	18.75	1.88
21.25	1.23	21.25	2.00	21.25	1.31	21.25	2.00	21.25	1.85	21.25	2.07	21.25	2.00	21.25	2.09	21.25	2.00	21.25	1.52	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.17	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.61	23.75	1.17	23.75	1.48	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	1.59	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.75			26.25	2.00
28.75	1.89	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.09	28.75	1.80	28.75	0.96			28.75	2.00
31.25	1.30	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.94	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.62	31.25	1.30	31.25	0.86			31.25	2.14
33.75	n.a	33.75	2.00	33.75	1.42	33.75	2.00	33.75	2.00	33.75	1.98	33.75	2.00	33.75	2.00	33.75	1.79	33.75	2.00	33.75	1.75			33.75	1.86
36.25	n.a	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	0.78	36.25	0.62	36.25	1.71	36.25	2.00	36.25	1.43			36.25	2.00
Inv Avg	1.53	Inv Avg	1.77	Inv Avg	1.39	Inv Avg	1.65	Inv Avg	1.55	Inv Avg	1.59	Inv Avg	1.81	Inv Avg	1.64	Inv Avg	1.53	Inv Avg	1.43	Inv Avg	1.15	Inv Avg	1.51	Inv Avg	1.74
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low

Figure D-8

SCHEDULE CJG-ST1

C-96		C-98		C-100		C-103		C-105		C-106		C-107		C-107A		C-109		C-111		C-113		C-117		C-119	
S (ft)	0.13	S (ft)	0.19	S (ft)	0.19	S (ft)	0.19	S (ft)	0.10	S (ft)	0.32	S (ft)	0.27	S (ft)	0.06	S (ft)	0.22	S (ft)	0.20	S (ft)	0.22	S (ft)	0.31	S (ft)	0.12
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.81	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	0.98	6.25	0.75	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a
8.75	n.a	8.75	0.56	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.77	8.75	0.77	8.75	1.15	8.75	n.a	8.75	n.a	8.75	0.78	8.75	0.49	8.75	0.75
11.25	n.a	11.25	1.17	11.25	2.00	11.25	0.93	11.25	n.a	11.25	1.21	11.25	0.89	11.25	1.26	11.25	0.50	11.25	0.67	11.25	2.14	11.25	2.00	11.25	1.47
13.75	0.68	13.75	2.00	13.75	1.75	13.75	2.00	13.75	n.a	13.75	2.00	13.75	1.96	13.75	1.76	13.75	2.08	13.75	0.82	13.75	0.74	13.75	1.19	13.75	2.20
16.25	1.11	16.25	2.00	16.25	1.95	16.25	2.00	16.25	2.00	16.25	1.67	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.46	16.25	1.93	16.25	1.03	16.25	2.00
18.75	1.15	18.75	2.00	18.75	2.00	18.75	0.90	18.75	2.00	18.75	0.86	18.75	2.00	18.75	2.00	18.75	1.60	18.75	2.00	18.75	1.17	18.75	1.03	18.75	2.00
21.25	2.00	21.25	2.00	21.25	2.00	21.25	0.97	21.25	2.00	21.25	0.91	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	1.91	23.75	1.56	23.75	2.00	23.75	1.98	23.75	2.00	23.75	1.48	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.53	26.25	2.00	26.25	1.61			26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.44	26.25	2.00	26.25	2.00
28.75	2.00	28.75	1.32	28.75	0.86	28.75	n.a	28.75	0.83	28.75	2.00			28.75	1.32	28.75	1.93	28.75	2.00	28.75	1.31	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.75	31.25	1.40	31.25	n.a	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00
33.75	2.00	33.75	2.00			33.75	n.a	33.75	2.00	33.75	1.32			33.75	2.00	33.75	2.12	33.75	2.00	33.75	1.34	33.75	2.00	33.75	2.00
		36.25	2.00			36.25	n.a	36.25	1.20	36.25	1.97			36.25	2.00	36.25	1.50			36.25	1.52	36.25	1.89		
Inv Avg	1.60	Inv Avg	1.58	Inv Avg	1.58	Inv Avg	1.58	Inv Avg	1.76	Inv Avg	1.38	Inv Avg	1.37	Inv Avg	1.73	Inv Avg	1.62	Inv Avg	1.57	Inv Avg	1.45	Inv Avg	1.45	Inv Avg	1.76
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-8

SCHEDULE CJG-ST1

C-121		C-123		C-125		C-129		C-131		C-133		C-135		C-135A		C-137		C-139		C-139A		C-143		C-145	
S (ft)	0.10	S (ft)	0.17	S (ft)	0.22	S (ft)	0.22	S (ft)	0.31	S (ft)	0.05	S (ft)	0.03	S (ft)	0.09	S (ft)	0.03	S (ft)	0.13	S (ft)	0.11	S (ft)	0.21	S (ft)	0.16
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.63	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.78	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	0.58	6.25	0.67
8.75	n.a	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.64	8.75	1.16	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.63	8.75	1.70
11.25	1.14	11.25	2.00	11.25	n.a	11.25	n.a	11.25	0.54	11.25	2.00	11.25	1.07	11.25	1.07	11.25	n.a	11.25	n.a	11.25	n.a	11.25	1.90	11.25	1.01
13.75	2.00	13.75	2.00	13.75	0.91	13.75	n.a	13.75	1.14	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.58	13.75	0.73	13.75	2.00	13.75	2.00
16.25	2.00	16.25	2.00	16.25	1.75	16.25	0.49	16.25	1.36	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.78	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	1.84	18.75	2.00	18.75	2.00	18.75	1.73	18.75	1.82	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.27	18.75	1.22
21.25	2.00	21.25	1.74	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00			21.25	2.00	21.25	1.93	21.25	2.00	21.25	2.00	21.25	1.89	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.33			23.75	2.00	23.75	2.00			23.75	2.00	23.75	1.33	23.75	2.00
26.25	1.10	26.25	2.00	26.25	2.00	26.25	1.07	26.25	1.87	26.25	2.00			26.25	2.00	26.25	2.18			26.25	2.00	26.25	2.00	26.25	2.00
28.75	1.61	28.75	2.00	28.75	2.00	28.75	1.20	28.75	1.12	28.75	2.00			28.75	0.96	28.75	2.00			28.75	2.00	28.75	1.87		
31.25	0.96	31.25	1.00	31.25	1.19	31.25	2.00	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00			31.25	1.28	31.25	1.43		
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.20	33.75	2.00	33.75	2.00					32.25	2.00					33.75	2.00		
		36.25	2.00	36.25	2.00	36.25	1.11	36.25	2.16	36.25	2.00											36.25	2.00		
Inv Avg	1.66	Inv Avg	1.68	Inv Avg	1.56	Inv Avg	1.42	Inv Avg	1.37	Inv Avg	1.84	Inv Avg	1.80	Inv Avg	1.74	Inv Avg	1.99	Inv Avg	1.57	Inv Avg	1.70	Inv Avg	1.55	Inv Avg	1.49
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-8

SCHEDULE CJG-ST1

C-145A		C-147		C-149		C-151		C-157		C-157A		C-159		C-161		C-163		C-166		C-168		C-168A		C-170	
S (ft)	0.14	S (ft)	0.04	S (ft)	0.33	S (ft)	0.36	S (ft)	0.20	S (ft)	0.20	S (ft)	0.11	S (ft)	0.13	S (ft)	0.52	S (ft)	0.19	S (ft)	0.19	S (ft)	0.42	S (ft)	0.19
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.68	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.87	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	0.54	6.25	0.55	6.25	2.00	6.25	0.81	6.25	n.a	6.25	1.32	6.25	0.83	6.25	0.68	6.25	n.a
8.75	1.11	8.75	2.00	8.75	0.81	8.75	n.a	8.75	2.00	8.75	2.00	8.75	1.63	8.75	1.05	8.75	n.a	8.75	2.00	8.75	1.25	8.75	1.23	8.75	0.57
11.25	1.11	11.25	1.19	11.25	1.26	11.25	0.45	11.25	1.66	11.25	1.12	11.25	1.46	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.31	11.25	0.91	11.25	1.71
13.75	2.00	13.75	2.00	13.75	2.01	13.75	1.08	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.42	13.75	1.79	13.75	1.43	13.75	0.96	13.75	1.57
16.25	2.00	16.25	1.57	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.13	16.25	2.01	16.25	2.00	16.25	0.91	16.25	1.10	16.25	2.00
18.75	1.02	18.75	2.00	18.75	2.00	18.75	1.20	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.68	18.75	2.00	18.75	1.13	18.75	1.28	18.75	2.00
21.25	2.00	21.25	1.34	21.25	2.00	21.25	1.73	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.04	21.25	1.13	21.25	2.00	21.25	1.54	21.25	1.28	21.25	1.20
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.52	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.16	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.79
26.25	2.00			26.25	1.16	26.25	2.00			26.25	2.00	26.25	1.13	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00
28.75	2.00			28.75	0.97	28.75	2.00			28.75	2.01	28.75	1.15	28.75	2.00	28.75	2.16	28.75	2.00	28.75	2.00	28.75	n.a	28.75	2.00
31.25	1.31			31.25	0.99	31.25	2.00			31.25	2.00	31.25	1.46	31.25	2.00	31.25	2.00	31.25	0.75	31.25	2.00	31.25	0.62	31.25	2.00
33.75	0.93			33.75	2.00	33.75	2.00					33.75	1.30					32.25	1.18	32.25	2.00	33.75	0.90	33.75	2.00
36.25	1.03			36.25	2.00							36.25	0.95					33.25	2.00					36.25	1.70
Inv Avg	1.49	Inv Avg	1.75	Inv Avg	1.38	Inv Avg	1.44	Inv Avg	1.55	Inv Avg	1.58	Inv Avg	1.57	Inv Avg	1.70	Inv Avg	1.42	Inv Avg	1.55	Inv Avg	1.46	Inv Avg	1.16	Inv Avg	1.59
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low

Figure D-8

SCHEDULE CJG-ST1

C-172		C-174		C-178		C-180		C-182		C-184		C-186		C-190		C-192		C-194		C-196		C-198		C-200	
S (ft)	0.19	S (ft)	0.04	S (ft)	0.21	S (ft)	0.35	S (ft)	0.05	S (ft)	0.17	S (ft)	0.31	S (ft)	0.14	S (ft)	0.21	S (ft)	0.21	S (ft)	0.23	S (ft)	0.29	S (ft)	0.22
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	0.59	6.25	1.31	6.25	n.a	6.25	0.72	6.25	n.a	6.25	n.a	6.25	0.63	6.25	n.a	6.25	0.66	6.25	0.74	6.25	n.a	6.25	0.78	6.25	0.92
8.75	1.44	8.75	2.00	8.75	0.75	8.75	1.83	8.75	1.21	8.75	0.62	8.75	2.00	8.75	n.a	8.75	2.00	8.75	n.a	8.75	0.92	8.75	0.83	8.75	n.a
11.25	2.12	11.25	2.00	11.25	1.66	11.25	1.07	11.25	1.46	11.25	1.40	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.38	11.25	1.49	11.25	1.33	11.25	n.a
13.75	2.00	13.75	2.00	13.75	1.60	13.75	0.87	13.75	2.00	13.75	2.00	13.75	2.00	13.75	n.a	13.75	2.00	13.75	0.97	13.75	2.00	13.75	2.00	13.75	1.07
16.25	2.00	16.25	1.94	16.25	0.85	16.25	0.79	16.25	2.00	16.25	1.50	16.25	2.00	16.25	0.57	16.25	2.00	16.25	1.91	16.25	1.25	16.25	2.00	16.25	1.16
18.75	2.00	18.75	1.61	18.75	2.00	18.75	1.20	18.75	2.00	18.75	1.50	18.75	1.31	18.75	2.00	18.75	0.82	18.75	1.07	18.75	1.82	18.75	1.70	18.75	2.00
21.25	1.46	21.25	2.00	21.25	1.55	21.25	1.06	21.25	1.94	21.25	2.00	21.25	1.02	21.25	1.46	21.25	2.00	21.25	2.00	21.25	1.87	21.25	n.a	21.25	1.42
23.75	1.47	23.75	2.00	23.75	1.12	23.75	1.08	23.75	2.00	23.75	2.00	23.75	1.18	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.97	23.75	0.75	23.75	1.86
26.25	1.88	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.85	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.70	26.25	1.45
28.75	2.00	28.75	2.00	28.75	2.06	28.75	2.00	28.75	2.00	28.75	2.06	28.75	0.85	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.23	28.75	2.00
31.25	1.86	31.25	2.00	31.25	2.00	31.25	1.70	31.25	2.00	31.25	1.65	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.84	31.25	n.a	31.25	1.28	31.25	2.00
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.70	33.75	1.91	33.75	1.74	33.75	2.19	33.75	2.00	33.75	2.19	33.75	1.60	33.75	0.50	33.75	2.00	33.75	1.31
36.25	2.00			36.25	2.00	36.25	2.00			36.25	1.18			36.25	2.00	36.25	2.00	36.25	2.00			36.25	2.00	36.25	2.00
																								38.75	2.00
																								41.25	2.00
																								43.75	2.00
																								46.25	1.43
																								48.75	1.06
																								51.25	1.27
																								53.75	1.13
																								56.25	2.00
																								58.75	2.00
																								61.25	2.00
																								63.75	2.00
																								66.25	1.19
Inv Avg	1.61	Inv Avg	1.89	Inv Avg	1.54	Inv Avg	1.28	Inv Avg	1.85	Inv Avg	1.55	Inv Avg	1.34	Inv Avg	1.68	Inv Avg	1.63	Inv Avg	1.54	Inv Avg	1.45	Inv Avg	1.38	Inv Avg	1.57
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-8

SCHEDULE CJG-ST1

Ameren Missouri: Labadie UWL
Liquefaction Analysis
50' of ASH M: 7.5
PGA: 2% probability of exceedence in 50 yrs: 0.1792 GW: 0.0'

C-11		C-13		C-16		C-18		C-21		C-23		C-25		C-28		C-30		C-32		C-34		C-37		C-39	
S (ft)	0.31	S (ft)	0.05	S (ft)	0.23	S (ft)	0.35	S (ft)	0.06	S (ft)	0.27	S (ft)	0.19	S (ft)	0.15	S (ft)	0.18	S (ft)	0.08	S (ft)	0.20	S (ft)	0.15	S (ft)	0.04
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.87	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.97	6.25	0.56	6.25	n.a	6.25	1.14	6.25	1.27	6.25	n.a	6.25	0.66	6.25	n.a	6.25	0.78	6.25	n.a	6.25	n.a
8.75	n.a	8.75	1.38	8.75	1.14	8.75	n.a	8.75	n.a	8.75	1.00	8.75	0.88	8.75	0.68	8.75	1.68	8.75	1.07	8.75	n.a	8.75	0.84	8.75	n.a
11.25	0.53	11.25	2.00	11.25	0.69	11.25	0.95	11.25	1.10	11.25	1.27	11.25	2.00	11.25	n.a	11.25	2.00	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.23
13.75	n.a	13.75	2.00	13.75	1.06	13.75	1.83	13.75	2.00	13.75	2.04	13.75	0.94	13.75	n.a	13.75	2.00	13.75	2.00	13.75	0.91	13.75	1.92	13.75	2.14
16.25	0.54	16.25	2.00	16.25	1.53	16.25	1.91	16.25	2.00	16.25	1.94	16.25	2.00	16.25	1.48	16.25	1.66	16.25	1.07	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	2.00	18.75	1.60	18.75	1.15	18.75	2.00	18.75	0.83	18.75	1.31	18.75	1.50	18.75	2.02	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.56
21.25	2.00	21.25	2.00	21.25	2.00	21.25	0.90	21.25	1.39	21.25	2.01	21.25	2.00	21.25	1.66	21.25	1.74	21.25	2.00	21.25	2.00	21.25	1.99	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.54	23.75	1.76	23.75	2.00	23.75	1.15	23.75	2.00	23.75	1.93	23.75	1.39	23.75	2.00	23.75	1.07	23.75	1.51
26.25	2.00	26.25	1.49	26.25	2.00	26.25	2.00	26.25	1.77	26.25	2.00	26.25	1.21	26.25	2.00	26.25	2.00	26.25	1.33	26.25	2.00	26.25	1.27	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.67	28.75	1.49	28.75	1.69	28.75	2.09	28.75	2.00	28.75	2.00	28.75	1.75	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.46	31.25	2.00	31.25	1.52	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.50	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.27	31.25	2.00
33.75	2.00	33.75	1.58	33.75	2.00	33.75	2.00	33.75	1.66	33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.08	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00
		36.25	2.00	36.25	2.00	36.25	1.89	36.25	1.48	36.25	2.00	36.25	2.00	36.25	1.25	36.25	2.00	36.25	2.00	36.25	1.02	36.25	2.00	36.25	2.00
		38.75	2.00																			38.75	2.00		
		41.25	2.00																			41.25	2.00		
Inv Avg	1.44	Inv Avg	1.85	Inv Avg	1.49	Inv Avg	1.40	Inv Avg	1.74	Inv Avg	1.47	Inv Avg	1.49	Inv Avg	1.60	Inv Avg	1.63	Inv Avg	1.70	Inv Avg	1.59	Inv Avg	1.66	Inv Avg	1.85
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-9

SCHEDULE CJG-ST1

C-41		C-44		C-46		C-46A		C-48		C-50		C-60		C-62		C-64		C-66		C-66A		C-68		C-70	
S (ft)	0.13	S (ft)	0.15	S (ft)	0.08	S (ft)	0.13	S (ft)	0.28	S (ft)	0.23	S (ft)	0.13	S (ft)	0.12	S (ft)	0.31	S (ft)	0.02	S (ft)	0.24	S (ft)	0.17	S (ft)	0.15
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	0.87	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	1.00	6.25	n.a	6.25	n.a	6.25	0.81	6.25	0.61	6.25	n.a	6.25	0.84	6.25	n.a	6.25	n.a	6.25	0.84	6.25	0.70	6.25	1.55
8.75	n.a	8.75	0.98	8.75	n.a	8.75	n.a	8.75	0.99	8.75	2.00	8.75	0.73	8.75	n.a	8.75	0.61	8.75	n.a	8.75	0.85	8.75	1.40	8.75	1.62
11.25	0.74	11.25	1.69	11.25	1.88	11.25	1.53	11.25	1.44	11.25	0.98	11.25	1.47	11.25	n.a	11.25	1.26	11.25	2.00	11.25	2.00	11.25	1.14	11.25	1.64
13.75	1.15	13.75	1.38	13.75	1.04	13.75	1.06	13.75	1.16	13.75	2.00	13.75	1.64	13.75	1.42	13.75	1.16	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.13
16.25	1.13	16.25	1.44	16.25	2.12	16.25	1.95	16.25	0.71	16.25	2.00	16.25	2.00	16.25	2.00	16.25	0.60	16.25	1.80	16.25	1.52	16.25	2.00	16.25	n.a
18.75	2.00	18.75	1.49	18.75	2.20	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.85	18.75	2.00	18.75	1.90	18.75	2.00	18.75	1.04
21.25	2.00	21.25	1.08	21.25	1.12	21.25	1.46	21.25	1.25	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.12	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.05	23.75	1.32	23.75	1.54	23.75	1.62	23.75	2.00	23.75	2.13	23.75	2.00	23.75	1.92	23.75	2.00	23.75	2.17	23.75	2.00	23.75	1.19	23.75	2.05
26.25	2.00	26.25	2.00	26.25	1.36	26.25	1.61	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.13	26.25	2.00			26.25	2.00	26.25	1.20	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.01	28.75	2.00	28.75	2.00	28.75	2.00			28.75	2.00	28.75	2.00	28.75	1.31
31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00			31.25	1.71	31.25	2.00	31.25	2.00
33.75	2.00	33.75	n.a	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00			33.75	2.00	33.75	1.34			33.75	n.a	33.75	2.00	33.75	2.00
36.25	2.00	36.25	n.a	36.25	1.73	36.25	0.93	36.25	1.61	36.25	1.28			36.25	2.00	36.25	1.01					36.25	1.44	36.25	0.80
				38.75	2.05	38.75	2.00			38.75	2.00														
				41.25	2.00	41.25	2.00			41.25	2.00														
				43.75	2.00	43.75	2.00																		
Inv Avg	1.65	Inv Avg	1.52	Inv Avg	1.75	Inv Avg	1.70	Inv Avg	1.41	Inv Avg	1.63	Inv Avg	1.70	Inv Avg	1.79	Inv Avg	1.34	Inv Avg	1.99	Inv Avg	1.51	Inv Avg	1.52	Inv Avg	1.54
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-9

SCHEDULE CJG-ST1

C-74		C-76		C-78		C-79		C-80		C-81		C-82		C-84		C-86		C-89		C-91		C-92		C-94	
S (ft)	0.18	S (ft)	0.11	S (ft)	0.32	S (ft)	0.08	S (ft)	0.22	S (ft)	0.20	S (ft)	0.09	S (ft)	0.13	S (ft)	0.21	S (ft)	0.18	S (ft)	0.47	S (ft)	0.18	S (ft)	0.12
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.90	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.86	6.25	1.01	6.25	0.73	6.25	n.a	6.25	n.a	6.25	n.a	6.25	1.83	6.25	n.a	6.25	n.a	6.25	0.88	6.25	0.87
8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.30	8.75	n.a	8.75	0.95	8.75	n.a	8.75	1.21	8.75	0.89	8.75	1.05	8.75	0.67	8.75	1.28	8.75	1.47
11.25	n.a	11.25	n.a	11.25	0.61	11.25	n.a	11.25	n.a	11.25	0.66	11.25	n.a	11.25	1.66	11.25	1.20	11.25	1.20	11.25	0.88	11.25	0.86	11.25	n.a
13.75	0.58	13.75	0.80	13.75	0.76	13.75	1.11	13.75	0.77	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.23	13.75	0.67	13.75	2.00	13.75	n.a
16.25	1.07	16.25	1.45	16.25	2.00	16.25	1.99	16.25	1.15	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.06	16.25	1.20	16.25	2.00	16.25	1.44
18.75	2.15	18.75	2.16	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.30	18.75	2.00	18.75	2.00	18.75	2.00	18.75	0.85	18.75	1.48	18.75	2.00	18.75	1.95
21.25	1.27	21.25	2.00	21.25	1.36	21.25	2.00	21.25	1.92	21.25	2.15	21.25	2.00	21.25	2.17	21.25	2.00	21.25	1.58	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.22	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.67	23.75	1.21	23.75	1.54	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	1.66	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.78			26.25	2.00
28.75	1.97	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.18	28.75	1.87	28.75	1.00			28.75	2.00
31.25	1.36	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.02	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.69	31.25	1.36	31.25	0.90			31.25	2.00
33.75	n.a	33.75	2.00	33.75	1.49	33.75	2.00	33.75	2.00	33.75	2.07	33.75	2.00	33.75	2.00	33.75	1.87	33.75	2.00	33.75	1.83			33.75	1.94
36.25	n.a	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	0.81	36.25	0.65	36.25	1.79	36.25	2.00	36.25	1.49			36.25	2.00
Inv Avg	1.56	Inv Avg	1.79	Inv Avg	1.41	Inv Avg	1.67	Inv Avg	1.57	Inv Avg	1.61	Inv Avg	1.82	Inv Avg	1.66	Inv Avg	1.56	Inv Avg	1.46	Inv Avg	1.18	Inv Avg	1.52	Inv Avg	1.75
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low

Figure D-9

SCHEDULE CJG-ST1

C-96		C-98		C-100		C-103		C-105		C-106		C-107		C-107A		C-109		C-111		C-113		C-117		C-119	
S (ft)	0.13	S (ft)	0.19	S (ft)	0.19	S (ft)	0.16	S (ft)	0.09	S (ft)	0.31	S (ft)	0.26	S (ft)	0.06	S (ft)	0.22	S (ft)	0.20	S (ft)	0.22	S (ft)	0.31	S (ft)	0.12
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.82	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	1.00	6.25	0.76	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a
8.75	n.a	8.75	0.57	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.79	8.75	0.79	8.75	1.18	8.75	n.a	8.75	n.a	8.75	0.79	8.75	0.50	8.75	0.76
11.25	n.a	11.25	1.20	11.25	2.00	11.25	0.96	11.25	n.a	11.25	1.24	11.25	0.91	11.25	1.29	11.25	0.51	11.25	0.69	11.25	2.00	11.25	2.00	11.25	1.51
13.75	0.70	13.75	2.00	13.75	1.81	13.75	2.00	13.75	n.a	13.75	2.00	13.75	2.02	13.75	1.81	13.75	2.15	13.75	0.84	13.75	0.77	13.75	1.22	13.75	2.00
16.25	1.14	16.25	2.00	16.25	2.02	16.25	2.00	16.25	2.00	16.25	1.72	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.50	16.25	2.00	16.25	1.06	16.25	2.00
18.75	1.19	18.75	2.00	18.75	2.00	18.75	0.94	18.75	2.00	18.75	0.89	18.75	2.00	18.75	2.00	18.75	1.65	18.75	2.00	18.75	1.21	18.75	1.07	18.75	2.00
21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.00	21.25	2.00	21.25	0.95	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	1.98	23.75	1.63	23.75	2.00	23.75	2.06	23.75	2.00	23.75	1.54	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.59	26.25	2.00	26.25	1.68			26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.50	26.25	2.00	26.25	2.00
28.75	2.00	28.75	1.37	28.75	0.89	28.75	n.a	28.75	0.86	28.75	2.00			28.75	1.37	28.75	2.02	28.75	2.00	28.75	1.36	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.83	31.25	1.46	31.25	n.a	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00
33.75	2.00	33.75	2.00			33.75	n.a	33.75	2.00	33.75	1.38			33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.40	33.75	2.00	33.75	2.00
		36.25	2.00			36.25	n.a	36.25	1.25	36.25	2.06			36.25	2.00	36.25	1.57			36.25	1.58	36.25	1.98		
Inv Avg	1.62	Inv Avg	1.60	Inv Avg	1.61	Inv Avg	1.60	Inv Avg	1.77	Inv Avg	1.41	Inv Avg	1.39	Inv Avg	1.75	Inv Avg	1.64	Inv Avg	1.59	Inv Avg	1.48	Inv Avg	1.47	Inv Avg	1.76
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-9

SCHEDULE CJG-ST1

C-121		C-123		C-125		C-129		C-131		C-133		C-135		C-135A		C-137		C-139		C-139A		C-143		C-145	
S (ft)	0.07	S (ft)	0.15	S (ft)	0.22	S (ft)	0.21	S (ft)	0.31	S (ft)	0.05	S (ft)	0.02	S (ft)	0.07	S (ft)	0.02	S (ft)	0.13	S (ft)	0.11	S (ft)	0.20	S (ft)	0.16
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.64	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.79	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	0.59	6.25	0.68
8.75	n.a	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.66	8.75	1.19	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.67	8.75	1.74
11.25	1.17	11.25	2.00	11.25	n.a	11.25	n.a	11.25	0.56	11.25	2.00	11.25	1.10	11.25	1.10	11.25	n.a	11.25	n.a	11.25	n.a	11.25	1.95	11.25	1.03
13.75	2.00	13.75	2.00	13.75	0.93	13.75	n.a	13.75	1.18	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.59	13.75	0.76	13.75	2.00	13.75	2.00
16.25	2.00	16.25	2.00	16.25	1.80	16.25	0.51	16.25	1.40	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.84	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	1.90	18.75	2.00	18.75	2.00	18.75	1.79	18.75	1.88	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.31	18.75	1.26
21.25	2.00	21.25	1.80	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.08			21.25	2.00	21.25	2.01	21.25	2.00	21.25	2.00	21.25	1.96	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.38			23.75	2.00	23.75	2.00			23.75	2.00	23.75	1.38	23.75	2.00
26.25	1.15	26.25	2.00	26.25	2.00	26.25	1.12	26.25	1.94	26.25	2.00			26.25	2.00	26.25	2.00			26.25	2.00	26.25	2.00	26.25	2.00
28.75	1.67	28.75	2.00	28.75	2.00	28.75	1.25	28.75	1.17	28.75	2.00			28.75	1.01	28.75	2.00			28.75	2.00	28.75	1.95		
31.25	1.00	31.25	1.04	31.25	1.24	31.25	2.00	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00			31.25	1.33	31.25	1.50		
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.26	33.75	2.00	33.75	2.00					32.25	2.00					33.75	2.00		
		36.25	2.00	36.25	2.00	36.25	1.16	36.25	2.00	36.25	2.00											36.25	2.00		
Inv Avg	1.68	Inv Avg	1.70	Inv Avg	1.58	Inv Avg	1.45	Inv Avg	1.39	Inv Avg	1.86	Inv Avg	1.81	Inv Avg	1.76	Inv Avg	1.99	Inv Avg	1.58	Inv Avg	1.72	Inv Avg	1.58	Inv Avg	1.51
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-9

SCHEDULE CJG-ST1

C-145A		C-147		C-149		C-151		C-157		C-157A		C-159		C-161		C-163		C-166		C-168		C-168A		C-170	
S (ft)	0.14	S (ft)	0.03	S (ft)	0.27	S (ft)	0.35	S (ft)	0.20	S (ft)	0.20	S (ft)	0.11	S (ft)	0.13	S (ft)	0.52	S (ft)	0.19	S (ft)	0.19	S (ft)	0.41	S (ft)	0.18
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.69	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.88	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	0.55	6.25	0.56	6.25	2.00	6.25	0.83	6.25	n.a	6.25	1.34	6.25	0.84	6.25	0.69	6.25	n.a
8.75	1.13	8.75	2.00	8.75	0.83	8.75	n.a	8.75	2.00	8.75	2.00	8.75	1.66	8.75	1.07	8.75	n.a	8.75	2.00	8.75	1.27	8.75	1.26	8.75	0.58
11.25	1.14	11.25	1.22	11.25	1.30	11.25	0.46	11.25	1.70	11.25	1.15	11.25	1.50	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.35	11.25	0.94	11.25	1.75
13.75	2.00	13.75	2.00	13.75	2.07	13.75	1.11	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.43	13.75	1.84	13.75	1.48	13.75	0.99	13.75	1.61
16.25	2.00	16.25	1.62	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.20	16.25	2.08	16.25	2.00	16.25	0.94	16.25	1.14	16.25	2.00
18.75	1.05	18.75	2.00	18.75	2.00	18.75	1.24	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.74	18.75	2.00	18.75	1.17	18.75	1.33	18.75	2.00
21.25	2.00	21.25	1.39	21.25	2.00	21.25	1.80	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.12	21.25	1.17	21.25	2.00	21.25	1.59	21.25	1.33	21.25	1.24
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.58	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.21	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.87
26.25	2.00			26.25	1.20	26.25	2.00			26.25	2.00	26.25	1.18	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00
28.75	2.00			28.75	1.01	28.75	2.00			28.75	2.09	28.75	1.20	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	n.a	28.75	2.00
31.25	1.37			31.25	1.04	31.25	2.00			31.25	2.00	31.25	1.53	31.25	2.00	31.25	2.00	31.25	0.79	31.25	2.00	31.25	0.65	31.25	2.00
33.75	0.98			33.75	2.00	33.75	2.00					33.75	1.36					32.25	1.23	32.25	2.00	33.75	0.94	33.75	2.00
36.25	1.08			36.25	2.00							36.25	0.99					33.25	2.00					36.25	1.77
Inv Avg	1.52	Inv Avg	1.77	Inv Avg	1.40	Inv Avg	1.47	Inv Avg	1.56	Inv Avg	1.60	Inv Avg	1.60	Inv Avg	1.72	Inv Avg	1.44	Inv Avg	1.58	Inv Avg	1.48	Inv Avg	1.18	Inv Avg	1.61
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low

Figure D-9

SCHEDULE CJG-ST1

C-172		C-174		C-178		C-180		C-182		C-184		C-186		C-190		C-192		C-194		C-196		C-198		C-200	
S (ft)	0.19	S (ft)	0.04	S (ft)	0.21	S (ft)	0.34	S (ft)	0.04	S (ft)	0.17	S (ft)	0.31	S (ft)	0.21	S (ft)	0.14	S (ft)	0.17	S (ft)	0.23	S (ft)	0.29	S (ft)	0.19
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	0.60	6.25	1.33	6.25	n.a	6.25	0.73	6.25	n.a	6.25	n.a	6.25	0.64	6.25	n.a	6.25	0.67	6.25	0.75	6.25	n.a	6.25	0.79	6.25	0.93
8.75	1.47	8.75	2.00	8.75	0.77	8.75	1.87	8.75	1.23	8.75	0.63	8.75	2.00	8.75	n.a	8.75	2.00	8.75	n.a	8.75	0.94	8.75	0.85	8.75	n.a
11.25	2.18	11.25	2.00	11.25	1.70	11.25	1.10	11.25	1.50	11.25	1.43	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.42	11.25	1.53	11.25	1.36	11.25	n.a
13.75	2.00	13.75	2.00	13.75	1.65	13.75	0.89	13.75	2.00	13.75	2.00	13.75	2.00	13.75	n.a	13.75	2.00	13.75	1.00	13.75	2.00	13.75	2.00	13.75	1.10
16.25	2.00	16.25	2.01	16.25	0.88	16.25	0.81	16.25	2.00	16.25	1.55	16.25	2.00	16.25	0.59	16.25	2.00	16.25	1.97	16.25	1.29	16.25	2.00	16.25	1.20
18.75	2.00	18.75	1.67	18.75	2.00	18.75	1.24	18.75	2.00	18.75	1.55	18.75	1.36	18.75	2.00	18.75	0.85	18.75	1.11	18.75	1.88	18.75	1.76	18.75	2.00
21.25	1.51	21.25	2.00	21.25	1.61	21.25	1.10	21.25	2.01	21.25	2.00	21.25	1.06	21.25	1.52	21.25	2.00	21.25	2.00	21.25	1.94	21.25	n.a	21.25	1.47
23.75	1.53	23.75	2.00	23.75	1.17	23.75	1.13	23.75	2.00	23.75	2.00	23.75	1.23	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.05	23.75	0.78	23.75	1.94
26.25	1.96	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.89	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.77	26.25	1.51
28.75	2.00	28.75	2.00	28.75	2.15	28.75	2.00	28.75	2.00	28.75	2.14	28.75	0.89	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.28	28.75	2.00
31.25	1.94	31.25	2.00	31.25	2.00	31.25	1.78	31.25	2.00	31.25	1.72	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.92	31.25	n.a	31.25	1.34	31.25	2.00
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.78	33.75	1.99	33.75	1.82	33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.67	33.75	0.52	33.75	2.00	33.75	1.37
36.25	2.00			36.25	2.00	36.25	2.00			36.25	1.23			36.25	2.00	36.25	2.00	36.25	2.00			36.25	2.00	36.25	2.00
																								38.75	2.00
																								41.25	2.00
																								43.75	2.00
																								46.25	1.49
																								48.75	1.11
																								51.25	1.32
																								53.75	1.19
																								56.25	2.00
																								58.75	2.00
																								61.25	2.00
																								63.75	2.00
																								66.25	1.25
Inv Avg	1.64	Inv Avg	1.90	Inv Avg	1.57	Inv Avg	1.32	Inv Avg	1.87	Inv Avg	1.58	Inv Avg	1.36	Inv Avg	1.70	Inv Avg	1.64	Inv Avg	1.57	Inv Avg	1.48	Inv Avg	1.41	Inv Avg	1.60
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-9

SCHEDULE CJG-ST1

Ameren Missouri: Labadie UWL
Liquefaction Analysis
60' of ASH M: 7.5
PGA: 2% probability of exceedence in 50 yrs: 0.1792 GW: 0.0'

C-11		C-13		C-16		C-18		C-21		C-23		C-25		C-28		C-30		C-32		C-34		C-37		C-39	
S (ft)	0.31	S (ft)	0.05	S (ft)	0.23	S (ft)	0.34	S (ft)	0.06	S (ft)	0.24	S (ft)	0.19	S (ft)	0.15	S (ft)	0.17	S (ft)	0.07	S (ft)	0.20	S (ft)	0.14	S (ft)	0.04
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.88	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.98	6.25	0.57	6.25	n.a	6.25	1.15	6.25	1.29	6.25	n.a	6.25	0.67	6.25	n.a	6.25	0.79	6.25	n.a	6.25	n.a
8.75	n.a	8.75	1.40	8.75	1.16	8.75	n.a	8.75	n.a	8.75	1.01	8.75	0.90	8.75	0.69	8.75	1.71	8.75	1.09	8.75	n.a	8.75	0.85	8.75	n.a
11.25	0.54	11.25	2.00	11.25	0.71	11.25	0.97	11.25	1.13	11.25	1.30	11.25	2.00	11.25	n.a	11.25	2.00	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.25
13.75	n.a	13.75	2.00	13.75	1.08	13.75	1.87	13.75	2.00	13.75	2.08	13.75	0.96	13.75	n.a	13.75	2.00	13.75	2.00	13.75	0.93	13.75	1.97	13.75	2.18
16.25	0.55	16.25	2.00	16.25	1.57	16.25	1.95	16.25	2.00	16.25	1.98	16.25	2.00	16.25	1.51	16.25	1.70	16.25	1.10	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	2.00	18.75	1.64	18.75	1.18	18.75	2.00	18.75	0.86	18.75	1.35	18.75	1.54	18.75	2.07	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.60
21.25	2.00	21.25	2.00	21.25	2.00	21.25	0.92	21.25	1.43	21.25	2.06	21.25	2.00	21.25	1.71	21.25	1.79	21.25	2.00	21.25	2.00	21.25	2.05	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.59	23.75	1.81	23.75	2.00	23.75	1.18	23.75	2.00	23.75	1.98	23.75	1.43	23.75	2.00	23.75	1.10	23.75	1.55
26.25	2.00	26.25	1.54	26.25	2.00	26.25	2.00	26.25	1.83	26.25	2.00	26.25	1.25	26.25	2.00	26.25	2.00	26.25	1.37	26.25	2.00	26.25	1.31	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.72	28.75	1.54	28.75	1.74	28.75	2.16	28.75	2.00	28.75	2.00	28.75	1.81	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.51	31.25	2.00	31.25	1.57	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.55	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.32	31.25	2.00
33.75	2.00	33.75	1.63	33.75	2.00	33.75	2.00	33.75	1.71	33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.12	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00
		36.25	2.00	36.25	2.00	36.25	1.96	36.25	1.53	36.25	2.00	36.25	2.00	36.25	1.29	36.25	2.00	36.25	2.00	36.25	1.06	36.25	2.00	36.25	2.00
		38.75	2.00																			38.75	2.00		
		41.25	2.00																			41.25	2.00		
Inv Avg	1.45	Inv Avg	1.86	Inv Avg	1.50	Inv Avg	1.42	Inv Avg	1.76	Inv Avg	1.49	Inv Avg	1.52	Inv Avg	1.62	Inv Avg	1.65	Inv Avg	1.71	Inv Avg	1.61	Inv Avg	1.68	Inv Avg	1.87
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-10

SCHEDULE CJG-ST1

C-41		C-44		C-46		C-46A		C-48		C-50		C-60		C-62		C-64		C-66		C-66A		C-68		C-70	
S (ft)	0.13	S (ft)	0.14	S (ft)	0.08	S (ft)	0.13	S (ft)	0.25	S (ft)	0.20	S (ft)	0.13	S (ft)	0.12	S (ft)	0.31	S (ft)	0.02	S (ft)	0.24	S (ft)	0.17	S (ft)	0.15
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	0.87	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	1.01	6.25	n.a	6.25	n.a	6.25	0.82	6.25	0.61	6.25	n.a	6.25	0.85	6.25	n.a	6.25	n.a	6.25	0.85	6.25	0.71	6.25	1.57
8.75	n.a	8.75	1.00	8.75	n.a	8.75	n.a	8.75	1.00	8.75	2.00	8.75	0.74	8.75	n.a	8.75	0.62	8.75	n.a	8.75	0.86	8.75	1.42	8.75	1.65
11.25	0.75	11.25	1.72	11.25	1.92	11.25	1.56	11.25	1.46	11.25	1.00	11.25	1.50	11.25	n.a	11.25	1.29	11.25	2.00	11.25	2.00	11.25	1.17	11.25	1.68
13.75	1.18	13.75	1.41	13.75	1.07	13.75	1.09	13.75	1.18	13.75	2.00	13.75	1.67	13.75	1.45	13.75	1.19	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.16
16.25	1.16	16.25	1.48	16.25	2.17	16.25	1.99	16.25	0.73	16.25	2.00	16.25	2.00	16.25	2.00	16.25	0.61	16.25	1.84	16.25	1.56	16.25	2.00	16.25	n.a
18.75	2.00	18.75	1.53	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.90	18.75	2.00	18.75	1.95	18.75	2.00	18.75	1.06
21.25	2.00	21.25	1.11	21.25	1.15	21.25	1.50	21.25	1.29	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.18	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.11	23.75	1.36	23.75	1.58	23.75	1.66	23.75	2.00	23.75	2.20	23.75	2.00	23.75	1.98	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.22	23.75	2.11
26.25	2.00	26.25	2.00	26.25	1.40	26.25	1.66	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.20	26.25	2.00			26.25	2.00	26.25	1.24	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.08	28.75	2.00	28.75	2.00	28.75	2.00			28.75	2.00	28.75	2.00	28.75	1.36
31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00			31.25	1.77	31.25	2.00	31.25	2.00
33.75	2.00	33.75	n.a	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00			33.75	2.00	33.75	1.39			33.75	n.a	33.75	2.00	33.75	2.00
36.25	2.00	36.25	n.a	36.25	1.79	36.25	0.96	36.25	1.67	36.25	1.32			36.25	2.00	36.25	1.04					36.25	1.49	36.25	0.82
				38.75	2.12	38.75	2.00			38.75	2.00														
				41.25	2.00	41.25	2.00			41.25	2.00														
				43.75	2.00	43.75	2.00																		
Inv Avg	1.66	Inv Avg	1.54	Inv Avg	1.77	Inv Avg	1.72	Inv Avg	1.43	Inv Avg	1.65	Inv Avg	1.71	Inv Avg	1.80	Inv Avg	1.36	Inv Avg	1.98	Inv Avg	1.52	Inv Avg	1.54	Inv Avg	1.57
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-10

SCHEDULE CJG-ST1

C-74		C-76		C-78		C-79		C-80		C-81		C-82		C-84		C-86		C-89		C-91		C-92		C-94	
S (ft)	0.17	S (ft)	0.11	S (ft)	0.32	S (ft)	0.08	S (ft)	0.22	S (ft)	0.20	S (ft)	0.09	S (ft)	0.13	S (ft)	0.20	S (ft)	0.17	S (ft)	0.47	S (ft)	0.18	S (ft)	0.11
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.90	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.87	6.25	1.02	6.25	0.74	6.25	n.a	6.25	n.a	6.25	n.a	6.25	1.85	6.25	n.a	6.25	n.a	6.25	0.89	6.25	0.88
8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.32	8.75	n.a	8.75	0.97	8.75	n.a	8.75	1.23	8.75	0.90	8.75	1.06	8.75	0.68	8.75	1.30	8.75	1.49
11.25	n.a	11.25	n.a	11.25	0.62	11.25	n.a	11.25	n.a	11.25	0.67	11.25	n.a	11.25	1.69	11.25	1.23	11.25	1.22	11.25	0.90	11.25	0.88	11.25	n.a
13.75	0.60	13.75	0.82	13.75	0.77	13.75	1.14	13.75	0.79	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.26	13.75	0.68	13.75	2.00	13.75	n.a
16.25	1.09	16.25	1.48	16.25	2.00	16.25	2.04	16.25	1.17	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.09	16.25	1.23	16.25	2.00	16.25	1.48
18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.33	18.75	2.00	18.75	2.00	18.75	2.00	18.75	0.87	18.75	1.52	18.75	2.00	18.75	2.00
21.25	1.31	21.25	2.00	21.25	1.40	21.25	2.00	21.25	1.97	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.62	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.26	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.72	23.75	1.25	23.75	1.58	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	1.71	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.81			26.25	2.00
28.75	2.03	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.93	28.75	1.03			28.75	2.00
31.25	1.41	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.09	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.74	31.25	1.41	31.25	0.93			31.25	2.00
33.75	n.a	33.75	2.00	33.75	1.54	33.75	2.00	33.75	2.00	33.75	2.14	33.75	2.00	33.75	2.00	33.75	1.93	33.75	2.00	33.75	1.89			33.75	2.00
36.25	n.a	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	0.84	36.25	0.67	36.25	1.85	36.25	2.00	36.25	1.54			36.25	2.00
Inv Avg	1.57	Inv Avg	1.79	Inv Avg	1.43	Inv Avg	1.69	Inv Avg	1.59	Inv Avg	1.62	Inv Avg	1.83	Inv Avg	1.67	Inv Avg	1.58	Inv Avg	1.48	Inv Avg	1.20	Inv Avg	1.53	Inv Avg	1.77
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-10

SCHEDULE CJG-ST1

C-96		C-98		C-100		C-103		C-105		C-106		C-107		C-107A		C-109		C-111		C-113		C-117		C-119	
S (ft)	0.13	S (ft)	0.19	S (ft)	0.18	S (ft)	0.16	S (ft)	0.09	S (ft)	0.27	S (ft)	0.26	S (ft)	0.06	S (ft)	0.22	S (ft)	0.20	S (ft)	0.21	S (ft)	0.31	S (ft)	0.12
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.82	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	1.01	6.25	0.77	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a
8.75	n.a	8.75	0.58	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.80	8.75	0.80	8.75	1.20	8.75	n.a	8.75	n.a	8.75	0.81	8.75	0.51	8.75	0.78
11.25	n.a	11.25	1.22	11.25	2.00	11.25	0.97	11.25	n.a	11.25	1.27	11.25	0.93	11.25	1.32	11.25	0.52	11.25	0.70	11.25	2.00	11.25	2.00	11.25	1.54
13.75	0.72	13.75	2.00	13.75	1.84	13.75	2.00	13.75	n.a	13.75	2.00	13.75	2.06	13.75	1.85	13.75	2.19	13.75	0.86	13.75	0.78	13.75	1.25	13.75	2.00
16.25	1.17	16.25	2.00	16.25	2.07	16.25	2.00	16.25	2.00	16.25	1.77	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.54	16.25	2.04	16.25	1.09	16.25	2.00
18.75	1.22	18.75	2.00	18.75	2.00	18.75	0.96	18.75	2.00	18.75	0.91	18.75	2.00	18.75	2.00	18.75	1.70	18.75	2.00	18.75	1.24	18.75	1.10	18.75	2.00
21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.03	21.25	2.00	21.25	0.97	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.04	23.75	1.67	23.75	2.00	23.75	2.12	23.75	2.00	23.75	1.59	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.64	26.25	2.00	26.25	1.73			26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.54	26.25	2.00	26.25	2.00
28.75	2.00	28.75	1.42	28.75	0.92	28.75	n.a	28.75	0.89	28.75	2.00			28.75	1.42	28.75	2.08	28.75	2.00	28.75	1.41	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.89	31.25	1.50	31.25	n.a	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00
33.75	2.00	33.75	2.00			33.75	n.a	33.75	2.00	33.75	1.43			33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.44	33.75	2.00	33.75	2.00
		36.25	2.00			36.25	n.a	36.25	1.29	36.25	2.13			36.25	2.00	36.25	1.62			36.25	1.64	36.25	2.04		
Inv Avg	1.64	Inv Avg	1.62	Inv Avg	1.63	Inv Avg	1.62	Inv Avg	1.79	Inv Avg	1.44	Inv Avg	1.41	Inv Avg	1.77	Inv Avg	1.65	Inv Avg	1.60	Inv Avg	1.50	Inv Avg	1.49	Inv Avg	1.76
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-10

SCHEDULE CJG-ST1

C-121		C-123		C-125		C-129		C-131		C-133		C-135		C-135A		C-137		C-139		C-139A		C-143		C-145	
S (ft)	0.07	S (ft)	0.15	S (ft)	0.22	S (ft)	0.21	S (ft)	0.30	S (ft)	0.04	S (ft)	0.02	S (ft)	0.06	S (ft)	0.02	S (ft)	0.13	S (ft)	0.11	S (ft)	0.20	S (ft)	0.16
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.64	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.80	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	0.59	6.25	0.69
8.75	n.a	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.67	8.75	1.21	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.69	8.75	1.76
11.25	1.19	11.25	2.00	11.25	n.a	11.25	n.a	11.25	0.57	11.25	2.00	11.25	1.12	11.25	1.12	11.25	n.a	11.25	n.a	11.25	n.a	11.25	1.99	11.25	1.05
13.75	2.00	13.75	2.00	13.75	0.95	13.75	n.a	13.75	1.20	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.61	13.75	0.77	13.75	2.00	13.75	2.00
16.25	2.00	16.25	2.00	16.25	1.85	16.25	0.52	16.25	1.44	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.89	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	1.95	18.75	2.00	18.75	2.00	18.75	1.84	18.75	1.93	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.35	18.75	1.29
21.25	2.00	21.25	1.85	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.14			21.25	2.00	21.25	2.06	21.25	2.00	21.25	2.00	21.25	2.01	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.42			23.75	2.00	23.75	2.00			23.75	2.00	23.75	1.43	23.75	2.00
26.25	1.18	26.25	2.00	26.25	2.00	26.25	1.15	26.25	2.00	26.25	2.00			26.25	2.00	26.25	2.00			26.25	2.00	26.25	2.00	26.25	2.00
28.75	1.73	28.75	2.00	28.75	2.00	28.75	1.29	28.75	1.21	28.75	2.00			28.75	1.04	28.75	2.00			28.75	2.00	28.75	2.02		
31.25	1.04	31.25	1.07	31.25	1.29	31.25	2.00	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00			31.25	1.38	31.25	1.55		
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.30	33.75	2.00	33.75	2.00					32.25	2.00					33.75	2.00		
		36.25	2.00	36.25	2.00	36.25	1.20	36.25	2.00	36.25	2.00											36.25	2.00		
Inv Avg	1.70	Inv Avg	1.72	Inv Avg	1.59	Inv Avg	1.48	Inv Avg	1.41	Inv Avg	1.87	Inv Avg	1.82	Inv Avg	1.77	Inv Avg	2.00	Inv Avg	1.59	Inv Avg	1.73	Inv Avg	1.60	Inv Avg	1.52
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-10

SCHEDULE CJG-ST1

C-145A		C-147		C-149		C-151		C-157		C-157A		C-159		C-161		C-163		C-166		C-168		C-168A		C-170	
S (ft)	0.11	S (ft)	0.03	S (ft)	0.27	S (ft)	0.35	S (ft)	0.20	S (ft)	0.20	S (ft)	0.08	S (ft)	0.13	S (ft)	0.51	S (ft)	0.19	S (ft)	0.19	S (ft)	0.38	S (ft)	0.18
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.69	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.88	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	0.56	6.25	0.57	6.25	2.00	6.25	0.84	6.25	n.a	6.25	1.35	6.25	0.85	6.25	0.70	6.25	n.a
8.75	1.15	8.75	2.00	8.75	0.85	8.75	n.a	8.75	2.00	8.75	2.00	8.75	1.69	8.75	1.09	8.75	n.a	8.75	2.00	8.75	1.29	8.75	1.28	8.75	0.59
11.25	1.16	11.25	1.25	11.25	1.32	11.25	0.47	11.25	1.74	11.25	1.17	11.25	1.53	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.37	11.25	0.95	11.25	1.78
13.75	2.00	13.75	2.00	13.75	2.12	13.75	1.13	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.44	13.75	1.88	13.75	1.51	13.75	1.01	13.75	1.65
16.25	2.00	16.25	1.66	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.13	16.25	2.00	16.25	0.96	16.25	1.16	16.25	2.00
18.75	1.08	18.75	2.00	18.75	2.00	18.75	1.27	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.78	18.75	2.00	18.75	1.20	18.75	1.36	18.75	2.00
21.25	2.00	21.25	1.43	21.25	2.00	21.25	1.85	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.17	21.25	1.20	21.25	2.00	21.25	1.64	21.25	1.37	21.25	1.28
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.63	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.24	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.92
26.25	2.00			26.25	1.24	26.25	2.00			26.25	2.00	26.25	1.22	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00
28.75	2.00			28.75	1.04	28.75	2.00			28.75	2.16	28.75	1.24	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	n.a	28.75	2.00
31.25	1.41			31.25	1.07	31.25	2.00			31.25	2.00	31.25	1.58	31.25	2.00	31.25	2.00	31.25	0.81	31.25	2.00	31.25	0.67	31.25	2.00
33.75	1.01			33.75	2.00	33.75	2.00					33.75	1.41					32.25	1.27	32.25	2.00	33.75	0.97	33.75	2.00
36.25	1.11			36.25	2.00							36.25	1.03					33.25	2.00					36.25	1.84
Inv Avg	1.54	Inv Avg	1.78	Inv Avg	1.42	Inv Avg	1.48	Inv Avg	1.57	Inv Avg	1.61	Inv Avg	1.63	Inv Avg	1.72	Inv Avg	1.46	Inv Avg	1.59	Inv Avg	1.50	Inv Avg	1.21	Inv Avg	1.63
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-10

SCHEDULE CJG-ST1

C-172		C-174		C-178		C-180		C-182		C-184		C-186		C-190		C-192		C-194		C-196		C-198		C-200	
S (ft)	0.18	S (ft)	0.04	S (ft)	0.19	S (ft)	0.31	S (ft)	0.04	S (ft)	0.17	S (ft)	0.29	S (ft)	0.14	S (ft)	0.21	S (ft)	0.17	S (ft)	0.22	S (ft)	0.29	S (ft)	0.19
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	0.61	6.25	1.35	6.25	n.a	6.25	0.74	6.25	n.a	6.25	n.a	6.25	0.65	6.25	n.a	6.25	0.68	6.25	0.76	6.25	n.a	6.25	0.80	6.25	0.94
8.75	1.49	8.75	2.00	8.75	0.78	8.75	1.90	8.75	1.25	8.75	0.64	8.75	2.00	8.75	n.a	8.75	2.00	8.75	n.a	8.75	0.96	8.75	0.87	8.75	n.a
11.25	2.00	11.25	2.00	11.25	1.73	11.25	1.12	11.25	1.52	11.25	1.46	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.45	11.25	1.56	11.25	1.39	11.25	n.a
13.75	2.00	13.75	2.00	13.75	1.68	13.75	0.91	13.75	2.00	13.75	2.00	13.75	2.00	13.75	n.a	13.75	2.00	13.75	1.02	13.75	2.00	13.75	2.00	13.75	1.12
16.25	2.00	16.25	2.05	16.25	0.90	16.25	0.83	16.25	2.00	16.25	1.59	16.25	2.00	16.25	0.61	16.25	2.00	16.25	2.02	16.25	1.32	16.25	2.00	16.25	1.23
18.75	2.00	18.75	1.71	18.75	2.00	18.75	1.28	18.75	2.00	18.75	1.59	18.75	1.40	18.75	2.00	18.75	0.87	18.75	1.14	18.75	1.93	18.75	1.81	18.75	2.00
21.25	1.55	21.25	2.00	21.25	1.66	21.25	1.13	21.25	2.07	21.25	2.00	21.25	1.09	21.25	1.56	21.25	2.00	21.25	2.00	21.25	2.00	21.25	n.a	21.25	1.52
23.75	1.58	23.75	2.00	23.75	1.20	23.75	1.16	23.75	2.00	23.75	2.00	23.75	1.27	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.11	23.75	0.81	23.75	2.00
26.25	2.02	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.92	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.82	26.25	1.56
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	0.92	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.32	28.75	2.00
31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.84	31.25	2.00	31.25	1.78	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.98	31.25	n.a	31.25	1.38	31.25	2.00
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.84	33.75	2.06	33.75	1.88	33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.73	33.75	0.54	33.75	2.00	33.75	1.42
36.25	2.00			36.25	2.00	36.25	2.00			36.25	1.28			36.25	2.00	36.25	2.00	36.25	2.00			36.25	2.00	36.25	2.00
																								38.75	2.00
																								41.25	2.00
																								43.75	2.00
																								46.25	1.55
																								48.75	1.16
																								51.25	1.37
																								53.75	1.23
																								56.25	2.00
																								58.75	2.00
																								61.25	2.00
																								63.75	2.00
																								66.25	1.29
Inv Avg	1.65	Inv Avg	1.91	Inv Avg	1.58	Inv Avg	1.34	Inv Avg	1.89	Inv Avg	1.60	Inv Avg	1.38	Inv Avg	1.71	Inv Avg	1.65	Inv Avg	1.59	Inv Avg	1.51	Inv Avg	1.44	Inv Avg	1.63
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-10

SCHEDULE CJG-ST1

Ameren Missouri: Labadie UWL
Liquefaction Analysis
70' of ASH M: 7.5
PGA: 2% probability of exceedence in 50 yrs: 0.1792 GW: 0.0'

C-11		C-13		C-16		C-18		C-21		C-23		C-25		C-28		C-30		C-32		C-34		C-37		C-39	
S (ft)	0.31	S (ft)	0.05	S (ft)	0.23	S (ft)	0.33	S (ft)	0.06	S (ft)	0.23	S (ft)	0.18	S (ft)	0.15	S (ft)	0.17	S (ft)	0.06	S (ft)	0.20	S (ft)	0.14	S (ft)	0.04
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.88	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.99	6.25	0.57	6.25	n.a	6.25	1.16	6.25	1.30	6.25	n.a	6.25	0.68	6.25	n.a	6.25	0.80	6.25	n.a	6.25	n.a
8.75	n.a	8.75	1.41	8.75	1.17	8.75	n.a	8.75	n.a	8.75	1.03	8.75	0.91	8.75	0.69	8.75	1.73	8.75	1.10	8.75	n.a	8.75	0.86	8.75	n.a
11.25	0.55	11.25	2.00	11.25	0.72	11.25	0.98	11.25	1.14	11.25	1.31	11.25	2.00	11.25	n.a	11.25	2.00	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.27
13.75	n.a	13.75	2.00	13.75	1.10	13.75	1.90	13.75	2.00	13.75	2.12	13.75	0.98	13.75	n.a	13.75	2.00	13.75	2.00	13.75	0.95	13.75	2.00	13.75	2.00
16.25	0.57	16.25	2.00	16.25	1.60	16.25	1.99	16.25	2.00	16.25	2.02	16.25	2.00	16.25	1.54	16.25	1.73	16.25	1.12	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	2.00	18.75	1.67	18.75	1.21	18.75	2.00	18.75	0.87	18.75	1.37	18.75	1.57	18.75	2.11	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.63
21.25	2.00	21.25	2.00	21.25	2.00	21.25	0.94	21.25	1.46	21.25	2.11	21.25	2.00	21.25	1.74	21.25	1.83	21.25	2.00	21.25	2.00	21.25	2.09	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.62	23.75	1.86	23.75	2.00	23.75	1.21	23.75	2.00	23.75	2.03	23.75	1.47	23.75	2.00	23.75	1.13	23.75	1.59
26.25	2.00	26.25	1.58	26.25	2.00	26.25	2.00	26.25	1.87	26.25	2.00	26.25	1.28	26.25	2.00	26.25	2.00	26.25	1.41	26.25	2.00	26.25	1.34	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.77	28.75	1.58	28.75	1.78	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.85	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.55	31.25	2.00	31.25	1.61	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.59	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.35	31.25	2.00
33.75	2.00	33.75	1.68	33.75	2.00	33.75	2.00	33.75	1.76	33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.15	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00
		36.25	2.00	36.25	2.00	36.25	2.01	36.25	1.58	36.25	2.00	36.25	2.00	36.25	1.33	36.25	2.00	36.25	2.00	36.25	1.08	36.25	2.00	36.25	2.00
		38.75	2.00																			38.75	2.00		
		41.25	2.00																			41.25	2.00		
Inv Avg	1.46	Inv Avg	1.87	Inv Avg	1.52	Inv Avg	1.44	Inv Avg	1.79	Inv Avg	1.51	Inv Avg	1.53	Inv Avg	1.63	Inv Avg	1.66	Inv Avg	1.73	Inv Avg	1.62	Inv Avg	1.70	Inv Avg	1.87
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-11

SCHEDULE CJG-ST1

C-41		C-44		C-46		C-46A		C-48		C-50		C-60		C-62		C-64		C-66		C-66A		C-68		C-70	
S (ft)	0.13	S (ft)	0.11	S (ft)	0.08	S (ft)	0.11	S (ft)	0.25	S (ft)	0.20	S (ft)	0.13	S (ft)	0.11	S (ft)	0.30	S (ft)	0.02	S (ft)	0.24	S (ft)	0.17	S (ft)	0.15
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	0.87	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	1.02	6.25	n.a	6.25	n.a	6.25	0.83	6.25	0.62	6.25	n.a	6.25	0.86	6.25	n.a	6.25	n.a	6.25	0.86	6.25	0.72	6.25	1.59
8.75	n.a	8.75	1.01	8.75	n.a	8.75	n.a	8.75	1.01	8.75	2.00	8.75	0.75	8.75	n.a	8.75	0.63	8.75	n.a	8.75	0.87	8.75	1.43	8.75	1.67
11.25	0.76	11.25	1.75	11.25	1.94	11.25	1.58	11.25	1.48	11.25	1.02	11.25	1.52	11.25	n.a	11.25	1.31	11.25	2.00	11.25	2.00	11.25	1.18	11.25	1.70
13.75	1.20	13.75	1.44	13.75	1.08	13.75	1.10	13.75	1.20	13.75	2.00	13.75	1.70	13.75	1.48	13.75	1.21	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.18
16.25	1.18	16.25	1.50	16.25	2.00	16.25	2.03	16.25	0.74	16.25	2.00	16.25	2.00	16.25	2.00	16.25	0.63	16.25	1.87	16.25	1.58	16.25	2.00	16.25	n.a
18.75	2.00	18.75	1.56	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.94	18.75	2.00	18.75	1.99	18.75	2.00	18.75	1.09
21.25	2.00	21.25	1.14	21.25	1.17	21.25	1.54	21.25	1.31	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.16	23.75	1.39	23.75	1.62	23.75	1.70	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.02	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.25	23.75	2.16
26.25	2.00	26.25	2.00	26.25	1.43	26.25	1.70	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00			26.25	2.00	26.25	1.27	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.13	28.75	2.00	28.75	2.00	28.75	2.00			28.75	2.00	28.75	2.00	28.75	1.39
31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00			31.25	1.81	31.25	2.00	31.25	2.00
33.75	2.00	33.75	n.a	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00			33.75	2.00	33.75	1.43			33.75	n.a	33.75	2.00	33.75	2.00
36.25	2.00	36.25	n.a	36.25	1.84	36.25	0.99	36.25	1.72	36.25	1.36			36.25	2.00	36.25	1.07					36.25	1.53	36.25	0.85
				38.75	2.18	38.75	2.00			38.75	2.00														
				41.25	2.00	41.25	2.00			41.25	2.00														
				43.75	2.00	43.75	2.00																		
Inv Avg	1.67	Inv Avg	1.56	Inv Avg	1.78	Inv Avg	1.74	Inv Avg	1.44	Inv Avg	1.65	Inv Avg	1.71	Inv Avg	1.80	Inv Avg	1.37	Inv Avg	1.99	Inv Avg	1.53	Inv Avg	1.55	Inv Avg	1.59
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-11

SCHEDULE CJG-ST1

C-74		C-76		C-78		C-79		C-80		C-81		C-82		C-84		C-86		C-89		C-91		C-92		C-94	
S (ft)	0.16	S (ft)	0.11	S (ft)	0.32	S (ft)	0.08	S (ft)	0.21	S (ft)	0.20	S (ft)	0.09	S (ft)	0.13	S (ft)	0.20	S (ft)	0.16	S (ft)	0.46	S (ft)	0.17	S (ft)	0.11
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.91	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.88	6.25	1.03	6.25	0.74	6.25	n.a	6.25	n.a	6.25	n.a	6.25	1.86	6.25	n.a	6.25	n.a	6.25	0.90	6.25	0.89
8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.34	8.75	n.a	8.75	0.98	8.75	n.a	8.75	1.24	8.75	0.91	8.75	1.08	8.75	0.69	8.75	1.31	8.75	1.51
11.25	n.a	11.25	n.a	11.25	0.63	11.25	n.a	11.25	n.a	11.25	0.68	11.25	n.a	11.25	1.72	11.25	1.24	11.25	1.24	11.25	0.91	11.25	0.89	11.25	n.a
13.75	0.61	13.75	0.83	13.75	0.79	13.75	1.15	13.75	0.80	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.28	13.75	0.69	13.75	2.00	13.75	n.a
16.25	1.11	16.25	1.51	16.25	2.00	16.25	2.07	16.25	1.19	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.11	16.25	1.25	16.25	2.00	16.25	1.51
18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.36	18.75	2.00	18.75	2.00	18.75	2.00	18.75	0.88	18.75	1.55	18.75	2.00	18.75	2.04
21.25	1.34	21.25	2.00	21.25	1.43	21.25	2.00	21.25	2.02	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.66	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.29	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.76	23.75	1.28	23.75	1.62	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	1.75	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.82			26.25	2.00
28.75	2.08	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.98	28.75	1.06			28.75	2.00
31.25	1.44	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.15	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.79	31.25	1.44	31.25	0.95			31.25	2.00
33.75	n.a	33.75	2.00	33.75	1.58	33.75	2.00	33.75	2.00	33.75	2.19	33.75	2.00	33.75	2.00	33.75	1.98	33.75	2.00	33.75	1.95			33.75	2.06
36.25	n.a	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	0.86	36.25	0.69	36.25	1.90	36.25	2.00	36.25	1.59			36.25	2.00
Inv Avg	1.58	Inv Avg	1.79	Inv Avg	1.44	Inv Avg	1.70	Inv Avg	1.60	Inv Avg	1.63	Inv Avg	1.84	Inv Avg	1.68	Inv Avg	1.59	Inv Avg	1.50	Inv Avg	1.22	Inv Avg	1.54	Inv Avg	1.78
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-11

SCHEDULE CJG-ST1

C-96		C-98		C-100		C-103		C-105		C-106		C-107		C-107A		C-109		C-111		C-113		C-117		C-119	
S (ft)	0.13	S (ft)	0.19	S (ft)	0.18	S (ft)	0.16	S (ft)	0.08	S (ft)	0.27	S (ft)	0.26	S (ft)	0.05	S (ft)	0.22	S (ft)	0.20	S (ft)	0.21	S (ft)	0.28	S (ft)	0.12
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.83	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	1.02	6.25	0.78	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a
8.75	n.a	8.75	0.58	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.81	8.75	0.81	8.75	1.21	8.75	n.a	8.75	n.a	8.75	0.82	8.75	0.52	8.75	0.79
11.25	n.a	11.25	1.24	11.25	2.00	11.25	0.99	11.25	n.a	11.25	1.29	11.25	0.94	11.25	1.34	11.25	0.53	11.25	0.71	11.25	2.00	11.25	2.00	11.25	1.56
13.75	0.73	13.75	2.00	13.75	1.87	13.75	2.00	13.75	n.a	13.75	2.00	13.75	2.09	13.75	1.88	13.75	2.00	13.75	0.88	13.75	0.80	13.75	1.27	13.75	2.00
16.25	1.19	16.25	2.00	16.25	2.10	16.25	2.00	16.25	2.00	16.25	1.80	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.57	16.25	2.08	16.25	1.11	16.25	2.00
18.75	1.25	18.75	2.00	18.75	2.00	18.75	0.98	18.75	2.00	18.75	0.93	18.75	2.00	18.75	2.00	18.75	1.73	18.75	2.00	18.75	1.27	18.75	1.12	18.75	2.00
21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.05	21.25	2.00	21.25	0.99	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.09	23.75	1.71	23.75	2.00	23.75	2.17	23.75	2.00	23.75	1.62	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.68	26.25	2.00	26.25	1.77			26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.58	26.25	2.00	26.25	2.00
28.75	2.00	28.75	1.45	28.75	0.94	28.75	n.a	28.75	0.91	28.75	2.00			28.75	1.45	28.75	2.13	28.75	2.00	28.75	1.44	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.94	31.25	1.54	31.25	n.a	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00
33.75	2.00	33.75	2.00			33.75	n.a	33.75	2.00	33.75	1.46			33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.48	33.75	2.00	33.75	2.00
		36.25	2.00			36.25	n.a	36.25	1.33	36.25	2.19			36.25	2.00	36.25	1.67			36.25	1.68	36.25	2.10		
Inv Avg	1.65	Inv Avg	1.63	Inv Avg	1.65	Inv Avg	1.64	Inv Avg	1.80	Inv Avg	1.46	Inv Avg	1.42	Inv Avg	1.78	Inv Avg	1.66	Inv Avg	1.61	Inv Avg	1.52	Inv Avg	1.50	Inv Avg	1.77
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-11

SCHEDULE CJG-ST1

C-121		C-123		C-125		C-129		C-131		C-133		C-135		C-135A		C-137		C-139		C-139A		C-143		C-145	
S (ft)	0.06	S (ft)	0.14	S (ft)	0.22	S (ft)	0.20	S (ft)	0.30	S (ft)	0.04	S (ft)	0.02	S (ft)	0.06	S (ft)	0.02	S (ft)	0.13	S (ft)	0.11	S (ft)	0.19	S (ft)	0.16
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.65	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.81	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	0.60	6.25	0.70
8.75	n.a	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.68	8.75	1.22	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.71	8.75	1.78
11.25	1.21	11.25	2.00	11.25	n.a	11.25	n.a	11.25	0.58	11.25	2.00	11.25	1.14	11.25	1.14	11.25	n.a	11.25	n.a	11.25	n.a	11.25	2.01	11.25	1.07
13.75	2.00	13.75	2.00	13.75	0.97	13.75	n.a	13.75	1.22	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.62	13.75	0.79	13.75	2.00	13.75	2.00
16.25	2.00	16.25	2.00	16.25	1.88	16.25	0.53	16.25	1.46	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.92	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	1.99	18.75	2.00	18.75	2.00	18.75	1.88	18.75	1.97	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.37	18.75	1.32
21.25	2.00	21.25	1.89	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.18			21.25	2.00	21.25	2.11	21.25	2.00	21.25	2.00	21.25	2.06	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.45			23.75	2.00	23.75	2.00			23.75	2.00	23.75	1.46	23.75	2.00
26.25	1.21	26.25	2.00	26.25	2.00	26.25	1.18	26.25	2.05	26.25	2.00			26.25	2.00	26.25	2.00			26.25	2.00	26.25	2.00	26.25	2.00
28.75	1.77	28.75	2.00	28.75	2.00	28.75	1.32	28.75	1.24	28.75	2.00			28.75	1.06	28.75	2.00			28.75	2.00	28.75	2.07		
31.25	1.07	31.25	1.10	31.25	1.32	31.25	2.00	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00			31.25	1.41	31.25	1.59		
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.33	33.75	2.00	33.75	2.00					32.25	2.00					33.75	2.00		
		36.25	2.00	36.25	2.00	36.25	1.23	36.25	2.00	36.25	2.00											36.25	2.00		
Inv Avg	1.72	Inv Avg	1.73	Inv Avg	1.60	Inv Avg	1.49	Inv Avg	1.42	Inv Avg	1.88	Inv Avg	1.83	Inv Avg	1.78	Inv Avg	2.00	Inv Avg	1.60	Inv Avg	1.74	Inv Avg	1.62	Inv Avg	1.53
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-11

SCHEDULE CJG-ST1

C-145A		C-147		C-149		C-151		C-157		C-157A		C-159		C-161		C-163		C-166		C-168		C-168A		C-170	
S (ft)	0.10	S (ft)	0.03	S (ft)	0.27	S (ft)	0.35	S (ft)	0.20	S (ft)	0.20	S (ft)	0.08	S (ft)	0.13	S (ft)	0.51	S (ft)	0.19	S (ft)	0.19	S (ft)	0.35	S (ft)	0.18
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.70	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.89	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	0.56	6.25	0.57	6.25	2.00	6.25	0.84	6.25	n.a	6.25	1.37	6.25	0.86	6.25	0.71	6.25	n.a
8.75	1.16	8.75	2.00	8.75	0.86	8.75	n.a	8.75	2.00	8.75	2.00	8.75	1.71	8.75	1.10	8.75	n.a	8.75	2.00	8.75	1.31	8.75	1.29	8.75	0.60
11.25	1.18	11.25	1.27	11.25	1.34	11.25	0.48	11.25	1.76	11.25	1.19	11.25	1.55	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.39	11.25	0.97	11.25	1.81
13.75	2.00	13.75	2.00	13.75	2.15	13.75	1.15	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.45	13.75	1.91	13.75	1.53	13.75	1.02	13.75	1.68
16.25	2.00	16.25	1.69	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.17	16.25	2.00	16.25	0.98	16.25	1.18	16.25	2.00
18.75	1.10	18.75	2.00	18.75	2.00	18.75	1.30	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.82	18.75	2.00	18.75	1.22	18.75	1.39	18.75	2.00
21.25	2.00	21.25	1.46	21.25	2.00	21.25	1.89	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.23	21.25	2.00	21.25	1.67	21.25	1.39	21.25	1.31
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.67	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.27	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.97
26.25	2.00			26.25	1.27	26.25	2.00			26.25	2.00	26.25	1.25	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00
28.75	2.00			28.75	1.07	28.75	2.00			28.75	2.00	28.75	1.27	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	n.a	28.75	2.00
31.25	1.45			31.25	1.10	31.25	2.00			31.25	2.00	31.25	1.62	31.25	2.00	31.25	2.00	31.25	0.83	31.25	2.00	31.25	0.69	31.25	2.00
33.75	1.04			33.75	2.00	33.75	2.00					33.75	1.45					32.25	1.30	32.25	2.00	33.75	1.00	33.75	2.00
36.25	1.15			36.25	2.00							36.25	1.06					33.25	2.00					36.25	1.89
Inv Avg	1.56	Inv Avg	1.80	Inv Avg	1.44	Inv Avg	1.50	Inv Avg	1.57	Inv Avg	1.61	Inv Avg	1.65	Inv Avg	1.71	Inv Avg	1.47	Inv Avg	1.60	Inv Avg	1.52	Inv Avg	1.22	Inv Avg	1.65
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-11

SCHEDULE CJG-ST1

C-172		C-174		C-178		C-180		C-182		C-184		C-186		C-190		C-192		C-194		C-196		C-198		C-200	
S (ft)	0.18	S (ft)	0.04	S (ft)	0.19	S (ft)	0.31	S (ft)	0.04	S (ft)	0.17	S (ft)	0.28	S (ft)	0.14	S (ft)	0.21	S (ft)	0.16	S (ft)	0.22	S (ft)	0.29	S (ft)	0.18
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	0.61	6.25	1.36	6.25	n.a	6.25	0.75	6.25	n.a	6.25	n.a	6.25	0.66	6.25	n.a	6.25	0.69	6.25	0.77	6.25	n.a	6.25	0.81	6.25	0.95
8.75	1.51	8.75	2.00	8.75	0.79	8.75	1.92	8.75	1.27	8.75	0.65	8.75	2.00	8.75	n.a	8.75	2.00	8.75	n.a	8.75	0.97	8.75	0.88	8.75	n.a
11.25	2.00	11.25	2.00	11.25	1.76	11.25	1.13	11.25	1.55	11.25	1.48	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.47	11.25	1.58	11.25	1.41	11.25	n.a
13.75	2.00	13.75	2.00	13.75	1.71	13.75	0.93	13.75	2.00	13.75	2.00	13.75	2.00	13.75	n.a	13.75	2.00	13.75	1.04	13.75	2.00	13.75	2.00	13.75	1.14
16.25	2.00	16.25	2.09	16.25	0.92	16.25	0.85	16.25	2.00	16.25	1.62	16.25	2.00	16.25	0.62	16.25	2.00	16.25	2.06	16.25	1.35	16.25	2.00	16.25	1.25
18.75	2.00	18.75	1.75	18.75	2.00	18.75	1.30	18.75	2.00	18.75	1.63	18.75	1.42	18.75	2.00	18.75	0.89	18.75	1.16	18.75	1.97	18.75	1.84	18.75	2.00
21.25	1.59	21.25	2.00	21.25	1.69	21.25	1.15	21.25	2.11	21.25	2.00	21.25	1.11	21.25	1.59	21.25	2.00	21.25	2.00	21.25	2.04	21.25	n.a	21.25	1.55
23.75	1.61	23.75	2.00	23.75	1.23	23.75	1.19	23.75	2.00	23.75	2.00	23.75	1.30	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.16	23.75	0.82	23.75	2.04
26.25	2.07	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.94	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.86	26.25	1.59
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	0.94	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.35	28.75	2.00
31.25	2.06	31.25	2.00	31.25	2.00	31.25	1.88	31.25	2.00	31.25	1.82	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.03	31.25	n.a	31.25	1.42	31.25	2.00
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.89	33.75	2.12	33.75	1.93	33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.78	33.75	0.55	33.75	2.00	33.75	1.46
36.25	2.00			36.25	2.00	36.25	2.00			36.25	1.31			36.25	2.00	36.25	2.00	36.25	2.00			36.25	2.00	36.25	2.00
																								38.75	2.00
																								41.25	2.00
																								43.75	2.00
																								46.25	1.60
																								48.75	1.19
																								51.25	1.42
																								53.75	1.27
																								56.25	2.00
																								58.75	2.00
																								61.25	2.00
																								63.75	2.00
																								66.25	1.33
Inv Avg	1.66	Inv Avg	1.92	Inv Avg	1.59	Inv Avg	1.36	Inv Avg	1.90	Inv Avg	1.62	Inv Avg	1.40	Inv Avg	1.72	Inv Avg	1.65	Inv Avg	1.61	Inv Avg	1.53	Inv Avg	1.45	Inv Avg	1.65
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-11

SCHEDULE CJG-ST1

Ameren Missouri: Labadie UWL
Liquefaction Analysis
80' of ASH M: 7.5
PGA: 2% probability of exceedence in 50 yrs: 0.1792 GW: 0.0'

C-11		C-13		C-16		C-18		C-21		C-23		C-25		C-28		C-30		C-32		C-34		C-37		C-39	
S (ft)	0.31	S (ft)	0.05	S (ft)	0.22	S (ft)	0.33	S (ft)	0.06	S (ft)	0.23	S (ft)	0.18	S (ft)	0.15	S (ft)	0.17	S (ft)	0.06	S (ft)	0.19	S (ft)	0.13	S (ft)	0.04
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.89	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.99	6.25	0.58	6.25	n.a	6.25	1.17	6.25	1.31	6.25	n.a	6.25	0.68	6.25	n.a	6.25	0.80	6.25	n.a	6.25	n.a
8.75	n.a	8.75	1.43	8.75	1.18	8.75	n.a	8.75	n.a	8.75	1.04	8.75	0.92	8.75	0.70	8.75	1.74	8.75	1.11	8.75	n.a	8.75	0.87	8.75	n.a
11.25	0.56	11.25	2.00	11.25	0.72	11.25	0.99	11.25	1.15	11.25	1.33	11.25	2.00	11.25	n.a	11.25	2.00	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.28
13.75	n.a	13.75	2.00	13.75	1.11	13.75	1.92	13.75	2.00	13.75	2.14	13.75	0.99	13.75	n.a	13.75	2.00	13.75	2.00	13.75	0.96	13.75	2.02	13.75	2.00
16.25	0.57	16.25	2.00	16.25	1.62	16.25	2.02	16.25	2.00	16.25	2.05	16.25	2.00	16.25	1.56	16.25	1.76	16.25	1.14	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	2.00	18.75	1.70	18.75	1.23	18.75	2.00	18.75	0.89	18.75	1.40	18.75	1.59	18.75	2.14	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.65
21.25	2.00	21.25	2.00	21.25	2.00	21.25	0.96	21.25	1.49	21.25	2.14	21.25	2.00	21.25	1.77	21.25	1.86	21.25	2.00	21.25	2.00	21.25	2.13	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.65	23.75	1.89	23.75	2.00	23.75	1.23	23.75	2.00	23.75	2.07	23.75	1.49	23.75	2.00	23.75	1.15	23.75	1.62
26.25	2.00	26.25	1.61	26.25	2.00	26.25	2.00	26.25	1.91	26.25	2.00	26.25	1.30	26.25	2.00	26.25	2.00	26.25	1.43	26.25	2.00	26.25	1.37	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.80	28.75	1.61	28.75	1.82	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.89	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.58	31.25	2.00	31.25	1.65	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.63	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.38	31.25	2.00
33.75	2.00	33.75	1.72	33.75	2.00	33.75	2.00	33.75	1.80	33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.18	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00
		36.25	2.00	36.25	2.00	36.25	2.06	36.25	1.61	36.25	2.00	36.25	2.00	36.25	1.36	36.25	2.00	36.25	2.00	36.25	1.11	36.25	2.00	36.25	2.00
		38.75	2.00																			38.75	2.00		
		41.25	2.00																			41.25	2.00		
Inv Avg	1.47	Inv Avg	1.88	Inv Avg	1.52	Inv Avg	1.45	Inv Avg	1.80	Inv Avg	1.52	Inv Avg	1.54	Inv Avg	1.65	Inv Avg	1.68	Inv Avg	1.73	Inv Avg	1.63	Inv Avg	1.71	Inv Avg	1.87
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-12

SCHEDULE CJG-ST1

C-41		C-44		C-46		C-46A		C-48		C-50		C-60		C-62		C-64		C-66		C-66A		C-68		C-70	
S (ft)	0.13	S (ft)	0.11	S (ft)	0.08	S (ft)	0.09	S (ft)	0.25	S (ft)	0.20	S (ft)	0.13	S (ft)	0.11	S (ft)	0.30	S (ft)	0.02	S (ft)	0.23	S (ft)	0.17	S (ft)	0.14
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	0.87	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	1.03	6.25	n.a	6.25	n.a	6.25	0.83	6.25	0.62	6.25	n.a	6.25	0.86	6.25	n.a	6.25	n.a	6.25	0.87	6.25	0.72	6.25	1.60
8.75	n.a	8.75	1.02	8.75	n.a	8.75	n.a	8.75	1.02	8.75	2.00	8.75	0.75	8.75	n.a	8.75	0.64	8.75	n.a	8.75	0.88	8.75	1.45	8.75	1.68
11.25	0.77	11.25	1.77	11.25	1.96	11.25	1.60	11.25	1.50	11.25	1.03	11.25	1.54	11.25	n.a	11.25	1.32	11.25	2.00	11.25	2.00	11.25	1.20	11.25	1.72
13.75	1.21	13.75	1.46	13.75	1.10	13.75	1.12	13.75	1.22	13.75	2.00	13.75	1.72	13.75	1.50	13.75	1.22	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.19
16.25	1.20	16.25	1.53	16.25	2.00	16.25	2.06	16.25	0.75	16.25	2.00	16.25	2.00	16.25	2.00	16.25	0.63	16.25	1.90	16.25	1.61	16.25	2.00	16.25	n.a
18.75	2.00	18.75	1.58	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.97	18.75	2.00	18.75	2.02	18.75	2.00	18.75	1.10
21.25	2.00	21.25	1.15	21.25	1.19	21.25	1.56	21.25	1.34	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	1.41	23.75	1.65	23.75	1.73	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.06	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.28	23.75	2.20
26.25	2.00	26.25	2.00	26.25	1.46	26.25	1.74	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00			26.25	2.00	26.25	1.30	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.17	28.75	2.00	28.75	2.00	28.75	2.00			28.75	2.00	28.75	2.00	28.75	1.42
31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00			31.25	1.85	31.25	2.00	31.25	2.00
33.75	2.00	33.75	n.a	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00			33.75	2.00	33.75	1.46			33.75	n.a	33.75	2.00	33.75	2.00
36.25	2.00	36.25	n.a	36.25	1.88	36.25	1.01	36.25	1.76	36.25	1.39			36.25	2.00	36.25	1.10					36.25	1.57	36.25	0.87
				38.75	2.00	38.75	2.00			38.75	2.00														
				41.25	2.00	41.25	2.00			41.25	2.00														
				43.75	2.00	43.75	2.00																		
Inv Avg	1.67	Inv Avg	1.57	Inv Avg	1.79	Inv Avg	1.75	Inv Avg	1.45	Inv Avg	1.66	Inv Avg	1.72	Inv Avg	1.80	Inv Avg	1.39	Inv Avg	1.99	Inv Avg	1.54	Inv Avg	1.56	Inv Avg	1.60
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-12

SCHEDULE CJG-ST1

C-74		C-76		C-78		C-79		C-80		C-81		C-82		C-84		C-86		C-89		C-91		C-92		C-94	
S (ft)	0.16	S (ft)	0.11	S (ft)	0.32	S (ft)	0.08	S (ft)	0.21	S (ft)	0.20	S (ft)	0.09	S (ft)	0.13	S (ft)	0.20	S (ft)	0.16	S (ft)	0.46	S (ft)	0.16	S (ft)	0.11
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.91	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.89	6.25	1.04	6.25	0.75	6.25	n.a	6.25	n.a	6.25	n.a	6.25	1.88	6.25	n.a	6.25	n.a	6.25	0.90	6.25	0.90
8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.35	8.75	n.a	8.75	0.99	8.75	n.a	8.75	1.25	8.75	0.92	8.75	1.09	8.75	0.70	8.75	1.33	8.75	1.52
11.25	n.a	11.25	n.a	11.25	0.64	11.25	n.a	11.25	n.a	11.25	0.69	11.25	n.a	11.25	1.73	11.25	1.26	11.25	1.25	11.25	0.92	11.25	0.90	11.25	n.a
13.75	0.61	13.75	0.84	13.75	0.80	13.75	1.17	13.75	0.81	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.29	13.75	0.70	13.75	2.00	13.75	n.a
16.25	1.13	16.25	1.53	16.25	2.00	16.25	2.10	16.25	1.21	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.12	16.25	1.27	16.25	2.00	16.25	1.53
18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.38	18.75	2.00	18.75	2.00	18.75	2.00	18.75	0.90	18.75	1.57	18.75	2.00	18.75	2.07
21.25	1.36	21.25	2.00	21.25	1.45	21.25	2.00	21.25	2.05	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.69	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.31	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.79	23.75	1.30	23.75	1.65	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	1.78	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.84			26.25	2.00
28.75	2.13	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.02	28.75	1.08			28.75	2.00
31.25	1.47	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.19	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.83	31.25	1.47	31.25	0.97			31.25	2.00
33.75	n.a	33.75	2.00	33.75	1.62	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.03	33.75	2.00	33.75	1.99			33.75	2.10
36.25	n.a	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	0.88	36.25	0.70	36.25	1.94	36.25	2.00	36.25	1.62			36.25	2.00
Inv Avg	1.60	Inv Avg	1.80	Inv Avg	1.45	Inv Avg	1.70	Inv Avg	1.61	Inv Avg	1.63	Inv Avg	1.84	Inv Avg	1.69	Inv Avg	1.61	Inv Avg	1.52	Inv Avg	1.24	Inv Avg	1.55	Inv Avg	1.79
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-12

SCHEDULE CJG-ST1

C-96		C-98		C-100		C-103		C-105		C-106		C-107		C-107A		C-109		C-111		C-113		C-117		C-119	
S (ft)	0.12	S (ft)	0.19	S (ft)	0.18	S (ft)	0.16	S (ft)	0.08	S (ft)	0.24	S (ft)	0.26	S (ft)	0.05	S (ft)	0.22	S (ft)	0.20	S (ft)	0.21	S (ft)	0.28	S (ft)	0.12
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.83	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	1.03	6.25	0.78	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a
8.75	n.a	8.75	0.59	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.82	8.75	0.82	8.75	1.22	8.75	n.a	8.75	n.a	8.75	0.82	8.75	0.52	8.75	0.79
11.25	n.a	11.25	1.25	11.25	2.00	11.25	1.00	11.25	n.a	11.25	1.30	11.25	0.95	11.25	1.35	11.25	0.53	11.25	0.72	11.25	2.00	11.25	2.00	11.25	1.58
13.75	0.74	13.75	2.00	13.75	1.90	13.75	2.00	13.75	n.a	13.75	2.00	13.75	2.12	13.75	1.91	13.75	2.00	13.75	0.89	13.75	0.81	13.75	1.28	13.75	2.00
16.25	1.21	16.25	2.00	16.25	2.13	16.25	2.00	16.25	2.00	16.25	1.82	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.59	16.25	2.11	16.25	1.12	16.25	2.00
18.75	1.27	18.75	2.00	18.75	2.00	18.75	1.00	18.75	2.00	18.75	0.95	18.75	2.00	18.75	2.00	18.75	1.76	18.75	2.00	18.75	1.29	18.75	1.14	18.75	2.00
21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.07	21.25	2.00	21.25	1.01	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.13	23.75	1.74	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.65	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.71	26.25	2.00	26.25	1.81			26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.61	26.25	2.00	26.25	2.00
28.75	2.00	28.75	1.48	28.75	0.96	28.75	n.a	28.75	0.93	28.75	2.00			28.75	1.48	28.75	2.18	28.75	2.00	28.75	1.47	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.98	31.25	1.58	31.25	n.a	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00
33.75	2.00	33.75	2.00			33.75	n.a	33.75	2.00	33.75	1.50			33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.51	33.75	2.00	33.75	2.00
		36.25	2.00			36.25	n.a	36.25	1.36	36.25	2.00			36.25	2.00	36.25	1.70			36.25	1.72	36.25	2.15		
Inv Avg	1.65	Inv Avg	1.64	Inv Avg	1.66	Inv Avg	1.65	Inv Avg	1.80	Inv Avg	1.46	Inv Avg	1.42	Inv Avg	1.79	Inv Avg	1.67	Inv Avg	1.62	Inv Avg	1.54	Inv Avg	1.51	Inv Avg	1.77
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-12

SCHEDULE CJG-ST1

C-121		C-123		C-125		C-129		C-131		C-133		C-135		C-135A		C-137		C-139		C-139A		C-143		C-145	
S (ft)	0.06	S (ft)	0.13	S (ft)	0.22	S (ft)	0.20	S (ft)	0.30	S (ft)	0.04	S (ft)	0.02	S (ft)	0.06	S (ft)	0.02	S (ft)	0.13	S (ft)	0.11	S (ft)	0.19	S (ft)	0.16
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.65	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.81	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	0.60	6.25	0.70
8.75	n.a	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.68	8.75	1.23	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.73	8.75	1.80
11.25	1.22	11.25	2.00	11.25	n.a	11.25	n.a	11.25	0.58	11.25	2.00	11.25	1.15	11.25	1.15	11.25	n.a	11.25	n.a	11.25	n.a	11.25	2.04	11.25	1.08
13.75	2.00	13.75	2.00	13.75	0.98	13.75	n.a	13.75	1.24	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.62	13.75	0.80	13.75	2.00	13.75	2.00
16.25	2.00	16.25	2.00	16.25	1.91	16.25	0.54	16.25	1.48	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.95	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	2.03	18.75	2.00	18.75	2.00	18.75	1.91	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.40	18.75	1.34
21.25	2.00	21.25	1.93	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00			21.25	2.00	21.25	2.14	21.25	2.00	21.25	2.00	21.25	2.09	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.48			23.75	2.00	23.75	2.00			23.75	2.00	23.75	1.49	23.75	2.00
26.25	1.24	26.25	2.00	26.25	2.00	26.25	1.20	26.25	2.09	26.25	2.00			26.25	2.00	26.25	2.00			26.25	2.00	26.25	2.00	26.25	2.00
28.75	1.81	28.75	2.00	28.75	2.00	28.75	1.35	28.75	1.26	28.75	2.00			28.75	1.09	28.75	2.00			28.75	2.00	28.75	2.11		
31.25	1.09	31.25	1.13	31.25	1.35	31.25	2.00	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00			31.25	1.44	31.25	1.62		
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.36	33.75	2.00	33.75	2.00					32.25	2.00					33.75	2.00		
		36.25	2.00	36.25	2.00	36.25	1.26	36.25	2.00	36.25	2.00											36.25	2.00		
Inv Avg	1.73	Inv Avg	1.74	Inv Avg	1.61	Inv Avg	1.51	Inv Avg	1.43	Inv Avg	1.88	Inv Avg	1.83	Inv Avg	1.78	Inv Avg	2.01	Inv Avg	1.61	Inv Avg	1.75	Inv Avg	1.63	Inv Avg	1.54
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-12

SCHEDULE CJG-ST1

C-145A		C-147		C-149		C-151		C-157		C-157A		C-159		C-161		C-163		C-166		C-168		C-168A		C-170	
S (ft)	0.10	S (ft)	0.03	S (ft)	0.26	S (ft)	0.35	S (ft)	0.20	S (ft)	0.20	S (ft)	0.08	S (ft)	0.12	S (ft)	0.51	S (ft)	0.19	S (ft)	0.19	S (ft)	0.35	S (ft)	0.18
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.70	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.89	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	0.56	6.25	0.58	6.25	2.00	6.25	0.85	6.25	n.a	6.25	1.38	6.25	0.87	6.25	0.71	6.25	n.a
8.75	1.17	8.75	2.00	8.75	0.86	8.75	n.a	8.75	2.00	8.75	2.00	8.75	1.72	8.75	1.11	8.75	n.a	8.75	2.00	8.75	1.32	8.75	1.30	8.75	0.61
11.25	1.19	11.25	1.28	11.25	1.35	11.25	0.49	11.25	1.78	11.25	1.20	11.25	1.57	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.41	11.25	0.98	11.25	1.83
13.75	2.00	13.75	2.00	13.75	2.18	13.75	1.17	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.46	13.75	1.94	13.75	1.55	13.75	1.04	13.75	1.70
16.25	2.00	16.25	1.72	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	0.99	16.25	1.20	16.25	2.00
18.75	1.12	18.75	2.00	18.75	2.00	18.75	1.32	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.84	18.75	2.00	18.75	1.24	18.75	1.41	18.75	2.00
21.25	2.00	21.25	1.48	21.25	2.00	21.25	1.92	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.25	21.25	2.00	21.25	1.70	21.25	1.42	21.25	1.33
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.70	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.30	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00			26.25	1.30	26.25	2.00			26.25	2.00	26.25	1.27	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00
28.75	2.00			28.75	1.09	28.75	2.00			28.75	2.00	28.75	1.29	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	n.a	28.75	2.00
31.25	1.48			31.25	1.12	31.25	2.00			31.25	2.00	31.25	1.65	31.25	2.00	31.25	2.00	31.25	0.85	31.25	2.00	31.25	0.70	31.25	2.00
33.75	1.06			33.75	2.00	33.75	2.00					33.75	1.48					32.25	1.33	32.25	2.00	33.75	1.02	33.75	2.00
36.25	1.17			36.25	2.00							36.25	1.08					33.25	2.00					36.25	1.93
Inv Avg	1.57	Inv Avg	1.81	Inv Avg	1.45	Inv Avg	1.51	Inv Avg	1.58	Inv Avg	1.61	Inv Avg	1.67	Inv Avg	1.72	Inv Avg	1.48	Inv Avg	1.61	Inv Avg	1.53	Inv Avg	1.24	Inv Avg	1.66
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-12

SCHEDULE CJG-ST1

C-172		C-174		C-178		C-180		C-182		C-184		C-186		C-190		C-192		C-194		C-196		C-198		C-200	
S (ft)	0.18	S (ft)	0.04	S (ft)	0.19	S (ft)	0.31	S (ft)	0.04	S (ft)	0.17	S (ft)	0.28	S (ft)	0.14	S (ft)	0.20	S (ft)	0.16	S (ft)	0.22	S (ft)	0.29	S (ft)	0.18
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	0.62	6.25	1.37	6.25	n.a	6.25	0.75	6.25	n.a	6.25	n.a	6.25	0.66	6.25	n.a	6.25	0.69	6.25	0.77	6.25	n.a	6.25	0.81	6.25	0.96
8.75	1.52	8.75	2.00	8.75	0.79	8.75	1.94	8.75	1.28	8.75	0.65	8.75	2.00	8.75	n.a	8.75	2.00	8.75	n.a	8.75	0.98	8.75	0.88	8.75	n.a
11.25	2.00	11.25	2.00	11.25	1.78	11.25	1.15	11.25	1.56	11.25	1.50	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.48	11.25	1.60	11.25	1.42	11.25	n.a
13.75	2.00	13.75	2.00	13.75	1.73	13.75	0.94	13.75	2.00	13.75	2.00	13.75	2.00	13.75	n.a	13.75	2.00	13.75	1.05	13.75	2.00	13.75	2.00	13.75	1.16
16.25	2.00	16.25	2.12	16.25	0.93	16.25	0.86	16.25	2.00	16.25	1.64	16.25	2.00	16.25	0.63	16.25	2.00	16.25	2.09	16.25	1.37	16.25	2.00	16.25	1.27
18.75	2.00	18.75	1.77	18.75	2.00	18.75	1.32	18.75	2.00	18.75	1.65	18.75	1.45	18.75	2.00	18.75	0.90	18.75	1.18	18.75	2.00	18.75	1.87	18.75	2.00
21.25	1.61	21.25	2.00	21.25	1.72	21.25	1.17	21.25	2.15	21.25	2.00	21.25	1.13	21.25	1.62	21.25	2.00	21.25	2.00	21.25	2.07	21.25	n.a	21.25	1.57
23.75	1.64	23.75	2.00	23.75	1.25	23.75	1.21	23.75	2.00	23.75	2.00	23.75	1.32	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	0.84	23.75	2.08
26.25	2.11	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.96	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.90	26.25	1.63
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	0.96	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.38	28.75	2.00
31.25	2.10	31.25	2.00	31.25	2.00	31.25	1.92	31.25	2.00	31.25	1.86	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.08	31.25	n.a	31.25	1.45	31.25	2.00
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.93	33.75	2.16	33.75	1.97	33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.82	33.75	0.57	33.75	2.00	33.75	1.49
36.25	2.00			36.25	2.00	36.25	2.00			36.25	1.34			36.25	2.00	36.25	2.00	36.25	2.00			36.25	2.00	36.25	2.00
																								38.75	2.00
																								41.25	2.00
																								43.75	2.00
																								46.25	1.64
																								48.75	1.22
																								51.25	1.45
																								53.75	1.30
																								56.25	2.00
																								58.75	2.00
																								61.25	2.00
																								63.75	2.00
																								66.25	1.37
Inv Avg	1.67	Inv Avg	1.93	Inv Avg	1.60	Inv Avg	1.37	Inv Avg	1.90	Inv Avg	1.63	Inv Avg	1.41	Inv Avg	1.72	Inv Avg	1.66	Inv Avg	1.62	Inv Avg	1.53	Inv Avg	1.47	Inv Avg	1.67
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-12

SCHEDULE CJG-ST1

Ameren Missouri: Labadie UWL
Liquefaction Analysis
90' of ASH M: 7.5
PGA: 2% probability of exceedence in 50 yrs: 0.1792 GW: 0.0'

C-11		C-13		C-16		C-18		C-21		C-23		C-25		C-28		C-30		C-32		C-34		C-37		C-39	
S (ft)	0.31	S (ft)	0.05	S (ft)	0.22	S (ft)	0.33	S (ft)	0.06	S (ft)	0.23	S (ft)	0.18	S (ft)	0.15	S (ft)	0.17	S (ft)	0.06	S (ft)	0.19	S (ft)	0.13	S (ft)	0.04
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.89	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	1.00	6.25	0.58	6.25	n.a	6.25	1.18	6.25	1.31	6.25	n.a	6.25	0.69	6.25	n.a	6.25	0.81	6.25	n.a	6.25	n.a
8.75	n.a	8.75	1.44	8.75	1.19	8.75	n.a	8.75	n.a	8.75	1.04	8.75	0.92	8.75	0.71	8.75	1.76	8.75	1.12	8.75	n.a	8.75	0.87	8.75	n.a
11.25	0.56	11.25	2.00	11.25	0.73	11.25	1.00	11.25	1.16	11.25	1.34	11.25	2.00	11.25	n.a	11.25	2.00	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.29
13.75	n.a	13.75	2.00	13.75	1.12	13.75	1.94	13.75	2.00	13.75	2.17	13.75	1.00	13.75	n.a	13.75	2.00	13.75	2.00	13.75	0.97	13.75	2.04	13.75	2.00
16.25	0.58	16.25	2.00	16.25	1.64	16.25	2.04	16.25	2.00	16.25	2.07	16.25	2.00	16.25	1.58	16.25	1.78	16.25	1.15	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	2.00	18.75	1.72	18.75	1.24	18.75	2.00	18.75	0.90	18.75	1.41	18.75	1.61	18.75	2.17	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.68
21.25	2.00	21.25	2.00	21.25	2.00	21.25	0.97	21.25	1.51	21.25	2.17	21.25	2.00	21.25	1.80	21.25	1.88	21.25	2.00	21.25	2.00	21.25	2.16	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.68	23.75	1.92	23.75	2.00	23.75	1.25	23.75	2.00	23.75	2.10	23.75	1.52	23.75	2.00	23.75	1.17	23.75	1.64
26.25	2.00	26.25	1.63	26.25	2.00	26.25	2.00	26.25	1.94	26.25	2.00	26.25	1.32	26.25	2.00	26.25	2.00	26.25	1.46	26.25	2.00	26.25	1.39	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.83	28.75	1.64	28.75	1.85	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.92	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.61	31.25	2.00	31.25	1.67	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.66	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.40	31.25	2.00
33.75	2.00	33.75	1.75	33.75	2.00	33.75	2.00	33.75	1.83	33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.20	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00
		36.25	2.00	36.25	2.00	36.25	2.10	36.25	1.64	36.25	2.00	36.25	2.00	36.25	1.39	36.25	2.00	36.25	2.00	36.25	1.13	36.25	2.00	36.25	2.00
		38.75	2.00																			38.75	2.00		
		41.25	2.00																			41.25	2.00		
Inv Avg	1.47	Inv Avg	1.89	Inv Avg	1.53	Inv Avg	1.47	Inv Avg	1.82	Inv Avg	1.53	Inv Avg	1.55	Inv Avg	1.66	Inv Avg	1.69	Inv Avg	1.74	Inv Avg	1.63	Inv Avg	1.72	Inv Avg	1.88
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-13

SCHEDULE CJG-ST1

C-41		C-44		C-46		C-46A		C-48		C-50		C-60		C-62		C-64		C-66		C-66A		C-68		C-70	
S (ft)	0.13	S (ft)	0.11	S (ft)	0.07	S (ft)	0.09	S (ft)	0.25	S (ft)	0.20	S (ft)	0.13	S (ft)	0.11	S (ft)	0.29	S (ft)	0.02	S (ft)	0.23	S (ft)	0.16	S (ft)	0.13
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	0.87	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	1.04	6.25	n.a	6.25	n.a	6.25	0.84	6.25	0.63	6.25	n.a	6.25	0.87	6.25	n.a	6.25	n.a	6.25	0.87	6.25	0.73	6.25	1.61
8.75	n.a	8.75	1.03	8.75	n.a	8.75	n.a	8.75	1.03	8.75	2.00	8.75	0.76	8.75	n.a	8.75	0.64	8.75	n.a	8.75	0.88	8.75	1.46	8.75	1.69
11.25	0.78	11.25	1.78	11.25	1.98	11.25	1.61	11.25	1.51	11.25	1.04	11.25	1.55	11.25	n.a	11.25	1.33	11.25	2.00	11.25	2.00	11.25	1.21	11.25	1.73
13.75	1.22	13.75	1.47	13.75	1.11	13.75	1.13	13.75	1.23	13.75	2.00	13.75	1.74	13.75	1.51	13.75	1.24	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.20
16.25	1.21	16.25	1.54	16.25	2.00	16.25	2.08	16.25	0.76	16.25	2.00	16.25	2.00	16.25	2.00	16.25	0.64	16.25	1.92	16.25	1.63	16.25	2.00	16.25	n.a
18.75	2.00	18.75	1.60	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.04	18.75	2.00	18.75	1.12
21.25	2.00	21.25	1.17	21.25	1.21	21.25	1.58	21.25	1.35	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	1.44	23.75	1.67	23.75	1.76	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.09	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.29	23.75	2.00
26.25	2.00	26.25	2.00	26.25	1.48	26.25	1.77	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00			26.25	2.00	26.25	1.32	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00			28.75	2.00	28.75	2.00	28.75	1.44
31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00			31.25	1.88	31.25	2.00	31.25	2.00
33.75	2.00	33.75	n.a	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00			33.75	2.00	33.75	1.48			33.75	n.a	33.75	2.00	33.75	2.00
36.25	2.00	36.25	n.a	36.25	1.92	36.25	1.03	36.25	1.79	36.25	1.42			36.25	2.00	36.25	1.12					36.25	1.60	36.25	0.88
				38.75	2.00	38.75	2.00			38.75	2.00														
				41.25	2.00	41.25	2.00			41.25	2.00														
				43.75	2.00	43.75	2.00																		
Inv Avg	1.68	Inv Avg	1.58	Inv Avg	1.79	Inv Avg	1.76	Inv Avg	1.46	Inv Avg	1.66	Inv Avg	1.72	Inv Avg	1.81	Inv Avg	1.40	Inv Avg	1.99	Inv Avg	1.55	Inv Avg	1.57	Inv Avg	1.61
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-13

SCHEDULE CJG-ST1

C-74		C-76		C-78		C-79		C-80		C-81		C-82		C-84		C-86		C-89		C-91		C-92		C-94	
S (ft)	0.16	S (ft)	0.11	S (ft)	0.32	S (ft)	0.08	S (ft)	0.21	S (ft)	0.20	S (ft)	0.09	S (ft)	0.13	S (ft)	0.20	S (ft)	0.15	S (ft)	0.44	S (ft)	0.16	S (ft)	0.11
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.92	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.89	6.25	1.05	6.25	0.75	6.25	n.a	6.25	n.a	6.25	n.a	6.25	1.89	6.25	n.a	6.25	n.a	6.25	0.91	6.25	0.90
8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.36	8.75	n.a	8.75	1.00	8.75	n.a	8.75	1.26	8.75	0.93	8.75	1.09	8.75	0.70	8.75	1.34	8.75	1.53
11.25	n.a	11.25	n.a	11.25	0.64	11.25	n.a	11.25	n.a	11.25	0.69	11.25	n.a	11.25	1.75	11.25	1.27	11.25	1.26	11.25	0.93	11.25	0.91	11.25	n.a
13.75	0.62	13.75	0.85	13.75	0.80	13.75	1.18	13.75	0.82	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.31	13.75	0.71	13.75	2.00	13.75	n.a
16.25	1.14	16.25	1.55	16.25	2.00	16.25	2.13	16.25	1.23	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.14	16.25	1.29	16.25	2.00	16.25	1.55
18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.40	18.75	2.00	18.75	2.00	18.75	2.00	18.75	0.91	18.75	1.59	18.75	2.00	18.75	2.10
21.25	1.38	21.25	2.00	21.25	1.47	21.25	2.00	21.25	2.08	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.71	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.33	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.82	23.75	1.32	23.75	1.67	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	1.81	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.85			26.25	2.00
28.75	2.16	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.06	28.75	1.10			28.75	2.00
31.25	1.50	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.86	31.25	1.50	31.25	0.99			31.25	2.00
33.75	n.a	33.75	2.00	33.75	1.64	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.07	33.75	2.00	33.75	2.02			33.75	2.14
36.25	n.a	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	0.90	36.25	0.72	36.25	1.98	36.25	2.00	36.25	1.65			36.25	2.00
Inv Avg	1.61	Inv Avg	1.80	Inv Avg	1.46	Inv Avg	1.71	Inv Avg	1.60	Inv Avg	1.64	Inv Avg	1.85	Inv Avg	1.70	Inv Avg	1.62	Inv Avg	1.53	Inv Avg	1.25	Inv Avg	1.55	Inv Avg	1.80
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-13

SCHEDULE CJG-ST1

C-96		C-98		C-100		C-103		C-105		C-106		C-107		C-107A		C-109		C-111		C-113		C-117		C-119	
S (ft)	0.12	S (ft)	0.18	S (ft)	0.18	S (ft)	0.10	S (ft)	0.08	S (ft)	0.24	S (ft)	0.26	S (ft)	0.05	S (ft)	0.22	S (ft)	0.20	S (ft)	0.21	S (ft)	0.28	S (ft)	0.12
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.84	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	1.03	6.25	0.79	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a
8.75	n.a	8.75	0.59	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.82	8.75	0.82	8.75	1.23	8.75	n.a	8.75	n.a	8.75	0.83	8.75	0.52	8.75	0.80
11.25	n.a	11.25	1.27	11.25	2.00	11.25	1.01	11.25	n.a	11.25	1.31	11.25	0.96	11.25	1.36	11.25	0.54	11.25	0.72	11.25	2.00	11.25	2.00	11.25	1.59
13.75	0.75	13.75	2.00	13.75	1.92	13.75	2.00	13.75	n.a	13.75	2.00	13.75	2.14	13.75	1.93	13.75	2.00	13.75	0.90	13.75	0.81	13.75	1.30	13.75	2.00
16.25	1.22	16.25	2.00	16.25	2.16	16.25	2.00	16.25	2.00	16.25	1.85	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.61	16.25	2.14	16.25	1.14	16.25	2.00
18.75	1.28	18.75	2.00	18.75	2.00	18.75	1.01	18.75	2.00	18.75	0.96	18.75	2.00	18.75	2.00	18.75	1.78	18.75	2.00	18.75	1.30	18.75	1.15	18.75	2.00
21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.09	21.25	2.00	21.25	1.03	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.16	23.75	1.77	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.68	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.74	26.25	2.00	26.25	1.84			26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.64	26.25	2.00	26.25	2.00
28.75	2.00	28.75	1.51	28.75	0.98	28.75	n.a	28.75	0.95	28.75	2.00			28.75	1.51	28.75	2.00	28.75	2.00	28.75	1.50	28.75	2.00	28.75	2.00
31.25	2.00	31.25	2.02	31.25	1.60	31.25	n.a	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00
33.75	2.00	33.75	2.00			33.75	n.a	33.75	2.00	33.75	1.52			33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.54	33.75	2.00	33.75	2.00
		36.25	2.00			36.25	n.a	36.25	1.39	36.25	2.00			36.25	2.00	36.25	1.74			36.25	1.76	36.25	2.19		
Inv Avg	1.66	Inv Avg	1.64	Inv Avg	1.67	Inv Avg	1.66	Inv Avg	1.81	Inv Avg	1.47	Inv Avg	1.43	Inv Avg	1.80	Inv Avg	1.67	Inv Avg	1.62	Inv Avg	1.55	Inv Avg	1.52	Inv Avg	1.78
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-13

SCHEDULE CJG-ST1

C-121		C-123		C-125		C-129		C-131		C-133		C-135		C-135A		C-137		C-139		C-139A		C-143		C-145	
S (ft)	0.05	S (ft)	0.13	S (ft)	0.22	S (ft)	0.20	S (ft)	0.30	S (ft)	0.04	S (ft)	0.02	S (ft)	0.04	S (ft)	0.02	S (ft)	0.13	S (ft)	0.11	S (ft)	0.19	S (ft)	0.16
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.65	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.82	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	0.61	6.25	0.70
8.75	n.a	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.69	8.75	1.24	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.74	8.75	1.81
11.25	1.23	11.25	2.00	11.25	n.a	11.25	n.a	11.25	0.59	11.25	2.00	11.25	1.16	11.25	1.16	11.25	n.a	11.25	n.a	11.25	n.a	11.25	2.05	11.25	1.09
13.75	2.00	13.75	2.00	13.75	0.99	13.75	n.a	13.75	1.25	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.63	13.75	0.80	13.75	2.00	13.75	2.00
16.25	2.00	16.25	2.00	16.25	1.93	16.25	0.54	16.25	1.50	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.97	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	2.05	18.75	2.00	18.75	2.00	18.75	1.93	18.75	2.03	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.41	18.75	1.36
21.25	2.00	21.25	1.95	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00			21.25	2.00	21.25	2.17	21.25	2.00	21.25	2.00	21.25	2.12	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.50			23.75	2.00	23.75	2.00			23.75	2.00	23.75	1.51	23.75	2.00
26.25	1.26	26.25	2.00	26.25	2.00	26.25	1.22	26.25	2.12	26.25	2.00			26.25	2.00	26.25	2.00			26.25	2.00	26.25	2.00	26.25	2.00
28.75	1.84	28.75	2.00	28.75	2.00	28.75	1.37	28.75	1.29	28.75	2.00			28.75	1.10	28.75	2.00			28.75	2.00	28.75	2.14		
31.25	1.11	31.25	1.14	31.25	1.37	31.25	2.00	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00			31.25	1.47	31.25	1.65		
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.39	33.75	2.00	33.75	2.00					32.25	2.00					33.75	2.00		
		36.25	2.00	36.25	2.00	36.25	1.29	36.25	2.00	36.25	2.00											36.25	2.00		
Inv Avg	1.74	Inv Avg	1.74	Inv Avg	1.61	Inv Avg	1.52	Inv Avg	1.44	Inv Avg	1.88	Inv Avg	1.83	Inv Avg	1.79	Inv Avg	2.01	Inv Avg	1.61	Inv Avg	1.75	Inv Avg	1.64	Inv Avg	1.54
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-13

SCHEDULE CJG-ST1

C-145A		C-147		C-149		C-151		C-157		C-157A		C-159		C-161		C-163		C-166		C-168		C-168A		C-170	
S (ft)	0.10	S (ft)	0.03	S (ft)	0.25	S (ft)	0.35	S (ft)	0.20	S (ft)	0.20	S (ft)	0.07	S (ft)	0.12	S (ft)	0.51	S (ft)	0.19	S (ft)	0.16	S (ft)	0.35	S (ft)	0.18
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.70	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.90	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	0.57	6.25	0.58	6.25	2.00	6.25	0.85	6.25	n.a	6.25	1.38	6.25	0.87	6.25	0.72	6.25	n.a
8.75	1.18	8.75	2.00	8.75	0.87	8.75	n.a	8.75	2.00	8.75	2.00	8.75	1.74	8.75	1.12	8.75	n.a	8.75	2.00	8.75	1.33	8.75	1.31	8.75	0.61
11.25	1.20	11.25	1.29	11.25	1.36	11.25	0.49	11.25	1.80	11.25	1.21	11.25	1.58	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.42	11.25	0.99	11.25	1.84
13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.18	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.46	13.75	1.96	13.75	1.57	13.75	1.05	13.75	1.71
16.25	2.00	16.25	1.74	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.01	16.25	1.22	16.25	2.00
18.75	1.13	18.75	2.00	18.75	2.00	18.75	1.34	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.87	18.75	2.00	18.75	1.26	18.75	1.43	18.75	2.00
21.25	2.00	21.25	1.51	21.25	2.00	21.25	1.95	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.27	21.25	2.00	21.25	1.73	21.25	1.44	21.25	1.35
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.72	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.32	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.03
26.25	2.00			26.25	1.32	26.25	2.00			26.25	2.00	26.25	1.29	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00
28.75	2.00			28.75	1.11	28.75	2.00			28.75	2.00	28.75	1.31	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	n.a	28.75	2.00
31.25	1.51			31.25	1.14	31.25	2.00			31.25	2.00	31.25	1.68	31.25	2.00	31.25	2.00	31.25	0.87	31.25	2.00	31.25	0.71	31.25	2.00
33.75	1.08			33.75	2.00	33.75	2.00					33.75	1.50					32.25	1.35	32.25	2.00	33.75	1.04	33.75	2.00
36.25	1.19			36.25	2.00							36.25	1.10					33.25	2.00					36.25	1.97
Inv Avg	1.58	Inv Avg	1.81	Inv Avg	1.45	Inv Avg	1.52	Inv Avg	1.58	Inv Avg	1.61	Inv Avg	1.68	Inv Avg	1.72	Inv Avg	1.49	Inv Avg	1.62	Inv Avg	1.54	Inv Avg	1.25	Inv Avg	1.67
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-13

SCHEDULE CJG-ST1

C-172		C-174		C-178		C-180		C-182		C-184		C-186		C-190		C-192		C-194		C-196		C-198		C-200	
S (ft)	0.18	S (ft)	0.04	S (ft)	0.19	S (ft)	0.31	S (ft)	0.04	S (ft)	0.17	S (ft)	0.28	S (ft)	0.14	S (ft)	0.20	S (ft)	0.16	S (ft)	0.22	S (ft)	0.29	S (ft)	0.18
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	0.62	6.25	1.37	6.25	n.a	6.25	0.75	6.25	n.a	6.25	n.a	6.25	0.66	6.25	n.a	6.25	0.70	6.25	0.78	6.25	n.a	6.25	0.82	6.25	0.96
8.75	1.53	8.75	2.00	8.75	0.80	8.75	1.95	8.75	1.29	8.75	0.66	8.75	2.00	8.75	n.a	8.75	2.00	8.75	n.a	8.75	0.98	8.75	0.89	8.75	n.a
11.25	2.00	11.25	2.00	11.25	1.79	11.25	1.16	11.25	1.58	11.25	1.51	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.50	11.25	1.61	11.25	1.44	11.25	n.a
13.75	2.00	13.75	2.00	13.75	1.75	13.75	0.95	13.75	2.00	13.75	2.00	13.75	2.00	13.75	n.a	13.75	2.00	13.75	1.07	13.75	2.00	13.75	2.00	13.75	1.17
16.25	2.00	16.25	2.15	16.25	0.94	16.25	0.87	16.25	2.00	16.25	1.66	16.25	2.00	16.25	0.63	16.25	2.00	16.25	2.11	16.25	1.38	16.25	2.00	16.25	1.28
18.75	2.00	18.75	1.80	18.75	2.00	18.75	1.34	18.75	2.00	18.75	1.67	18.75	1.46	18.75	2.00	18.75	0.91	18.75	1.20	18.75	2.02	18.75	1.90	18.75	2.00
21.25	1.64	21.25	2.00	21.25	1.74	21.25	1.19	21.25	2.18	21.25	2.00	21.25	1.14	21.25	1.64	21.25	2.00	21.25	2.00	21.25	2.10	21.25	n.a	21.25	1.60
23.75	1.67	23.75	2.00	23.75	1.27	23.75	1.23	23.75	2.00	23.75	2.00	23.75	1.34	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	0.85	23.75	2.11
26.25	2.14	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.97	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.93	26.25	1.65
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	0.98	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.41	28.75	2.00
31.25	2.14	31.25	2.00	31.25	2.00	31.25	1.96	31.25	2.00	31.25	1.89	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.11	31.25	n.a	31.25	1.47	31.25	2.00
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.96	33.75	2.00	33.75	2.01	33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.85	33.75	0.58	33.75	2.00	33.75	1.52
36.25	2.00			36.25	2.00	36.25	2.00			36.25	1.37			36.25	2.00	36.25	2.00	36.25	2.00			36.25	2.00	36.25	2.00
																								38.75	2.00
																								41.25	2.00
																								43.75	2.00
																								46.25	1.67
																								48.75	1.25
																								51.25	1.48
																								53.75	1.33
																								56.25	2.00
																								58.75	2.00
																								61.25	2.00
																								63.75	2.00
																								66.25	1.40
Inv Avg	1.68	Inv Avg	1.93	Inv Avg	1.61	Inv Avg	1.39	Inv Avg	1.90	Inv Avg	1.64	Inv Avg	1.42	Inv Avg	1.73	Inv Avg	1.66	Inv Avg	1.63	Inv Avg	1.55	Inv Avg	1.48	Inv Avg	1.68
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-13

SCHEDULE CJG-ST1

Ameren Missouri: Labadie UWL
Liquefaction Analysis
100' of ASH M: 7.5
PGA: 2% probability of exceedence in 50 yrs: 0.1792 GW: 0.0'

C-11		C-13		C-16		C-18		C-21		C-23		C-25		C-28		C-30		C-32		C-34		C-37		C-39	
S (ft)	0.31	S (ft)	0.05	S (ft)	0.18	S (ft)	0.30	S (ft)	0.06	S (ft)	0.22	S (ft)	0.15	S (ft)	0.15	S (ft)	0.16	S (ft)	0.06	S (ft)	0.19	S (ft)	0.13	S (ft)	0.04
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.89	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	1.00	6.25	0.58	6.25	n.a	6.25	1.18	6.25	1.32	6.25	n.a	6.25	0.69	6.25	n.a	6.25	0.81	6.25	n.a	6.25	n.a
8.75	n.a	8.75	1.45	8.75	1.20	8.75	n.a	8.75	n.a	8.75	1.05	8.75	0.93	8.75	0.71	8.75	1.77	8.75	1.12	8.75	n.a	8.75	0.88	8.75	n.a
11.25	0.56	11.25	2.00	11.25	0.73	11.25	1.01	11.25	1.17	11.25	1.35	11.25	2.00	11.25	n.a	11.25	2.00	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.30
13.75	n.a	13.75	2.00	13.75	1.13	13.75	1.96	13.75	2.00	13.75	2.18	13.75	1.01	13.75	n.a	13.75	2.00	13.75	2.00	13.75	0.98	13.75	2.06	13.75	2.00
16.25	0.59	16.25	2.00	16.25	1.66	16.25	2.06	16.25	2.00	16.25	2.09	16.25	2.00	16.25	1.59	16.25	1.80	16.25	1.16	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	2.00	18.75	1.74	18.75	1.25	18.75	2.00	18.75	0.91	18.75	1.43	18.75	1.63	18.75	2.19	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.69
21.25	2.00	21.25	2.00	21.25	2.00	21.25	0.98	21.25	1.53	21.25	2.20	21.25	2.00	21.25	1.82	21.25	1.90	21.25	2.00	21.25	2.00	21.25	2.18	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.70	23.75	1.94	23.75	2.00	23.75	1.26	23.75	2.00	23.75	2.12	23.75	1.53	23.75	2.00	23.75	1.18	23.75	1.66
26.25	2.00	26.25	1.66	26.25	2.00	26.25	2.00	26.25	1.96	26.25	2.00	26.25	1.34	26.25	2.00	26.25	2.00	26.25	1.48	26.25	2.00	26.25	1.41	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.86	28.75	1.66	28.75	1.88	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.95	28.75	2.00	28.75	2.00
31.25	2.00	31.25	1.64	31.25	2.00	31.25	1.70	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.68	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.42	31.25	2.00
33.75	2.00	33.75	1.77	33.75	2.00	33.75	2.00	33.75	1.86	33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.22	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00
		36.25	2.00	36.25	2.00	36.25	2.13	36.25	1.67	36.25	2.00	36.25	2.00	36.25	1.41	36.25	2.00	36.25	2.00	36.25	1.15	36.25	2.00	36.25	2.00
		38.75	2.00																			38.75	2.00		
		41.25	2.00																			41.25	2.00		
Inv Avg	1.48	Inv Avg	1.89	Inv Avg	1.54	Inv Avg	1.47	Inv Avg	1.83	Inv Avg	1.54	Inv Avg	1.56	Inv Avg	1.67	Inv Avg	1.69	Inv Avg	1.75	Inv Avg	1.64	Inv Avg	1.73	Inv Avg	1.88
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-14

SCHEDULE CJG-ST1

C-41		C-44		C-46		C-46A		C-48		C-50		C-60		C-62		C-64		C-66		C-66A		C-68		C-70	
S (ft)	0.13	S (ft)	0.11	S (ft)	0.07	S (ft)	0.09	S (ft)	0.25	S (ft)	0.20	S (ft)	0.13	S (ft)	0.11	S (ft)	0.29	S (ft)	0.02	S (ft)	0.23	S (ft)	0.16	S (ft)	0.13
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	0.87	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	1.04	6.25	n.a	6.25	n.a	6.25	0.84	6.25	0.63	6.25	n.a	6.25	0.87	6.25	n.a	6.25	n.a	6.25	0.88	6.25	0.73	6.25	1.61
8.75	n.a	8.75	1.03	8.75	n.a	8.75	n.a	8.75	1.04	8.75	2.00	8.75	0.76	8.75	n.a	8.75	0.64	8.75	n.a	8.75	0.89	8.75	1.47	8.75	1.70
11.25	0.78	11.25	1.79	11.25	2.00	11.25	1.63	11.25	1.52	11.25	1.04	11.25	1.56	11.25	n.a	11.25	1.34	11.25	2.00	11.25	2.00	11.25	1.21	11.25	1.74
13.75	1.23	13.75	1.48	13.75	1.12	13.75	1.14	13.75	1.24	13.75	2.00	13.75	1.75	13.75	1.52	13.75	1.25	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.21
16.25	1.22	16.25	1.56	16.25	2.00	16.25	2.10	16.25	0.77	16.25	2.00	16.25	2.00	16.25	2.00	16.25	0.65	16.25	1.94	16.25	1.64	16.25	2.00	16.25	n.a
18.75	2.00	18.75	1.62	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.02	18.75	2.00	18.75	2.07	18.75	2.00	18.75	1.13
21.25	2.00	21.25	1.18	21.25	1.22	21.25	1.60	21.25	1.37	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	1.45	23.75	1.69	23.75	1.78	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.11	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.31	23.75	2.00
26.25	2.00	26.25	2.00	26.25	1.50	26.25	1.79	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00			26.25	2.00	26.25	1.33	26.25	2.00
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00			28.75	2.00	28.75	2.00	28.75	1.46
31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00			31.25	1.91	31.25	2.00	31.25	2.00
33.75	2.00	33.75	n.a	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00			33.75	2.00	33.75	1.51			33.75	n.a	33.75	2.00	33.75	2.00
36.25	2.00	36.25	n.a	36.25	1.95	36.25	1.04	36.25	1.82	36.25	1.44			36.25	2.00	36.25	1.14					36.25	1.62	36.25	0.90
				38.75	2.00	38.75	2.00			38.75	2.00														
				41.25	2.00	41.25	2.00			41.25	2.00														
				43.75	2.00	43.75	2.00																		
Inv Avg	1.68	Inv Avg	1.59	Inv Avg	1.80	Inv Avg	1.77	Inv Avg	1.47	Inv Avg	1.66	Inv Avg	1.73	Inv Avg	1.81	Inv Avg	1.40	Inv Avg	1.99	Inv Avg	1.55	Inv Avg	1.58	Inv Avg	1.61
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-14

SCHEDULE CJG-ST1

C-74		C-76		C-78		C-79		C-80		C-81		C-82		C-84		C-86		C-89		C-91		C-92		C-94	
S (ft)	0.16	S (ft)	0.11	S (ft)	0.32	S (ft)	0.08	S (ft)	0.21	S (ft)	0.16	S (ft)	0.09	S (ft)	0.13	S (ft)	0.19	S (ft)	0.15	S (ft)	0.42	S (ft)	0.16	S (ft)	0.11
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.92	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	0.89	6.25	1.05	6.25	0.76	6.25	n.a	6.25	n.a	6.25	n.a	6.25	1.89	6.25	n.a	6.25	n.a	6.25	0.91	6.25	0.91
8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.36	8.75	n.a	8.75	1.00	8.75	n.a	8.75	1.27	8.75	0.93	8.75	1.10	8.75	0.71	8.75	1.34	8.75	1.54
11.25	n.a	11.25	n.a	11.25	0.65	11.25	n.a	11.25	n.a	11.25	0.70	11.25	n.a	11.25	1.76	11.25	1.28	11.25	1.27	11.25	0.93	11.25	0.92	11.25	n.a
13.75	0.62	13.75	0.86	13.75	0.81	13.75	1.19	13.75	0.82	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.32	13.75	0.72	13.75	2.00	13.75	n.a
16.25	1.15	16.25	1.56	16.25	2.00	16.25	2.15	16.25	1.24	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.15	16.25	1.30	16.25	2.00	16.25	1.56
18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.41	18.75	2.00	18.75	2.00	18.75	2.00	18.75	0.92	18.75	1.61	18.75	2.00	18.75	2.12
21.25	1.40	21.25	2.00	21.25	1.49	21.25	2.00	21.25	2.10	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.73	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.35	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.84	23.75	1.34	23.75	1.70	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	1.84	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.87			26.25	2.00
28.75	2.19	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.09	28.75	1.12			28.75	2.00
31.25	1.52	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	1.89	31.25	1.52	31.25	1.00			31.25	2.00
33.75	n.a	33.75	2.00	33.75	1.67	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.00	33.75	2.10	33.75	2.00	33.75	2.06			33.75	2.18
36.25	n.a	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	2.00	36.25	0.92	36.25	0.73	36.25	2.01	36.25	2.00	36.25	1.68			36.25	2.00
Inv Avg	1.61	Inv Avg	1.81	Inv Avg	1.47	Inv Avg	1.72	Inv Avg	1.61	Inv Avg	1.64	Inv Avg	1.85	Inv Avg	1.71	Inv Avg	1.63	Inv Avg	1.54	Inv Avg	1.26	Inv Avg	1.56	Inv Avg	1.80
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-14

SCHEDULE CJG-ST1

C-96		C-98		C-100		C-103		C-105		C-106		C-107		C-107A		C-109		C-111		C-113		C-117		C-119	
S (ft)	0.12	S (ft)	0.18	S (ft)	0.18	S (ft)	0.10	S (ft)	0.08	S (ft)	0.24	S (ft)	0.26	S (ft)	0.05	S (ft)	0.22	S (ft)	0.19	S (ft)	0.21	S (ft)	0.28	S (ft)	0.12
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.84	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	1.04	6.25	0.79	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a
8.75	n.a	8.75	0.60	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.83	8.75	0.83	8.75	1.24	8.75	n.a	8.75	n.a	8.75	0.83	8.75	0.53	8.75	0.80
11.25	n.a	11.25	1.27	11.25	2.00	11.25	1.01	11.25	n.a	11.25	1.32	11.25	0.97	11.25	1.37	11.25	0.54	11.25	0.73	11.25	2.00	11.25	2.00	11.25	1.61
13.75	0.75	13.75	2.00	13.75	1.93	13.75	2.00	13.75	n.a	13.75	2.00	13.75	2.16	13.75	1.94	13.75	2.00	13.75	0.91	13.75	0.82	13.75	1.31	13.75	2.00
16.25	1.24	16.25	2.00	16.25	2.18	16.25	2.00	16.25	2.00	16.25	1.86	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.62	16.25	2.16	16.25	1.15	16.25	2.00
18.75	1.30	18.75	2.00	18.75	2.00	18.75	1.02	18.75	2.00	18.75	0.97	18.75	2.00	18.75	2.00	18.75	1.80	18.75	2.00	18.75	1.32	18.75	1.17	18.75	2.00
21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.10	21.25	2.00	21.25	1.04	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.19	23.75	1.79	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.70	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00
26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.76	26.25	2.00	26.25	1.86			26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.66	26.25	2.00	26.25	2.00
28.75	2.00	28.75	1.53	28.75	0.99	28.75	n.a	28.75	0.96	28.75	2.00			28.75	1.53	28.75	2.00	28.75	2.00	28.75	1.52	28.75	2.00	28.75	2.00
31.25	2.00	31.25	2.05	31.25	1.63	31.25	n.a	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.00
33.75	2.00	33.75	2.00			33.75	n.a	33.75	2.00	33.75	1.55			33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.57	33.75	2.00	33.75	2.00
		36.25	2.00			36.25	n.a	36.25	1.41	36.25	2.00			36.25	2.00	36.25	1.76			36.25	1.78	36.25	2.00		
Inv Avg	1.67	Inv Avg	1.65	Inv Avg	1.68	Inv Avg	1.67	Inv Avg	1.82	Inv Avg	1.48	Inv Avg	1.43	Inv Avg	1.81	Inv Avg	1.67	Inv Avg	1.63	Inv Avg	1.56	Inv Avg	1.52	Inv Avg	1.78
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-14

SCHEDULE CJG-ST1

C-121		C-123		C-125		C-129		C-131		C-133		C-135		C-135A		C-137		C-139		C-139A		C-143		C-145	
S (ft)	0.05	S (ft)	0.13	S (ft)	0.19	S (ft)	0.20	S (ft)	0.29	S (ft)	0.04	S (ft)	0.02	S (ft)	0.04	S (ft)	0.02	S (ft)	0.13	S (ft)	0.11	S (ft)	0.19	S (ft)	0.16
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.65	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	0.82	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	n.a	6.25	0.61	6.25	0.71
8.75	n.a	8.75	2.00	8.75	n.a	8.75	n.a	8.75	0.69	8.75	1.25	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	n.a	8.75	1.75	8.75	1.82
11.25	1.24	11.25	2.00	11.25	n.a	11.25	n.a	11.25	0.59	11.25	2.00	11.25	1.17	11.25	1.17	11.25	n.a	11.25	n.a	11.25	n.a	11.25	2.07	11.25	1.10
13.75	2.00	13.75	2.00	13.75	1.00	13.75	n.a	13.75	1.26	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.64	13.75	0.81	13.75	2.00	13.75	2.00
16.25	2.00	16.25	2.00	16.25	1.95	16.25	0.55	16.25	1.52	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.99	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00
18.75	2.00	18.75	2.07	18.75	2.00	18.75	2.00	18.75	1.95	18.75	2.05	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.43	18.75	1.37
21.25	2.00	21.25	1.98	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00			21.25	2.00	21.25	2.20	21.25	2.00	21.25	2.00	21.25	2.15	21.25	2.00
23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.52			23.75	2.00	23.75	2.00			23.75	2.00	23.75	1.53	23.75	2.00
26.25	1.27	26.25	2.00	26.25	2.00	26.25	1.24	26.25	2.15	26.25	2.00			26.25	2.00	26.25	2.00			26.25	2.00	26.25	2.00	26.25	2.00
28.75	1.86	28.75	2.00	28.75	2.00	28.75	1.39	28.75	1.30	28.75	2.00			28.75	1.12	28.75	2.00			28.75	2.00	28.75	2.17		
31.25	1.12	31.25	1.16	31.25	1.39	31.25	2.00	31.25	2.00	31.25	2.00			31.25	2.00	31.25	2.00			31.25	1.49	31.25	1.67		
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.41	33.75	2.00	33.75	2.00					32.25	2.00					33.75	2.00		
		36.25	2.00	36.25	2.00	36.25	1.31	36.25	2.00	36.25	2.00											36.25	2.00		
Inv Avg	1.75	Inv Avg	1.75	Inv Avg	1.62	Inv Avg	1.53	Inv Avg	1.45	Inv Avg	1.89	Inv Avg	1.84	Inv Avg	1.79	Inv Avg	2.01	Inv Avg	1.62	Inv Avg	1.76	Inv Avg	1.65	Inv Avg	1.55
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-14

SCHEDULE CJG-ST1

C-145A		C-147		C-149		C-151		C-157		C-157A		C-159		C-161		C-163		C-166		C-168		C-168A		C-170	
S (ft)	0.09	S (ft)	0.03	S (ft)	0.25	S (ft)	0.35	S (ft)	0.20	S (ft)	0.20	S (ft)	0.07	S (ft)	0.12	S (ft)	0.51	S (ft)	0.19	S (ft)	0.16	S (ft)	0.35	S (ft)	0.18
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	0.70	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	0.90	3.75	n.a	3.75	n.a	3.75	n.a
6.25	n.a	6.25	2.00	6.25	n.a	6.25	n.a	6.25	0.57	6.25	0.58	6.25	2.00	6.25	0.86	6.25	n.a	6.25	1.39	6.25	0.87	6.25	0.72	6.25	n.a
8.75	1.19	8.75	2.00	8.75	0.87	8.75	n.a	8.75	2.00	8.75	2.00	8.75	1.75	8.75	1.12	8.75	n.a	8.75	2.00	8.75	1.34	8.75	1.32	8.75	0.61
11.25	1.21	11.25	1.30	11.25	1.37	11.25	0.49	11.25	1.81	11.25	1.22	11.25	1.60	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.43	11.25	0.99	11.25	1.86
13.75	2.00	13.75	2.00	13.75	2.00	13.75	1.19	13.75	2.00	13.75	2.00	13.75	2.00	13.75	2.00	13.75	0.47	13.75	1.97	13.75	1.58	13.75	1.06	13.75	1.73
16.25	2.00	16.25	1.75	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	2.00	16.25	1.02	16.25	1.23	16.25	2.00
18.75	1.15	18.75	2.00	18.75	2.00	18.75	1.35	18.75	2.00	18.75	2.00	18.75	2.00	18.75	2.00	18.75	1.89	18.75	2.00	18.75	1.27	18.75	1.45	18.75	2.00
21.25	2.00	21.25	1.52	21.25	2.00	21.25	1.97	21.25	2.00	21.25	2.00	21.25	2.00	21.25	2.00	21.25	1.28	21.25	2.00	21.25	1.75	21.25	1.46	21.25	1.36
23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.75	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	1.33	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.06
26.25	2.00			26.25	1.33	26.25	2.00			26.25	2.00	26.25	1.31	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00
28.75	2.00			28.75	1.12	28.75	2.00			28.75	2.00	28.75	1.33	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	n.a	28.75	2.00
31.25	1.53			31.25	1.16	31.25	2.00			31.25	2.00	31.25	1.71	31.25	2.00	31.25	2.00	31.25	0.88	31.25	2.00	31.25	0.72	31.25	2.00
33.75	1.10			33.75	2.00	33.75	2.00					33.75	1.53					32.25	1.37	32.25	2.00	33.75	1.06	33.75	2.00
36.25	1.21			36.25	2.00							36.25	1.12					33.25	2.00					36.25	2.00
Inv Avg	1.59	Inv Avg	1.82	Inv Avg	1.46	Inv Avg	1.52	Inv Avg	1.58	Inv Avg	1.62	Inv Avg	1.69	Inv Avg	1.72	Inv Avg	1.49	Inv Avg	1.63	Inv Avg	1.54	Inv Avg	1.26	Inv Avg	1.67
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-14

SCHEDULE CJG-ST1

C-172		C-174		C-178		C-180		C-182		C-184		C-186		C-190		C-192		C-194		C-196		C-198		C-200	
S (ft)	0.18	S (ft)	0.04	S (ft)	0.19	S (ft)	0.30	S (ft)	0.04	S (ft)	0.17	S (ft)	0.28	S (ft)	0.14	S (ft)	0.20	S (ft)	0.16	S (ft)	0.22	S (ft)	0.29	S (ft)	0.18
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a	1.25	n.a
3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a	3.75	n.a
6.25	0.62	6.25	1.38	6.25	n.a	6.25	0.76	6.25	n.a	6.25	n.a	6.25	0.67	6.25	n.a	6.25	0.70	6.25	0.78	6.25	n.a	6.25	0.82	6.25	0.97
8.75	1.54	8.75	2.00	8.75	0.81	8.75	1.96	8.75	1.29	8.75	0.66	8.75	2.00	8.75	n.a	8.75	2.00	8.75	n.a	8.75	0.99	8.75	0.89	8.75	n.a
11.25	2.00	11.25	2.00	11.25	1.80	11.25	1.17	11.25	1.59	11.25	1.52	11.25	2.00	11.25	n.a	11.25	2.00	11.25	1.51	11.25	1.63	11.25	1.45	11.25	n.a
13.75	2.00	13.75	2.00	13.75	1.76	13.75	0.96	13.75	2.00	13.75	2.00	13.75	2.00	13.75	n.a	13.75	2.00	13.75	1.07	13.75	2.00	13.75	2.00	13.75	1.18
16.25	2.00	16.25	2.17	16.25	0.95	16.25	0.88	16.25	2.00	16.25	1.68	16.25	2.00	16.25	0.64	16.25	2.00	16.25	2.13	16.25	1.40	16.25	2.00	16.25	1.30
18.75	2.00	18.75	1.82	18.75	2.00	18.75	1.35	18.75	2.00	18.75	1.69	18.75	1.48	18.75	2.00	18.75	0.92	18.75	1.21	18.75	2.05	18.75	1.92	18.75	2.00
21.25	1.66	21.25	2.00	21.25	1.76	21.25	1.20	21.25	2.00	21.25	2.00	21.25	1.16	21.25	1.66	21.25	2.00	21.25	2.00	21.25	2.13	21.25	n.a	21.25	1.62
23.75	1.69	23.75	2.00	23.75	1.29	23.75	1.24	23.75	2.00	23.75	2.00	23.75	1.36	23.75	2.00	23.75	2.00	23.75	2.00	23.75	2.00	23.75	0.86	23.75	2.14
26.25	2.17	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	0.98	26.25	2.00	26.25	2.00	26.25	2.00	26.25	2.00	26.25	1.96	26.25	1.67
28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	0.99	28.75	2.00	28.75	2.00	28.75	2.00	28.75	2.00	28.75	1.42	28.75	2.00
31.25	2.17	31.25	2.00	31.25	2.00	31.25	1.99	31.25	2.00	31.25	1.92	31.25	2.00	31.25	2.00	31.25	2.00	31.25	2.14	31.25	n.a	31.25	1.49	31.25	2.00
33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.99	33.75	2.00	33.75	2.04	33.75	2.00	33.75	2.00	33.75	2.00	33.75	1.88	33.75	0.59	33.75	2.00	33.75	1.54
36.25	2.00			36.25	2.00	36.25	2.00			36.25	1.39			36.25	2.00	36.25	2.00	36.25	2.00			36.25	2.00	36.25	2.00
																								38.75	2.00
																								41.25	2.00
																								43.75	2.00
																								46.25	1.70
																								48.75	1.27
																								51.25	1.51
																								53.75	1.36
																								56.25	2.00
																								58.75	2.00
																								61.25	2.00
																								63.75	2.00
																								66.25	1.43
Inv Avg	1.69	Inv Avg	1.93	Inv Avg	1.62	Inv Avg	1.39	Inv Avg	1.89	Inv Avg	1.65	Inv Avg	1.43	Inv Avg	1.73	Inv Avg	1.66	Inv Avg	1.64	Inv Avg	1.55	Inv Avg	1.49	Inv Avg	1.69
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-14

SCHEDULE CJG-ST1

Ameren Missouri: Labadie UWL
Liquefaction Analysis
Borings As Are, 0' Ash
PGA: 2% probability of exceedence in 50 yrs: 0.1792

M: 7.5
GW: 0.0'

Old Borings <--------- New Borings ---------->

B-4		B-5		B-6		B-7		B-8		B-10		B-13		B-14		B-26	
LDI (ft)	2.64	LDI (ft)	4.14	LDI (ft)	2.29	LDI (ft)	7.42	LDI (ft)	6.11	LDI (ft)	2.74	LDI (ft)	6.38	LDI (ft)	5.09	LDI (ft)	4.71
S (ft)	0.23	S (ft)	0.44	S (ft)	0.35	S (ft)	0.87	S (ft)	0.60	S (ft)	0.34	S (ft)	0.71	S (ft)	0.55	S (ft)	0.59
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	0.59	2.50	n.a.	2.50	n.a.	2.50	0.48	2.50	n.a.
5.00	n.a.	5.00	n.a.	5.00	0.81	5.00	n.a.	5.00	0.61	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.
7.50	n.a.	7.50	n.a.	7.50	1.86	7.50	n.a.	7.50	0.90	8.00	0.47	7.50	n.a.	7.50	n.a.	7.50	n.a.
10.00	2.00	10.00	0.85	10.00	0.85	10.00	n.a.	10.00	0.70	11.00	0.69	10.00	n.a.	10.00	n.a.	10.00	0.87
15.00	1.28	15.00	0.70	15.00	0.76	15.00	0.70	15.00	0.56	14.00	0.80	15.00	0.62	15.00	0.64	15.00	2.00
20.00	0.47	20.00	0.58	20.00	0.47	20.00	0.58	20.00	0.42	20.00	1.38	20.00	0.64	20.00	1.66	20.00	0.95
25.00	1.31	25.00	0.58			25.00	0.54			25.00	1.84	25.00	0.59	25.00	0.65	25.00	1.56
						30.00	2.00			30.00	2.10	30.00	0.83	30.00	0.83	30.00	0.83
						35.00	2.00			35.00	1.48	35.00	0.71	35.00	2.07	35.00	0.45
						40.00	2.00					40.00	1.76			40.00	0.68
						45.00	2.00					45.00	2.00			45.00	1.21
						50.00	2.00					50.00	2.00				
						60.00	1.72										
						70.00	1.50										
						80.00	0.87										
						90.00	2.00										
						100.00	0.80										
Average	1.24	Average	0.93	Average	0.87	Average	1.24	Average	0.60	Average	1.09	Average	1.09	Average	1.00	Average	1.04
Risk	Low	Risk	High	Risk	High	Risk	Low	Risk	High	Risk	Moderate	Risk	Moderate	Risk	Moderate	Risk	Moderate

Figure D-15

SCHEDULE CJG-ST1

B-50		B-52		B-54		B-56		B-58		B-72		B-92		B-100		B-101	
LDI (ft)	2.66	LDI (ft)	1.34	LDI (ft)	8.24	LDI (ft)	3.03	LDI (ft)	2.79	LDI (ft)	5.07	LDI (ft)	6.00	LDI (ft)	8.71	LDI (ft)	9.06
S (ft)	0.28	S (ft)	0.18	S (ft)	0.51	S (ft)	0.51	S (ft)	0.39	S (ft)	0.55	S (ft)	0.58	S (ft)	1.24	S (ft)	1.00
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.
5.00	n.a.	5.00	n.a.	5.00	0.33	5.00	n.a.	5.00	n.a.	5.00	?	5.00	n.a.	5.00	n.a.	5.00	n.a.
7.50	n.a.	7.50	n.a.	7.50	0.53	7.50	0.91	7.50	n.a.	7.50	0.63	7.50	0.59	7.50	0.75	7.50	0.60
10.00	0.61	10.00	0.64	10.00	0.61	11.00	0.76	10.00	0.43	10.00	0.59	10.00	0.68	10.00	1.20	10.00	0.44
15.00	2.00	15.00	1.82	15.00	0.58	15.00	2.00	15.00	0.78	15.00	0.73	15.00	1.75	14.00	0.51	15.00	0.70
20.00	2.00	20.00	2.00	20.00	0.62	20.00	1.20	20.00	1.06	20.00	0.95	20.00	1.61	16.00	0.94	20.00	0.70
25.00	0.59	25.00	1.25	25.00	0.65	25.00	0.70	25.00	1.18	25.00	0.59	22.50	2.00	20.00	2.00	25.00	0.65
27.50	0.99	30.00	1.04	30.00	2.00	30.00	0.76	30.00	1.13	30.00	2.00	25.00	2.00	25.00	0.94	30.00	0.91
30.00	2.00	35.00	2.00	35.00	2.00	35.00	1.15	35.00	2.07	35.00	1.29	30.00	1.28	32.00	0.67	35.00	2.00
35.00	1.29					40.00	2.00					35.00	0.60	35.00	0.71	40.00	0.63
40.00	2.00					45.00	1.09					40.00	0.52	40.00	1.05	45.00	0.77
45.00	2.00					50.00	1.03					45.00	1.09	45.00	2.15	50.00	2.00
50.00	2.00													50.00	1.26		
														60.00	0.72		
														70.00	0.91		
														80.00	1.01		
														90.00	1.31		
Average	1.35	Average	1.41	Average	0.70	Average	1.12	Average	1.09	Average	0.93	Average	1.03	Average	1.00	Average	0.84
Risk	Low	Risk	Low	Risk	High	Risk	Moderate	Risk	Moderate	Risk	High	Risk	Moderate	Risk	High	Risk	High

Figure D-15

SCHEDULE CJG-ST1

B-115		B-127		B-141		B-153		B-154		B-176		B-188		B-200		B-202	
LDI (ft)	3.68	LDI (ft)	4.07	LDI (ft)	2.63	LDI (ft)	5.94	LDI (ft)	3.58	LDI (ft)	1.57	LDI (ft)	3.59	LDI (ft)	17.58	LDI (ft)	2.10
S (ft)	0.49	S (ft)	0.62	S (ft)	0.47	S (ft)	0.54	S (ft)	0.59	S (ft)	0.20	S (ft)	0.55	S (ft)	1.89	S (ft)	0.26
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.
5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.
7.50	n.a.	7.50	n.a.	7.50	0.67	7.50	?	7.50	0.51	7.50	n.a.	7.50	n.a.	7.50	0.59	7.50	n.a.
10.00	n.a.	10.00	0.74	10.00	0.71	10.00	?	10.00	0.80	10.00	n.a.	10.00	0.80	10.00	n.a.	10.00	?
15.00	n.a.	15.00	0.80	15.00	0.78	15.00	1.25	15.00	0.97	15.00	n.a.	15.00	0.78	15.00	0.27	15.00	0.97
20.00	1.06	20.00	0.73	20.00	2.00	20.00	2.00	20.00	0.86	20.00	1.20	20.00	1.06	20.00	0.67	20.00	1.95
25.00	0.78	25.00	0.78	25.00	1.05	25.00	2.00	25.00	0.94	25.00	2.00	25.00	0.86	25.00	0.83	25.00	0.59
30.00	1.13	30.00	0.69	30.00	0.83	30.00	0.52	30.00	1.01	30.00	2.14	30.00	0.52	30.00	0.57	30.00	1.14
35.00	0.60	35.00	1.48	35.00	0.93	35.00	0.60	35.00	0.71	35.00	1.09	35.00	0.93	35.00	0.50	35.00	1.16
40.00	0.74					40.00	0.58	40.00	0.88	40.00	0.69			40.00	0.58		
45.00	2.00					45.00	1.21			45.00	n.a.			45.00	0.48		
										50.00	2.00			50.00	0.40		
														60.00	0.96		
Average	1.21	Average	1.01	Average	1.01	Average	1.07	Average	0.91	Average	1.57	Average	0.98	Average	0.63	Average	1.29
Risk	Low	Risk	Moderate	Risk	Moderate	Risk	Moderate	Risk	High	Risk	Low	Risk	High	Risk	High	Risk	Low

Figure D-15

SCHEDULE CJG-ST1

Ameren Missouri: Labadie UWL
Liquefaction Analysis
Borings As Are
PGA: 2% probability of exceedence in 50 yrs: 0.1792
With 10.4' Ash (100-yr flood)

M: 7.5
GW: 0.0' (100 yr)

Old Borings <---------
New Borings ---------->

B-4		B-5		B-6		B-7		B-8		B-10		B-13		B-14		B-26	
LDI (ft)	2.50	LDI (ft)	2.39	LDI (ft)	1.39	LDI (ft)	2.30	LDI (ft)	2.08	LDI (ft)	1.62	LDI (ft)	1.32	LDI (ft)	0.38	LDI (ft)	1.53
S (ft)	0.20	S (ft)	0.29	S (ft)	0.14	S (ft)	0.38	S (ft)	0.32	S (ft)	0.16	S (ft)	0.24	S (ft)	0.14	S (ft)	0.19
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	1.25	2.50	n.a.	2.50	n.a.	2.50	1.02	2.50	n.a.
5.00	n.a.	5.00	n.a.	5.00	1.56	5.00	n.a.	5.00	1.18	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.
7.50	n.a.	7.50	n.a.	7.50	2.00	7.50	n.a.	7.50	1.63	8.00	0.85	7.50	n.a.	7.50	n.a.	7.50	n.a.
10.00	2.00	10.00	1.46	10.00	1.46	10.00	n.a.	10.00	1.20	11.00	1.16	10.00	n.a.	10.00	n.a.	10.00	1.49
15.00	2.04	15.00	1.11	15.00	1.21	15.00	1.11	15.00	0.90	14.00	1.29	15.00	0.99	15.00	1.01	15.00	2.00
20.00	0.71	20.00	0.87	20.00	0.71	20.00	0.87	20.00	0.64	20.00	2.07	20.00	0.96	20.00	2.00	20.00	1.44
25.00	1.89	25.00	0.84			25.00	0.77			25.00	2.00	25.00	0.85	25.00	0.93	25.00	2.00
						30.00	2.00			30.00	2.00	30.00	1.16	30.00	1.16	30.00	1.16
						35.00	2.00			35.00	2.02	35.00	0.97	35.00	2.00	35.00	0.62
						40.00	2.00					40.00	2.00			40.00	0.91
						45.00	2.00					45.00	2.00			45.00	1.59
						50.00	2.00					50.00	2.00				
						60.00	2.16										
						70.00	1.84										
						80.00	1.05										
						90.00	2.00										
						100.00	0.92										
Inv Avg	1.58	Inv Avg	1.29	Inv Avg	1.32	Inv Avg	1.49	Inv Avg	1.04	Inv Avg	1.55	Inv Avg	1.39	Inv Avg	1.41	Inv Avg	1.36
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low	Risk	Low	Risk	Low

B-50		B-52		B-54		B-56		B-58		B-72		B-92		B-100		B-101	
LDI (ft)	1.00	LDI (ft)	0.12	LDI (ft)	2.13	LDI (ft)	0.32	LDI (ft)	2.01	LDI (ft)	1.17	LDI (ft)	2.18	LDI (ft)	2.39	LDI (ft)	2.92
S (ft)	0.12	S (ft)	0.04	S (ft)	0.50	S (ft)	0.10	S (ft)	0.20	S (ft)	0.19	S (ft)	0.23	S (ft)	0.44	S (ft)	0.40
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.
5.00	n.a.	5.00	n.a.	5.00	0.64	5.00	n.a.	5.00	n.a.	5.00	?	5.00	n.a.	5.00	n.a.	5.00	n.a.
7.50	n.a.	7.50	n.a.	7.50	0.96	7.50	1.65	7.50	n.a.	7.50	1.15	7.50	1.07	7.50	1.36	7.50	1.09
10.00	1.05	10.00	1.10	10.00	1.05	11.00	1.29	10.00	0.73	10.00	1.01	10.00	1.18	10.00	2.07	10.00	0.76
15.00	2.00	15.00	2.00	15.00	0.92	15.00	2.00	15.00	1.23	15.00	1.17	15.00	2.00	14.00	0.82	15.00	1.11
20.00	2.00	20.00	2.00	20.00	0.93	20.00	1.81	20.00	1.60	20.00	1.44	20.00	2.00	16.00	1.48	20.00	1.06
25.00	0.85	25.00	1.81	25.00	0.93	25.00	1.01	25.00	1.71	25.00	0.85	22.50	2.00	20.00	2.00	25.00	0.93
27.50	1.41	30.00	1.45	30.00	2.00	30.00	1.06	30.00	1.59	30.00	2.00	25.00	2.00	25.00	1.37	30.00	1.28
30.00	2.00	35.00	2.00	35.00	2.00	35.00	1.56	35.00	2.00	35.00	1.77	30.00	1.80	32.00	0.93	35.00	2.00
35.00	1.77					40.00	2.00					35.00	0.82	35.00	0.97	40.00	0.84
40.00	2.00					45.00	1.43					40.00	0.69	40.00	1.41	45.00	1.01
45.00	2.00					50.00	1.33					45.00	1.43	45.00	2.00	50.00	2.00
50.00	2.00													50.00	1.63		
														60.00	0.91		
														70.00	1.13		
														80.00	1.22		
														90.00	1.54		
Inv Avg	1.64	Inv Avg	1.75	Inv Avg	1.09	Inv Avg	1.51	Inv Avg	1.50	Inv Avg	1.35	Inv Avg	1.38	Inv Avg	1.34	Inv Avg	1.19
Risk	Low	Risk	Low	Risk	Moderate	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate

B-115		B-127		B-141		B-153		B-154		B-176		B-188		B-200		B-202	
LDI (ft)	1.04	LDI (ft)	0.35	LDI (ft)	0.30	LDI (ft)	2.92	LDI (ft)	0.61	LDI (ft)	0.17	LDI (ft)	1.33	LDI (ft)	8.35	LDI (ft)	0.84
S (ft)	0.14	S (ft)	0.11	S (ft)	0.09	S (ft)	0.26	S (ft)	0.19	S (ft)	0.06	S (ft)	0.16	S (ft)	0.99	S (ft)	0.10
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.
5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.
7.50	n.a.	7.50	n.a.	7.50	1.22	7.50	?	7.50	0.93	7.50	n.a.	7.50	n.a.	7.50	1.08	7.50	n.a.
10.00	n.a.	10.00	1.27	10.00	1.22	10.00	?	10.00	1.38	10.00	n.a.	10.00	1.37	10.00	n.a.	10.00	?
15.00	n.a.	15.00	1.28	15.00	1.23	15.00	1.99	15.00	1.55	15.00	n.a.	15.00	1.23	15.00	0.43	15.00	1.54
20.00	1.60	20.00	1.10	20.00	2.00	20.00	2.00	20.00	1.30	20.00	1.81	20.00	1.60	20.00	1.02	20.00	2.00
25.00	1.12	25.00	1.12	25.00	1.52	25.00	2.00	25.00	1.37	25.00	2.00	25.00	1.24	25.00	1.19	25.00	0.85
30.00	1.59	30.00	0.97	30.00	1.16	30.00	0.73	30.00	1.42	30.00	2.00	30.00	0.73	30.00	0.80	30.00	1.60
35.00	0.82	35.00	2.02	35.00	1.27	35.00	0.82	35.00	0.97	35.00	1.48	35.00	1.27	35.00	0.68	35.00	1.58
40.00	0.99					40.00	0.78	40.00	1.17	40.00	0.93			40.00	0.78		
45.00	2.00					45.00	1.59			45.00	n.a.			45.00	0.63		
										50.00	2.00			50.00	0.51		
														60.00	1.20		
Inv Avg	1.49	Inv Avg	1.41	Inv Avg	1.44	Inv Avg	1.37	Inv Avg	1.33	Inv Avg	1.76	Inv Avg	1.36	Inv Avg	0.87	Inv Avg	1.61
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	High	Risk	Low

Ameren Missouri: Labadie UWL
Liquefaction Analysis
PGA: 2% probability of exceedence in 50 yrs: 0.1792 M: 7.5
With 20' Ash (top of embankment) GW: 0.0'

Old Borings <--------- New Borings ---------->

B-4		B-5		B-6		B-7		B-8		B-10		B-13		B-14		B-26	
LDI (ft)	2.50	LDI (ft)	0.28	LDI (ft)	1.32	LDI (ft)	0.62	LDI (ft)	1.43	LDI (ft)	0.20	LDI (ft)	0.27	LDI (ft)	0.17	LDI (ft)	1.36
S (ft)	0.20	S (ft)	0.11	S (ft)	0.12	S (ft)	0.23	S (ft)	0.18	S (ft)	0.08	S (ft)	0.10	S (ft)	0.06	S (ft)	0.14
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	1.36	2.50	n.a.	2.50	n.a.	2.50	1.11	2.50	n.a.
5.00	n.a.	5.00	n.a.	5.00	1.77	5.00	n.a.	5.00	1.34	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.
7.50	n.a.	7.50	n.a.	7.50	2.00	7.50	n.a.	7.50	1.88	8.00	0.98	7.50	n.a.	7.50	n.a.	7.50	n.a.
10.00	2.00	10.00	1.72	10.00	1.72	10.00	n.a.	10.00	1.40	11.00	1.37	10.00	n.a.	10.00	n.a.	10.00	1.74
15.00	2.00	15.00	1.32	15.00	1.44	15.00	1.32	15.00	1.07	14.00	1.53	15.00	1.18	15.00	1.21	15.00	2.00
20.00	0.85	20.00	1.04	20.00	0.85	20.00	1.04	20.00	0.77	20.00	2.00	20.00	1.15	20.00	2.00	20.00	1.72
25.00	2.00	25.00	1.01			25.00	0.93			25.00	2.00	25.00	1.02	25.00	1.12	25.00	2.00
						30.00	2.00			30.00	2.00	30.00	1.39	30.00	1.39	30.00	1.39
						35.00	2.00			35.00	2.00	35.00	1.17	35.00	2.00	35.00	0.74
						40.00	2.00					40.00	2.00			40.00	1.09
						45.00	2.00					45.00	2.00			45.00	1.89
						50.00	2.00					50.00	2.00				
						60.00	2.00										
						70.00	2.12										
						80.00	1.19										
						90.00	2.00										
						100.00	1.01										
Inv Avg	1.68	Inv Avg	1.46	Inv Avg	1.50	Inv Avg	1.60	Inv Avg	1.21	Inv Avg	1.67	Inv Avg	1.54	Inv Avg	1.54	Inv Avg	1.53
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-17

SCHEDULE CJG-ST1

B-50		B-52		B-54		B-56		B-58		B-72		B-92		B-100		B-101	
LDI (ft)	0.13	LDI (ft)	1.52	LDI (ft)	1.53	LDI (ft)	0.14	LDI (ft)	1.92	LDI (ft)	0.21	LDI (ft)	1.34	LDI (ft)	0.66	LDI (ft)	2.19
S (ft)	0.05	S (ft)	0.26	S (ft)	0.26	S (ft)	0.04	S (ft)	0.18	S (ft)	0.08	S (ft)	0.16	S (ft)	0.23	S (ft)	0.27
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.
5.00	n.a.	5.00	n.a.	5.00	0.72	5.00	n.a.	5.00	n.a.	5.00	?	5.00	n.a.	5.00	n.a.	5.00	n.a.
7.50	n.a.	7.50	n.a.	7.50	1.11	7.50	1.91	7.50	n.a.	7.50	1.33	7.50	1.24	7.50	1.57	7.50	1.26
10.00	1.23	10.00	2.00	10.00	1.23	11.00	1.52	10.00	0.86	10.00	1.19	10.00	1.38	10.00	2.00	10.00	0.90
15.00	2.00	15.00	2.00	15.00	1.10	15.00	2.00	15.00	1.47	15.00	1.39	15.00	2.00	14.00	0.98	15.00	1.32
20.00	2.00	20.00	2.00	20.00	1.12	20.00	2.17	20.00	1.92	20.00	1.72	20.00	2.00	16.00	1.76	20.00	1.27
25.00	1.02	25.00	2.00	25.00	1.12	25.00	1.21	25.00	2.05	25.00	1.02	22.50	2.00	20.00	2.00	25.00	1.12
27.50	1.69	30.00	2.00	30.00	2.00	30.00	1.27	30.00	1.90	30.00	2.00	25.00	2.00	25.00	1.64	30.00	1.53
30.00	2.00	35.00	2.00	35.00	2.00	35.00	1.87	35.00	2.00	35.00	2.11	30.00	2.16	32.00	1.12	35.00	2.00
35.00	2.11					40.00	2.00					35.00	0.98	35.00	1.17	40.00	1.00
40.00	2.00					45.00	1.70					40.00	0.83	40.00	1.68	45.00	1.20
45.00	2.00					50.00	1.58					45.00	1.70	45.00	2.00	50.00	2.00
50.00	2.00													50.00	1.92		
														60.00	1.06		
														70.00	1.30		
														80.00	1.38		
														90.00	1.72		
Inv Avg	1.77	Inv Avg	2.00	Inv Avg	1.23	Inv Avg	1.71	Inv Avg	1.67	Inv Avg	1.54	Inv Avg	1.54	Inv Avg	1.51	Inv Avg	1.36
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Figure D-17

SCHEDULE CJG-ST1

B-115		B-127		B-141		B-153		B-154		B-176		B-188		B-200		B-202	
LDI (ft)	0.16	LDI (ft)	0.17	LDI (ft)	0.15	LDI (ft)	1.41	LDI (ft)	0.20	LDI (ft)	0.07	LDI (ft)	1.12	LDI (ft)	6.68	LDI (ft)	0.09
S (ft)	0.07	S (ft)	0.06	S (ft)	0.05	S (ft)	0.21	S (ft)	0.07	S (ft)	0.02	S (ft)	0.12	S (ft)	0.91	S (ft)	0.03
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.
5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.
7.50	n.a.	7.50	n.a.	7.50	1.41	7.50	?	7.50	1.07	7.50	n.a.	7.50	n.a.	7.50	1.24	7.50	n.a.
10.00	n.a.	10.00	1.49	10.00	1.43	10.00	?	10.00	1.62	10.00	n.a.	10.00	1.60	10.00	n.a.	10.00	?
15.00	n.a.	15.00	1.52	15.00	1.47	15.00	2.00	15.00	1.85	15.00	n.a.	15.00	1.47	15.00	0.51	15.00	1.83
20.00	1.92	20.00	1.32	20.00	2.00	20.00	2.00	20.00	1.55	20.00	2.17	20.00	1.92	20.00	1.22	20.00	2.00
25.00	1.35	25.00	1.35	25.00	1.83	25.00	2.00	25.00	1.64	25.00	2.00	25.00	1.48	25.00	1.44	25.00	1.03
30.00	1.90	30.00	1.16	30.00	1.39	30.00	0.87	30.00	1.70	30.00	2.00	30.00	0.87	30.00	0.96	30.00	1.92
35.00	0.98	35.00	2.00	35.00	1.52	35.00	0.98	35.00	1.17	35.00	1.77	35.00	1.52	35.00	0.82	35.00	1.89
40.00	1.18					40.00	0.92	40.00	1.40	40.00	1.10			40.00	0.92		
45.00	2.00					45.00	1.89			45.00	n.a.			45.00	0.74		
										50.00	2.00			50.00	0.61		
														60.00	1.41		
Inv Avg	1.65	Inv Avg	1.58	Inv Avg	1.63	Inv Avg	1.51	Inv Avg	1.54	Inv Avg	1.87	Inv Avg	1.55	Inv Avg	1.01	Inv Avg	1.78
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Moderate	Risk	Low

Figure D-17

SCHEDULE CJG-ST1

Ameren Missouri: Labadie UWL
Liquefaction Analysis
Borings As Are
PGA: 2% probability of exceedence in 50 yrs: 0.1792
With 100' Ash (design height)

M: 7.5
GW: 0.0'

Old Borings <---------
New Borings ---------->

B-4		B-5		B-6		B-7		B-8		B-10		B-13		B-14		B-26	
LDI (ft)	0.01	LDI (ft)	0.01	LDI (ft)	0.00	LDI (ft)	0.30	LDI (ft)	0.01	LDI (ft)	0.00	LDI (ft)	0.00	LDI (ft)	0.00	LDI (ft)	0.01
S (ft)	0.00	S (ft)	0.00	S (ft)	0.00	S (ft)	0.11	S (ft)	0.00	S (ft)	0.00	S (ft)	0.00	S (ft)	0.00	S (ft)	0.01
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	2.13	2.50	n.a.	2.50	n.a.	2.50	1.74	2.50	n.a.
5.00	n.a.	5.00	n.a.	5.00	2.00	5.00	n.a.	5.00	2.18	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.
7.50	n.a.	7.50	n.a.	7.50	2.00	7.50	n.a.	7.50	2.00	8.00	1.66	7.50	n.a.	7.50	n.a.	7.50	n.a.
10.00	2.00	10.00	2.00	10.00	2.00	10.00	n.a.	10.00	2.00	11.00	2.00	10.00	n.a.	10.00	n.a.	10.00	2.00
15.00	2.00	15.00	2.00	15.00	2.00	15.00	2.00	15.00	1.89	14.00	2.00	15.00	2.09	15.00	2.13	15.00	2.00
20.00	1.53	20.00	1.87	20.00	1.53	20.00	1.87	20.00	1.37	20.00	2.00	20.00	2.06	20.00	2.00	20.00	2.00
25.00	2.00	25.00	1.82			25.00	1.67			25.00	2.00	25.00	1.82	25.00	2.01	25.00	2.00
						30.00	2.00			30.00	2.00	30.00	2.00	30.00	2.00	30.00	2.00
						35.00	2.00			35.00	2.00	35.00	2.02	35.00	2.00	35.00	1.28
						40.00	2.00					40.00	2.00			40.00	1.84
						45.00	2.00					45.00	2.00			45.00	2.00
						50.00	2.00					50.00	2.00				
						60.00	2.00										
						70.00	2.00										
						80.00	1.37										
						90.00	2.00										
						100.00	0.95										
Inv Avg	1.92	Inv Avg	1.95	Inv Avg	1.90	Inv Avg	1.80	Inv Avg	1.88	Inv Avg	1.96	Inv Avg	2.00	Inv Avg	1.98	Inv Avg	1.89
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

B-50		B-52		B-54		B-56		B-58		B-72		B-92		B-100		B-101	
LDI (ft)	0.00	LDI (ft)	0.00	LDI (ft)	0.02	LDI (ft)	0.00	LDI (ft)	0.01	LDI (ft)	0.00	LDI (ft)	0.02	LDI (ft)	0.20	LDI (ft)	0.01
S (ft)	0.00	S (ft)	0.00	S (ft)	0.01	S (ft)	0.00	S (ft)	0.00	S (ft)	0.00	S (ft)	0.01	S (ft)	0.06	S (ft)	0.01
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.
5.00	n.a.	5.00	n.a.	5.00	1.17	5.00	n.a.	5.00	n.a.	5.00	?	5.00	n.a.	5.00	n.a.	5.00	n.a.
7.50	n.a.	7.50	n.a.	7.50	1.86	7.50	2.00	7.50	n.a.	7.50	2.00	7.50	2.08	7.50	2.00	7.50	2.12
10.00	2.11	10.00	2.00	10.00	2.12	11.00	2.00	10.00	1.47	10.00	2.04	10.00	2.00	10.00	2.00	10.00	1.54
15.00	2.00	15.00	2.00	15.00	1.94	15.00	2.00	15.00	2.00	15.00	2.00	15.00	2.00	14.00	1.72	15.00	2.00
20.00	2.00	20.00	2.00	20.00	2.01	20.00	2.00	20.00	2.00	20.00	2.00	20.00	2.00	16.00	2.00	20.00	2.00
25.00	1.82	25.00	2.00	25.00	2.01	25.00	2.17	25.00	2.00	25.00	1.82	22.50	2.00	20.00	2.00	25.00	2.01
27.50	2.00	30.00	2.00	30.00	2.00	30.00	2.00	30.00	2.00	30.00	2.00	25.00	2.00	25.00	2.00	30.00	2.00
30.00	2.00	35.00	2.00	35.00	2.00	35.00	2.00	35.00	2.00	35.00	2.00	30.00	2.00	32.00	1.97	35.00	2.00
35.00	2.00					40.00	2.00					35.00	1.70	35.00	2.02	40.00	1.69
40.00	2.00					45.00	2.00					40.00	1.39	40.00	2.00	45.00	1.96
45.00	2.00					50.00	2.00					45.00	2.00	45.00	2.00	50.00	2.00
50.00	2.00													50.00	2.00		
														60.00	1.51		
														70.00	1.67		
														80.00	1.60		
														90.00	1.79		
Inv Avg	1.99	Inv Avg	2.00	Inv Avg	1.85	Inv Avg	2.01	Inv Avg	1.92	Inv Avg	1.98	Inv Avg	1.91	Inv Avg	1.88	Inv Avg	1.93
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

B-115		B-127		B-141		B-153		B-154		B-176		B-188		B-200		B-202	
LDI (ft)	0.01	LDI (ft)	0.00	LDI (ft)	0.00	LDI (ft)	0.02	LDI (ft)	0.00	LDI (ft)	0.00	LDI (ft)	0.01	LDI (ft)	3.79	LDI (ft)	0.00
S (ft)	0.00	S (ft)	0.00	S (ft)	0.00	S (ft)	0.01	S (ft)	0.00	S (ft)	0.00	S (ft)	0.00	S (ft)	0.55	S (ft)	0.00
Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.	Depth	F.S.
2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.	2.50	n.a.
5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.	5.00	n.a.
7.50	n.a.	7.50	n.a.	7.50	2.00	7.50	?	7.50	1.80	7.50	n.a.	7.50	n.a.	7.50	2.08	7.50	n.a.
10.00	n.a.	10.00	2.00	10.00	2.00	10.00	?	10.00	2.00	10.00	n.a.	10.00	2.00	10.00	n.a.	10.00	?
15.00	n.a.	15.00	2.00	15.00	2.00	15.00	2.00	15.00	2.00	15.00	n.a.	15.00	2.00	15.00	0.91	15.00	2.00
20.00	2.00	20.00	2.00	20.00	2.00	20.00	2.00	20.00	2.00	20.00	2.00	20.00	2.00	20.00	2.18	20.00	2.00
25.00	2.00	25.00	2.00	25.00	2.00	25.00	2.00	25.00	2.00	25.00	2.00	25.00	2.00	25.00	2.00	25.00	1.84
30.00	2.00	30.00	2.05	30.00	2.00	30.00	1.55	30.00	2.00	30.00	2.00	30.00	1.55	30.00	1.70	30.00	2.00
35.00	1.70	35.00	2.00	35.00	2.00	35.00	1.70	35.00	2.02	35.00	2.00	35.00	2.00	35.00	1.42	35.00	2.00
40.00	1.99					40.00	1.56	40.00	2.00	40.00	1.86			40.00	1.56		
45.00	2.00					45.00	2.00			45.00	n.a.			45.00	1.21		
										50.00	2.00			50.00	0.95		
														60.00	2.01		
Inv Avg	1.97	Inv Avg	2.01	Inv Avg	2.00	Inv Avg	1.85	Inv Avg	1.98	Inv Avg	1.99	Inv Avg	1.94	Inv Avg	1.56	Inv Avg	1.98
Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low	Risk	Low

Appendix E

RESULTS OF SLOPE STABILITY ANALYSES
Revised August 2013
Revised November 2013

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APPENDIX E
RESULTS OF SLOPE STABILITY ANALYSES
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APPENDIX E
RESULTS OF SLOPE STABILITY ANALYSES
TABLE OF CONTENTS (CONT.)

Table E-1
Ameren Missouri Labadie UWL
SOIL & MATERIAL PROPERTIES USED IN STABILITY ANALYSES

Material Description		Undrained Properties			Effective or Drained Prop.			C-U (EQ) Properties			Liquefied Properties		
		Unit Weight γ, pcf	Shear Strength c, psf	Friction Angle Ø, deg.	Unit Weight γ, pcf	Shear Strength c', psf	Friction Angle Ø', deg.	Unit Weight γ, pcf	Shear Strength c, psf	Friction Angle Ø, deg.	Unit Weight γ, pcf	Residual Strength, psf	
												Seed & Harder, el al	Idris & Boulanger
Upper, Nominal Compacted CCP		112	1	35	112	1	35	112	300	22			
Lower, Nominal Compacted CCP		90	1	35	90	1	35	90	300	22			
General Berm Fill		120	1000	0	120	1	30						
Compacted Clay Liner	Berm - Circle	115	600	0	115	1	25	115	1	25			
	Base - Circle	115	600	0	115	1	25	115	1	21			
"Compacted Clay Liner" (failure along interface)	Berm - Block				120	1	15						
	Base - Block				120	1	15						
Leachate Collection Layer (Clean gravel)		120	1	28	120	1	28						
Intermediate Cover					120	80	28.4						
Natural Strata													
Silty Clay (CL-ML)	Section A-A'	116	1100	0	116	150	24	116	100	17			
	Section E-E'	115	900	0	115	25	23	115	400	11			
Fine Sand w/ Silt (SM)	Section B-B'	118	1	23	118	1	23				118	210	210
Sandy Silt/Silty Sand (SM-ML)	Section D-D'	125	1100	0	125	300	22	125	300	13			
Clay (CL)	Section B-B'	117	1200	0	117	200	24	117	200	15			
Med. Plastic Clay (CL-CH)	Section C-C'	116	1000	0	116	450	18	116	490	11			
	Section D-D'	116	900	0	116	400	18	116	400	11			
	Section E-E'	114	900	0	114	75	16	114	400	11			
Clay, Silt & Sand (CL-ML-SM)	Section C-C'	126	800	0	126	300	22	126	300	13			
Sand with Silt (SP-SM)	Section A-A'	124	1	30	124	1	30				116	280	280
	Section B-B'	124	1	31	124	1	31				124	870	530
	Section C-C'	124	1	30	124	1	30				124	420	310
	Section D-D'	124	1	30	124	1	30				125	210	210
	Section E-E'	124	1	31	124	1	31				124	1100	730
Poorly Graded Sand (SP)	Sec. A-A', B-B'	126	1	35	126	1	35				124	870	530
	Section C-C'	126	1	35	126	1	35				120	980	630
	Section D-D'	126	1	35	126	1	35				126	1100	730
	Section E-E'	125	1	33	125	1	33						
Sand & Silt (SP-ML)	Section E-E'	122	1	27	122	1	27				122	500	300

Table E-1
Ameren Missouri Labadie UWL
SOIL & MATERIAL PROPERTIES USED IN STABILITY ANALYSES

Material Description		Undrained Properties			Effective or Drained Prop.			C-U (EQ) Properties			Liquefied Properties		
		Unit Weight γ, pcf	Shear Strength c, psf	Friction Angle Ø, deg.	Unit Weight γ, pcf	Shear Strength c', psf	Friction Angle Ø', deg.	Unit Weight γ, pcf	Shear Strength c, psf	Friction Angle Ø, deg.	Unit Weight γ, pcf	Residual Strength, psf	
												Seed & Harder, el al	Idris & Boulanger
Sand w/ Gravel (SP/SP-GP)	All	127	1	37	127	1	37						
Lower Sand & Gravel (SP-GP)	All but E-E'	127	1	39	127	1	39						
	Section E-E'	130	1	28	130	1	28						
Lower Gravel with Sand (GP-SP)	Section E-E'	135	1	35	135	1	35						

Notes:
1. Shear strength properties of natural soil strata based upon laboratory tests (for near-surface soils) and *in-situ* tests (Standard Penetration Tests of static cone penetrometer tests (CPT). Tests results are presented in *Detailed Site Investigation (DSI) Report* - Appendix 2.
2. A nominal cohesion (c') of 1 psf is used for cohesionless soils to prevent the random search routine from creating superficial failure surfaces.
3. Consolidated-undrained (C-U) shear strength properties are used for fine-grain soils in seismic (EQ) analyses to account for rapid, undrained loading.
4. Properties of natural soil strata vary from section to section based upon closest *in-situ* tests or available laboratory tests.
5. "Upper, nominal compacted CCP" refers to non-ponded CCP which may be used for later filling of the landfill, which may be placed at a higher unit weight (112 pcf) compared to the ponded CCP (90 or 93 pcf). A higher unit weight was used after the initial filling of the cell with ponded CCP, but the much greater shear strengths of the cemented, non-ponded CCP that were measured in the lab were not used; therefore, the analyses are conservative.
6. The residual shear strengths of liquefied soils were estimated using two methods. The first method (Case I) used data from case histories by Stark and Mesri (1992) and Seed and Harder (1990). The second method (Case II) used the residual shear strengths by Idriss and Boulanger (2008) with a correction for fines per Seed (1987).

Table E-2
Ameren Missouri Labadie UWL
RESULTS OF SLOPE STABILITY ANALYSES

Minimum Factors of Safety (FS) for Permanent Berms

Type of Failure	Height of CCP Fill	Shear Strength Properties	Sections (see Figure E-1)					Suggested Minimum
			A-A'	B-B'	C-C'	D-D'	E-E'	
Global, circular	Initial	Undrained	3.19	2.69	2.39	2.95	2.44	1.5
		Drained	2.07	2.39	2.14	2.70	1.47	1.5
Global, circular with liquefaction		Undrained	1.76	1.90	1.98	1.86	2.09	See note
Global, circular, with probable unit weight of non-ponded CCP	Full	Drained	2.07	2.15	2.14	2.27	1.46	1.5
Global, circular, Liquifed Soils (I)		Undrained	1.48	1.13*	1.32	1.35	1.72	See note
Global, circular, Liquifed Soils (II)		Undrained	1.81	1.53	1.50	1.73	1.79	See note
Global, circular, with max. unit weight of non-ponded CCP		Drained	2.07	2.11	2.14	2.23	1.46	1.5

* Missouri Solid Waste regulations do not specify a minimum factor safety for either static or seismic loading. Draft guidance by MDNR-SWMP and Stark (1998) recommends a minimum of 1.2 to 1.3 for analyses with liquefaction. Standard engineering practice uses a minimum of 1.0.

Yield Acceleration for Seismic (Pseudo-Static) FS = 1 for Permanent Berms

Type of Failure	Height of CCP Fill	Shear Strength Properties	Sections (see Figure E-1)				
			A-A'	B-B'	C-C'	D-D'	E-E'
Global, circular	Initial	Consolidated - Undrained	0.22	0.21	0.28	0.27	0.27
	Full		0.17	0.13	0.15	0.15	0.16

Analyses of Slope Failure Along Composite Clay Interface for Permanent Berms

Type of Failure	Height of CCP Fill	Shear Strength Properties	Minimum FS	Yield Acceleration
Sliding Block Along Clay Liner	Full	Drained	1.76	0.13g

Analyses of Slope Failure for Temporary CCP Berm

Type of Failure	Height of CCP Fill	Shear Strength Properties	Minimum FS	Yield Acceleration
Global, circular	Full	Drained	1.91	—
Sliding Block Along Clay Liner			1.59	0.06

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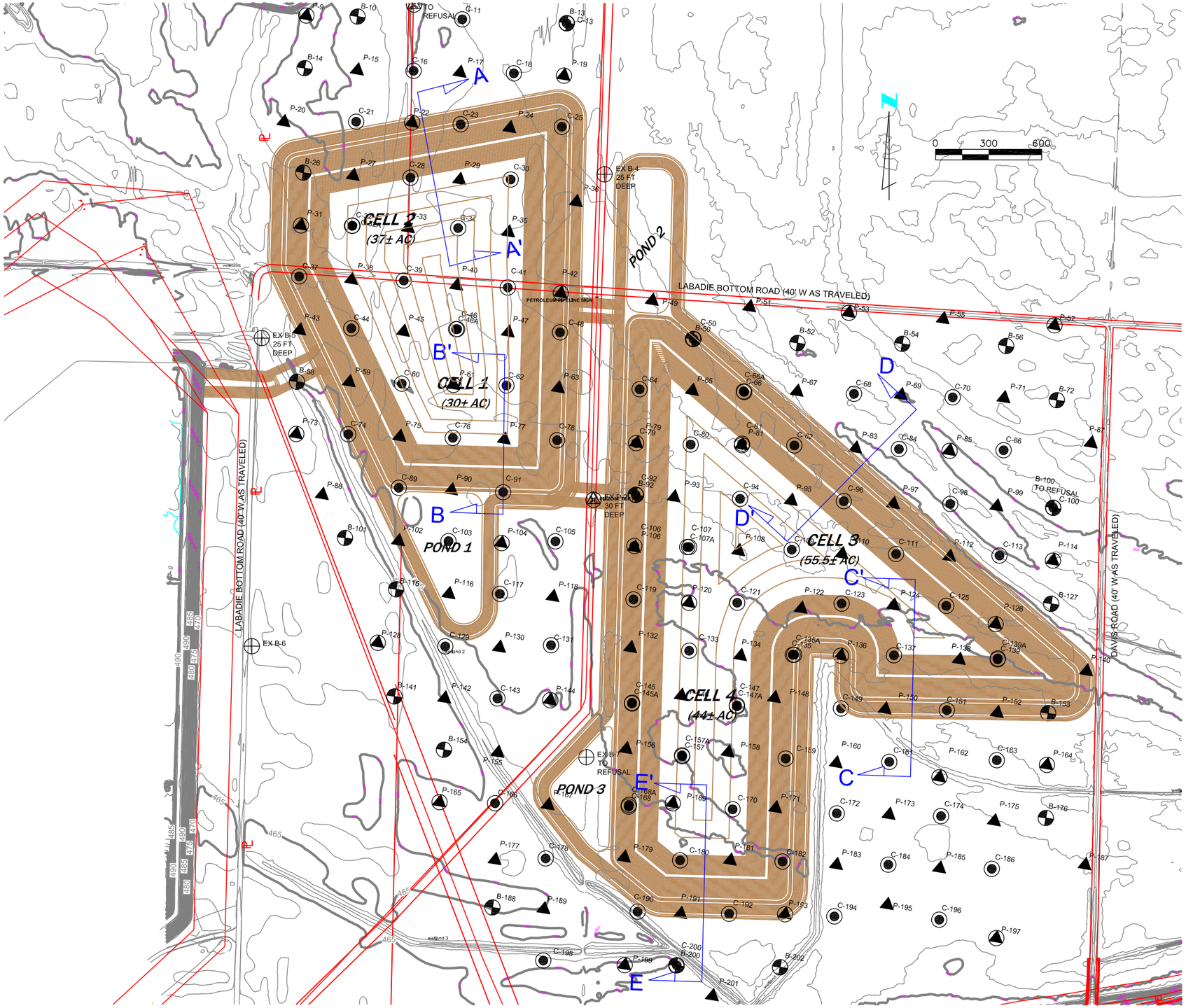
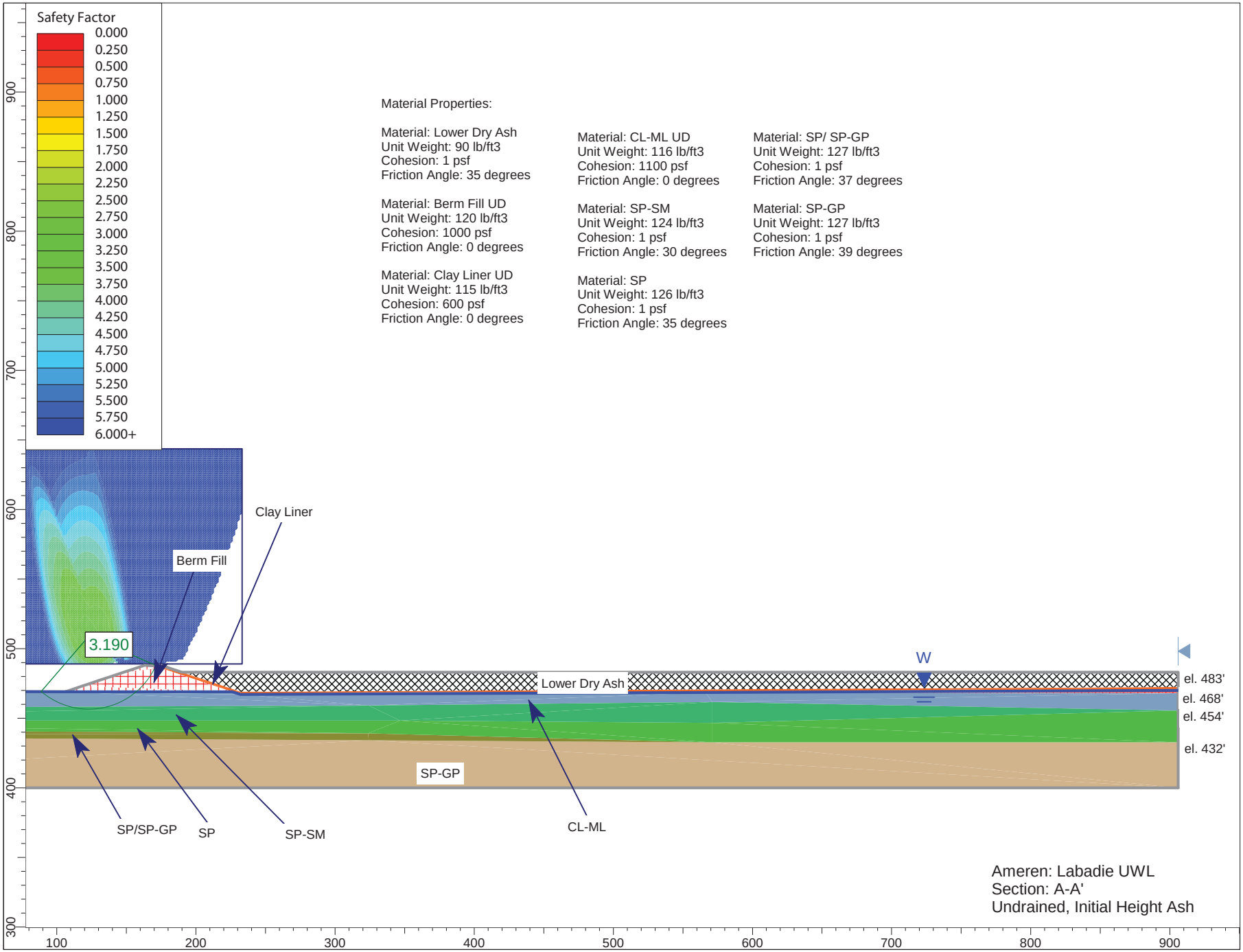


Ameren Missouri Labadie UWL
LOCATIONS OF CROSS-SECTIONS FOR
STABILITY ANALYSES

REITZ & JENS, INC.

Figure E-1
SCHEDULE CJG-ST1



REITZ & JENS, INC.

Figure E-2

SCHEDULE CJG-ST1

Slide Analysis Information

Document Name

File Name: Section AA Partial Undrained.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Material Properties

Material: Lower Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill UD
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees

Water Surface: Water Table
Custom Hu value: 1

Material: Clay Line UD
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL-ML UD
Strength Type: Mohr-Coulomb
Unit Weight: 116 lb/ft3
Cohesion: 1100 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP/ SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Water Surface: Water Table
Custom Hu value: 1

List of All Coordinates

Material Boundary

-310.816	456.500
324.184	459.061
571.184	461.561

906.000 455.500

Material Boundary
346.669 448.252
571.184 446.561
906.000 455.500

Material Boundary
-310.816 442.454
323.787 439.064
571.184 432.561

Material Boundary
-310.816 437.454
324.184 434.061

Material Boundary
324.184 434.061
571.184 432.561

Material Boundary
190.000 483.000
232.000 469.000
566.246 468.488
906.000 467.967

Material Boundary
106.184 469.061
225.991 469.003
232.000 469.000

Material Boundary
-310.816 448.252
346.669 448.252

Material Boundary
571.184 432.561
906.000 432.561

Material Boundary
232.000 469.000
906.000 472.524

Material Boundary
175.000 488.000
175.000 486.000
225.991 469.003
232.000 467.000
566.246 468.488
906.000 470.000

External Boundary
200.000 483.000
196.315 483.000
190.000 483.000
187.789 483.737
184.000 485.000

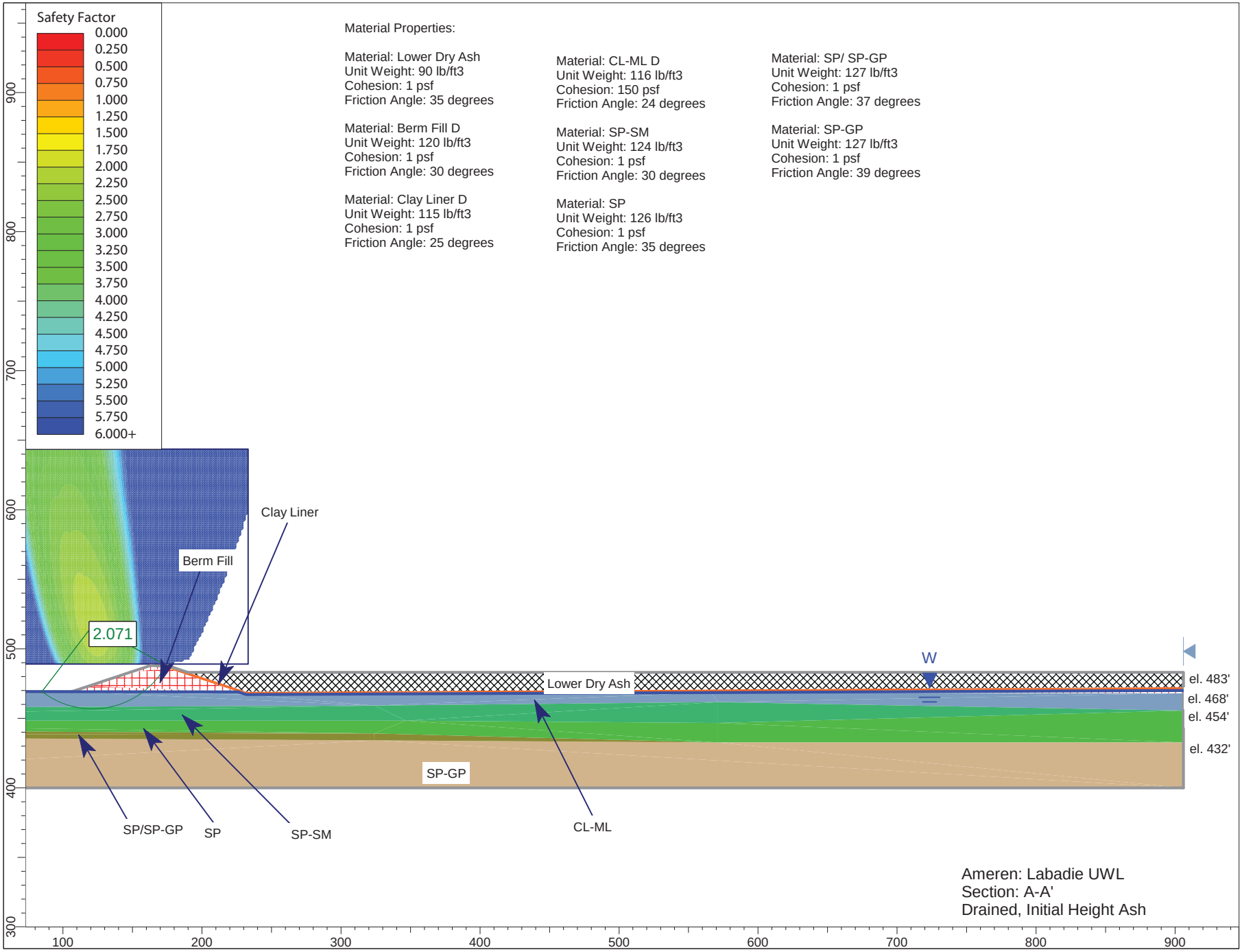
178.316	486.895
175.000	488.000
170.579	487.765
169.000	487.681
166.789	487.798
163.000	488.000
157.316	486.105
154.000	485.000
148.473	483.158
139.000	480.000
129.527	476.842
124.000	475.000
118.473	473.158
106.184	469.061
-310.816	469.954
-310.816	456.500
-310.816	448.252
-310.816	442.454
-310.816	437.454
-310.816	400.000
906.000	400.000
906.000	432.561
906.000	455.500
906.000	467.967
906.000	470.000
906.000	472.524
906.000	483.000

Water Table

-310.816	469.954
106.184	469.061
225.991	469.003
232.000	467.000
906.000	470.000

Search Grid

63.910	489.052
233.238	489.052
233.238	643.611
63.910	643.611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3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
Material Properties:
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Berm Fill D
Unit Weight: 120 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Material: Clay Liner D
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Material: CL-ML D
Unit Weight: 116 lb/ft3
Cohesion: 150 psf
Friction Angle: 24 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP/ SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Clay Liner
Berm Fill
2.071
W
Lower Dry Ash
el. 483'
el. 468'
el. 454'
el. 432'
SP-GP
SP/SP-GP
SP
SP-SM
CL-ML
Ameren: Labadie UWL
Section: A-A'
Drained, Initial Height Ash
300
400
500
600
700
800
900
100
200
300
400
500
600
700
800
900

Slide Analysis Information

Document Name

File Name: Section AA Partial Drained.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Material Properties

Material: Lower Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill D
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees

Water Surface: Water Table
Custom Hu value: 1

Material: Clay Liner D
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL-ML D
Strength Type: Mohr-Coulomb
Unit Weight: 116 lb/ft3
Cohesion: 150 psf
Friction Angle: 24 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP/ SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Water Surface: Water Table
Custom Hu value: 1

List of All Coordinates

Material Boundary

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324.184	459.061
571.184	461.561

906.000 455.500

Material Boundary
346.669 448.252
571.184 446.561
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Material Boundary
-310.816 442.454
323.787 439.064
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Material Boundary
-310.816 437.454
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Material Boundary
190.000 483.000
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Material Boundary
106.184 469.061
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Material Boundary
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Material Boundary
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Material Boundary
232.000 469.000
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Material Boundary
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225.991 469.003
232.000 467.000
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906.000 470.000

External Boundary
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190.000 483.000
187.789 483.737
184.000 485.000

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175.000	488.000
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169.000	487.681
166.789	487.798
163.000	488.000
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154.000	485.000
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139.000	480.000
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906.000	400.000
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906.000	467.967
906.000	470.000
906.000	472.524
906.000	483.000

Water Table

-310.816	469.954
106.184	469.061
225.991	469.003
232.000	467.000
906.000	470.000

Search Grid

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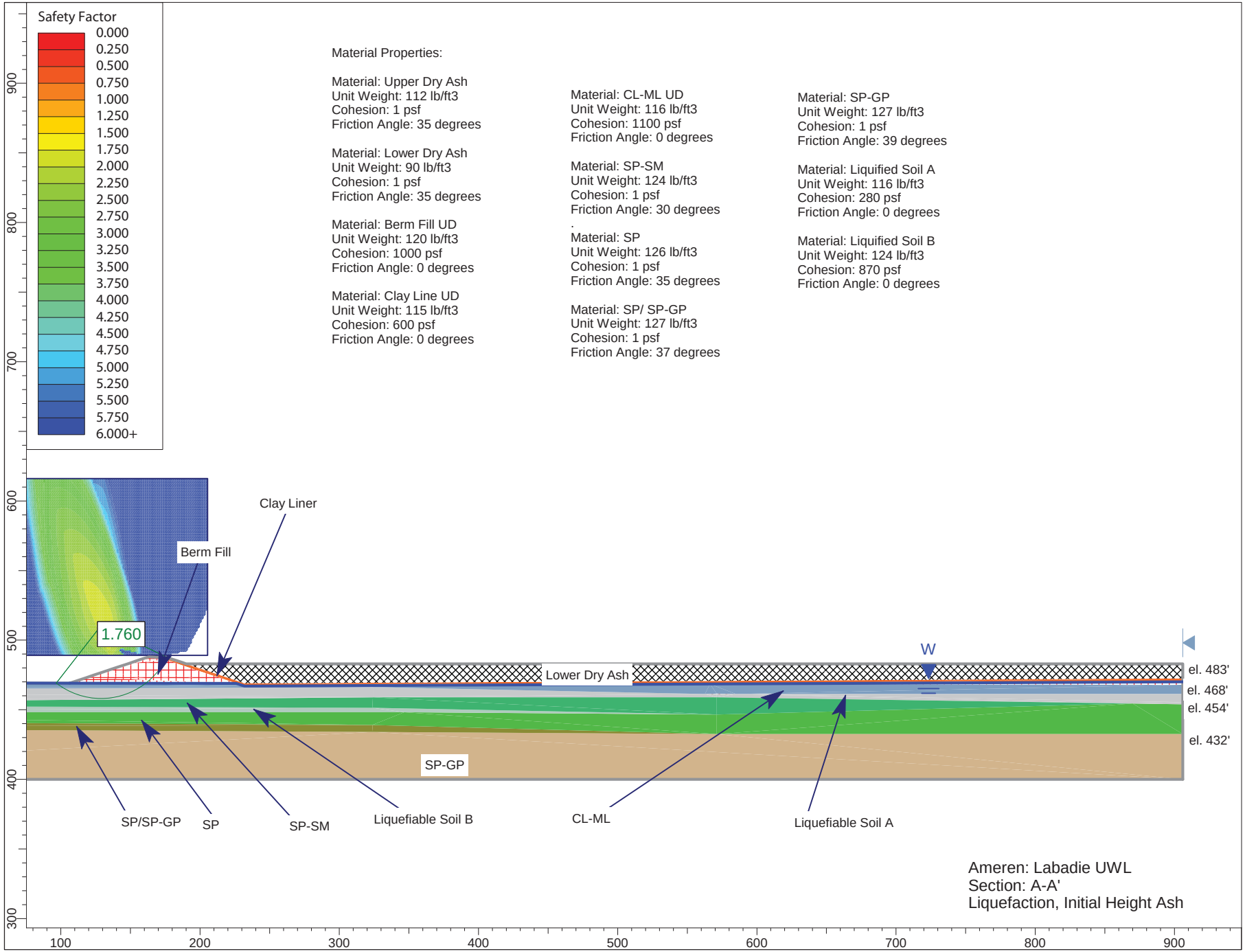
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4.500
4.750
5.000
5.250
5.500
5.750
6.000+
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Unit Weight: 112 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Berm Fill UD
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Material: Clay Line UD
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Material: CL-ML UD
Unit Weight: 116 lb/ft3
Cohesion: 1100 psf
Friction Angle: 0 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
.
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP/ SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Material: Liquified Soil A
Unit Weight: 116 lb/ft3
Cohesion: 280 psf
Friction Angle: 0 degrees
Material: Liquified Soil B
Unit Weight: 124 lb/ft3
Cohesion: 870 psf
Friction Angle: 0 degrees
Clay Liner
Berm Fill
1.760
W
Lower Dry Ash
el. 483'
el. 468'
el. 454'
el. 432'
SP-GP
SP/SP-GP
SP
SP-SM
Liquefiable Soil B
CL-ML
Liquefiable Soil A
Ameren: Labadie UWL
Section: A-A'
Liquefaction, Initial Height Ash
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500
600
700
800
900
100
200
300
400
500
600
700
800
900

Slide Analysis Information

Document Name

File Name: Section AA Partial Liquefaction.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Material Properties

Material: Upper Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 112 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Lower Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees

Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill UD
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Clay Line UD
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL-ML UD
Strength Type: Mohr-Coulomb
Unit Weight: 116 lb/ft3
Cohesion: 1100 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP/ SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Water Surface: Water Table

Custom Hu value: 1

Material: Liquified Soil A
Strength Type: Mohr-Coulomb
Unit Weight: 116 lb/ft3
Cohesion: 280 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Liquified Soil B
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 870 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

List of All Coordinates

Material Boundary

-310.816	456.500
324.184	459.061
562.692	461.315
571.184	461.561
584.957	461.312
906.000	455.500

Material Boundary

346.669	448.252
571.184	446.561
869.969	454.538
906.000	455.500

Material Boundary

-310.816	442.454
323.787	439.064
571.184	432.561

Material Boundary

-310.816	437.454
324.184	434.061

Material Boundary

324.184	434.061
571.184	432.561

Material Boundary

190.000	483.000
232.000	469.000
566.246	468.488
906.000	467.967

Material Boundary

106.184	469.061
225.991	469.003

232.000 469.000

Material Boundary
-310.816 448.252
346.669 448.252

Material Boundary
571.184 432.561
906.000 432.561

Material Boundary
232.000 469.000
906.000 472.524

Material Boundary
175.000 488.000
175.000 486.000
225.991 469.003
232.000 467.000
566.246 468.488
906.000 470.000

Material Boundary
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584.957 461.312
906.000 461.253

Material Boundary
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571.184 446.561

Material Boundary
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571.184 459.000
869.969 454.538
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External Boundary
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196.315 483.000
190.000 483.000
187.789 483.737
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169.000 487.681
166.789 487.798
163.000 488.000
157.316 486.105
154.000 485.000

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139.000	480.000
129.527	476.842
124.000	475.000
118.473	473.158
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-310.816	456.500
-310.816	453.708
-310.816	453.702
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-310.816	437.454
-310.816	400.000
906.000	400.000
906.000	432.561
906.000	454.000
906.000	455.500
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906.000	467.967
906.000	470.000
906.000	472.524
906.000	483.000

Water Table

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106.184	469.061
225.991	469.003
232.000	467.000
906.000	470.000

Search Grid

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205.437	489.052
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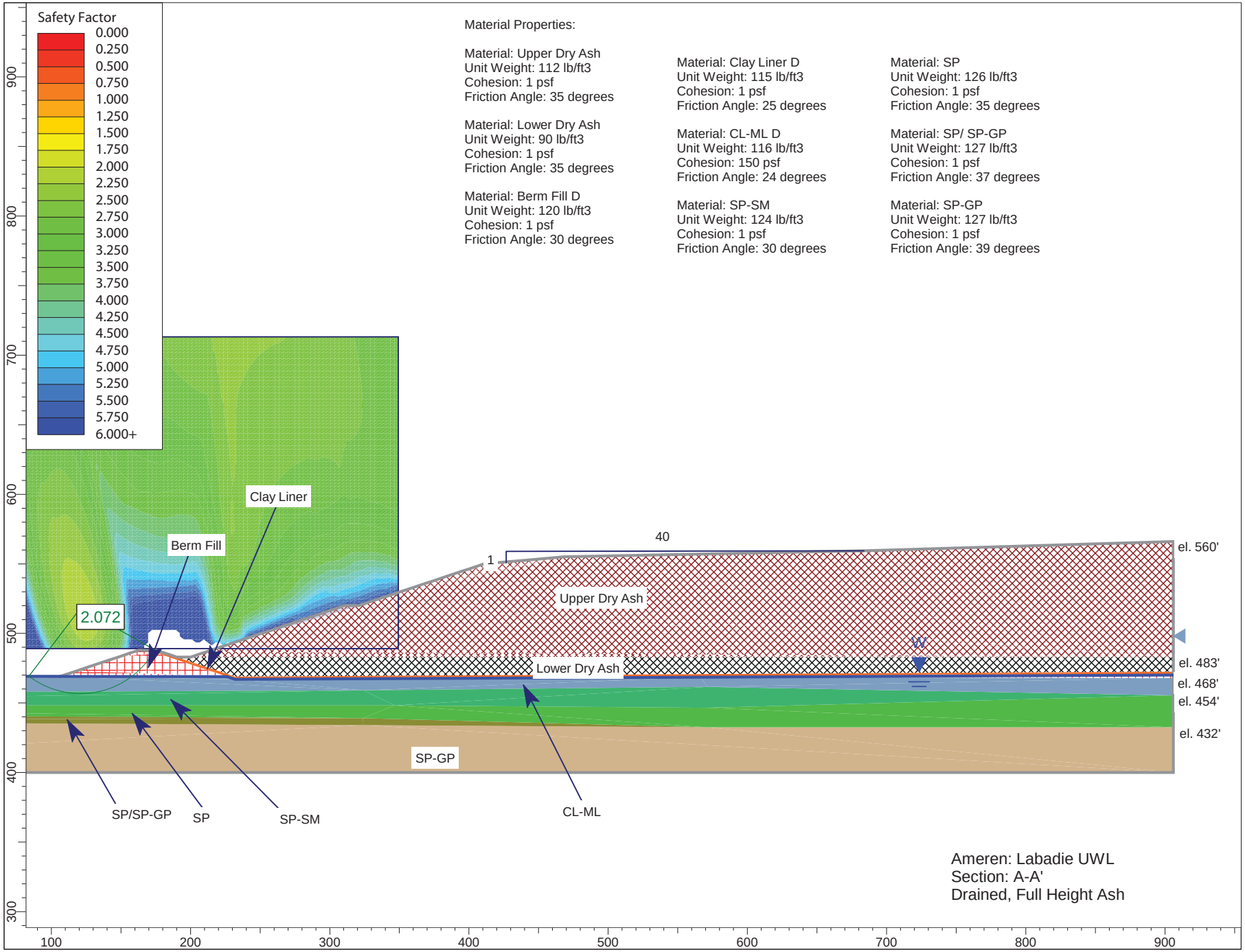
63.910	616.049


Safety Factor
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0.250
0.500
0.750
1.000
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1.500
1.750
2.000
2.250
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3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
Material Properties:
Material: Upper Dry Ash
Unit Weight: 112 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Berm Fill D
Unit Weight: 120 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Material: Clay Liner D
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Material: CL-ML D
Unit Weight: 116 lb/ft3
Cohesion: 150 psf
Friction Angle: 24 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP/ SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Clay Liner
Berm Fill
2.072
40
1
Upper Dry Ash
Lower Dry Ash
SP-GP
el. 560'
el. 483'
el. 468'
el. 454'
el. 432'
SP/SP-GP
SP
SP-SM
CL-ML
Ameren: Labadie UWL
Section: A-A'
Drained, Full Height Ash
900
800
700
600
500
400
300
100
200
300
400
500
600
700
800
900

Slide Analysis Information

Document Name

File Name: Section AA Full Drained.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Material Properties

Material: Upper Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 112 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Lower Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees

Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill D
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Clay Liner D
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL-ML D
Strength Type: Mohr-Coulomb
Unit Weight: 116 lb/ft3
Cohesion: 150 psf
Friction Angle: 24 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP/ SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Water Surface: Water Table

Custom Hu value: 1

List of All Coordinates

Material Boundary
-310.816 456.500
324.184 459.061
571.184 461.561
906.000 455.500

Material Boundary
346.669 448.252
571.184 446.561
906.000 455.500

Material Boundary
-310.816 442.454
323.787 439.064
571.184 432.561

Material Boundary
-310.816 437.454
324.184 434.061

Material Boundary
324.184 434.061
571.184 432.561

Material Boundary
190.000 483.000
232.000 469.000
566.246 468.488
906.000 467.967

Material Boundary
106.184 469.061
225.991 469.003
232.000 469.000

Material Boundary
200.000 483.000
906.000 483.000

Material Boundary
-310.816 448.252
346.669 448.252

Material Boundary
571.184 432.561
906.000 432.561

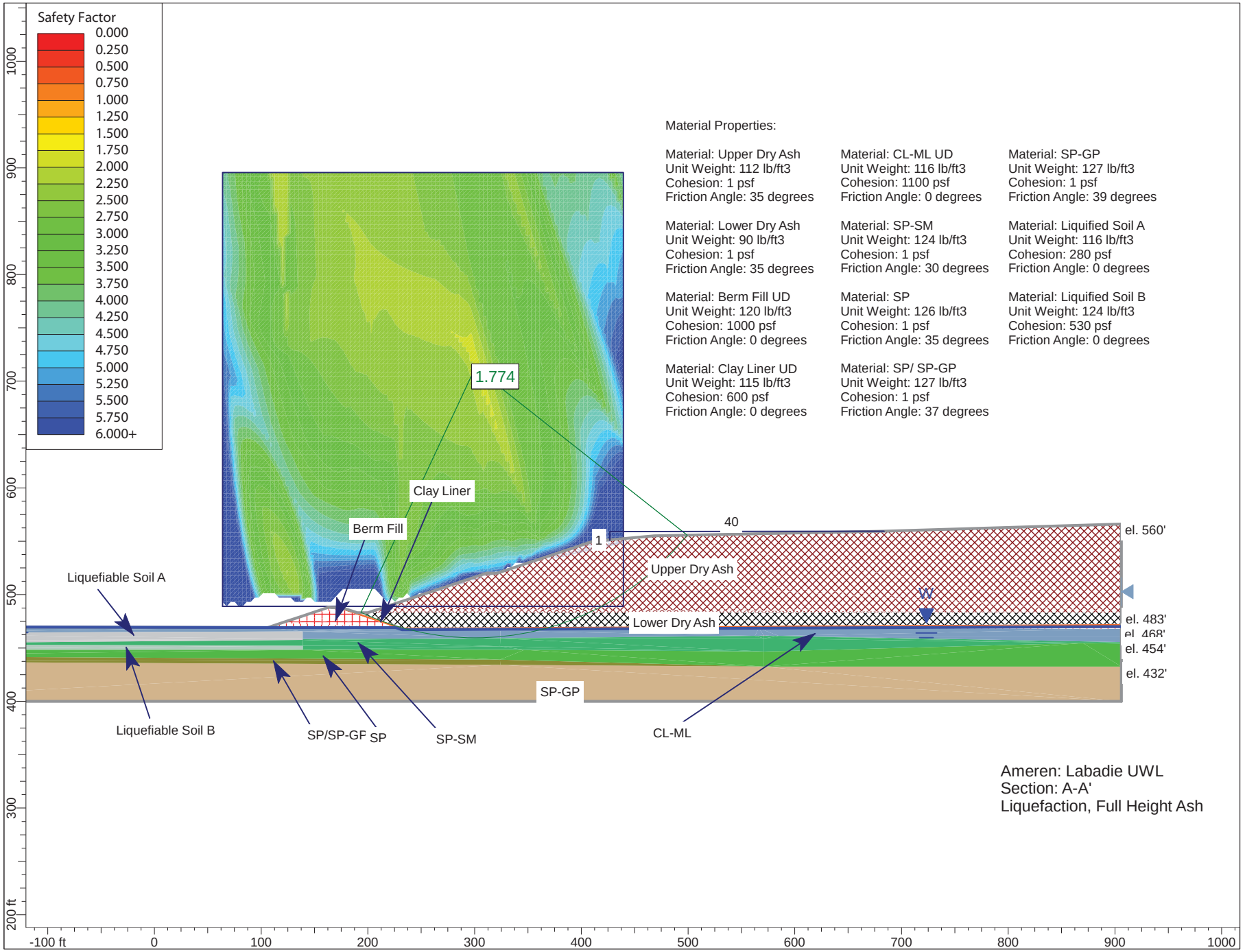
Material Boundary
232.000 469.000
906.000 472.524

Material Boundary

175.000	488.000
175.000	486.000
225.991	469.003
232.000	467.000
566.246	468.488
906.000	470.000

External Boundary

906.000	566.071
683.709	559.305
468.434	555.000
440.357	552.556
411.000	550.000
398.805	545.935
396.000	545.000
391.110	543.370
381.000	540.000
375.110	538.037
366.000	535.000
359.899	532.966
351.000	530.000
344.696	527.899
336.000	525.000
321.203	520.068
321.000	520.000
320.919	520.000
311.000	520.000
310.751	519.917
296.000	515.000
294.928	514.643
281.000	510.000
271.864	506.955
266.000	505.000
256.681	501.894
251.000	500.000
241.544	496.848
236.000	495.000
226.527	491.842
221.000	490.000
211.527	486.842
206.000	485.000
203.789	484.263
200.000	483.000
196.315	483.000
190.000	483.000
187.789	483.737
184.000	485.000
178.316	486.895
175.000	488.000
170.579	487.765
169.000	487.681
166.789	487.798
163.000	488.000
157.316	486.105
154.000	485.000
148.473	483.158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0.000
0.250
0.500
0.750
1.000
1.250
1.500
1.750
2.000
2.250
2.500
2.750
3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
Material Properties:
Material: Upper Dry Ash
Unit Weight: 112 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: CL-ML UD
Unit Weight: 116 lb/ft3
Cohesion: 1100 psf
Friction Angle: 0 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Material: Liquified Soil A
Unit Weight: 116 lb/ft3
Cohesion: 280 psf
Friction Angle: 0 degrees
Material: Berm Fill UD
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Liquified Soil B
Unit Weight: 124 lb/ft3
Cohesion: 530 psf
Friction Angle: 0 degrees
Material: Clay Liner UD
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Material: SP/ SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
1.774
Clay Liner
Berm Fill
40
1
el. 560'
Upper Dry Ash
Liquefiable Soil A
W
Lower Dry Ash
el. 483'
el. 468'
el. 454'
el. 432'
SP-GP
Liquefiable Soil B
SP/SP-GF
SP
SP-SM
CL-ML
Ameren: Labadie UWL
Section: A-A'
Liquefaction, Full Height Ash
1000
900
800
700
600
500
400
300
200 ft
-100 ft
0
100
200
300
400
500
600
700
800
900
1000

Slide Analysis Information

Document Name

File Name: Section AA Full Liquefaction trial.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Material Properties

Material: Upper Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 112 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Lower Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees

Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill UD
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Clay Line UD
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL-ML UD
Strength Type: Mohr-Coulomb
Unit Weight: 116 lb/ft3
Cohesion: 1100 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP/ SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Water Surface: Water Table

Custom Hu value: 1

Material: Liquified Soil A
Strength Type: Mohr-Coulomb
Unit Weight: 116 lb/ft3
Cohesion: 280 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Liquified Soil B
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 530 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Global Minimums

Method: bishop simplified
FS: 1.811420
Center: 300.529, 712.645
Radius: 253.398
Left Slip Surface Endpoint: 193.412, 483.000
Right Slip Surface Endpoint: 499.410, 555.620
Resisting Moment=1.55445e+008 lb-ft
Driving Moment=8.58143e+007 lb-ft

Method: spencer
FS: 1.773810
Center: 300.529, 712.645
Radius: 253.398
Left Slip Surface Endpoint: 193.412, 483.000
Right Slip Surface Endpoint: 499.410, 555.620
Resisting Moment=1.52218e+008 lb-ft
Driving Moment=8.58143e+007 lb-ft
Resisting Horizontal Force=541013 lb
Driving Horizontal Force=305001 lb

Valid / Invalid Surfaces

Method: bishop simplified
Number of Valid Surfaces: 32432
Number of Invalid Surfaces: 79779
Error Codes:
Error Code -103 reported for 78856 surfaces
Error Code -107 reported for 51 surfaces
Error Code -109 reported for 1 surface
Error Code -112 reported for 871 surfaces

Method: spencer
Number of Valid Surfaces: 32149
Number of Invalid Surfaces: 80062
Error Codes:
Error Code -103 reported for 78856 surfaces

Error Code -107 reported for 51 surfaces
Error Code -108 reported for 103 surfaces
Error Code -109 reported for 1 surface
Error Code -111 reported for 68 surfaces
Error Code -112 reported for 983 surfaces

Error Codes

The following errors were encountered during the computation:

-103 = Two surface / slope intersections,
but one or more surface / nonslope external polygon
intersections lie between them. This usually occurs
when the slip surface extends past the bottom of the
soil region, but may also occur on a benched
slope model with two sets of Slope Limits.

-107 = Total driving moment or
total driving force is negative. This will occur
if the wrong failure direction is specified,
or if high external or anchor loads are applied
against the failure direction.

-108 = Total driving moment
or total driving force < 0.1. This is to
limit the calculation of extremely high safety
factors if the driving force is very small
(0.1 is an arbitrary number).

-109 = Soiltype for slice base not
located. This error should occur very rarely,
if at all. It may occur if a very low number of
slices is combined with certain soil geometries,
such that the midpoint of a slice base is
actually outside the soil region,even though
the slip surface is wholly within the soil region.

-111 = safety factor equation did not converge

-112 = The coefficient M-Alpha = cos(alpha)(1+tan(alpha)tan(phi)/F)
< 0.2 for the final iteration of the safety factor calculation. This screens out
some slip surfaces which may not be valid in the context of the analysis, in
particular, deep seated slip surfaces with many high negative base angle
slices in the passive zone.

List of All Coordinates

Search Grid

63.910	489.052
439.495	489.052
439.495	895.584
63.910	895.584

Material Boundary

-310.816	456.500

139.040 458.315
324.184 459.061
562.692 461.315
571.184 461.561
584.957 461.312
906.000 455.500

Material Boundary
346.669 448.252
571.184 446.561
869.969 454.538
906.000 455.500

Material Boundary
-310.816 442.454
323.787 439.064
571.184 432.561

Material Boundary
-310.816 437.454
324.184 434.061

Material Boundary
324.184 434.061
571.184 432.561

Material Boundary
190.000 483.000
232.000 469.000
566.246 468.488
906.000 467.967

Material Boundary
106.184 469.061
225.991 469.003
232.000 469.000

Material Boundary
200.000 483.000
906.000 483.000

Material Boundary
-310.816 448.252
139.066 448.252
346.669 448.252

Material Boundary
571.184 432.561
906.000 432.561

Material Boundary
232.000 469.000
906.000 472.524

Material Boundary
175.000 488.000

175.000 486.000
225.991 469.003
232.000 467.000
566.246 468.488
906.000 470.000

Material Boundary
-310.816 463.753
139.040 465.524
324.184 466.253
562.692 461.315
571.184 461.315
584.957 461.312
906.000 461.253

Material Boundary
-310.816 453.702
139.066 452.141
323.787 451.500
571.184 446.561

Material Boundary
-310.816 453.708
139.040 457.457
324.184 459.000
571.184 459.000
869.969 454.538
906.000 454.000

Material Boundary
139.040 457.457
139.040 458.315
139.040 465.524

Material Boundary
139.066 448.252
139.066 452.141

External Boundary
906.000 566.071
683.709 559.305
468.434 555.000
440.357 552.556
411.000 550.000
398.805 545.935
396.000 545.000
391.110 543.370
381.000 540.000
375.110 538.037
366.000 535.000
359.899 532.966
351.000 530.000
344.696 527.899
336.000 525.000
321.203 520.068
321.000 520.000

320.919	520.000
311.000	520.000
310.751	519.917
296.000	515.000
294.928	514.643
281.000	510.000
271.864	506.955
266.000	505.000
256.681	501.894
251.000	500.000
241.544	496.848
236.000	495.000
226.527	491.842
221.000	490.000
211.527	486.842
206.000	485.000
203.789	484.263
200.000	483.000
196.315	483.000
190.000	483.000
187.789	483.737
184.000	485.000
178.316	486.895
175.000	488.000
170.579	487.765
169.000	487.681
166.789	487.798
163.000	488.000
157.316	486.105
154.000	485.000
148.473	483.158
139.000	480.000
129.527	476.842
124.000	475.000
118.473	473.158
106.184	469.061
-310.816	469.954
-310.816	463.753
-310.816	456.500
-310.816	453.708
-310.816	453.702
-310.816	448.252
-310.816	442.454
-310.816	437.454
-310.816	400.000
906.000	400.000
906.000	432.561
906.000	454.000
906.000	455.500
906.000	461.253
906.000	467.967
906.000	470.000
906.000	472.524
906.000	483.000

Water Table

-310.816	469.954
106.184	469.061
225.991	469.003
232.000	467.000
906.000	470.000

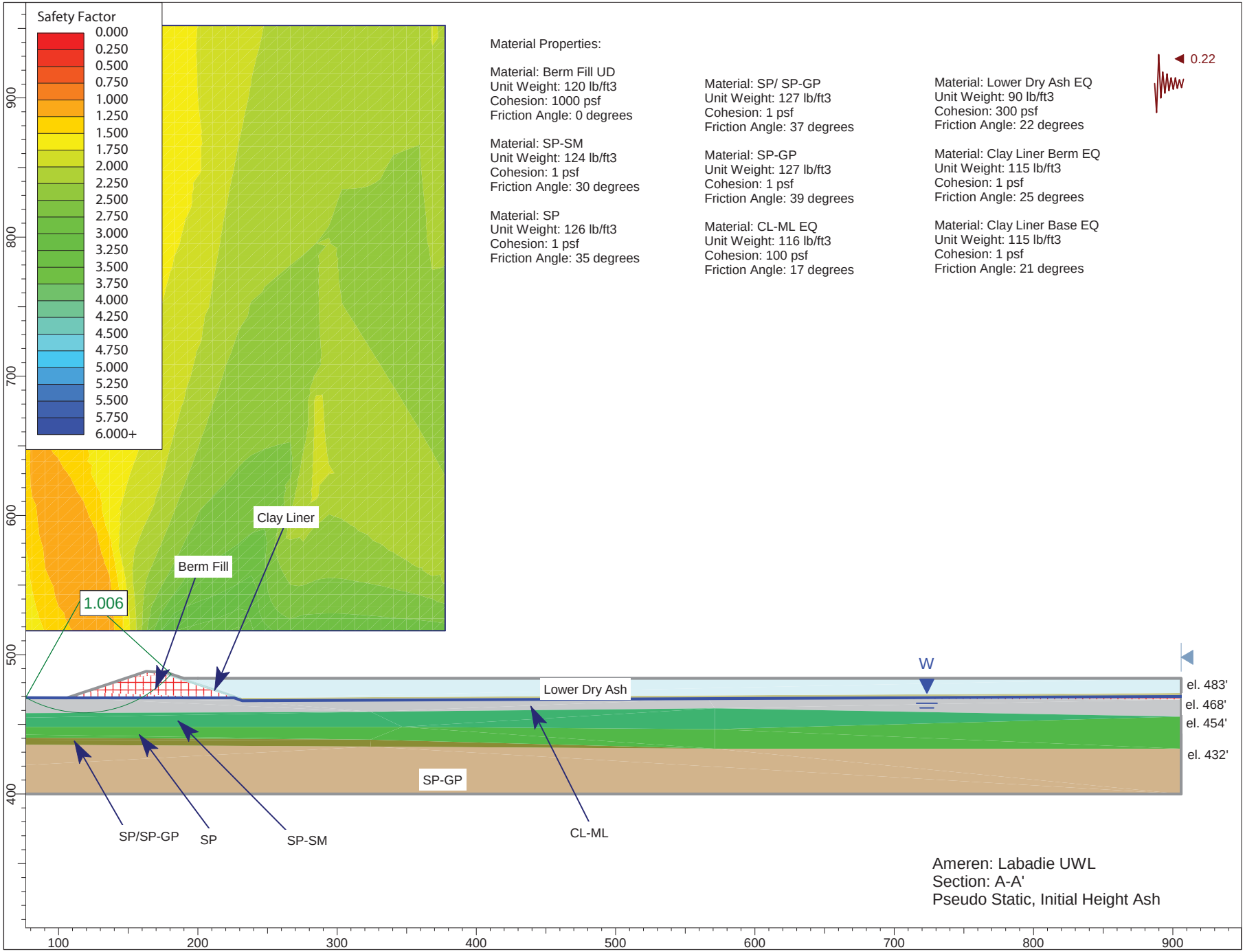
139.000	480.000
129.527	476.842
124.000	475.000
118.473	473.158
106.184	469.061
-310.816	469.954
-310.816	456.500
-310.816	448.252
-310.816	442.454
-310.816	437.454
-310.816	400.000
906.000	400.000
906.000	432.561
906.000	455.500
906.000	467.967
906.000	470.000
906.000	472.524
906.000	483.000

Water Table

-310.816	469.954
106.184	469.061
225.991	469.003
232.000	467.000
906.000	470.000

Search Grid

63.910	489.052
349.264	489.052
349.264	713.194
63.910	713.194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0.250
0.500
0.750
1.000
1.250
1.500
1.750
2.000
2.250
2.500
2.750
3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
Material Properties:
Material: Berm Fill UD
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP/ SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Material: CL-ML EQ
Unit Weight: 116 lb/ft3
Cohesion: 100 psf
Friction Angle: 17 degrees
Material: Lower Dry Ash EQ
Unit Weight: 90 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Material: Clay Liner Berm EQ
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Material: Clay Liner Base EQ
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 21 degrees
0.22
Clay Liner
Berm Fill
1.006
W
Lower Dry Ash
el. 483'
el. 468'
el. 454'
el. 432'
SP-GP
SP/SP-GP
SP
SP-SM
CL-ML
Ameren: Labadie UWL
Section: A-A'
Pseudo Static, Initial Height Ash
900
800
700
600
500
400
100
200
300
400
500
600
700
800
900

Slide Analysis Information

Document Name

File Name: Section AA Partial Psuedo Static.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Enabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Loading

Seismic Load Coefficient (Horizontal): 0.22

Material Properties

Material: Berm Fill UD
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM

Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP/ SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL-ML EQ
Strength Type: Mohr-Coulomb
Unit Weight: 116 lb/ft3
Cohesion: 100 psf
Friction Angle: 17 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Lower Dry Ash EQ
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Clay Liner Berm EQ
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Clay Liner Base EQ
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3

Cohesion: 1 psf
Friction Angle: 21 degrees
Water Surface: Water Table
Custom Hu value: 1

List of All Coordinates

Material Boundary
-310.816 456.500
324.184 459.061
571.184 461.561
906.000 455.500

Material Boundary
346.669 448.252
571.184 446.561
906.000 455.500

Material Boundary
-310.816 442.454
323.787 439.064
571.184 432.561

Material Boundary
-310.816 437.454
324.184 434.061

Material Boundary
324.184 434.061
571.184 432.561

Material Boundary
190.000 483.000
232.000 469.000
566.246 468.488
906.000 467.967

Material Boundary
106.184 469.061
225.991 469.003
232.000 469.000

Material Boundary
-310.816 448.252
346.669 448.252

Material Boundary
571.184 432.561
906.000 432.561

Material Boundary
232.000 469.000
906.000 472.524

Material Boundary
175.000 488.000
175.000 486.000

225.991	469.003
232.000	467.000
566.246	468.488
906.000	470.000

External Boundary

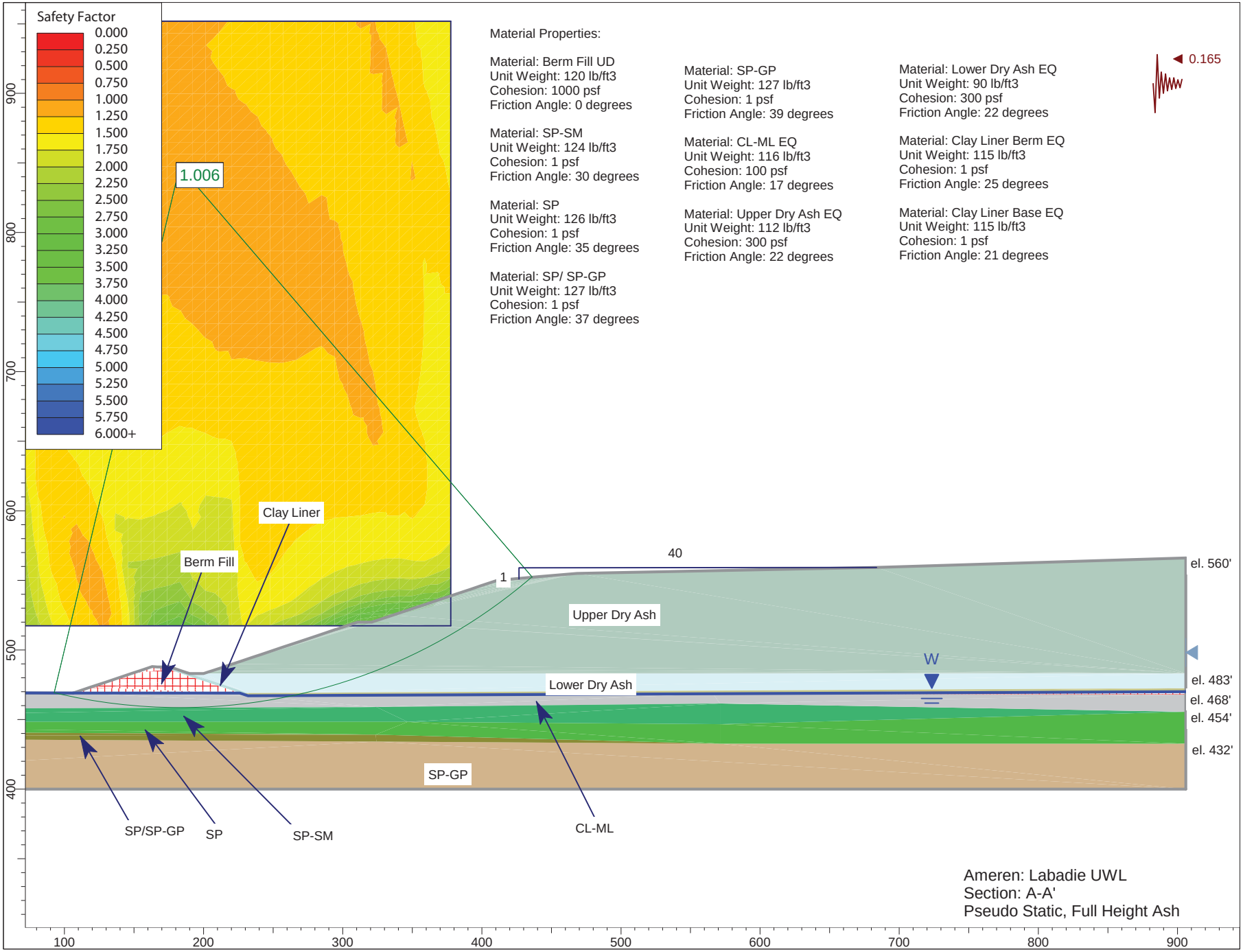
200.000	483.000
196.315	483.000
190.000	483.000
187.789	483.737
184.000	485.000
178.316	486.895
175.000	488.000
170.579	487.765
169.000	487.681
166.789	487.798
163.000	488.000
157.316	486.105
154.000	485.000
148.473	483.158
139.000	480.000
129.527	476.842
124.000	475.000
118.473	473.158
106.184	469.061
-310.816	469.954
-310.816	456.500
-310.816	448.252
-310.816	442.454
-310.816	437.454
-310.816	400.000
906.000	400.000
906.000	432.561
906.000	455.500
906.000	467.967
906.000	470.000
906.000	472.524
906.000	483.000

Water Table

-310.816	469.954
106.184	469.061
225.991	469.003
232.000	467.000
906.000	470.000

Search Grid

-85.861	517.280
377.618	517.280
377.618	951.877
-85.861	951.877


Safety Factor
0.000
0.250
0.500
0.750
1.000
1.250
1.500
1.750
2.000
2.250
2.500
2.750
3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
1.006
Material Properties:
Material: Berm Fill UD
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP/ SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Material: CL-ML EQ
Unit Weight: 116 lb/ft3
Cohesion: 100 psf
Friction Angle: 17 degrees
Material: Upper Dry Ash EQ
Unit Weight: 112 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Material: Lower Dry Ash EQ
Unit Weight: 90 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Material: Clay Liner Berm EQ
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Material: Clay Liner Base EQ
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 21 degrees
0.165
Clay Liner
Berm Fill
40
1
Upper Dry Ash
W
Lower Dry Ash
el. 560'
el. 483'
el. 468'
el. 454'
el. 432'
SP-GP
SP/SP-GP
SP
SP-SM
CL-ML
Ameren: Labadie UWL
Section: A-A'
Pseudo Static, Full Height Ash
900
800
700
600
500
400
100
200
300
400
500
600
700
800
900

Slide Analysis Information

Document Name

File Name: Section AA Full Psuedo Staticsli.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Enabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Loading

Seismic Load Coefficient (Horizontal): 0.165

Material Properties

Material: Berm Fill UD
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM

Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP/ SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL-ML EQ
Strength Type: Mohr-Coulomb
Unit Weight: 116 lb/ft3
Cohesion: 100 psf
Friction Angle: 17 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Upper Dry Ash EQ
Strength Type: Mohr-Coulomb
Unit Weight: 112 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Lower Dry Ash EQ
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Clay Liner Berm EQ
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3

Cohesion: 1 psf
Friction Angle: 25 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Clay Liner Base EQ
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 21 degrees
Water Surface: Water Table
Custom Hu value: 1

List of All Coordinates

Material Boundary

-310.816	456.500
324.184	459.061
571.184	461.561
906.000	455.500

Material Boundary

346.669	448.252
571.184	446.561
906.000	455.500

Material Boundary

-310.816	442.454
323.787	439.064
571.184	432.561

Material Boundary

-310.816	437.454
324.184	434.061

Material Boundary

324.184	434.061
571.184	432.561

Material Boundary

190.000	483.000
232.000	469.000
566.246	468.488
906.000	467.967

Material Boundary

106.184	469.061
225.991	469.003
232.000	469.000

Material Boundary

200.000	483.000
906.000	483.000

Material Boundary

-310.816	448.252
346.669	448.252

Material Boundary

571.184	432.561
906.000	432.561

Material Boundary

232.000	469.000
906.000	472.524

Material Boundary

175.000	488.000
175.000	486.000
225.991	469.003
232.000	467.000
566.246	468.488
906.000	470.000

External Boundary

906.000	566.071
683.709	559.305
468.434	555.000
440.357	552.556
411.000	550.000
398.805	545.935
396.000	545.000
391.110	543.370
381.000	540.000
375.110	538.037
366.000	535.000
359.899	532.966
351.000	530.000
344.696	527.899
336.000	525.000
321.203	520.068
321.000	520.000
320.919	520.000
311.000	520.000
310.751	519.917
296.000	515.000
294.928	514.643
281.000	510.000
271.864	506.955
266.000	505.000
256.681	501.894
251.000	500.000
241.544	496.848
236.000	495.000
226.527	491.842
221.000	490.000
211.527	486.842
206.000	485.000
203.789	484.263
200.000	483.000
196.315	483.000
190.000	483.000
187.789	483.737
184.000	485.000

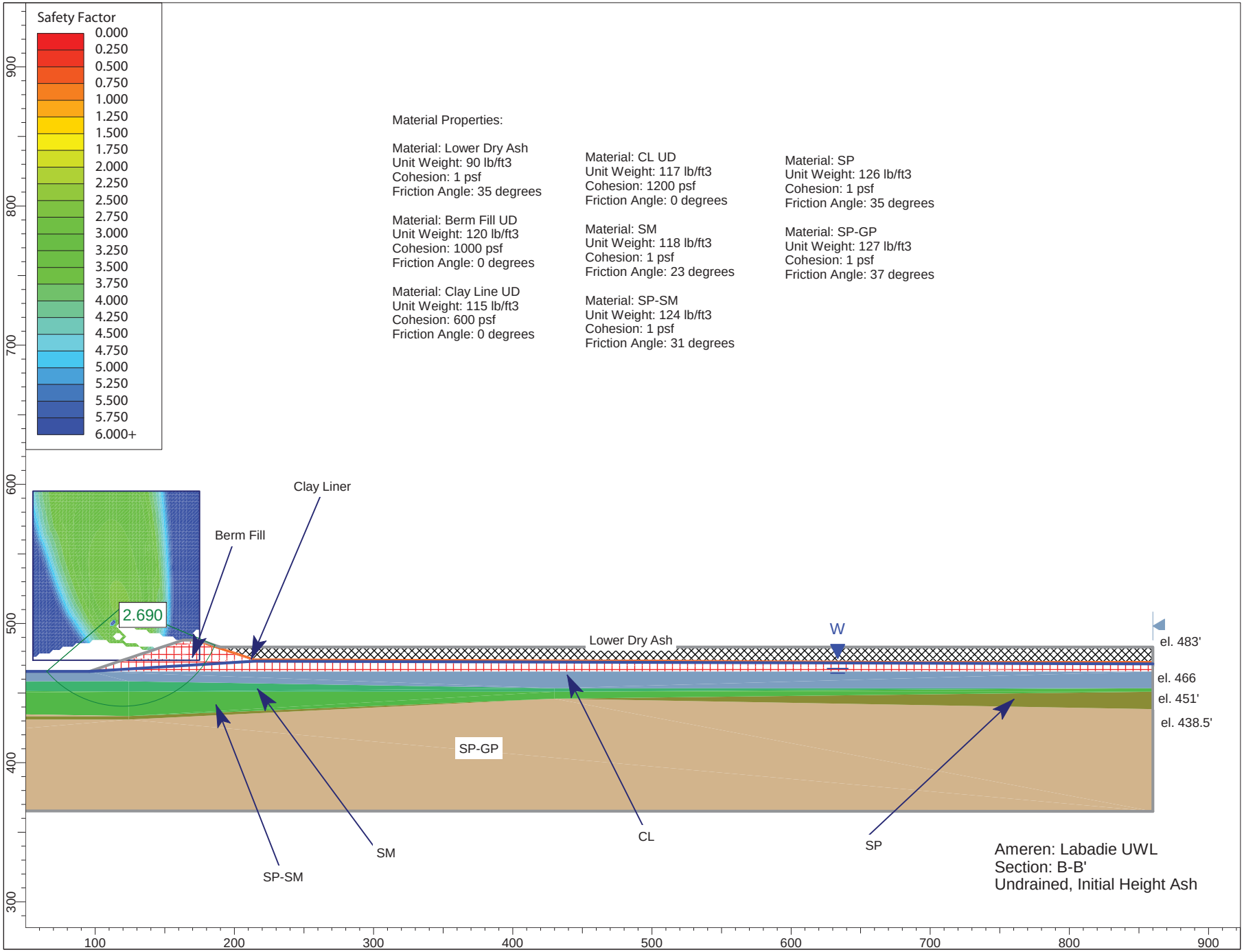
178.316	486.895
175.000	488.000
170.579	487.765
169.000	487.681
166.789	487.798
163.000	488.000
157.316	486.105
154.000	485.000
148.473	483.158
139.000	480.000
129.527	476.842
124.000	475.000
118.473	473.158
106.184	469.061
-310.816	469.954
-310.816	456.500
-310.816	448.252
-310.816	442.454
-310.816	437.454
-310.816	400.000
906.000	400.000
906.000	432.561
906.000	455.500
906.000	467.967
906.000	470.000
906.000	472.524
906.000	483.000

Water Table

-310.816	469.954
106.184	469.061
225.991	469.003
232.000	467.000
906.000	470.000

Search Grid

-85.861	517.280
377.618	517.280
377.618	951.877
-85.861	951.877


Safety Factor
0.000
0.250
0.500
0.750
1.000
1.250
1.500
1.750
2.000
2.250
2.500
2.750
3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
Material Properties:
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Berm Fill UD
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Material: Clay Line UD
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Material: CL UD
Unit Weight: 117 lb/ft3
Cohesion: 1200 psf
Friction Angle: 0 degrees
Material: SM
Unit Weight: 118 lb/ft3
Cohesion: 1 psf
Friction Angle: 23 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Clay Liner
Berm Fill
2.690
Lower Dry Ash
W
el. 483'
el. 466
el. 451'
el. 438.5'
SP-GP
SP-SM
SM
CL
SP
Ameren: Labadie UWL
Section: B-B'
Undrained, Initial Height Ash
300
400
500
600
700
800
900
100
200
300
400
500
600
700
800
900

Slide Analysis Information

Document Name

File Name: Section BB Partial UnDrained.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Material Properties

Material: Lower Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill UD
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees

Water Surface: Water Table
Custom Hu value: 1

Material: Clay Line UD
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL UD
Strength Type: Mohr-Coulomb
Unit Weight: 117 lb/ft3
Cohesion: 1200 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SM
Strength Type: Mohr-Coulomb
Unit Weight: 118 lb/ft3
Cohesion: 1 psf
Friction Angle: 23 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table
Custom Hu value: 1

List of All Coordinates

Material Boundary

-650.000	458.500
124.000	458.500
430.000	453.500

860.010 453.500

Material Boundary
-650.000 456.000
124.000 451.000
430.000 451.000
860.010 453.500

Material Boundary
-650.000 446.000
124.000 433.500
430.000 446.000
860.009 450.998

Material Boundary
-650.000 433.500
124.000 433.500

Material Boundary
-650.000 431.000
124.000 431.000
430.000 446.000
860.008 438.502

Material Boundary
190.000 483.000
214.462 474.846
491.000 474.000
671.000 473.000
860.012 473.000

Material Boundary
175.000 486.000
175.000 488.000

Material Boundary
175.000 486.000
214.462 472.846
214.462 474.846

Material Boundary
214.462 472.846
860.011 471.000

Material Boundary
95.732 465.577
860.011 465.591

External Boundary
-650.000 365.500
860.000 365.000
860.008 438.502
860.009 450.998
860.010 453.500
860.010 453.500
860.011 465.591
860.011 471.000

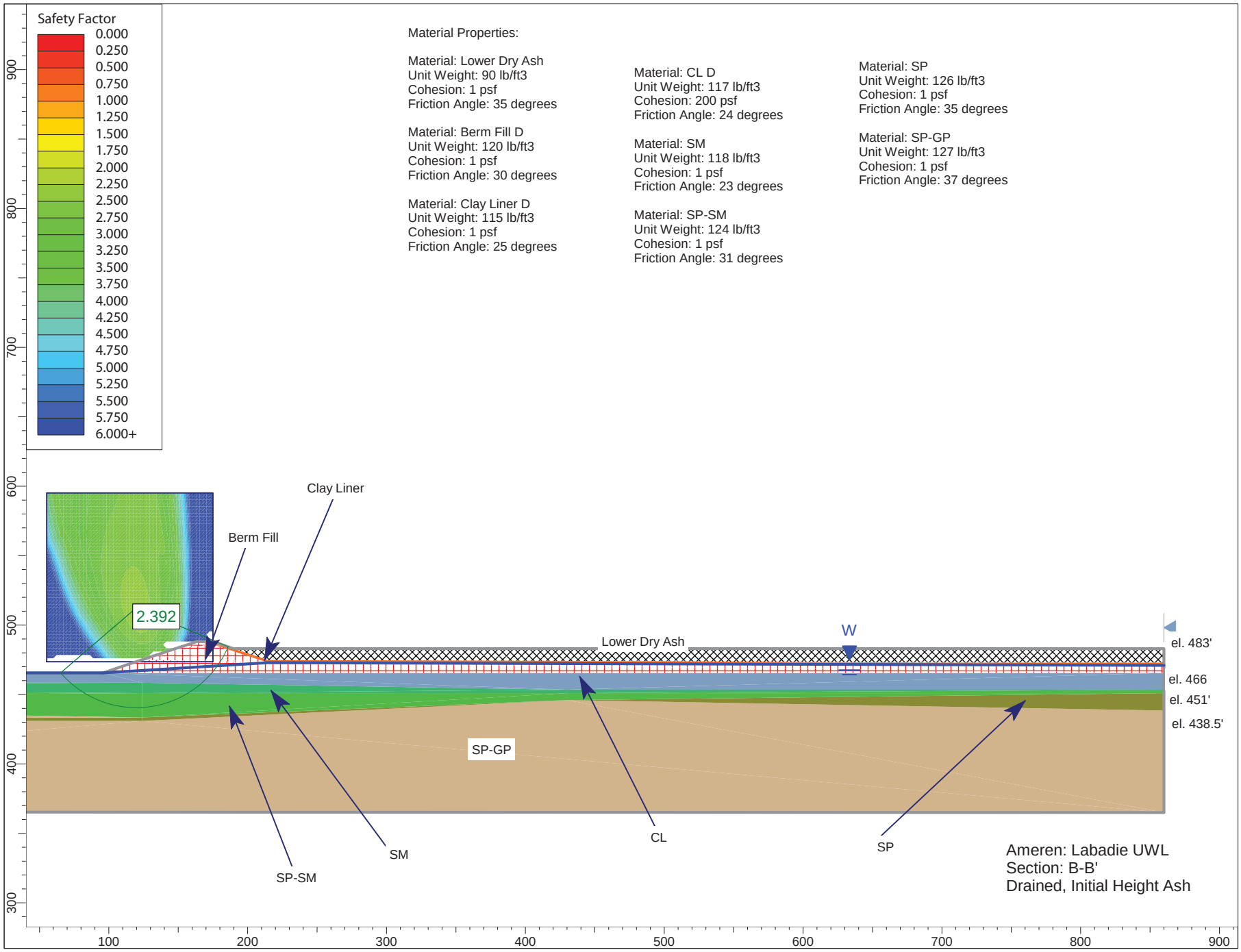
860.012	473.000
860.013	482.998
200.000	483.000
196.100	483.000
190.000	483.000
187.654	483.782
184.000	485.000
180.474	486.175
175.000	488.000
170.055	487.977
169.000	487.972
166.542	487.983
163.000	488.000
159.335	486.778
154.000	485.000
147.892	482.964
139.000	480.000
132.892	477.964
124.000	475.000
117.892	472.964
95.732	465.577
-650.000	465.500
-650.000	458.500
-650.000	456.000
-650.000	446.000
-650.000	433.500
-650.000	431.000

Water Table

-650.000	465.500
95.732	465.577
214.462	472.846
860.011	471.000

Search Grid

55.187	473.638
174.969	473.638
174.969	595.079
55.187	595.079


Safety Factor
0.000
0.250
0.500
0.750
1.000
1.250
1.500
1.750
2.000
2.250
2.500
2.750
3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
Material Properties:
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Berm Fill D
Unit Weight: 120 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Material: Clay Liner D
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Material: CL D
Unit Weight: 117 lb/ft3
Cohesion: 200 psf
Friction Angle: 24 degrees
Material: SM
Unit Weight: 118 lb/ft3
Cohesion: 1 psf
Friction Angle: 23 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Clay Liner
Berm Fill
2.392
Lower Dry Ash
W
el. 483'
el. 466
el. 451'
el. 438.5'
SP-GP
SP-SM
SM
CL
SP
Ameren: Labadie UWL
Section: B-B'
Drained, Initial Height Ash
900
800
700
600
500
400
300
100
200
300
400
500
600
700
800
900

Slide Analysis Information

Document Name

File Name: Section BB Partial Drained.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Material Properties

Material: Lower Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill D
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees

Water Surface: Water Table
Custom Hu value: 1

Material: Clay Liner D
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL D
Strength Type: Mohr-Coulomb
Unit Weight: 117 lb/ft3
Cohesion: 200 psf
Friction Angle: 24 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SM
Strength Type: Mohr-Coulomb
Unit Weight: 118 lb/ft3
Cohesion: 1 psf
Friction Angle: 23 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table
Custom Hu value: 1

List of All Coordinates

Material Boundary

-650.000	458.500
124.000	458.500
430.000	453.500

860.010 453.500

Material Boundary
-650.000 456.000
124.000 451.000
430.000 451.000
860.010 453.500

Material Boundary
-650.000 446.000
124.000 433.500
430.000 446.000
860.009 450.998

Material Boundary
-650.000 433.500
124.000 433.500

Material Boundary
-650.000 431.000
124.000 431.000
430.000 446.000
860.008 438.502

Material Boundary
190.000 483.000
214.462 474.846
491.000 474.000
671.000 473.000
860.012 473.000

Material Boundary
175.000 486.000
175.000 488.000

Material Boundary
175.000 486.000
214.462 472.846
214.462 474.846

Material Boundary
214.462 472.846
860.011 471.000

Material Boundary
95.732 465.577
860.011 465.591

External Boundary
-650.000 365.500
860.000 365.000
860.008 438.502
860.009 450.998
860.010 453.500
860.010 453.500
860.011 465.591
860.011 471.000

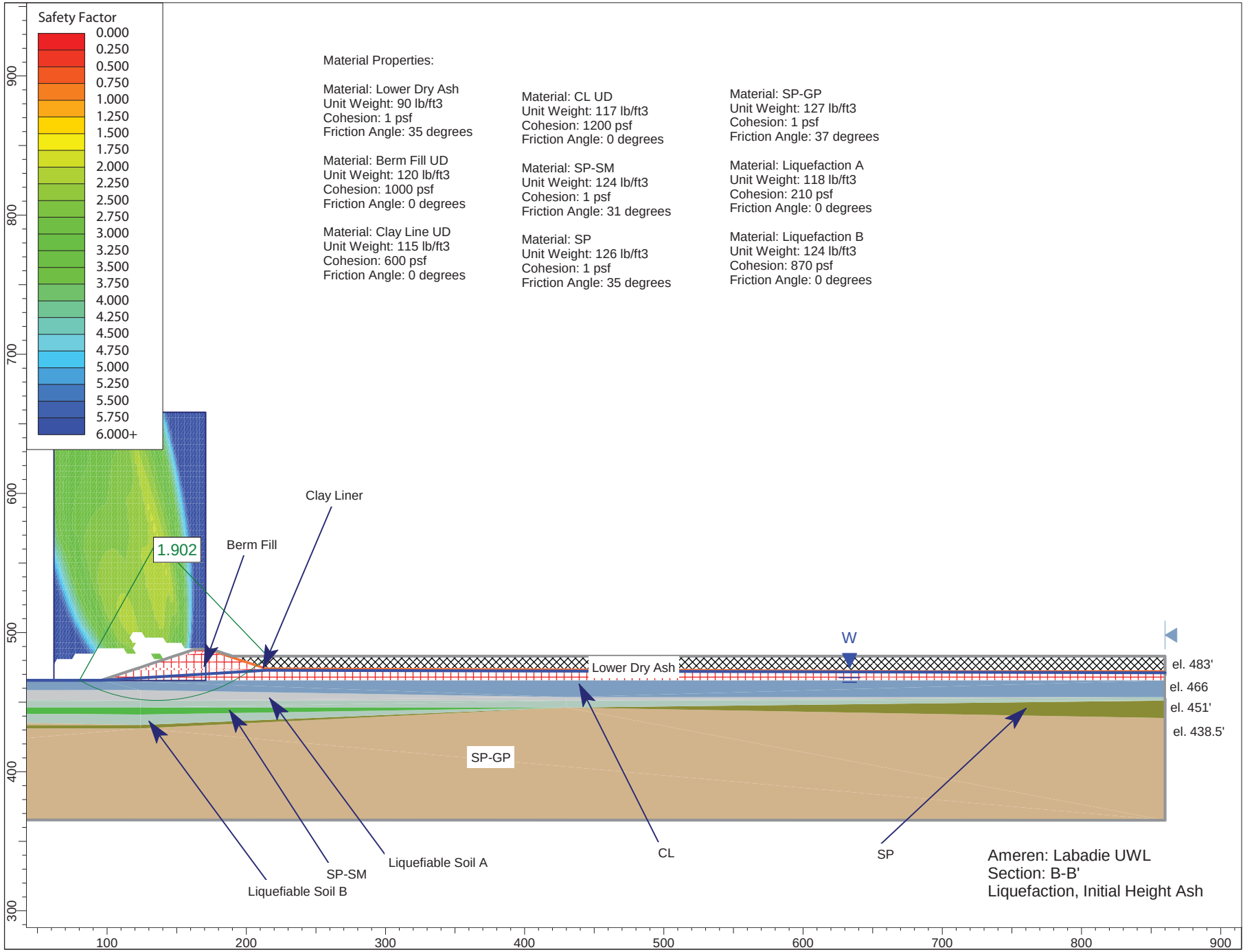
860.012	473.000
860.013	482.998
200.000	483.000
196.100	483.000
190.000	483.000
187.654	483.782
184.000	485.000
180.474	486.175
175.000	488.000
170.055	487.977
169.000	487.972
166.542	487.983
163.000	488.000
159.335	486.778
154.000	485.000
147.892	482.964
139.000	480.000
132.892	477.964
124.000	475.000
117.892	472.964
95.732	465.577
-650.000	465.500
-650.000	458.500
-650.000	456.000
-650.000	446.000
-650.000	433.500
-650.000	431.000

Water Table

-650.000	465.500
95.732	465.577
214.462	472.846
860.011	471.000

Search Grid

55.187	473.638
174.969	473.638
174.969	595.079
55.187	595.079


Safety Factor
0.000
0.250
0.500
0.750
1.000
1.250
1.500
1.750
2.000
2.250
2.500
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3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
Material Properties:
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Berm Fill UD
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Material: Clay Line UD
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Material: CL UD
Unit Weight: 117 lb/ft3
Cohesion: 1200 psf
Friction Angle: 0 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Material: Liquefaction A
Unit Weight: 118 lb/ft3
Cohesion: 210 psf
Friction Angle: 0 degrees
Material: Liquefaction B
Unit Weight: 124 lb/ft3
Cohesion: 870 psf
Friction Angle: 0 degrees
1.902
Clay Liner
Berm Fill
W
Lower Dry Ash
el. 483'
el. 466
el. 451'
el. 438.5'
SP-GP
Liquefiable Soil B
SP-SM
Liquefiable Soil A
CL
SP
Ameren: Labadie UWL
Section: B-B'
Liquefaction, Initial Height Ash
300
400
500
600
700
800
900
100
200
300
400
500
600
700
800
900

Slide Analysis Information

Document Name

File Name: Section BB Partial Liquefaction.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Material Properties

Material: Lower Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill UD
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees

Water Surface: Water Table
Custom Hu value: 1

Material: Clay Line UD
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL UD
Strength Type: Mohr-Coulomb
Unit Weight: 117 lb/ft3
Cohesion: 1200 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Liquefaction A
Strength Type: Mohr-Coulomb
Unit Weight: 118 lb/ft3
Cohesion: 210 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Liquefaction B
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 870 psf
Friction Angle: 0 degrees
Water Surface: Water Table

Custom Hu value: 1

List of All Coordinates

Material Boundary
-650.000 458.500
124.000 458.500
430.000 453.500
860.010 453.500

Material Boundary
-650.000 456.000
124.000 451.000
430.000 451.000
860.010 453.500

Material Boundary
-650.000 446.000
124.000 433.500

Material Boundary
-650.000 433.500
124.000 433.500

Material Boundary
-650.000 431.000
124.000 431.000
430.000 446.000
860.008 438.502

Material Boundary
190.000 483.000
214.462 474.846
491.000 474.000
671.000 473.000
860.012 473.000

Material Boundary
175.000 486.000
175.000 488.000

Material Boundary
175.000 486.000
214.462 472.846
214.462 474.846

Material Boundary
214.462 472.846
860.011 471.000

Material Boundary
95.732 465.577
860.011 465.591

Material Boundary
-650.000 446.000

124.000 446.000
430.000 446.000
124.000 441.000
-650.000 446.000

Material Boundary
124.000 433.500
430.000 446.000

Material Boundary
430.000 446.000
860.009 450.998

External Boundary
-650.000 365.500
860.000 365.000
860.008 438.502
860.009 450.998
860.010 453.500
860.010 453.500
860.011 465.591
860.011 471.000
860.012 473.000
860.013 482.998
200.000 483.000
196.100 483.000
190.000 483.000
187.654 483.782
184.000 485.000
180.474 486.175
175.000 488.000
170.055 487.977
169.000 487.972
166.542 487.983
163.000 488.000
159.335 486.778
154.000 485.000
147.892 482.964
139.000 480.000
132.892 477.964
124.000 475.000
117.892 472.964
95.732 465.577
-650.000 465.500
-650.000 458.500
-650.000 456.000
-650.000 446.000
-650.000 433.500
-650.000 431.000

Water Table
-650.000 465.500
95.732 465.577
214.462 472.846
860.011 471.000

Search Grid	
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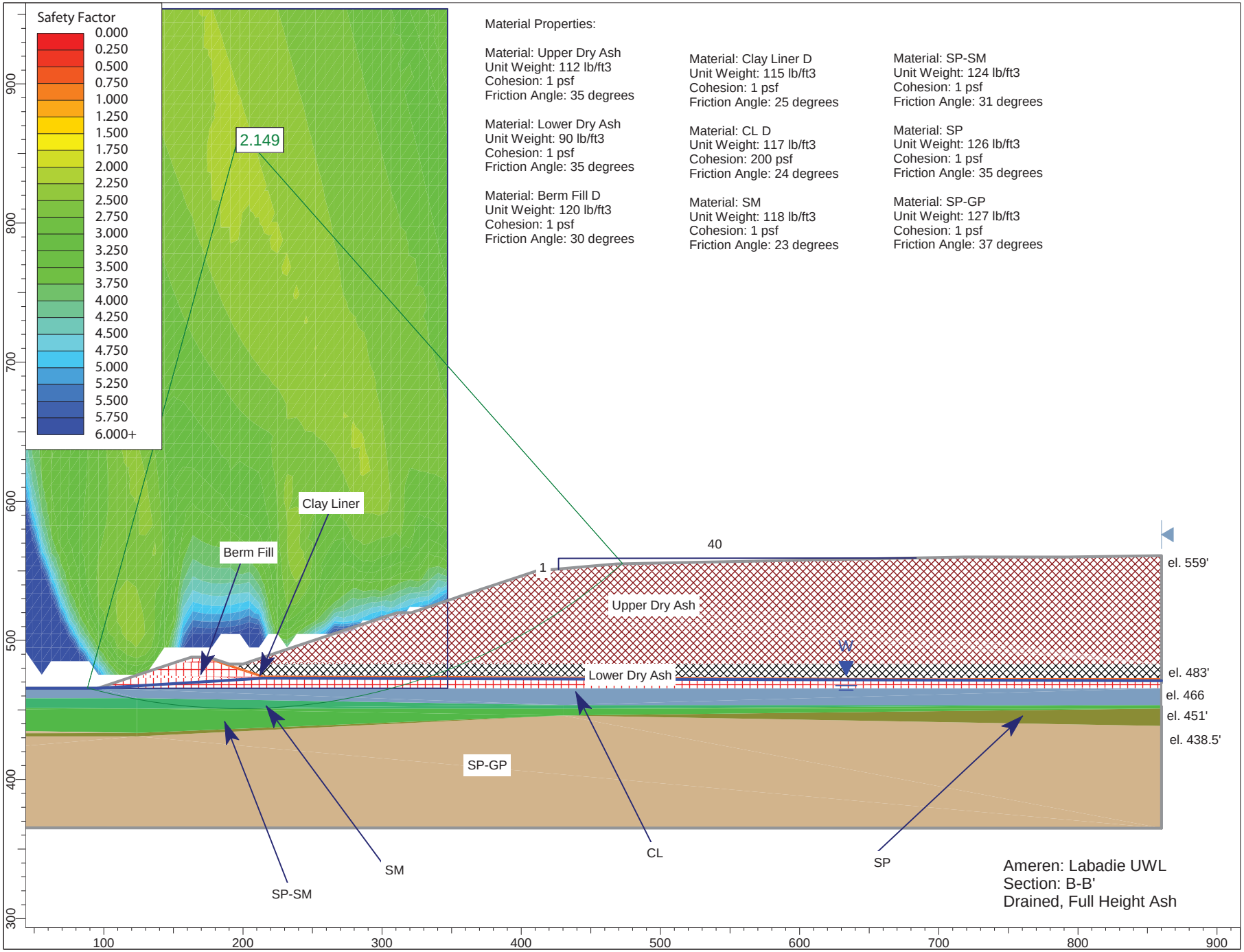
170.821	465.568
170.821	658.343
61.845	658.343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0.500
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1.000
1.250
1.500
1.750
2.000
2.250
2.500
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3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
2.149
Material Properties:
Material: Upper Dry Ash
Unit Weight: 112 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Berm Fill D
Unit Weight: 120 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Material: Clay Liner D
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Material: CL D
Unit Weight: 117 lb/ft3
Cohesion: 200 psf
Friction Angle: 24 degrees
Material: SM
Unit Weight: 118 lb/ft3
Cohesion: 1 psf
Friction Angle: 23 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Clay Liner
Berm Fill
40
1
Upper Dry Ash
Lower Dry Ash
el. 559'
el. 483'
el. 466
el. 451'
el. 438.5'
SP-GP
SP-SM
SM
CL
SP
Ameren: Labadie UWL
Section: B-B'
Drained, Full Height Ash
300
400
500
600
700
800
900
100
200
300
400
500
600
700
800
900

Slide Analysis Information

Document Name

File Name: Section BB Full Drained.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Material Properties

Material: Upper Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 112 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Lower Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees

Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill D
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Clay Liner D
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL D
Strength Type: Mohr-Coulomb
Unit Weight: 117 lb/ft3
Cohesion: 200 psf
Friction Angle: 24 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SM
Strength Type: Mohr-Coulomb
Unit Weight: 118 lb/ft3
Cohesion: 1 psf
Friction Angle: 23 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table

Custom Hu value: 1

List of All Coordinates

Material Boundary
-650.000 458.500
124.000 458.500
430.000 453.500
860.010 453.500

Material Boundary
-650.000 456.000
124.000 451.000
430.000 451.000
860.010 453.500

Material Boundary
-650.000 446.000
124.000 433.500
430.000 446.000
860.009 450.998

Material Boundary
-650.000 433.500
124.000 433.500

Material Boundary
-650.000 431.000
124.000 431.000
430.000 446.000
860.008 438.502

Material Boundary
190.000 483.000
214.462 474.846
491.000 474.000
671.000 473.000
860.012 473.000

Material Boundary
175.000 486.000
175.000 488.000

Material Boundary
175.000 486.000
214.462 472.846
214.462 474.846

Material Boundary
214.462 472.846
860.011 471.000

Material Boundary
95.732 465.577
860.011 465.591

Material Boundary

200.000	483.000
860.013	482.998

External Boundary

-650.000	365.500
860.000	365.000
860.008	438.502
860.009	450.998
860.010	453.500
860.010	453.500
860.011	465.591
860.011	471.000
860.012	473.000
860.013	482.998
860.021	560.896
792.394	560.000
718.434	560.000
500.172	555.635
468.434	555.000
461.429	554.390
411.000	550.000
401.743	546.914
396.000	545.000
386.646	541.882
381.000	540.000
371.552	536.851
366.000	535.000
356.462	531.821
351.000	530.000
341.374	526.791
336.000	525.000
329.925	522.975
321.000	520.000
315.050	520.000
311.000	520.000
302.030	517.010
296.000	515.000
286.965	511.988
281.000	510.000
271.903	506.968
266.000	505.000
256.842	501.947
251.000	500.000
245.235	498.078
236.000	495.000
230.209	493.070
221.000	490.000
215.184	488.061
206.000	485.000
203.665	484.222
200.000	483.000
196.100	483.000
190.000	483.000
187.654	483.782
184.000	485.000

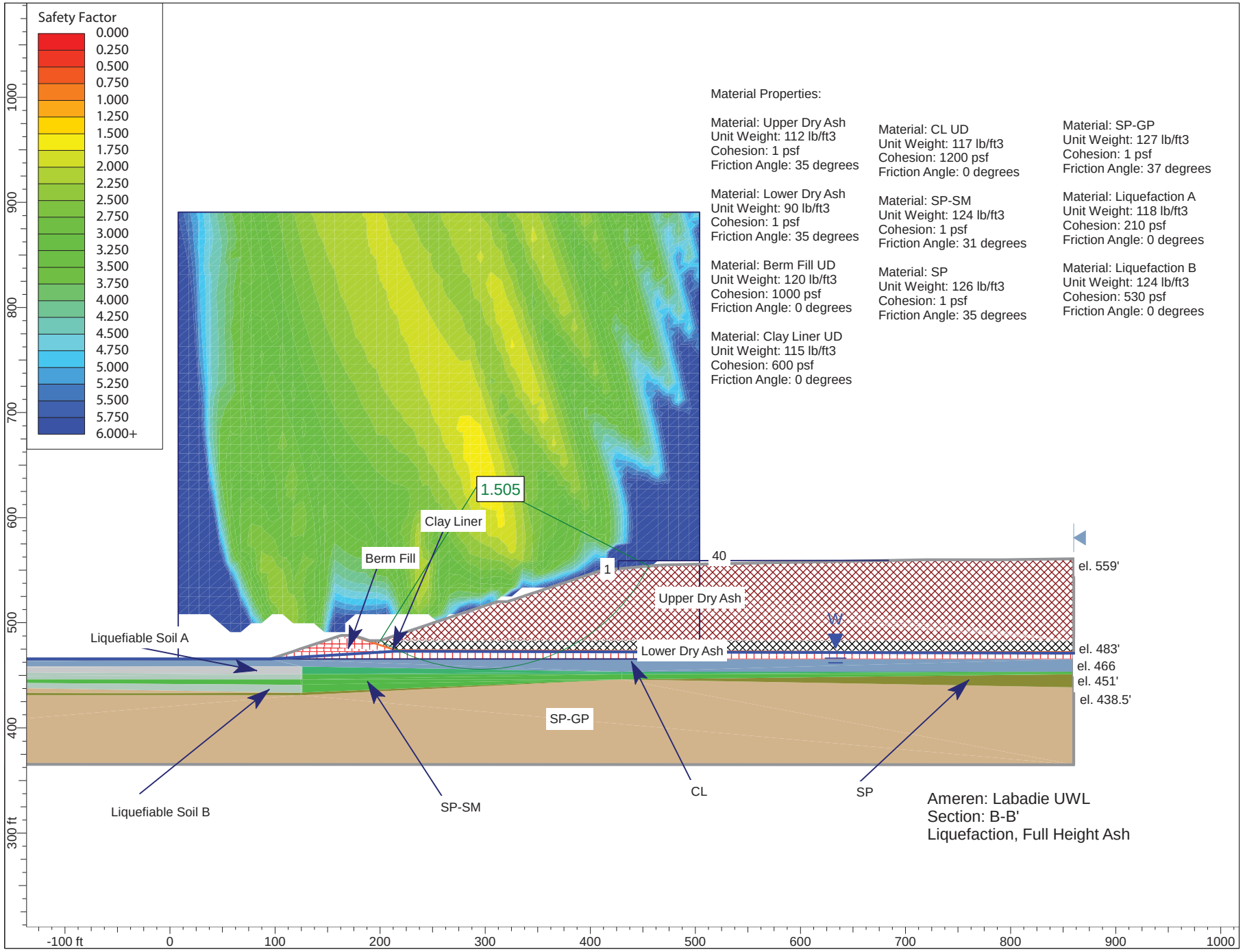
180.474	486.175
175.000	488.000
170.055	487.977
169.000	487.972
166.542	487.983
163.000	488.000
159.335	486.778
154.000	485.000
147.892	482.964
139.000	480.000
132.892	477.964
124.000	475.000
117.892	472.964
95.732	465.577
-650.000	465.500
-650.000	458.500
-650.000	456.000
-650.000	446.000
-650.000	433.500
-650.000	431.000

Water Table

-650.000	465.500
95.732	465.577
214.462	472.846
860.011	471.000

Search Grid

7.917	465.568
347.082	465.568
347.082	953.907
7.917	953.907


Safety Factor
0.000
0.250
0.500
0.750
1.000
1.250
1.500
1.750
2.000
2.250
2.500
2.750
3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
Material Properties:
Material: Upper Dry Ash
Unit Weight: 112 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Berm Fill UD
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Material: Clay Liner UD
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Material: CL UD
Unit Weight: 117 lb/ft3
Cohesion: 1200 psf
Friction Angle: 0 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Material: Liquefaction A
Unit Weight: 118 lb/ft3
Cohesion: 210 psf
Friction Angle: 0 degrees
Material: Liquefaction B
Unit Weight: 124 lb/ft3
Cohesion: 530 psf
Friction Angle: 0 degrees
1.505
Clay Liner
Berm Fill
40
1
Upper Dry Ash
W
Liquefiable Soil A
Lower Dry Ash
el. 559'
el. 483'
el. 466
el. 451'
el. 438.5'
SP-GP
Liquefiable Soil B
SP-SM
CL
SP
Ameren: Labadie UWL
Section: B-B'
Liquefaction, Full Height Ash
1000
900
800
700
600
500
400
300 ft
-100 ft
0
100
200
300
400
500
600
700
800
900
1000

Slide Analysis Information

Document Name

File Name: Section BB Full Liquefaction trial.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Material Properties

Material: Upper Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 112 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Lower Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees

Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill UD
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Clay Line UD
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL UD
Strength Type: Mohr-Coulomb
Unit Weight: 117 lb/ft3
Cohesion: 1200 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SM
Strength Type: Mohr-Coulomb
Unit Weight: 118 lb/ft3
Cohesion: 1 psf
Friction Angle: 23 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table

Custom Hu value: 1

Material: Liquefaction A
Strength Type: Mohr-Coulomb
Unit Weight: 118 lb/ft3
Cohesion: 210 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Liquefaction B
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 530 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Global Minimums

Method: bishop simplified
FS: 1.532100
Center: 295.619, 635.567
Radius: 179.968
Left Slip Surface Endpoint: 200.106, 483.035
Right Slip Surface Endpoint: 456.000, 553.918
Resisting Moment=8.14133e+007 lb-ft
Driving Moment=5.31383e+007 lb-ft

Method: spencer
FS: 1.505100
Center: 295.619, 635.567
Radius: 179.968
Left Slip Surface Endpoint: 200.106, 483.035
Right Slip Surface Endpoint: 456.000, 553.918
Resisting Moment=7.99786e+007 lb-ft
Driving Moment=5.31383e+007 lb-ft
Resisting Horizontal Force=380450 lb
Driving Horizontal Force=252774 lb

Valid / Invalid Surfaces

Method: bishop simplified
Number of Valid Surfaces: 9942
Number of Invalid Surfaces: 18669
Error Codes:
Error Code -103 reported for 18028 surfaces
Error Code -107 reported for 36 surfaces
Error Code -112 reported for 605 surfaces

Method: spencer
Number of Valid Surfaces: 9748
Number of Invalid Surfaces: 18863
Error Codes:
Error Code -103 reported for 18028 surfaces
Error Code -107 reported for 36 surfaces

Error Code -108 reported for 107 surfaces
Error Code -111 reported for 44 surfaces
Error Code -112 reported for 648 surfaces

Error Codes

The following errors were encountered during the computation:

-103 = Two surface / slope intersections, but one or more surface / nonslope external polygon intersections lie between them. This usually occurs when the slip surface extends past the bottom of the soil region, but may also occur on a benched slope model with two sets of Slope Limits.

-107 = Total driving moment or total driving force is negative. This will occur if the wrong failure direction is specified, or if high external or anchor loads are applied against the failure direction.

-108 = Total driving moment or total driving force < 0.1. This is to limit the calculation of extremely high safety factors if the driving force is very small (0.1 is an arbitrary number).

-111 = safety factor equation did not converge

-112 = The coefficient M-Alpha = cos(alpha)(1+tan(alpha)tan(phi)/F) < 0.2 for the final iteration of the safety factor calculation. This screens out some slip surfaces which may not be valid in the context of the analysis, in particular, deep seated slip surfaces with many high negative base angle slices in the passive zone.

List of All Coordinates

Search Grid

7.917	465.568
503.956	465.568
503.956	890.564
7.917	890.564

Material Boundary

-650.000	458.500
124.000	458.500
125.993	458.467
430.000	453.500
860.010	453.500

Material Boundary

-650.000	456.000
124.000	451.000
125.993	451.000
430.000	451.000

860.010 453.500

Material Boundary
-650.000 446.000
124.000 433.500

Material Boundary
-650.000 433.500
124.000 433.500

Material Boundary
-650.000 431.000
124.000 431.000
430.000 446.000
860.008 438.502

Material Boundary
190.000 483.000
214.462 474.846
491.000 474.000
671.000 473.000
860.012 473.000

Material Boundary
175.000 486.000
175.000 488.000

Material Boundary
175.000 486.000
214.462 472.846
214.462 474.846

Material Boundary
214.462 472.846
860.011 471.000

Material Boundary
95.732 465.577
860.011 465.591

Material Boundary
200.000 483.000
860.013 482.998

Material Boundary
-650.000 446.000
124.000 446.000
125.993 446.000
430.000 446.000
126.006 441.033
124.000 441.000
-650.000 446.000

Material Boundary
124.000 433.500
126.006 433.582

430.000 446.000

Material Boundary
430.000 446.000
860.009 450.998

Material Boundary
125.993 446.000
125.993 451.000
125.993 458.467

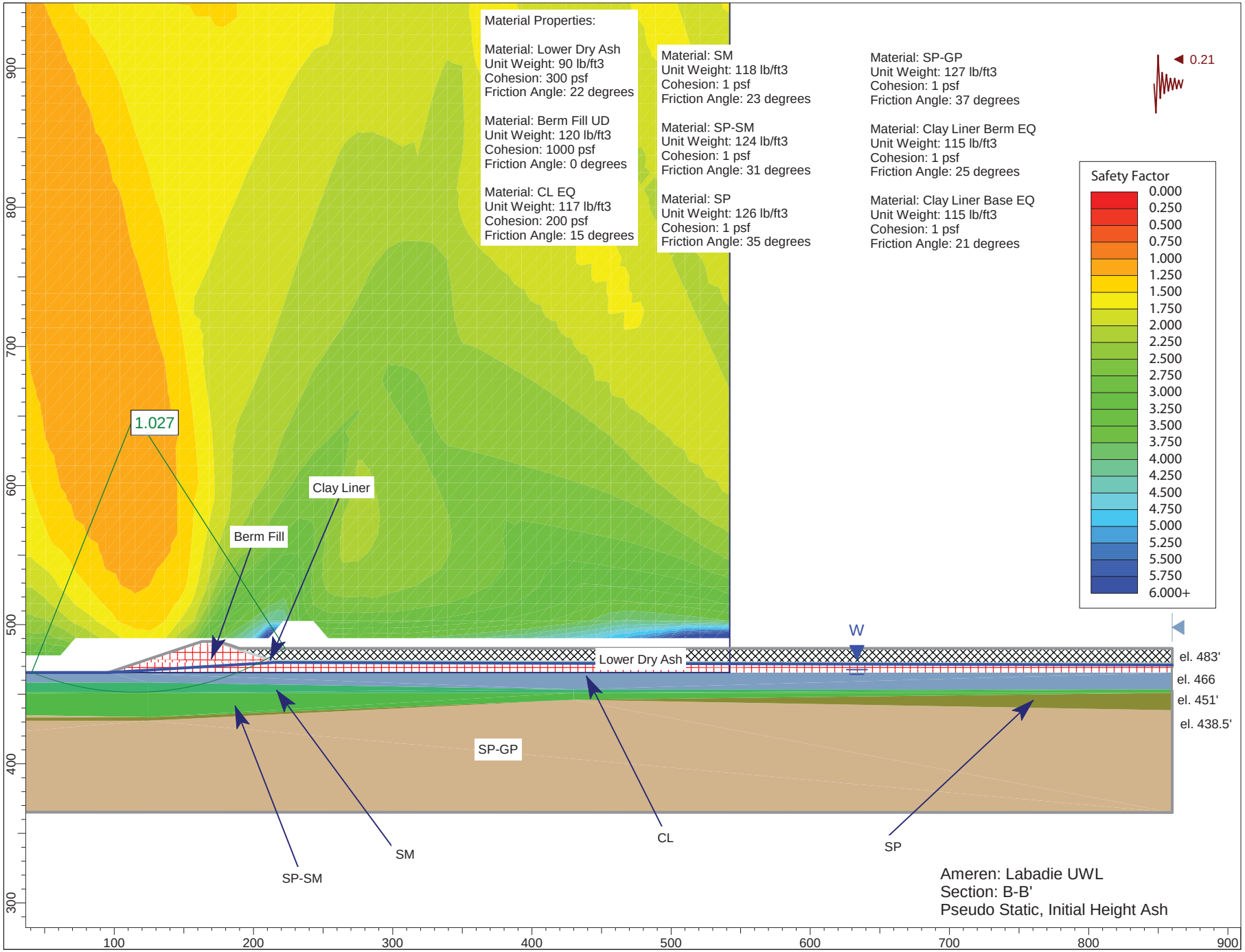
Material Boundary
126.006 433.582
126.006 441.033

External Boundary
-650.000 365.500
860.000 365.000
860.008 438.502
860.009 450.998
860.010 453.500
860.010 453.500
860.011 465.591
860.011 471.000
860.012 473.000
860.013 482.998
860.021 560.896
792.394 560.000
718.434 560.000
500.172 555.635
468.434 555.000
461.429 554.390
411.000 550.000
401.743 546.914
396.000 545.000
386.646 541.882
381.000 540.000
371.552 536.851
366.000 535.000
356.462 531.821
351.000 530.000
341.374 526.791
336.000 525.000
329.925 522.975
321.000 520.000
315.050 520.000
311.000 520.000
302.030 517.010
296.000 515.000
286.965 511.988
281.000 510.000
271.903 506.968
266.000 505.000
256.842 501.947
251.000 500.000
245.235 498.078

236.000	495.000
230.209	493.070
221.000	490.000
215.184	488.061
206.000	485.000
203.665	484.222
200.000	483.000
196.100	483.000
190.000	483.000
187.654	483.782
184.000	485.000
180.474	486.175
175.000	488.000
170.055	487.977
169.000	487.972
166.542	487.983
163.000	488.000
159.335	486.778
154.000	485.000
147.892	482.964
139.000	480.000
132.892	477.964
124.000	475.000
117.892	472.964
95.732	465.577
-650.000	465.500
-650.000	458.500
-650.000	456.000
-650.000	446.000
-650.000	433.500
-650.000	431.000

Water Table

-650.000	465.500
95.732	465.577
214.462	472.846
860.011	471.000


Material Properties:
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Material: Berm Fill UD
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Material: CL EQ
Unit Weight: 117 lb/ft3
Cohesion: 200 psf
Friction Angle: 15 degrees
Material: SM
Unit Weight: 118 lb/ft3
Cohesion: 1 psf
Friction Angle: 23 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Material: Clay Liner Berm EQ
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Material: Clay Liner Base EQ
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 21 degrees
0.21
Safety Factor
0.000
0.250
0.500
0.750
1.000
1.250
1.500
1.750
2.000
2.250
2.500
2.750
3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
1.027
Clay Liner
Berm Fill
W
Lower Dry Ash
el. 483'
el. 466
el. 451'
el. 438.5'
SP-GP
SP-SM
SM
CL
SP
Ameren: Labadie UWL
Section: B-B'
Pseudo Static, Initial Height Ash
300
400
500
600
700
800
900
100
200
300
400
500
600
700
800
900

Slide Analysis Information

Document Name

File Name: Section BB Partial Pseudo Static.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Loading

Seismic Load Coefficient (Horizontal): 0.21

Material Properties

Material: Lower Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill UD

Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL EQ
Strength Type: Mohr-Coulomb
Unit Weight: 117 lb/ft3
Cohesion: 200 psf
Friction Angle: 15 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SM
Strength Type: Mohr-Coulomb
Unit Weight: 118 lb/ft3
Cohesion: 1 psf
Friction Angle: 23 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Clay Liner Berm EQ
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Clay Liner Base EQ
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3

Cohesion: 1 psf
Friction Angle: 21 degrees
Water Surface: Water Table
Custom Hu value: 1

List of All Coordinates

Material Boundary

-650.000	458.500
124.000	458.500
430.000	453.500
860.010	453.500

Material Boundary

-650.000	456.000
124.000	451.000
430.000	451.000
860.010	453.500

Material Boundary

-650.000	446.000
124.000	433.500
430.000	446.000
860.009	450.998

Material Boundary

-650.000	433.500
124.000	433.500

Material Boundary

-650.000	431.000
124.000	431.000
430.000	446.000
860.008	438.502

Material Boundary

190.000	483.000
214.462	474.846
491.000	474.000
671.000	473.000
860.012	473.000

Material Boundary

175.000	486.000
175.000	488.000

Material Boundary

175.000	486.000
214.462	472.846
214.462	474.846

Material Boundary

214.462	472.846
860.011	471.000

Material Boundary

95.732	465.577

860.011	465.591

External Boundary

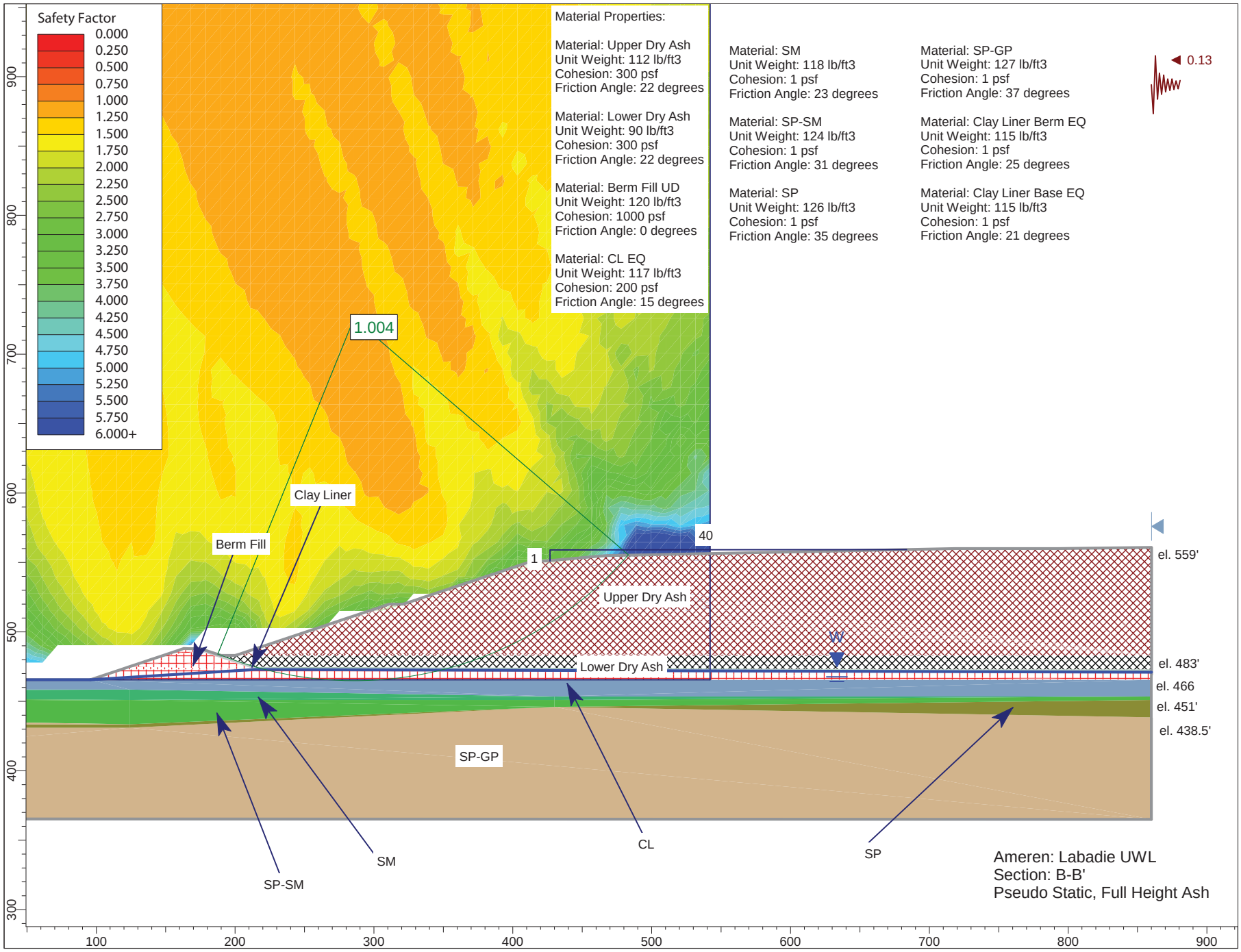
-650.000	365.500
860.000	365.000
860.008	438.502
860.009	450.998
860.010	453.500
860.010	453.500
860.011	465.591
860.011	471.000
860.012	473.000
860.013	482.998
200.000	483.000
196.100	483.000
190.000	483.000
187.654	483.782
184.000	485.000
180.474	486.175
175.000	488.000
170.055	487.977
169.000	487.972
166.542	487.983
163.000	488.000
159.335	486.778
154.000	485.000
147.892	482.964
139.000	480.000
132.892	477.964
124.000	475.000
117.892	472.964
95.732	465.577
-650.000	465.500
-650.000	458.500
-650.000	456.000
-650.000	446.000
-650.000	433.500
-650.000	431.000

Water Table

-650.000	465.500
95.732	465.577
214.462	472.846
860.011	471.000

Search Grid

7.917	465.568
542.160	465.568
542.160	1085.206
7.917	1085.206


Safety Factor
0.000
0.250
0.500
0.750
1.000
1.250
1.500
1.750
2.000
2.250
2.500
2.750
3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
Material Properties:
Material: Upper Dry Ash
Unit Weight: 112 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Material: Berm Fill UD
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Material: CL EQ
Unit Weight: 117 lb/ft3
Cohesion: 200 psf
Friction Angle: 15 degrees
Material: SM
Unit Weight: 118 lb/ft3
Cohesion: 1 psf
Friction Angle: 23 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Material: Clay Liner Berm EQ
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Material: Clay Liner Base EQ
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 21 degrees
0.13
1.004
Clay Liner
Berm Fill
40
1
Upper Dry Ash
Lower Dry Ash
WT
el. 559'
el. 483'
el. 466
el. 451'
el. 438.5'
SP-GP
SP-SM
SM
CL
SP
Ameren: Labadie UWL
Section: B-B'
Pseudo Static, Full Height Ash
900
800
700
600
500
400
300
100
200
300
400
500
600
700
800
900

Slide Analysis Information

Document Name

File Name: Section BB Full Pseudo Static.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: Not Defined

Loading

Seismic Load Coefficient (Horizontal): 0.13

Material Properties

Material: Upper Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 112 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Lower Dry Ash

Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill UD
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL EQ
Strength Type: Mohr-Coulomb
Unit Weight: 117 lb/ft3
Cohesion: 200 psf
Friction Angle: 15 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SM
Strength Type: Mohr-Coulomb
Unit Weight: 118 lb/ft3
Cohesion: 1 psf
Friction Angle: 23 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 31 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 37 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Clay Liner Berm EQ
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3

Cohesion: 1 psf
Friction Angle: 25 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Clay Liner Base EQ
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 21 degrees
Water Surface: Water Table
Custom Hu value: 1

List of All Coordinates

Material Boundary

-650.000	458.500
124.000	458.500
430.000	453.500
860.010	453.500

Material Boundary

-650.000	456.000
124.000	451.000
430.000	451.000
860.010	453.500

Material Boundary

-650.000	446.000
124.000	433.500
430.000	446.000
860.009	450.998

Material Boundary

-650.000	433.500
124.000	433.500

Material Boundary

-650.000	431.000
124.000	431.000
430.000	446.000
860.008	438.502

Material Boundary

190.000	483.000
214.462	474.846
491.000	474.000
671.000	473.000
860.012	473.000

Material Boundary

175.000	486.000
175.000	488.000

Material Boundary

175.000	486.000
214.462	472.846

214.462 474.846

Material Boundary
214.462 472.846
860.011 471.000

Material Boundary
95.732 465.577
860.011 465.591

Material Boundary
200.000 483.000
860.013 482.998

External Boundary
-650.000 365.500
860.000 365.000
860.008 438.502
860.009 450.998
860.010 453.500
860.010 453.500
860.011 465.591
860.011 471.000
860.012 473.000
860.013 482.998
860.021 560.896
792.394 560.000
718.434 560.000
500.172 555.635
468.434 555.000
461.429 554.390
411.000 550.000
401.743 546.914
396.000 545.000
386.646 541.882
381.000 540.000
371.552 536.851
366.000 535.000
356.462 531.821
351.000 530.000
341.374 526.791
336.000 525.000
329.925 522.975
321.000 520.000
315.050 520.000
311.000 520.000
302.030 517.010
296.000 515.000
286.965 511.988
281.000 510.000
271.903 506.968
266.000 505.000
256.842 501.947
251.000 500.000
245.235 498.078
236.000 495.000
230.209 493.070

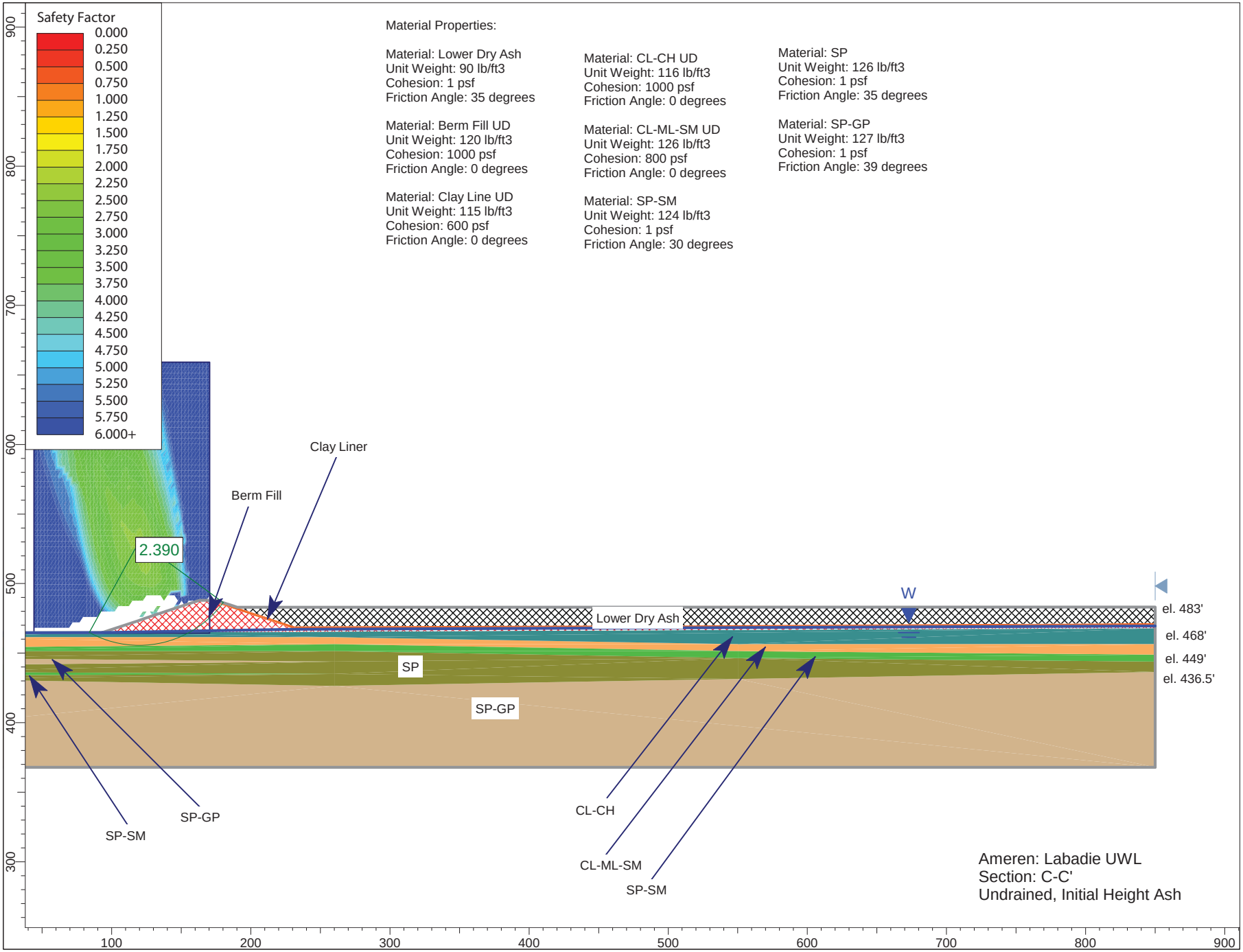
221.000	490.000
215.184	488.061
206.000	485.000
203.665	484.222
200.000	483.000
196.100	483.000
190.000	483.000
187.654	483.782
184.000	485.000
180.474	486.175
175.000	488.000
170.055	487.977
169.000	487.972
166.542	487.983
163.000	488.000
159.335	486.778
154.000	485.000
147.892	482.964
139.000	480.000
132.892	477.964
124.000	475.000
117.892	472.964
95.732	465.577
-650.000	465.500
-650.000	458.500
-650.000	456.000
-650.000	446.000
-650.000	433.500
-650.000	431.000

Water Table

-650.000	465.500
95.732	465.577
214.462	472.846
860.011	471.000

Search Grid

7.917	465.568
542.160	465.568
542.160	1085.206
7.917	1085.206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0.000
0.250
0.500
0.750
1.000
1.250
1.500
1.750
2.000
2.250
2.500
2.750
3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
Material Properties:
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Berm Fill UD
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Material: Clay Line UD
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Material: CL-CH UD
Unit Weight: 116 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Material: CL-ML-SM UD
Unit Weight: 126 lb/ft3
Cohesion: 800 psf
Friction Angle: 0 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Clay Liner
Berm Fill
2.390
W
Lower Dry Ash
SP
SP-GP
el. 483'
el. 468'
el. 449'
el. 436.5'
SP-SM
SP-GP
CL-CH
CL-ML-SM
SP-SM
Ameren: Labadie UWL
Section: C-C'
Undrained, Initial Height Ash
900
800
700
600
500
400
300
100
200
300
400
500
600
700
800
900

Slide Analysis Information

Document Name

File Name: section CC partial undrained.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: 4

Material Properties

Material: Lower Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill UD
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees

Water Surface: Water Table
Custom Hu value: 1

Material: Clay Line UD
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL-CH UD
Strength Type: Mohr-Coulomb
Unit Weight: 116 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL-ML-SM UD
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 800 psf
Friction Angle: 0 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Water Surface: Water Table
Custom Hu value: 1

List of All Coordinates

Material Boundary

93.161	464.720
850.000	468.000

Material Boundary
190.000 483.000
231.496 469.168
540.000 470.000
740.000 471.000
850.000 471.550

Material Boundary
175.000 486.000
175.000 488.000

Material Boundary
175.000 486.000
231.496 467.168
231.496 469.168

Material Boundary
231.496 467.168
850.000 469.550

Material Boundary
-330.000 461.500
-30.000 461.500
260.000 461.500
550.000 456.500
850.000 456.500

Material Boundary
-330.000 456.500
-30.000 454.000
260.000 456.500
550.000 451.500
850.000 449.000

Material Boundary
-330.000 449.000
-30.000 451.500
260.000 451.500
550.000 446.500
850.000 444.000

Material Boundary
-330.000 444.000
-30.000 446.500
260.000 444.000
-30.000 441.500
-330.000 444.000

Material Boundary
-330.000 431.500
-30.000 434.000
260.000 435.000
-30.000 436.500
-330.000 439.000

Material Boundary
-330.000 429.000

-30.000	431.500
260.000	426.500
550.000	431.500
850.000	436.500

External Boundary

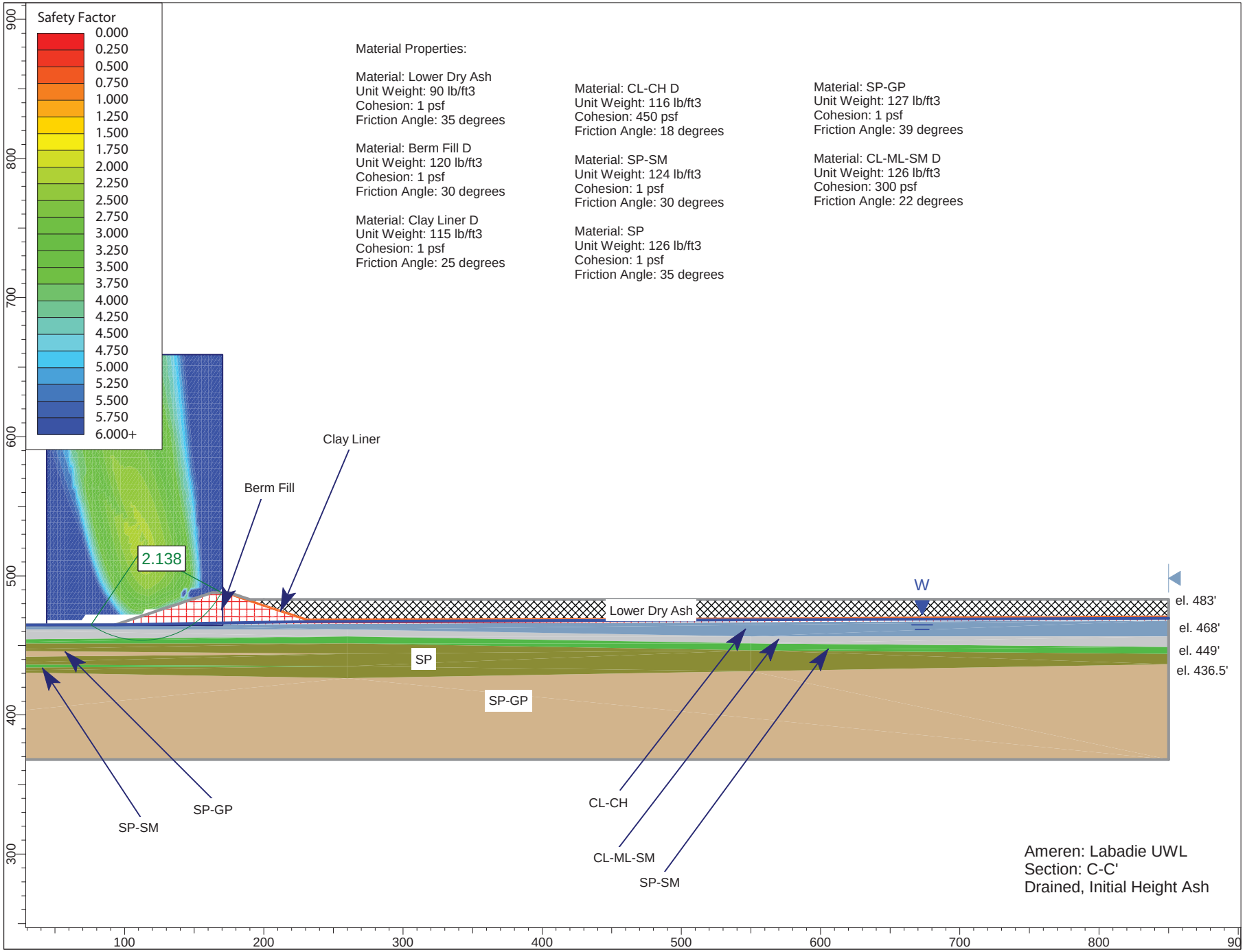
200.000	483.000
198.942	483.000
190.000	483.000
189.375	483.208
184.000	485.000
183.073	485.309
175.000	488.000
174.160	487.986
172.299	487.955
169.000	487.901
168.082	487.916
163.000	488.000
157.036	486.012
154.000	485.000
144.060	481.687
139.000	480.000
129.060	476.687
124.000	475.000
118.940	473.313
93.161	464.720
-330.000	464.000
-330.000	461.500
-330.000	456.500
-330.000	449.000
-330.000	444.000
-330.000	439.000
-330.000	431.500
-330.000	429.000
-330.000	368.000
850.000	368.000
850.000	436.500
850.000	444.000
850.000	449.000
850.000	456.500
850.000	468.000
850.000	469.550
850.000	471.550
850.000	483.098

Water Table

-330.000	464.000
93.161	464.720
231.496	467.168
850.000	469.550

Search Grid

44.084	464.321
170.428	464.321
170.428	659.049
44.084	659.049


Safety Factor
0.000
0.250
0.500
0.750
1.000
1.250
1.500
1.750
2.000
2.250
2.500
2.750
3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
Material Properties:
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Berm Fill D
Unit Weight: 120 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Material: Clay Liner D
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Material: CL-CH D
Unit Weight: 116 lb/ft3
Cohesion: 450 psf
Friction Angle: 18 degrees
Material: SP-SM
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Material: CL-ML-SM D
Unit Weight: 126 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Clay Liner
Berm Fill
2.138
W
Lower Dry Ash
el. 483'
el. 468'
el. 449'
el. 436.5'
SP
SP-GP
SP-SM
SP-GP
CL-CH
CL-ML-SM
SP-SM
Ameren: Labadie UWL
Section: C-C'
Drained, Initial Height Ash
900
800
700
600
500
400
300
100
200
300
400
500
600
700
800
90

Slide Analysis Information

Document Name

File Name: section CC partial drained.sli

Project Settings

Project Title: SLIDE - An Interactive Slope Stability Program
Failure Direction: Right to Left
Units of Measurement: Imperial Units
Pore Fluid Unit Weight: 62.4 lb/ft3
Groundwater Method: Water Surfaces
Data Output: Standard
Calculate Excess Pore Pressure: Off
Allow Ru with Water Surfaces or Grids: Off
Random Numbers: Pseudo-random Seed
Random Number Seed: 10116
Random Number Generation Method: Park and Miller v.3

Analysis Methods

Analysis Methods used:
Bishop simplified
Spencer

Number of slices: 25
Tolerance: 0.005
Maximum number of iterations: 50

Surface Options

Surface Type: Circular
Search Method: Grid Search
Radius increment: 10
Composite Surfaces: Disabled
Reverse Curvature: Create Tension Crack
Minimum Elevation: Not Defined
Minimum Depth: 4

Material Properties

Material: Lower Dry Ash
Strength Type: Mohr-Coulomb
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: Berm Fill D
Strength Type: Mohr-Coulomb
Unit Weight: 120 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees

Water Surface: Water Table
Custom Hu value: 1

Material: Clay Liner D
Strength Type: Mohr-Coulomb
Unit Weight: 115 lb/ft3
Cohesion: 1 psf
Friction Angle: 25 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL-CH D
Strength Type: Mohr-Coulomb
Unit Weight: 116 lb/ft3
Cohesion: 450 psf
Friction Angle: 18 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-SM
Strength Type: Mohr-Coulomb
Unit Weight: 124 lb/ft3
Cohesion: 1 psf
Friction Angle: 30 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: SP-GP
Strength Type: Mohr-Coulomb
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Water Surface: Water Table
Custom Hu value: 1

Material: CL-ML-SM D
Strength Type: Mohr-Coulomb
Unit Weight: 126 lb/ft3
Cohesion: 300 psf
Friction Angle: 22 degrees
Water Surface: Water Table
Custom Hu value: 1

List of All Coordinates

Material Boundary

93.161	464.720
850.000	468.000

Material Boundary
190.000 483.000
231.496 469.168
540.000 470.000
740.000 471.000
850.000 471.550

Material Boundary
175.000 486.000
175.000 488.000

Material Boundary
175.000 486.000
231.496 467.168
231.496 469.168

Material Boundary
231.496 467.168
850.000 469.550

Material Boundary
-330.000 461.500
-30.000 461.500
260.000 461.500
550.000 456.500
850.000 456.500

Material Boundary
-330.000 456.500
-30.000 454.000
260.000 456.500
550.000 451.500
850.000 449.000

Material Boundary
-330.000 449.000
-30.000 451.500
260.000 451.500
550.000 446.500
850.000 444.000

Material Boundary
-330.000 444.000
-30.000 446.500
260.000 444.000
-30.000 441.500
-330.000 444.000

Material Boundary
-330.000 431.500
-30.000 434.000
260.000 435.000
-30.000 436.500
-330.000 439.000

Material Boundary
-330.000 429.000

-30.000	431.500
260.000	426.500
550.000	431.500
850.000	436.500

External Boundary

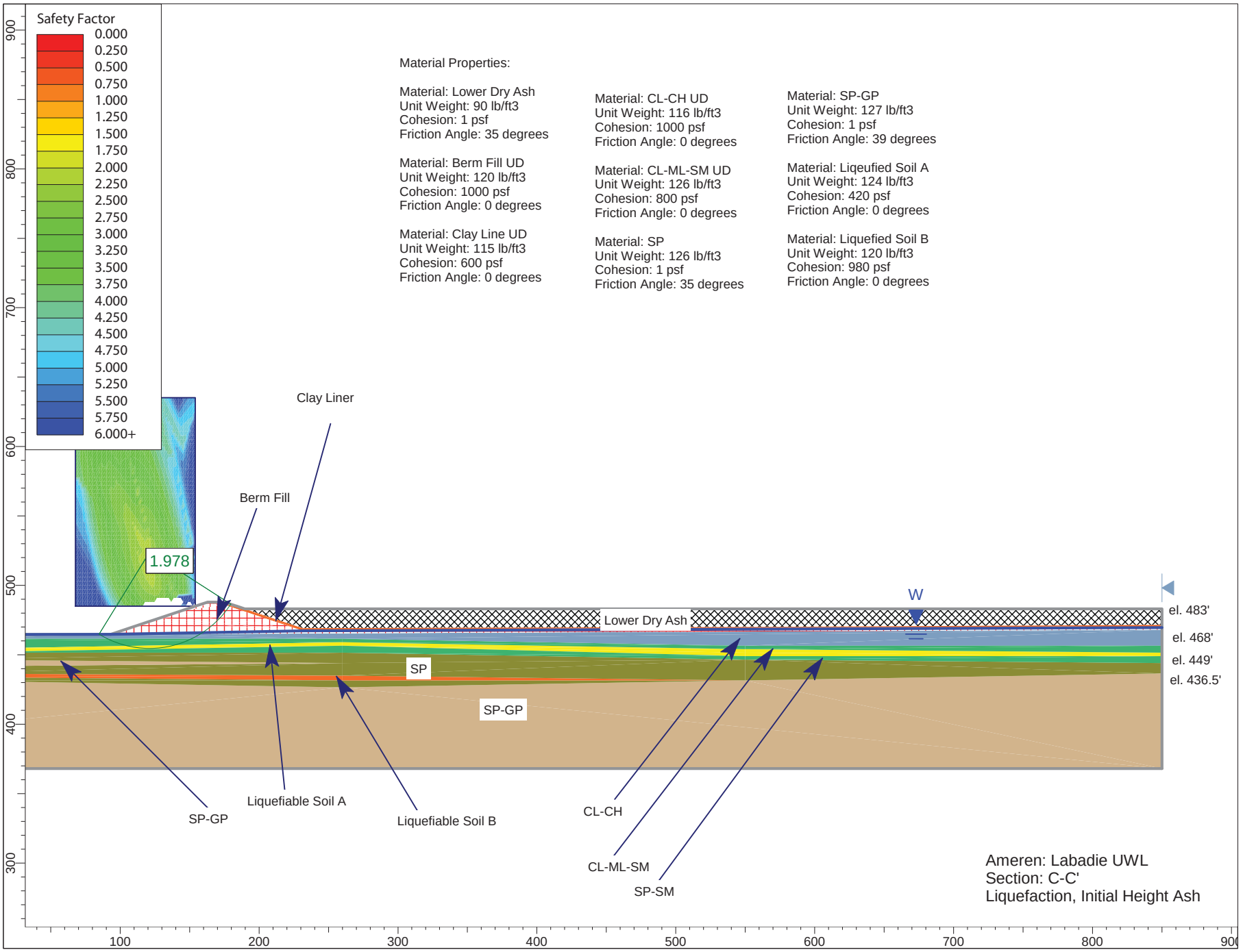
200.000	483.000
198.942	483.000
190.000	483.000
189.375	483.208
184.000	485.000
183.073	485.309
175.000	488.000
174.160	487.986
172.299	487.955
169.000	487.901
168.082	487.916
163.000	488.000
157.036	486.012
154.000	485.000
144.060	481.687
139.000	480.000
129.060	476.687
124.000	475.000
118.940	473.313
93.161	464.720
-330.000	464.000
-330.000	461.500
-330.000	456.500
-330.000	449.000
-330.000	444.000
-330.000	439.000
-330.000	431.500
-330.000	429.000
-330.000	368.000
850.000	368.000
850.000	436.500
850.000	444.000
850.000	449.000
850.000	456.500
850.000	468.000
850.000	469.550
850.000	471.550
850.000	483.098

Water Table

-330.000	464.000
93.161	464.720
231.496	467.168
850.000	469.550

Search Grid

44.084	464.321
170.428	464.321
170.428	659.049
44.084	659.049


Safety Factor
0.000
0.250
0.500
0.750
1.000
1.250
1.500
1.750
2.000
2.250
2.500
2.750
3.000
3.250
3.500
3.750
4.000
4.250
4.500
4.750
5.000
5.250
5.500
5.750
6.000+
Material Properties:
Material: Lower Dry Ash
Unit Weight: 90 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: Berm Fill UD
Unit Weight: 120 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Material: Clay Line UD
Unit Weight: 115 lb/ft3
Cohesion: 600 psf
Friction Angle: 0 degrees
Material: CL-CH UD
Unit Weight: 116 lb/ft3
Cohesion: 1000 psf
Friction Angle: 0 degrees
Material: CL-ML-SM UD
Unit Weight: 126 lb/ft3
Cohesion: 800 psf
Friction Angle: 0 degrees
Material: SP
Unit Weight: 126 lb/ft3
Cohesion: 1 psf
Friction Angle: 35 degrees
Material: SP-GP
Unit Weight: 127 lb/ft3
Cohesion: 1 psf
Friction Angle: 39 degrees
Material: Liqeufied Soil A
Unit Weight: 124 lb/ft3
Cohesion: 420 psf
Friction Angle: 0 degrees
Material: Liquefied Soil B
Unit Weight: 120 lb/ft3
Cohesion: 980 psf
Friction Angle: 0 degrees
Clay Liner
Berm Fill
1.978
W
Lower Dry Ash
SP
SP-GP
el. 483'
el. 468'
el. 449'
el. 436.5'
SP-GP
Liquefiable Soil A
Liquefiable Soil B
CL-CH
CL-ML-SM
SP-SM
Ameren: Labadie UWL
Section: C-C'
Liquefaction, Initial Height Ash
900
800
700
600
500
400
300
100
200
300
400
500
600
700
800
900