VERMONT
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STATISTICAL ANALYSIS OF DCP DATA TO EVALUATE RESILIENT MODULUS OF RECLAIMED STABILIZED BASE

MULTIPLE LOCATIONS, VERMONT

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GEODesign, Inc.

September, 2011
Research Project
Reporting on Project VTRC 22-01

Final Report 2022-03

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16. Abstract

The purpose of this study is to determine through statistical analysis if the dynamic cone penetrometer (DCP) can be used as a reliable method of quality assurance to evaluate in-situ resilient modulus (M_R) of a reclaimed stabilized base (RSB) in full depth reclamation (FDR) projects. DCP data collected by contractors from the RSB layer at the time of placement and compaction from five separate full-depth reclamation projects with RSBs was provided for this analysis. For comparison to the DCP data, M_R determined from falling weight deflectometer (FWD) testing was obtained on three of these projects about 10 to 18 months following construction.

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FINAL REPORT
STATISTICAL ANALYSIS OF DCP DATA TO EVALUATE RESILIENT MODULUS OF RECLAIMED STABILIZED BASE MULTIPLE LOCATIONS, VT

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Cc: Callie Ewald, P.E.
Tanya Miller
Stephen Madden

Re: Statistical Analysis of DCP Data to Evaluate Resilient Modulus of a Reclaimed Stabilized Base
Multiple Locations, VT

Dear Dr. Parkany,

Enclosed is our report for the statistical analysis of dynamic cone penetrometer data provided by VTrans for multiple reclaimed stabilized base projects across Vermont. As has been previously discussed at earlier team meetings, we anticipate this work may continue with a future project with tighter constraints with regards to collection of both dynamic cone penetrometer data, as well as comparative falling weight deflectometer and laboratory determined resilient modulus data. Recommendations for carrying out a next phase of this project are included herein. GEODesign is available to assist with this next phase if requested.

Sincerely,
GEODesign, Inc.

Jacob Wimett, P.E.
Associate

Mangtao (Monty) Du, P.E. (CT, NY)
Principal / Reviewer

Table of Contents

1.0 SUMMARY 3
2.0 DATA COLLECTION 3
2.1 Information from Other State DOTs 3
2.2 DCP Data 5
2.3 FWD Data 7
3.0 DATA REDUCTION TO M_R VALUES 8
3.1 DCP Data Reduction to M_R 8
3.2 FWD Data Reduction to M_R 9
3.3 Data Reduction for Comparison of M_R Determined by DCP vs. FWD 10
4.0 STATISTICAL ANALYSIS 14
4.1 Evaluation of Repeatability 14
4.2 Comparative Analysis of M_R Determined by FWD vs. DCP 17
5.0 SUMMARY OF ANALYSIS RESULTS 23
6.0 RECOMMENDATIONS 26
6.1 Recommendations for DCP Testing of Cement Stabilized RSBs 26
6.2 Recommendations for DCP Testing of Emulsified Asphalt Stabilized RSBs 26
6.3 Recommendations for Modifications to the Current VTrans DCP Specification. 27
6.4 Possibility for DCP Use in Performance-Based Specification 27
7.0 POTENTIAL ADDITIONAL WORK / FUTURE PROJECT PHASE 28
8.0 LIMITATIONS 29
9.0 REFERENCES 29

APPENDICES

APPENDIX A CURRENT VTRANS DCP SPECIFICATION

APPENDIX B RAW DCP DATA (VIA ELECTRONIC TRANSMISSION)

APPENDIX C RAW FWD DATA FOR STOWE–MORRISTOWN STP PS19(3)

APPENDIX D RAW FWD DATA FOR RICHFORD–JAY STP 2914(1)

APPENDIX E RAW FWD DATA FOR CAVENDISH-WEATHERSFIELD STP 0146(14)

APPENDIX F INFRASENSE FWD PAVEMENT STRUCTURAL EVALUATION REPORT

APPENDIX G RESILIENT MODULUS DATA REDUCTION FOR STOWE–MORRISTOWN STP PS19(3)

APPENDIX H RESILIENT MODULUS DATA REDUCTION FOR RICHFORD–JAY STP 2914(1)

APPENDIX I RESILIENT MODULUS DATA REDUCTION FOR CAVENDISH-WEATHERSFIELD STP 0146(14)

APPENDIX J RESILIENT MODULUS DATA REDUCTION FOR ESSEX-RICHMOND STP 2931(1)

APPENDIX K RESILIENT MODULUS DATA REDUCTION FOR JOHNSON-MORRISTOWN STP 2919(1)

APPENDIX L RECOMMENDED CHANGES TO THE VTRANS DCP SPECIFICATION

APPENDIX M GEOTECHNICAL LIMITATIONS

1.0 SUMMARY

The purpose of this study is to determine through statistical analysis if the dynamic cone penetrometer (DCP) can be used as a reliable method of quality assurance to evaluate in-situ resilient modulus (M_R) of a reclaimed stabilized base (RSB) in full depth reclamation (FDR) projects. DCP data collected by contractors from the RSB layer at the time of placement and compaction from five separate full-depth reclamation projects with RSBs was provided for this analysis. For comparison to the DCP data, M_R determined from falling weight deflectometer (FWD) testing was obtained on three of these projects about 10 to 18 months following construction.

While the M_R values determined by DCP were relatively repeatable within a given project, statistical analysis on the provided data did not determine a meaningful correlation between the M_R values determined by DCP and those determined by FWD. However, it is our opinion that this is likely due to data collection between the two methods having taken place at different times, conditions, and locations. The M_R value of a stabilized material changes with curing time, moisture conditions, location specific subgrade and section thickness, and confinement of the layer, among other factors. Thus, it is unsurprising that M_R values determined with the DCP within hours or days of placement and compaction of the RSB layer and prior to paving did not correlate well with M_R values determined by FWD testing performed 10 to 18 months after construction and at different locations than the DCP tests. Furthermore, M_R values obtained from correlation with FWD data typically require verification with laboratory determined M_R values through a correction factor, for use in the AASHTO structural number method of pavement design. This correction factor is variable and recommended to be developed based on site specific conditions. No laboratory testing was done as part of this study to develop the associated correction factor for FWD.

Our recommendations are to conduct further data collection and evaluation on a future full-depth reclamation project with a reclaimed stabilized base to collect comparative data in a more controlled manner and at the same times, locations, and conditions. This further data collection will be beneficial in determining whether the DCP can be used as a reliable tool to evaluate the M_R of an RSB.

2.0 DATA COLLECTION

2.1 Information from Other State DOTs

Members of Departments of Transportations (DOTs) from Indiana, Missouri, Texas, Pennsylvania, Minnesota, and Ohio were asked about their use of the DCP in current or past projects to see what information relevant to this study may be readily available. These DOTs were chosen based on available published literature that implied these DOTs had familiarity in using the DCP. In particular, the following questions were asked:

1. Have they performed any lab or field testing on M_R of a stabilized base?
2. Have they performed any DCP testing on a stabilized base?
3. Have they looked into any direct correlation between DCP and M_R for a stabilized base?
4. Can they share any construction specifications that include DCP (data collection or acceptance testing or related to performance)?

Responses were received from all states queried except Texas. While responses did not provide any specific information relevant to DCP testing of RSBs, they provided some relevant information such as how other DOTs use the DCP and values assumed for RSB materials. Responses are summarized below:

Indiana DOT (INDOT)

- INDOT Design Manual uses 80,000 psi for M_R of an aggregate drainage layer.
- FDR M_R values for INDOT typically range from 60,000 to 80,000 psi. Unclear if this applies to stabilized material. Geotechnical Engineer determines the value.
- DCP testing is only used for untreated soil embankment construction. No information on testing of RSBs.

Minnesota DOT (MnDOT)

- Unaware of research performed on using DCP for design or acceptance of stabilized FDR.
- MnDOT does specify that material below the RSB meet a DCP Penetration Index of 10 mm/blow. Provided links to spreadsheets used that depict using 2 blows as seating blows.
- Provided links to several studies, including one which was a compilation of Appendices from a report on the use of fly ash stabilization for reconstruction of Bituminous Roads. This included a study in which DCP was used as a field tool in evaluating the M_R of the stabilized material. This study used different correlation between DCP Penetration Index and "Modulus" attributed to Davich et al. 2006 that is reportedly used by MnDOT ($E=10^{3.05-(1.06\log(DPI))}$). We checked this correlation vs. those used in this study and found them to provide a slightly lower M_R (generally on the order of 80% to 95% within the range of typical DCP Penetration Index values observed in this study).
- Provided a link to a study on fly-ash stabilization for low volume roads. In this study the DCP was used to test the M_R of a fly-ash stabilized surface after approximately 7 days of curing and prior to paving. The effect of curing was evident. This study also noted that the CBR to M_R correlation being used in our study tended over-estimated the M_R for fly-ash stabilized materials.

Missouri DOT (MODOT)

- DCP testing only performed on un-stabilized materials at MoDOT. Not aware of any laboratory M_R testing having been done on stabilized base material.

Pennsylvania DOT (PennDOT)

- PennDOT has not performed DCP testing on stabilized bases and does not have M_R testing for stabilized bases. They have not investigated a correlation between DCP and M_R.

Ohio DOT (ODOT)

- ODOT has not done lab or field-based M_R testing on RSBs.
- ODOT has not done DCP testing on the granular base layer of their pavement (only subgrade).
- ODOT uses the USACE formula to correlate DCP to California bearing ratio (CBR) for subgrade which is then correlated to M_R.
- ODOT uses DCP exclusively in design. It is not used in construction.

2.2 DCP Data

In order to collect the data for the statistical analysis of this study, VTrans issued a specification outlining a procedure for contractors to collect DCP data on reclaimed stabilized base materials during construction. A copy of this specification is included in Appendix A. Key data collection requirements of this specification include:

- Testing is to be done in accordance with ASTM D6951, "Standard Test Methods for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications"
- Testing is to be conducted every 1,000 linear feet and within the limits of the RSB layer.
- Each testing location will receive four tests. Two tests in each directional width of roadway, with tests performed 4-feet and 10-feet from the road centerline in each direction.
- Testing is to be conducted following the completion of the reclaimed stabilized base layer and prior to the installation of subsequent surface courses.

Raw DCP data collected by different Contractors on the RSB of five recently completed projects was provided to GEODesign for evaluation.

The projects for which we received raw DCP data from VTrans are depicted in Table 1 below. Raw DCP data as provided to GEODesign is attached to the electronic copy of this report (Appendix B):

Table 1: Raw DCP Data Provided By VTrans

Project	Location	Testing Dates	Stabilization Method	# of DCP Data Sets Provided	Data Format
Stowe-Morristown STP PS19(3)	VT Route 100	July to September, 2020	Asphalt Emulsion	114	• Cell Phone Screen Shots • Excel Tabular Format
Richford-Jay STP 2914(1)	VT Route 105	July, 2021	Asphalt Emulsion	313	• Word Document Graphs
Cavendish-Weathersfield STP 0146(14)	VT Route 131	June, 2021	Cement	105	Cell Phone Screen Shots • Word Document Graphs
Essex-Richmond STP 2931(1)	VT Route 117	August, 2018	Asphalt Emulsion	180	• Microsoft Excel Tabular Format
Johnson-Morristown STP 2919(1)	VT Routes 15, 100, and 15A	August-September, 2021	Asphalt Emulsion	109	• PDF File Tabular Format

Particular notes on unusual data sets from each project are as follows:

Stowe-Morristown

- One data set (15+00 4'L) was significantly softer than the others (computed M_R was only 7.5% of the Stowe-Morristown RT average). It appears as if the test was performed through a material that was not a placed and compacted RSB.

Richford-Jay

- 2 data sets (147+50 2'R and 423+10 2'R) were observed significantly softer than the others (computed M_R was only 17% and 32% of the Richford-Jay RT average). It appears as if the 2 data sets were performed through a material that was not a placed and compacted RSB.
- Files for 8 data sets locations (200+00 6'L, 206+00 6'L, 230+00 2'L, 230+00 8'L, 302+40 4'R 302+40 8'R, 308+60 2'R, and 308+60 8'R) were given with no data provided.
- 1 data set (219+10 4'L) was continued after refusal (less than 2mm of movement for 5 blows). This test should have been terminated.

Cavendish-Weathersfield

- One data set (35+00 7'R) was reported to be located under the same date and location as a separate data set but had different values.

- One data set (48+51 3'L) was significantly softer than the others, (computed M_R was only 6.4% of the Stowe-Morristown RT average) It appears as if the entire test was performed through a material that was not a placed and compacted RSB.

Essex-Richmond

- 72 of the data sets did not contain station or offset information. These sets were not used in analysis that differentiated between traveled lanes.

Johnson-Morristown

- Station H142+00 Offsets 10'L and 10'R had identical data sets. It was unclear which was correct so these were not included in our analysis of individual traveled lanes.
- VTrans staff reported that DCP testing was performed using the smaller 4.6 kg hammer. While we have corrected this data using recommended factors, this size DCP hammer is only intended for soft soils and is not appropriate for a stabilized base material. This data is only used for comparisons within the Johnson-Morristown set.

2.3 FWD Data

For a comparative analysis, field measurements of M_R were collected from three of these projects in the Spring of 2022 using an FWD. FWD data collection and reduction was provided by Infrasense of Woburn, MA. A summary of the data collection methods is as follows:

- Ground penetrating radar (GPR) for each project was collected along the centerline of each traveled lane at normal driving speeds in November of 2021. Thicknesses assumed from the GPR were used in the backcalculation of M_R from the FWD testing.
- FWD testing was performed in May 2022 using a tow behind trailer mounted FWD at approximately 500-foot intervals in each lane of travel. Test intervals were spaced out to 750-feet in the northbound lane of the Richford-Jay project due to incoming inclement weather. FWD test offsets from the centerline were not provided.

The projects for which we received raw FWD data from Infrasense are depicted in Table 2 below. Refer to Appendices C through E for the raw FWD data for each of these projects respectively. A more comprehensive discussion of the FWD data collection is provided in the Infrasense report included in Appendix F:

Table 2: FWD Data Provided by Infrasense

Project	Location	Testing Dates	Stabilization Method	# of FWD Tests Provided	Approximate Elapsed Time Since RSB Placement
Stowe-Morristown STP PS19(3)	VT Route 100	May 18, 2022	Asphalt Emulsion	162	20-22 Months
Richford-Jay STP 2914(1)	VT Route 105	May 19, 2022	Asphalt Emulsion	135	10 Months
Cavendish-Weathersfield STP 0146(14)	VT Route 131	May 17, 2022	Cement	193	11 Months

3.0 DATA REDUCTION TO M_R VALUES

3.1 DCP Data Reduction to M_R

DCP testing results were provided in several different formats including Microsoft Excel tabular data, graphs in Microsoft Word format, and photographs of cell phone screens containing data. GEODesign reduced the data into a common tabular format using the following approach:

1. ***The initial blows of each set are discounted.*** This approach helps adjust for lack of surface confinement and is generally considered common practice. For the Johnson-Morristown and Essex-Richmond projects where data was only reported in groups of 5 or 10 blows respectively, the initial group of blows was discounted from our evaluation. For the other three projects, the initial two blows were discounted as seating blows.

2. ***Discrete data points are grouped into "readings" a minimum of 20-mm apart.*** It is recommended practice to maintain 25-mm of travel between measurements to avoid error associated with bouncing on large diameter particles. To meet this criterion, we grouped individual discrete blows from the raw data together into "readings" as needed to provide at least 25-mm of travel per reading. After performing these groupings, for some data sets the last few blows would add up to between 20-mm and 25-mm of travel. Using guidance from the Army Corps of Engineers (which recommends a 20-mm minimum travel between readings be considered), we chose to include these points in our analysis.

3. ***Discount Outliers***. GEODesign used our engineering judgement and familiarity with performing DCP tests to discount significant outliers from the data sets. These are typically locations where it is inferred that the test punctured through the RSB layer and

into the underlying material, or an obvious deficiency in compaction was noted. This is reasonable as we are looking to judge the repeatability of the DCP in RSB, and it would be improper to consider outliers due to potential test data from non-RSB layers or non-compacted zones as part of this evaluation.

4. ***Compute an Average DCP Penetration Index Per Test.*** For each of the readings, a DCP Penetration Index is computed using the formula:

   PI = Penetration in mm / # Blows

   The individual penetration indices are then averaged at each test location for the representative penetration index of the RSB layer.

5. ***Compute an Average CBR.*** The average CBR is then computed from the average DCP Penetration Index using the formula:

   $CBR\ (\%) = 292 / PI^{1.12}$

   This is a widely used conversion for all soils, with the exception of lean clays, with a CBR less than 10 and fat clays. This correlation is recommended by ASTM D6951.

6. ***Correlate an Average M_R.*** The average CBR value is then correlated to M_R at each test location using the formula:

   $M_R\ (psi) = 2555 \times CBR^{0.64}$

   This formula was developed by the Transportation and Road Research Laboratory and is an industry standard correlation between CBR and M_R. While other correlations between M_R and CBR have been proposed, and all correlations must be used with an acknowledgement of some degree of uncertainty, this formula has been presented for use by the US Army Corps of Engineers (USACE), the Federal Highway Administration (FHWA), the National Cooperative Highway Research Program (NCHRP), and the American Association of State Highway Transportation Officials (AASHTO).

3.2 FWD Data Reduction to M_R

Data reduction of the FWD data to M_R was included as part of the Infrasense FWD testing program. Individual layer modulus values were reported to have been computed using a Modulus version 6.0 software based on layer thicknesses estimated by their GPR survey. Refer to the Infrasense report included in Appendix F for further description of their calculation methods.

3.3 Data Reduction for Comparison of M_R Determined by DCP vs. FWD

For the Stowe-Morristown, Richford-Jay, and Cavendish-Weathersfield projects where we were provided both FWD and DCP data, further data reduction was performed to evaluate their potential correlations. Since DCP and FWD tests were not taken at the same locations, the averages of each were taken over 3000-foot stretches of road to create comparative data points for use in our analysis. The 3,000-foot spacing was chosen as this was the minimum stretch to assure multiple DCP tests per traveled lane were included in each comparative average. Exceptions include Stations A 090+00 to A 120+00, A 120+00 to A 150+00 for the Stowe-Morristown project for which there was only one DCP test in each stretch.

Additionally, the DCP data collected between Stations 061+00 to 296+00 for the Cavendish-Weathersfield project was not provided to GEODesign, and therefore this stretch of road was excluded in this study.

This further data reduction resulted in the following data points for our comparative analysis:

STOWE - MORRISTOWN

Stowe-Morristown 3000-ft Groupings Left (LT) - Southbound

Road Section	DCP PI	DCP M_R	FWD M_R
21000-24000	7.2	23,546	185,150
24000-27000	7.8	22,722	203,183
27000-30000	8.0	21,861	197,683
30000-33000	6.6	25,047	268,283
33000-36000	6.5	25,375	264,317
36000-A03000	6.9	24,191	374,800
A03000-A06000	9.7	19,089	203,450
A06000-A09000	9.5	19,352	246,667
A09000-A12000	9.4	19,470	227,633
A12000-A15000	5.9	27,083	211,300
A15000-A18000	6.8	24,728	143,333
A18000-A21000	7.3	23,292	178,200
A21000-A24000	6.4	25,708	138,400
Average	7.5	23,189	218,646
Standard Deviation	1.3	2,592	61,666

Stowe-Morristown 3000-ft Groupings Right (RT) - Northbound

Road Section	DCP PI	DCP M_R	FWD M_R
21000-24000	8.0	22,017	182,150
24000-27000	6.9	24,578	135,857
27000-30000	7.2	23,585	131,740
30000-33000	7.6	22,953	235,200
33000-36000	7.1	24,198	264,317
36000-A03000	6.5	25,270	316,886
A03000-A06000	8.4	21,053	266,933
A06000-A09000	8.7	20,747	216,400
A09000-A12000	6.9	24,207	227,017
A12000-A15000			140,300
A15000-A18000	8.2	21,786	71,983
A18000-A21000	7.8	22,924	161,540
A21000-A24000	6.5	25,263	213,600
Average	7.5	23,215	197,225
Standard Deviation	0.7	1,560	67,778

RICHFORD - JAY

Richford-Jay 3000-ft Groupings Westbound

Road Section	DCP PI	DCP M_R	FWD M_R
13000-16000	6.3	26,083	133,725
16000-19000	6.6	24,959	210,300
19000-22000	7.9	22,372	109,067
22000-25000	8.1	21,589	65,925
25000-28000	9.1	20,162	106,000
28000-31000	6.2	26,215	92,300
31000-34000	6.8	24,668	138,275
34000-37000	6.7	24,876	108,240
37000-40000	8.4	21,120	220,700
40000-43000	7.0	24,505	146,180
43000-46000	7.0	24,852	116,925
46000-J00200	7.1	24,057	112,475
J00200-J03200	7.7	22,413	140,500
Average	7.3	23,682	130,816
Standard Deviation	0.9	1,938	43,410

Richford-Jay 3000-ft Groupings Eastbound

Road Section	DCP PI	DCP M_R	FWD M_R
13000-16000	6.1	26,754	51,480
16000-19000	7.5	22,825	82,683
19000-22000	6.9	24,377	44,567
22000-25000	6.8	24,547	39,320
25000-28000	7.5	22,794	106,000
28000-31000	6.2	26,300	59,350
31000-34000	7.0	24,048	22,767
34000-37000	9.0	19,974	17,133
37000-40000	7.7	22,557	23,300
40000-43000	8.3	21,330	27,800
43000-46000	7.3	23,273	20,450
46000-J00200	7.6	22,708	20,800
J00200-J03200	7.4	23,291	31,875
Average	7.3	23,444	42,117
Standard Deviation	0.8	1,832	26,944

CAVENDISH-WEATHERSFIELD

Note - No DCP Data Included STA. 061+00 to 296+00

Cavendish-Weathersfield 3000-ft Groupings - Westbound

	DCP PI	DCP M_R	FWD M_R
29600 - 32600	7.8	23,153	1,453,150
32600 - 35600	7.5	23,150	1,790,600
35600 - 38600	6.8	25,056	1,165,917
38600 - 41600	7.9	22,139	952,367
41600 - W1200	7.5	23,244	1,563,833
W1200 - W3200	9.1	19,953	1,243,925
W3200 - END	5.8	27,599	1,252,557
AVG	7.5	23,470	1,346,050
STDEV	1.0	2,379	277,828

Cavendish-_Weathersfield 3000-ft Groupings - Eastbound

	DCP PI	DCP M_R	FWD M_R
29600 - 32600	6.5	25,614	1,206,667
32600 - 35600	6.3	25,924	1,053,033
35600 - 38600	6.4	25,759	1,182,533
38600 - 41600	7.5	23,262	1,532,450
41600 - W1200	8.5	21,653	1,267,650
W1200 - W3200	9.4	20,136	1,207,667
W3200 - END	7.0	24,549	1,432,863
avg	7.4	23,842	1,268,980
stdev	1.2	2,255	162,288

4.0 STATISTICAL ANALYSIS

4.1 Evaluation of Repeatability

To evaluate the repeatability of the DCP vs. the FWD we evaluated the coefficient of variation within the computed M_R values for each traveled lane at each site. While the RSB is a processed-in-situ material, we do expect inherent variability within the product. To reduce the effect of outliers due to variability, we also evaluated a subset of data limited to tests within 1.5 standard deviation from the mean. For each set of data, M_R computed by DCP exhibited less variation than M_R computed by FWD as depicted in Table 3 below.

Table 3: Mean, Standard Deviation, Coefficient of Variance, and Sample Size for M_R Testing Methods

PROJECT	DIRECTION	Length of Project	ALL DATA DCP M_R RSB (psi)	OUTLIERS REMOVED [2] DCP M_R RSB (psi)	ALL DATA FWD M_R RSB (psi)	OUTLIERS REMOVED [2] FWD M_R RSB (psi)
Cavendish-Weathersfield[1]	Eastbound	8.953 Miles (47,275 Ft.)	Mean = 23541 SDev. = 3638 **COV = 16%** Sample Size = 44	Mean = 24572 Sdev. = 2731 **COV = 11%** Sample Size = 38	Mean = 959901 SDev. = 732904 **COV = 76%** Sample Size = 95	Mean = 959901 Sdev. = 732904 **COV = 76%** Sample Size = 95
	Westbound		Mean = 22516 SDev. = 4267 **COV = 19%** Sample Size = 58	Mean = 23217 SDev. = 3518 **COV = 15%** Sample Size = 54	Mean = 959901 SDev. = 732904 **COV = 76%** Sample Size = 96	Mean = 959901 SDev. = 732904 **COV = 76%** Sample Size = 96
Richford-Jay	Eastbound	7.438 Miles (39,274 Ft.)	Mean = 23981 SDev. = 3598 **COV = 15%** Sample Size = 152	Mean = 24276 SDev. = 3352 **COV = 14%** Sample Size = 146	Mean = 36153 SDev. = 36833 **COV = 102%** Sample Size = 78	Mean = 25906 SDev. = 17520 **COV = 68%** Sample Size = 71
	Westbound		Mean = 23935 SDev. = 4047 **COV = 17%** Sample Size = 150	Mean = 24332 SDev. = 3708 **COV = 15%** Sample Size = 143	Mean = 128857 SDev. = 78841 **COV = 61%** Sample Size = 55	Mean = 159652 SDev. = 35868 **COV = 22%** Sample Size = 26
Stowe-Morristown	Northbound	7.550 Miles (39,861 Ft.)	Mean = 23457 SDev. = 3562 **COV = 15%** Sample Size =56	Mean = 23803 SDev. = 2983 **COV = 13%** Sample Size = 53	Mean = 193356 SDev. = 141926 **COV = 73%** Sample Size = 81	Mean = 155450 SDev. = 104013 **COV = 67%** Sample Size = 70
	Southbound		Mean = 22290 SDev. = 4586 **COV = 21%** Sample Size = 54	Mean = 23413 SDev. = 3021 **COV = 13%** Sample Size = 49	Mean = 217699 SDev. = 115393 **COV = 53%** Sample Size = 79	Mean = 201431 SDev. = 98571 **COV = 49%** Sample Size = 74

PROJECT	DIRECTION	Length of Project	ALL DATA DCP M_R RSB (psi)	OUTLIERS REMOVED [2] DCP M_R RSB (psi)	ALL DATA FWD M_R RSB (psi)	OUTLIERS REMOVED [2] FWD M_R RSB (psi)
Essex-Richmond	* Due to a large amount of data not including station and offset, data for this project was not split between traveled lanes.	6.77 Miles (35,744 Ft.)	Mean = 30779 SDev. = 8680 **COV = 28.2%** Sample Size = 180	Mean = 30981 SDev. = 6760 **COV = 21.8%** Sample Size = 168	Data not available	Data not available
Johnson – Morristown	Eastbound	11.515 Miles (60,810 Ft.)	Mean = 27447 SDev. = 9987 **COV = 36%** Sample Size = 54	Mean = 27963 SDev. = 7282 **COV = 26%** Sample Size = 52	Data not available	Data not available
	Westbound		Mean = 33647 SDev. = 8298 **COV = 25%** Sample Size = 53	Mean = 34775 SDev. = 7097 **COV = 20%** Sample Size = 50	Data not available	Data not available

[1] FWD based M_R values from Cavendish-Weathersfield are significantly higher, possibly due to the use of cement as the stabilizing agent. All other projects were stabilized using emulsified asphalt.
[2] The data within these columns is a subset including only data points within 1.5 standard deviations of the mean to limit the influence of outliers.

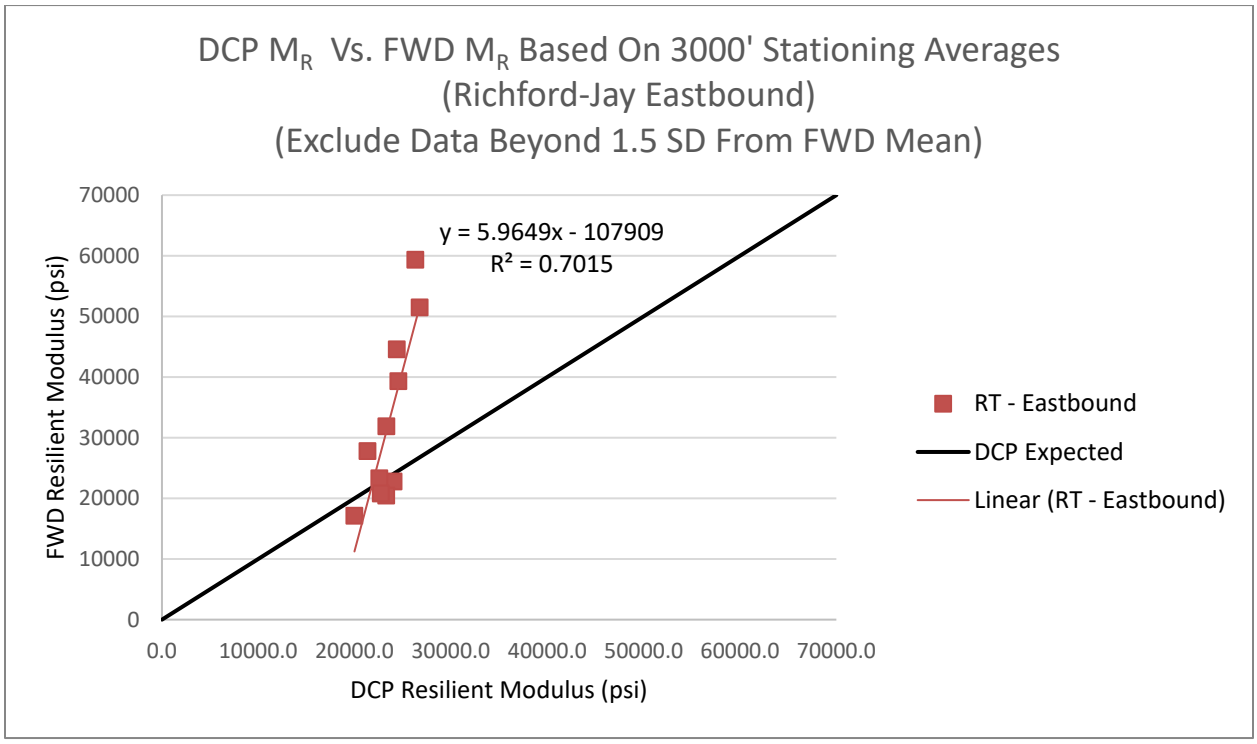
4.2 Comparative Analysis of M_R Determined by FWD vs. DCP

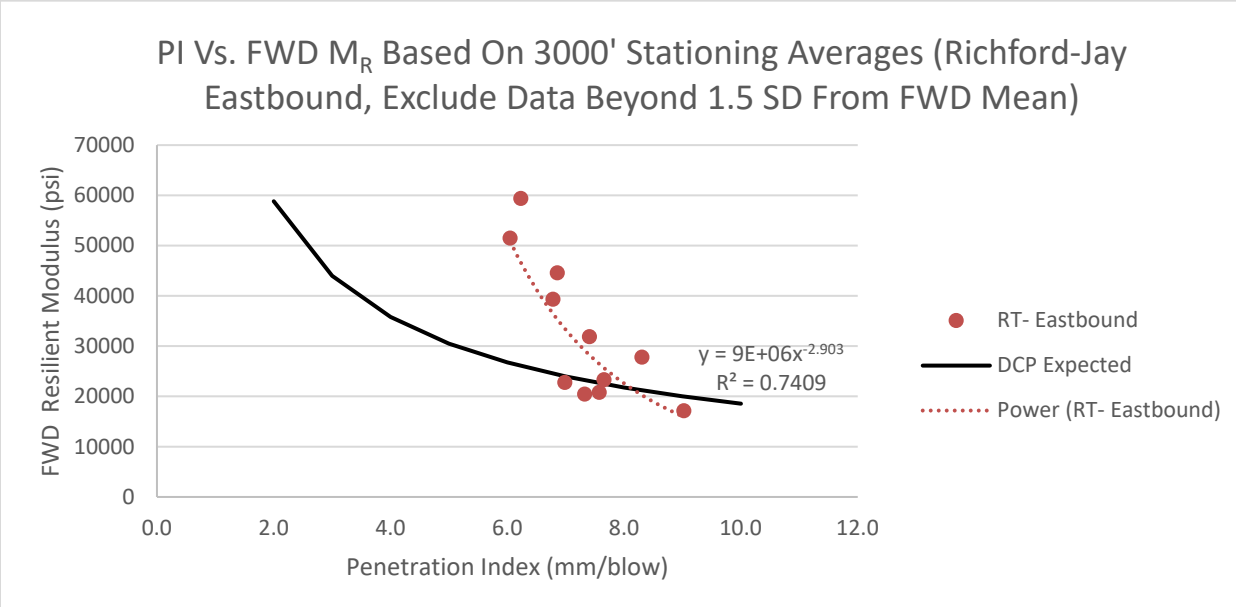
In general, no meaningful correlation was observed between the FWD and DCP determined M_R values for the 3,000-foot station averages at the three projects (Stowe-Morristown, Richford-Jay, and Cavendish-Weathersfield) for which we were provided both FWD and DCP data.

For each of these projects, the FWD data are plotted against DCP data, together with regression curves representing best fit correlation curves using the least square method.

The R^2 value presented in the plots represents the coefficient of determination and is a statistical measure of how close the data fit to the least square line. In general, the closer the R^2 value is to 1, the better the model fits the data, and the more likely it is that there is a true correlation between variables. Plots and tabular data used for the comparative analysis are presented below at the end of this section.

The one exception appears to be the Eastbound Lane for the Richford-Jay project where the FWD determined M_R was significantly lower than other areas tested, but much closer to the DCP determined M_R. There appears to be a meaningful correlation between the two data sets at this location. This strong correlation held true both for direct M_R comparison as well as comparing DCP Penetration Index directly to the FWD modulus (a power function is used for this correlation based on the DCP to M_R conversion fomula). This appears to be an exception of all the data sets.





To check the strength of the correlation between the FWD M_R and DCP M_R for this particular data set, we computed the Pearson Correlation Coefficient (r). The Pearson Correlation Coefficient is a commonly used statistic to measure the strength of correlation between two data sets, and is computed by:

$$r = \frac{\sum (x-\bar{x})(y-\bar{y})}{\sqrt{\sum (x-\bar{x})^2 \sum (y-\bar{y})^2}}$$

where x and y are the individual values of each data set, and $\bar{x}$ and $\bar{y}$ are the averages of each set.

For the DCP M_R and FWD M_R data sets from the Eastbound Lane of the Richford-Jay project the computed Pearson Correlation Coefficient's were as follows:

Based on DCP M_R and FWD M_R

- All data: r = 0.26
- With outliers excluded: r = 0.84

Based on DCP PI and FWD M_R

- All data: r = -0.28
- With outliers excluded: r = -0.79

Commonly accepted guidelines for interpreting the Pearson Correlation Coefficient are as follows:

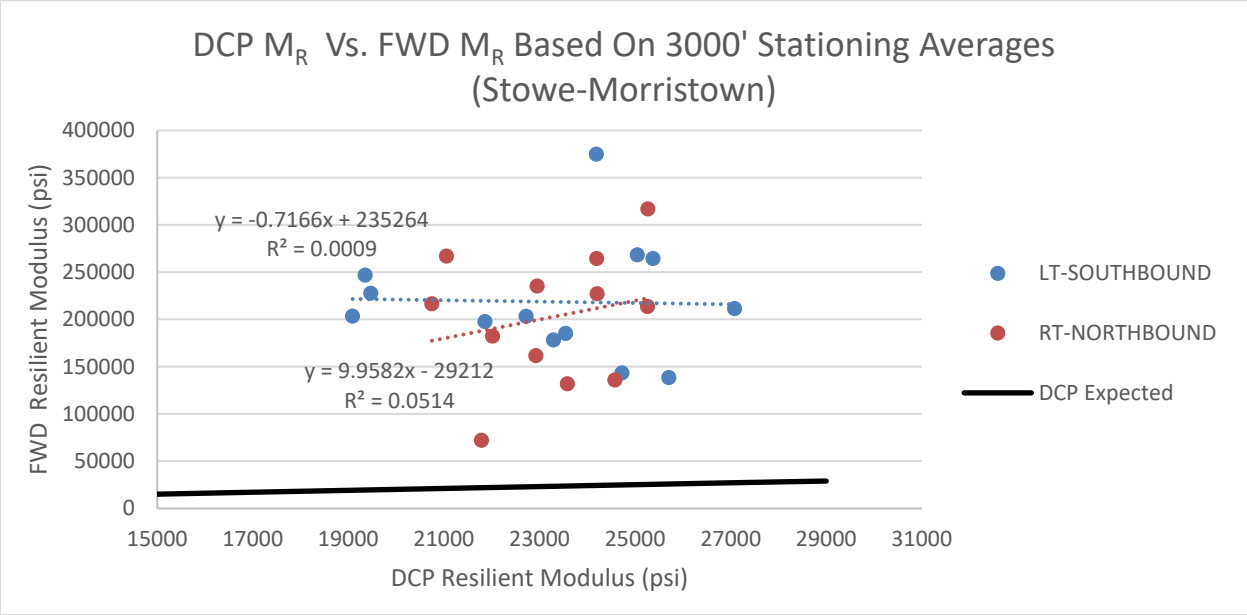
Strength of Association	Coefficient, *r*	
	Positive	Negative
Small	.1 to .3	-0.1 to -0.3
Medium	.3 to .5	-0.3 to -0.5
Large	.5 to 1.0	-0.5 to -1.0

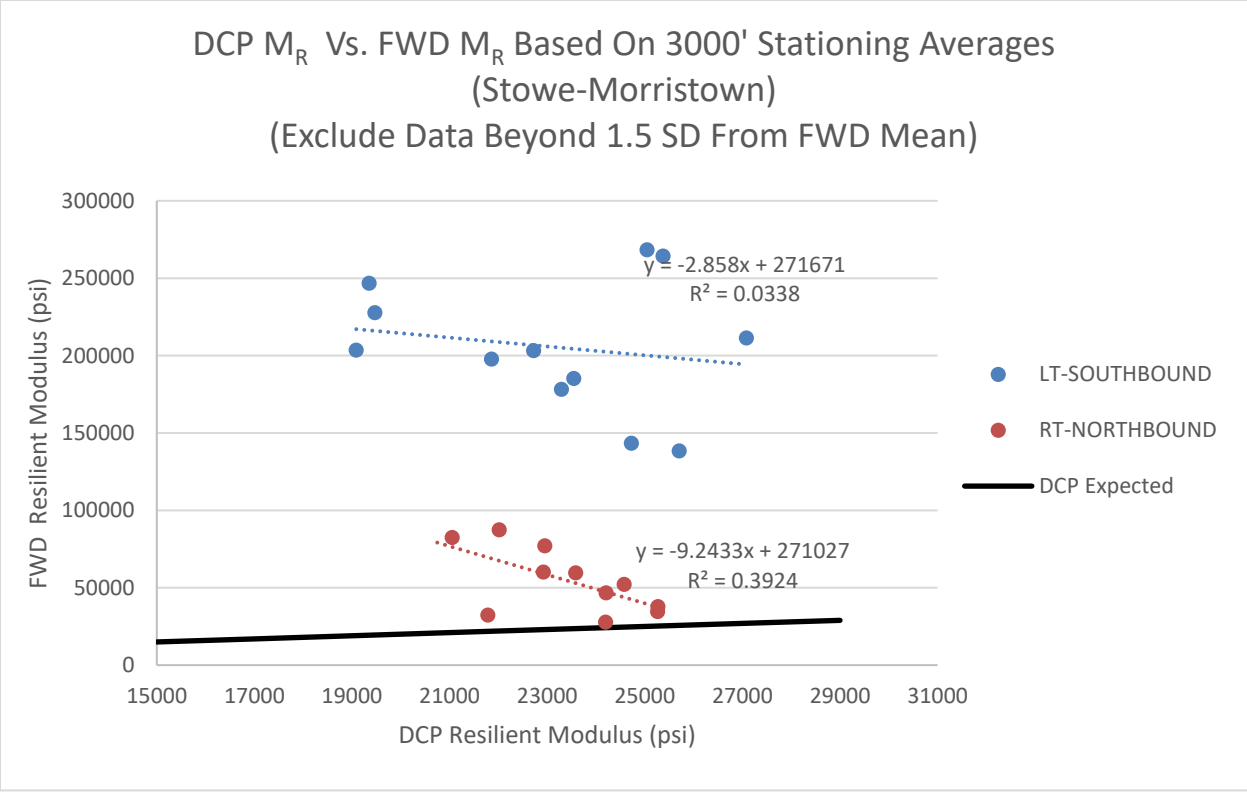
Given the above, there appears to be a small strength of association between the full data sets of DCP and FWD data at this location, but a strong strength of association when outliers are excluded.

The reasoning for this exception is unknown. Test methods were reported to be the same as in other test sites, and a similar length of time had elapsed between the DCP and FWD testing. We are unaware of any reported discrepancies in material placement or construction methods in the Eastbound lane of the Richford-Jay project compared to other locations where testing was performed.

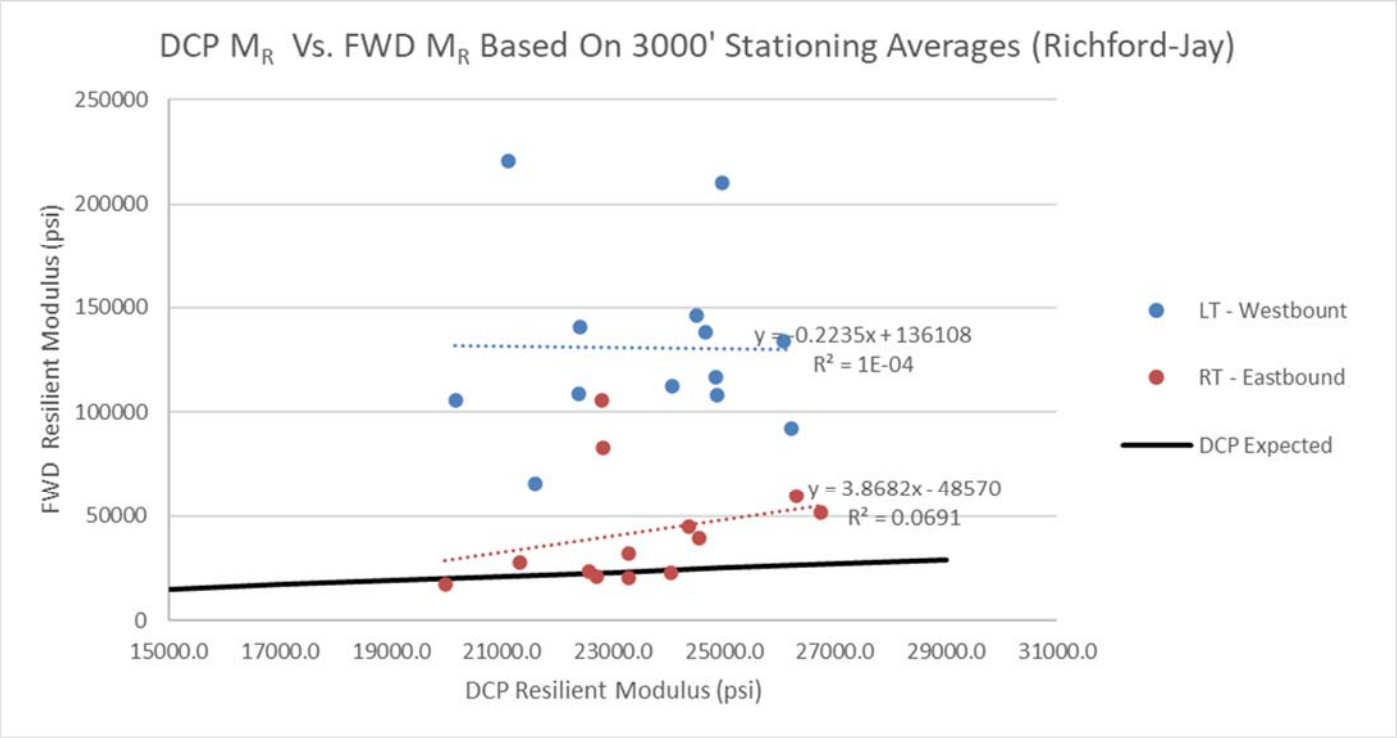
Data analyses for the other two sites are illustrated in figures below. As shown, no meaningful correlation is apparent from the data of those sites.

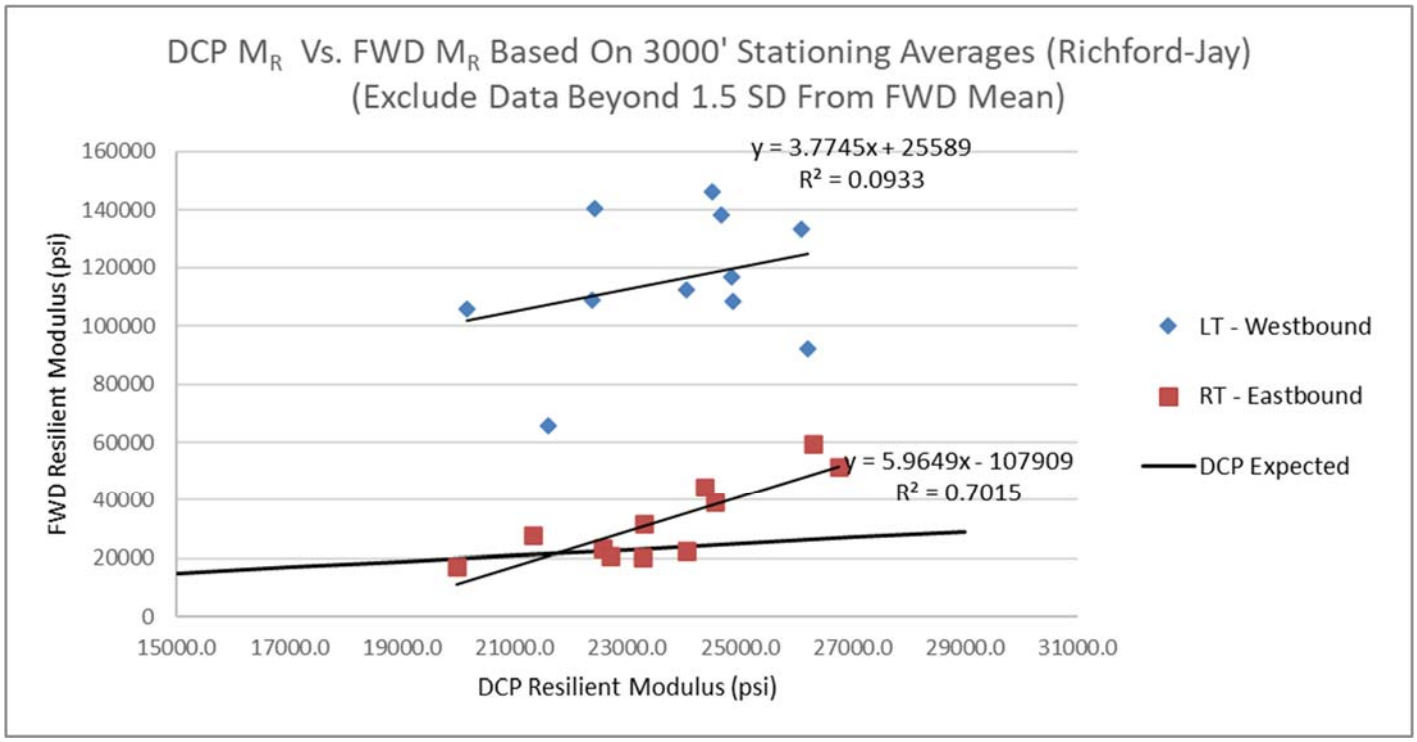
STOWE-MORRISTOWN



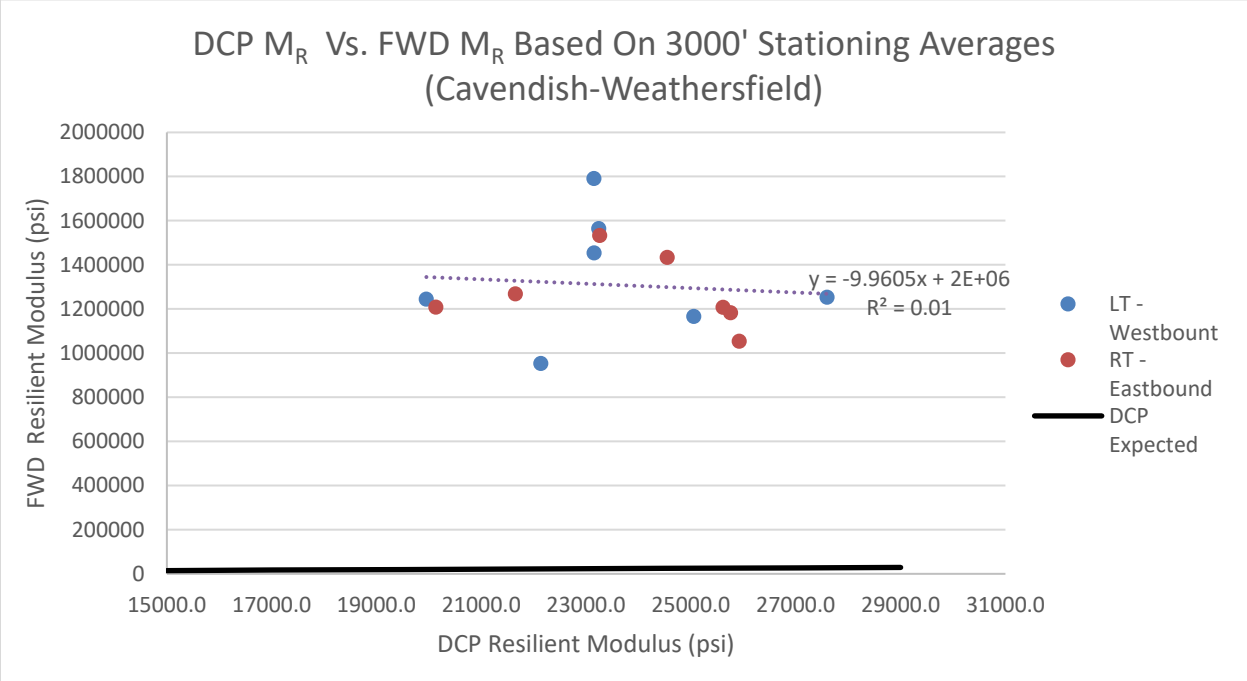


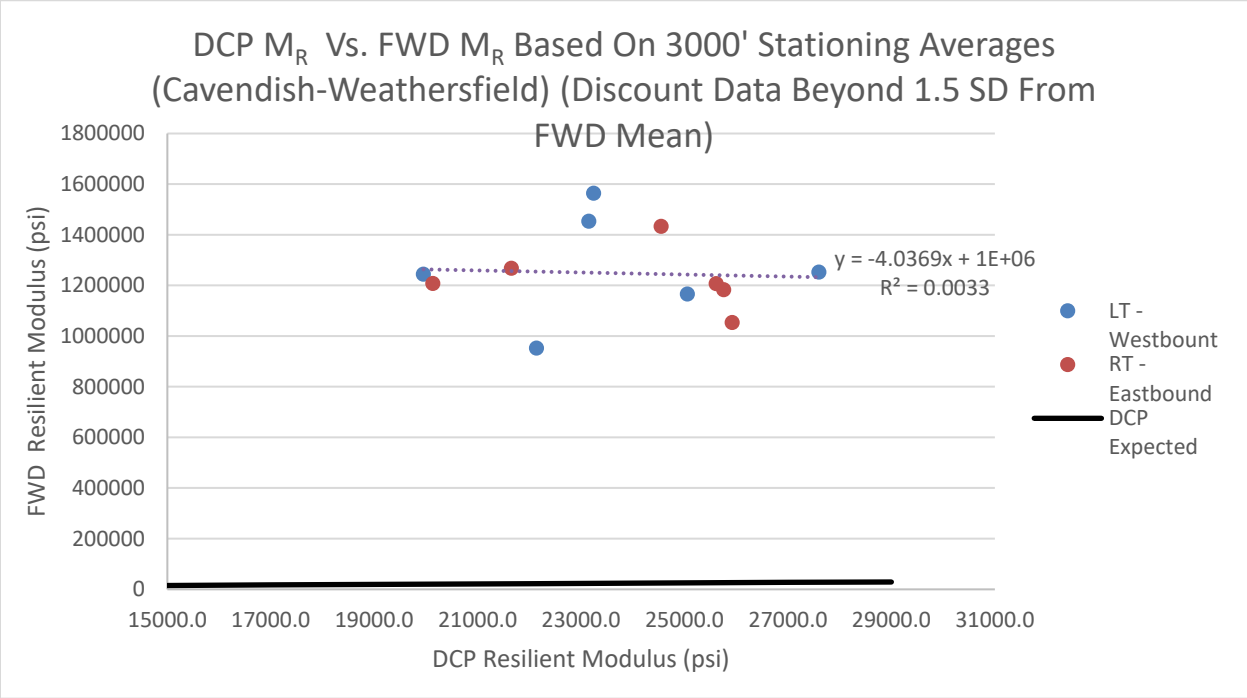
RICHFORD-JAY





CAVENDISH-WEATHERSFIELD





5.0 SUMMARY OF ANALYSIS RESULTS

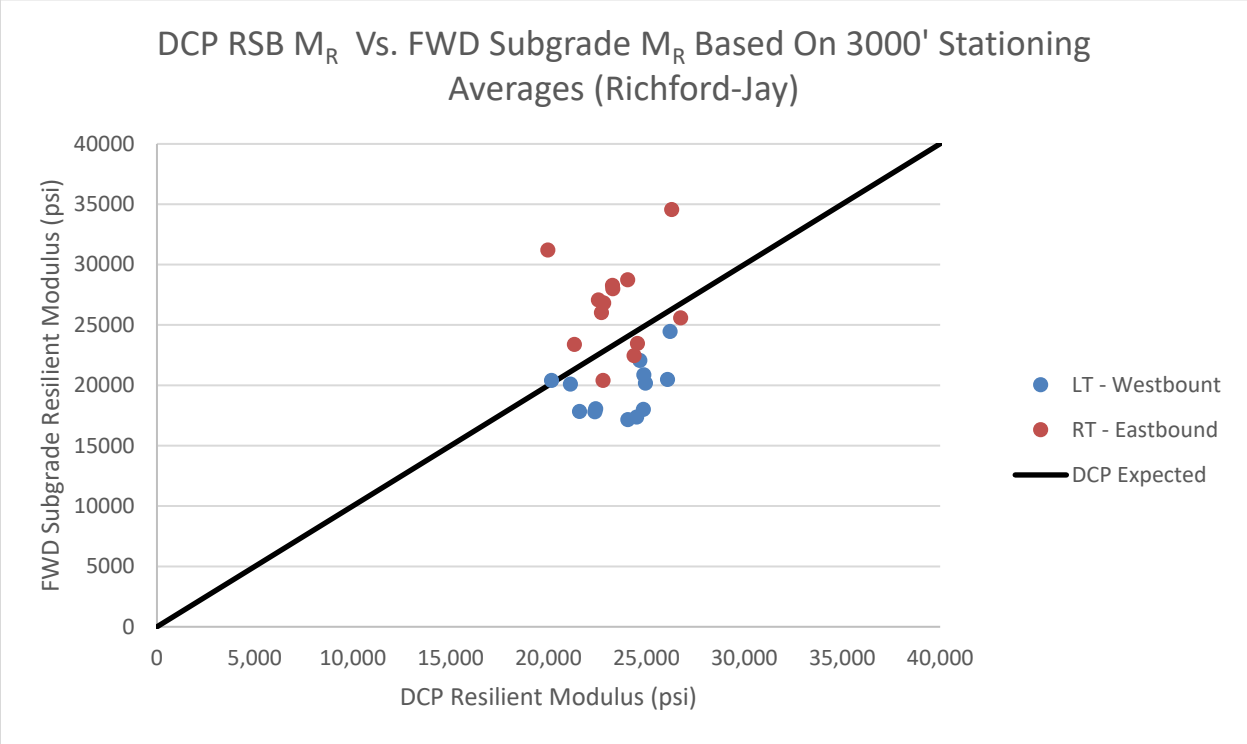
Although the analyses performed in this study did not show a correlation between the M_R determined by DCP vs. FWD, it is our opinion that the data provided in this study was not sufficient to determine the strength of correlation between the two methods or to provide an opinion on the suitability of the DCP for future use as a tool to evaluate in-situ M_R of an RSB material. This was due to discrepancies in testing conditions and deficiencies in testing methods for both the FWD and DCP testing. Of note were the following issues which make the data sets relatively incompatible:

A. **DCP testing was performed too soon after placement and compaction.** From a review of published literature, an emulsified granular material generally will be expected to undergo a significant increase in stiffness during the first month after placement and will continue to gain strength for about 6-months. Furthermore, literature also suggests an initial decrease in strength may be realized as a result of the emulsion process.

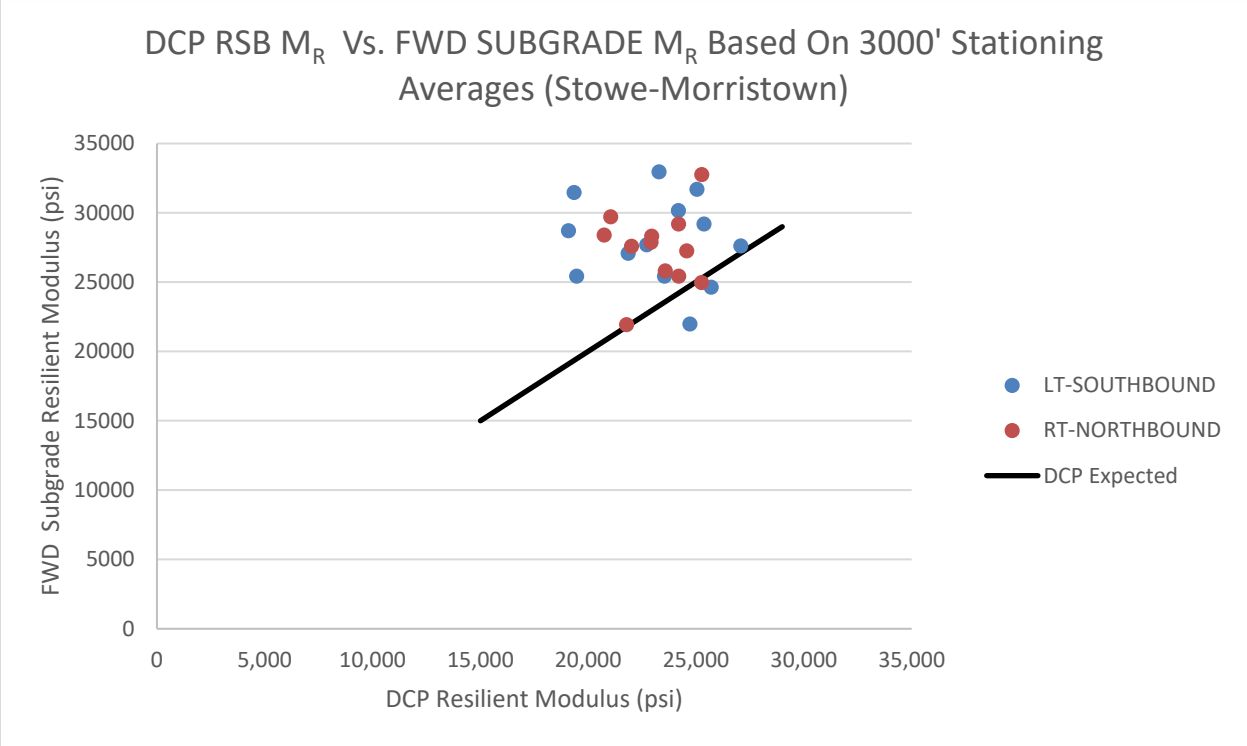
   Most of the DCP Data provided for this study was reported to have been generally collected the same day that the material was reclaimed, emulsified, and compacted or within "a few days" afterwards based on reports from VTrans. Conversely, FWD testing was performed 10 to 22 months after construction after the RSB layer had essentially finished curing. Based on this, it is unsurprising that the modulus results from DCP testing were significantly lower than that observed from the FWD testing. In our opinion, this factor is by far the main contributor of the apparently significant data discrepancy between the FWD and DCP data sets.

   To evaluate the above conjecture, we compared the DCP test results that were performed on fresh, uncured RSB to the FWD test results for material reported as "subgrade", which per the FWD reports generally consists of materials below the RSB layer. According to the geotechnical reports and construction plans for these projects, the "subgrade" material through which the FWD tests were conducted was primarily the 2- to 3-foot-thick layer of existing base/subbase material that is left in-place during pavement reclamation operations, with a portion of the upper material mixed with asphalt from the first-pass of the pavement reclamation. Since the RSB is a similar material except that a stabilizing agent is added, it would be reasonable to expect that the DCP M_R of RSB prior to curing would be similar to the FWD M_R of the un-stabilized "subgrade" material. Upon comparing these test results, it appears that this expectation is generally valid as depicted in the following plots:

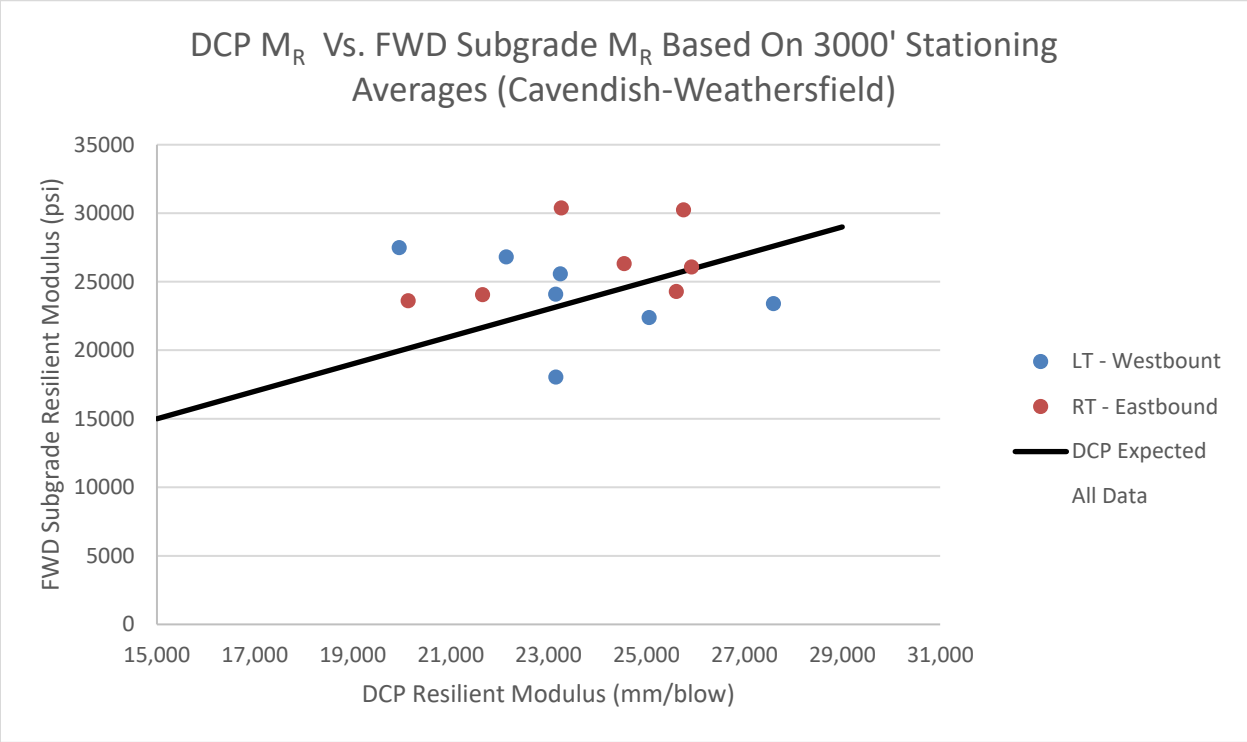
RICHFORD–J AY, DCP UNCURED BASE VS. FWD SUBGRADE (Est. 2’ – 3’ Old Base)



STOWE-MORRISTOWN DCP UNCURED BASE VS. FWD SUBGRADE (Est. 2’-3’ Old Base)



CAVENDISH-WEATHERSFIELD, DCP UNCURED BASE VS. FWD SUBGRADE (Old Base Unknown)



B. **DCP testing was performed before paving while FWD testing was performed after paving.** Confinement provided by the overlying asphalt will have a significant effect on the M_R of an underlying base layer. A suitable comparison cannot reasonably be expected by performing comparative tests under these two different conditions.

C. **GPR may not be appropriately sensitive for determining layer thicknesses to use in FWD backcalculation.** Backcalculated Moduli are highly sensitive to layer thickness input, with a 10% change in layer thickness potentially resulting in a 20% or more change in computed modulus (FHWA). From our prior experience comparing coring and borehole data with GPR determined thickness, it is quite possible for measurements of layer thickness based on the GPR to be off by 10% or more. Considering that the scatter of the current data sets far exceeds 20%, the GPR induced inaccuracy is likely not the main source of this scatter. However, this issue should be recognized and reconciled for future work.

D. **DCP testing was not always performed in a consistent manner.** In particular the following inconsistencies between testing were noted:

- DCP testing was reportedly not always performed with the full 8-kg hammer;

- Elapsed time between placement and compaction of the RSB and DCP testing wasn't documented, but based on anecdotal reports wasn't consistent;
- DCP testing was typically terminated prior to penetrating the full thickness of the RSB. This is likely to lead to erroneous test averages for the full layer thickness.

E. **FWD and DCP data sets for statistical comparison were not obtained at the same location.** Natural variations in the material, changes in layer thicknesses due to road grading, the strength of the underlying subgrade soils and ground moisture conditions among other factors all have an effect on the M_R of a base material at any given location. Each of these parameters has the potential to vary significantly over any given stretch of roadway. FWD tests and nearest DCP tests for comparison for this project were often hundreds of feet apart, thus variations in site conditions between locations is likely.

F. **Laboratory testing was not performed for modulus confirmation**. Laboratory based M_R testing is recommended in the determination of M_R values for use in the 1993 AASHTO structural number method of pavement design. Literature suggests that backcalculated M_R values from FWD need to be correlated to lab-based values through a constant referred to as a "C-value". This constant can vary widely due to numerous factors, including layer thickness, pavement section composition, and the spacing of the FWD sensors during testing. Published C-values for unbound granular base materials below asphalt can vary widely from 0.62 to 1.43 (FHWA). It is strongly recommended that a site-specific C-value be determined for comparing the FWD modulus through a laboratory based repeated load triaxial compression test at an equivalent in situ stress state.

6.0 RECOMMENDATIONS

6.1 Recommendations for DCP Testing of Cement Stabilized RSBs

FWD testing suggested M_R values of the cement-stabilized site over 900 ksi. While the variation in the test values was high and concerns regarding the testing performed on this project have been documented, a review of published literature indicates that values exceeding 1,000 ksi may be expected for FDRs using cement. This stiffness is beyond the usable range of the DCP. Generally, a material with an expected M_R greater than about 190 ksi will be outside the useful range of the DCP due to refusal criteria. For this specific project, DCP testing was likely only able to be completed since it was done the same day as placement and compaction of the RSB, and therefore prior to effects from curing.

6.2 Recommendations for DCP Testing of Emulsified Asphalt Stabilized RSBs

Based on the results of this study and a review of published literature, it is recommended that further testing be done on RSBs that use emulsified asphalt as the stabilizing agent. Further testing should be done in a manner that allows for both DCP and FWD tests to be performed simultaneously after the RSB has cured, and at the same locations and with greater control over

the testing methods. DCP is frequently used as a tool to determine layer thicknesses, and as such is complementary to the FWD testing as it will allow for better definition of layer thicknesses for the computation of FWD determined M_R. A recommended outline for such testing is provided in Section 7 below.

6.3 Recommendations for Modifications to the Current VTrans DCP Specification.

While current data is insufficient for finalizing of a performance-based DCP specification for emulsified asphalt RSBs, changes to the current specification are recommended. These changes are provided in Appendix L. Key points of the specification edits include:

- A requirement that testing be performed using the full 8-kg hammer;
- A minimum elapsed time between reclamation/compaction and DCP testing;
- Inclusion of a requirement for 2-seating blows, which is particularly important when the DCP test is performed on the top of the base layer prior to paving (e.g. confinement due to asphalt is not present).
- A requirement that the test be performed within 10-minutes of coring if performed through asphalt.
- A requirement of a minimum 25mm of travel between readings.
- A requirement that the test be extended through the full thickness of the RSB layer or refusal.

6.4 Possibility for DCP Use in Performance-Based Specification.

Because time is necessary for a stabilized base material to cure, field tests to measure M_R may not be inherently practical if the intent is to use the testing as an immediate measure of Contractor performance. Specifications would have to be written in a manner that allow for testing to be performed following completion of construction with an incentive for the Contractor to strive for successful results. We have authored contracts on successful projects in the past where confirmation testing following completion of a project has been used in conjunction with a pay retainage. This pay retainage is typically a percentage of the total contract price that is withheld until a satisfactory inspection of the work has been completed. Such inspection could be made contingent upon successful testing performed after project completion. Performing the field testing outlined in Section 6.2 above over a period of several months could assist in determining an appropriate time period between completion of construction and testing for adequate performance.

We would further suggest consideration be given to requiring DCP testing to extend through the pavement section and into the underlying subgrade. This would be valuable in identifying outliers in testing data related to underlying subgrade instead of the RSB material.

7.0 POTENTIAL ADDITIONAL WORK / FUTURE PROJECT PHASE

Additional field and lab study is needed to evaluate the DCP as a tool to adequately determine the M_R of a reclaimed stabilized base. While the full development of a complete testing program was not part of our current scope, it is recommended that subsequent testing be conducted in a manner that follows this general outline:

A. **Collect samples of RSB material during construction and perform for laboratory M_R and property testing.** Samples for laboratory M_R testing (AASHTO T 307) should be collected from the base course material after reclamation but prior to compaction. Station and offset of samples collected should be recorded so future field testing can be performed at adjacent locations. Laboratory testing should be performed on cured samples compacted to the same moisture and density condition as the material in the field. Strength testing (i.e. CU Triaxial) on the reclaimed stabilized materials is recommended to determine classical materials properties (cohesion and friction angle) of the RSB material.

B. **Perform field testing after completion of paving and allowing for curing.** Field testing is recommended to consist of both FWD and DCP testing and be performed after allowing for suitable time for curing of the RSB layer. Given a lack of local testing data regarding curing times for RSB's following paving, testing at multiple time intervals should be conducted if possible. This will assist in determining an appropriate minimum time to reach required design strength, and guide the decision on how to use this testing for a potential future performance-based specification. Our initial suggestion on the time frame for field testing are:

- 2-weeks after paving;
- 1-month after paving;
- 2-months after paving;
- 6-months after paving; and,
- 1-year after paving.

If budgetary or time constraints do not allow for such a process, field testing should be performed at the 1-year mark to assure reasonable curing has occurred. While this won't provide insight on a possible time period to hold contractors to in a future performance-based specification, it will be sufficient to determine if the DCP is suitable tool for evaluating the M_R of RSB.

C. **Perform FWD and DCP tests simultaneously.** Given the portability of the DCP equipment, performing these tests simultaneously should be fairly easy to accomplish. The following steps for the field-testing program are recommended:

i. **Conduct FWD testing first.** Mark the pavement where the test is performed. While test intervals along the test section of highway can be determined at a later date, at a minimum it is recommended to ensure test locations occur adjacent to where

laboratory M_R samples were obtained to minimize the influence of spatial variability on the correlation of test results.

ii. **Core a hole through the pavement at the marked FWD test location to perform DCP testing.** Core holes should be limited to the depth of asphalt. Measure the core for use in FWD backcalculation.

iii. **Perform DCP testing immediately upon completion of coring**. DCP testing should be performed as soon as coring is completed to prevent water from the coring rig from disturbing the underlying material which can have an impact on measured M_R. DCP testing should be performed in accordance with the additional recommendation to the current VTrans specification that we provide in Section 6.3 and Appendix L.

iv. **Extend the DCP to the end of the rod stroke or refusal.** Extending the DCP test to the extent possible will not only ensure the RSB layer is penetrated, but can be used to confirm the thickness of the RSB layer, as well as provide thicknesses of underlying layers if present for use in the FWD calculation. This will also assist in judging the quality of the subgrade which may assist in determining causes of significant outliers in M_R values between test locations.

v. **Auger or dig out RSB at the test location to confirm layer thickness.** The DCP testing alone will likely provide a sufficient thickness of the RSB layer. However, checking this at various locations at the start of the testing to verify the reliability of thickness determination by the DCP penetration index is recommended.

It is recommended that the results of the DCP testing should be compared to FWD M_R for correlations to both DCP M_R as well as DCP PI. Since there is a lack of published information regarding the applicability of current industry standard correlations to use on RSB materials stabilized with emulsified asphalt, the results of a potential future study as outlined above may indicate a new correlation is warranted.

8.0 LIMITATIONS

This Report is subject to the limitations included in Appendix M

9.0 REFERENCES

1. Budge, A.S and Wilde, W.J. (2007) "Monitoring Curing of Emulsion-stabilized Roadways Using the Dynamic Cone Penetrometer." In *Proceedings of Geo-Denver 2007, GSP 169 Soil and Material Inputs for Mechanistic-Empirical Pavement Design.* Denver, Colorado, February 18-21, 2007.

2. Finn, F.N, Hicks, R.G., Kari, W.J. and Coyne L.D. (1968) "Design of Emulsified Asphalt Treated Bases", from the *47th Annual Meeting of the Committee on Flexible Pavement Design,* Highway Research Record, Issue 239, pp 54-75

3. Abu-Farsakh, M. Y., Gautreau G. P., and Hanifa K. (2015). "Design Values of Resilient Modulus for Stabilized and Non-Stabilized Base," *FHWA/LA.14/521*, Louisiana Transportation Research Center, Baton Rouge, LA.

4. Adaska, W., Ayers, M. E., Harrington, D. S., and Reeder, G. D. (2017/2019). "Guide to Full-Depth Reclamation (FDR) with Cement," *SR1006P*, National Concrete Pavement Technology Center Institute for Transportation, Iowa State University, Ames, IA.

5. Ahearn, W., Colgrove, G., Ellis, W., Sanborn, D. and Tremblay, J. (2015). "Assessment of Design Parameters and Construction Requirements for Full Depth Reclamation Projects with Cement," *Report 2015-05*, Vermont Agency of Transportation, Montpelier, VT.

6. ASTM Standard D6951-03,"Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications," ASTM International, West Conshohocken, PA, 2003.

7. Bilyeu, J., Chen, D.-H., and Wang, J.-N. (2001). "Application of Dynamic Cone Penetrometer in Evaluation of Base and Subgrade Layers," *Transportation Research Record 1764, 01-0349*, Texas Department of Transportation, Austin, TX, and Ching-Yun Institute of Technology, Chungli 320, Taiwan.

8. Boudreau, R., Christopher, B. R., and Schwartz, C. (2006). "Geotechnical Aspects of Pavements Reference Manual," *FHWA NHI-05-037*, (5), Ryan R. Berg & Associates, Inc., Woodbury, MN.

9. Missouri Highways and Transportation Commission (2021). *Missouri Standard Specifications For Highway Construction*, Missouri Department of Transportation, Jefferson City, OH.

10. Mukabi, J. N. (2016). "Review of DCP Based CBR – UCS and Resilient Modulus Models for Applications in Highway and Airport Pavement Design," R&D/Design Department of Kensetsu Kaihatsu Consultants.

11. Sargand, S. M., and Wu, S.-S. (2007). "Use of Dynamic Cone Penetrometer in Subgrade and Base Acceptance," *FHWA/OH-2007/01*, Ohio Research Institute for Transportation and the Environment (ORITE), Athens, OH.

12. Siekmeier, J. A., Young, D., and Beberg, D. (1999). "Comparison of the Dynamic Cone Penetrometer with Other Tests During Subgrade and Granular Base Characterization in

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APPENDIX A – CURRENT VTRANS DCP SPECIFICATION

DYNAMIC CONE PENETROMETER (DCP) TESTING

1. DESCRIPTION. Work under this item requires the Contractor to perform dynamic cone penetrometer testing of the reclaimed stabilized base layer and reporting results.

2. TESTING.

   (a) Dynamic cone penetrometer testing shall be done in accordance with the provisions outlined in ASTM D6951, "Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications". Testing locations shall be conducted every 1,000 linear feet along the proposed highway alignment and within the limits of the reclaimed stabilized base layer. Testing locations will be determined by the Engineer.

   (b) Each testing location will receive four individual tests. Tests shall be positioned such that each directional width of the roadway receives two separate tests. Tests shall be four feet and ten feet offset and perpendicular to the roadway centerline.

   (c) Testing shall be conducted following the completion of the reclaim stabilized base layer and prior to the installation of any subsequent surface courses.

   (d) Test reports shall be provided to the Engineer immediately following testing at each testing location. A complete test report summarizing every test within the project limits should also be provided to the Engineer. The reports shall include, but not be limited to, the following information: date; time; station and offset; mile marker; depth change between blows in graphical format; total depth of penetration with each data point in graphical format; and CBR (Californian Bearing Ratio)% versus depth in graphical format.

3. METHOD OF MEASUREMENT. The accepted quantity of Special Provision (Dynamic Cone Penetrometer Testing) will be paid for at the Contract unit lump sum price. Payment will be full compensation for all dynamic cone penetrometer equipment, labor, testing, test reports, and any incidentals necessary to complete, collect and report the data tested. All necessary traffic control needed to complete the work will be incidental to item 641.11 – Traffic Control, All-Inclusive.

4. BASIS OF PAYMENT. The quantity of Special Provision (Dynamic Cone Penetrometer Testing) will to be paid for at the Contract lump sum price. Partial payments will be made as follows:

   (a) 80% of the Contract lump sum price will be paid upon the completion of the required testing.

   (b) 20% of the Contract lump sum price will be paid upon receiving a complete report of the testing results.

Payment will be made under:

Pay Item	Pay Unit
900.645 Special Provision (Dynamic Cone Penetrometer Testing)	Lump Sum

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Montpelier, VT 05602
(802) 674-2033

APPENDIX B – RAW DCP DATA (VIA ELECTRONIC TRANSMISSION)

To get to Appendix B:

1. Please go to: Completed Research | Agency of Transportation (vermont.gov)
2. Find the Dynamic Cone Penetrometer Analysis Report
3. Click on the link that Says Appendix B to get the Zip file of DCP Data used in the report

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane
Unit #1
Montpelier, VT 05602
(802) 674-2033

APPENDIX C – RAW FWD DATA FOR STOWE-MORRISTOWN STP PS19(3)

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane, Unit 1
Montpelier, VT 05602
(802) 674-2033

	Load	Measured Deflection (mils):							Calculated Modulus Values (ksi):				Absolute	Depth to		Adjusted to 68 F	
Station	(lbs)	R1	R2	R3	R4	R5	R6	R7	SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)	ERR/Sens	Bedrock		ATAF	Adj. Surf Modulus
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0	9770	13.76	11.98	10.32	9.09	6.76	4.59	3.18	1113.7	50	10	18.5	6.105	2.27	235.7	*	0.605704	674.5723365
500	9672	8.84	8.02	7.36	6.8	5.57	4.16	3.1	1570	50	35.5	21.8	7.194	8.26	254.5	*	0.605704	950.9549864
1000	9507	7.7	6.68	5.94	5.33	4.3	3.22	2.49	1570	109.8	69.3	23.1	7.623	1.75	300	*	0.605704	950.9549864
1502	9584	7.03	5.96	5.21	4.65	3.63	2.63	1.98	969.2	411.4	10.7	35.3	11.649	1.65	300		0.605704	587.0481356
2000	9595	7.34	6.33	5.65	5.13	4.18	3.11	2.38	1570	115.8	73.1	24.4	8.052	2.7	300	*	0.605704	950.9549864
2500	9540	6.54	5.56	4.87	4.39	3.47	2.53	1.89	1570	91.6	196.6	27.5	9.075	2.25	215.7	*	0.605704	950.9549864
3001	9332	7.45	6.54	5.81	5.22	4.1	2.94	2.17	1570	50	35.5	29.8	9.834	7.25	196.8	*	0.605704	950.9549864
3500	9496	8.1	7.06	6.26	5.54	4.39	3.17	2.3	1570	117.2	24.6	25.1	8.283	2.17	160.3	*	0.605704	950.9549864
4000	9453	7.18	6.35	5.66	5.08	4.06	2.93	2.15	1570	126.7	42.2	26.3	8.679	2.77	179.7	*	0.605704	950.9549864
4501	9354	7.33	6.14	5.39	4.79	3.71	2.63	1.96	969.8	335.1	10.4	34.2	11.286	1.52	222		0.605704	587.4115578
5000	9420	7.43	6.39	5.64	5.05	4.03	3.02	2.32	1570	103.2	98.6	23.6	7.788	1.65	300	*	0.605704	950.9549864
5501	9288	7.8	6.62	5.86	5.2	4.12	2.97	2.19	1570	61.9	115	23.5	7.755	1.91	194	*	0.605704	950.9549864
6000	9376	7.87	6.41	5.48	4.79	3.69	2.7	1.97	908.1	156.9	38.6	28.2	9.306	1.62	300		0.605704	550.0396326
6501	9409	7.65	6.42	5.53	4.93	3.91	2.91	2.26	878.3	270.8	27	26.9	8.877	1.59	300		0.605704	531.989659
7001	9321	7.37	6.21	5.5	5	4.06	2.96	2.28	1570	114.8	72.4	24.4	8.052	1.87	300	*	0.605704	950.9549864
7501	9332	7.62	6.58	5.85	5.24	4.28	3.22	2.42	1570	109	68.8	22.9	7.557	1.84	300	*	0.605704	950.9549864
8001	9299	6.38	5.47	4.85	4.37	3.64	2.89	2.37	1570	103	448.2	22.8	7.524	1.33	300	*	0.605704	950.9549864
8501	9299	7.97	6.48	5.44	4.65	3.54	2.53	1.91	1179.2	61.1	70.2	29	9.57	1.56	300		0.605704	714.2459363
9000	9354	7.59	6.29	5.44	4.84	3.78	2.77	2.12	879.7	263.5	23.1	28.6	9.438	1.56	300		0.605704	532.8376443
9500	9343	5.78	4.6	3.93	3.51	2.84	2.2	1.77	652.5	350.9	111.7	33.9	11.187	1.58	300		0.605704	395.221738
10000	9529	9.38	7.87	7.07	6.52	5.44	4.2	3.25	650	423.1	24	18.5	6.105	1.43	300	*	0.605706	393.7088188
10500	9376	6.36	5.33	4.7	4.26	3.45	2.57	2.1	1570	159.9	101.7	27.9	9.207	1.61	300	*	0.605708	950.9622699
11001	9365	6.37	5.2	4.43	3.87	3	2.23	1.76	963.9	230.6	48	34.3	11.319	1.68	300		0.605712	583.8458543
11501	9365	7.15	6.14	5.42	4.86	3.89	2.85	2.22	1570	136.2	41	27.1	8.943	2.28	300	*	0.605726	950.9891649
12000	9288	6.32	5.35	4.71	4.22	3.36	2.52	1.87	1570	110.5	136	28.1	9.273	1.82	300	*	0.605733	951.0004831
12501	9288	6.03	5.1	4.43	3.91	3.04	2.19	1.68	1185.6	387.2	13.8	40.3	13.299	1.64	300		0.815059	966.3335241
13000	9288	6.12	5.22	4.6	4.15	3.4	2.63	2.12	1570	123.1	258.8	25.9	8.547	1.52	300	*	0.815092	1279.694245
13501	9277	6.03	5.08	4.46	3.97	3.07	2.2	1.66	1189.2	410.7	12.3	40.7	13.431	1.55	300		0.815149	969.3747438
14000	9201	6.42	5.3	4.51	3.98	2.99	2.04	1.49	1067.3	286.5	13	43.2	14.256	1.81	300	*	0.815191	870.0534044
14501	9179	7.38	6.48	5.83	5.27	4.21	3.03	2.17	1570	115.4	34.7	25.4	8.382	3.5	143	*	0.815262	1279.96064
15000	9288	5.32	4.67	4.2	3.85	3.13	2.35	1.81	1570	500	32.2	32.4	10.692	1.58	300	*	0.81534	1280.084257
15501	9332	5.78	4.87	4.31	3.83	2.98	2.14	1.87	1317.7	431.8	12.7	42.1	13.893	1.49	300		0.815397	1074.44908
15501	9212	5.65	4.74	4.17	3.71	2.91	2.08	1.49	1141	490.9	12.8	42.8	14.124	1.36	128.2	*	0.815427	930.4024766
16000	9310	7.29	6.1	5.33	4.76	3.78	2.77	2.09	994.3	289.5	23.7	28.2	9.306	1.41	300		0.81549	810.8414568
16501	9135	8.93	7.73	6.91	6.31	5.06	3.8	2.88	1570	88.8	55.1	18.6	6.138	1.66	300	*	0.815556	1280.422748
17000	9266	6.63	5.59	4.91	4.34	3.42	2.45	1.79	1091.1	384.5	11	36.6	12.078	1.32	161.7	*	0.815857	890.1811257
17500	9277	6.13	5	4.33	3.82	3.04	2.26	1.67	767.6	397.9	37.8	34.1	11.253	1.36	170.2		0.815941	626.3161214
18000	9212	6.42	5.51	4.91	4.25	3.41	2.66	2.12	1570	134.8	111.4	26.8	8.844	1.41	300	*	0.815984	1281.095154
18500	9234	6.63	5.78	5.12	4.55	3.65	2.75	2.11	1570	124.2	78.3	26.6	8.778	2.04	300	*	0.81612	1281.308071

VT100 Northbound (1 of 2)

	Load	Measured Deflection (mils):							Calculated Modulus Values (ksi):					Absolute	Depth to				
Station	(lbs)	R1	R2	R3	R4	R5	R6	R7	SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)		ERR/Sens	Bedrock			Adjusted to 68 F	
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19001	9255	7.29	6.09	5.37	4.76	3.71	2.78	2.17	1024.9	266.5	25	28	9.24	1.64	300			0.816215	836.5383888
19500	9245	5.17	4.29	3.78	3.31	2.65	2.02	1.55	1099.5	500	33.3	39.4	13.002	1.45	300	*		0.816364	897.5917358
20001	9223	6.76	5.82	5.13	4.55	3.65	2.78	2.17	1570	111.1	125.5	25.2	8.316	1.53	300	*		0.816467	1281.853577
20501	9398	5.7	4.67	4.08	3.63	2.87	2.16	1.72	837.3	494.9	34.9	36.7	12.111	1.52	300			0.819003	685.7511442
21001	9234	6.88	5.98	5.39	4.85	3.95	3.01	2.36	1570	104.9	197.7	22.3	7.359	1.92	300	*		0.819172	1286.100411
21501	9321	5.53	4.75	4.13	3.64	2.91	2.21	1.81	1570	108.6	310.3	30.8	10.164	2.13	300	*		0.819345	1286.371227
22001	9299	5.17	4.5	3.99	3.61	2.87	2.2	1.53	1570	159.4	159.4	33.2	10.956	2.6	300	*		0.819609	1286.786731
22500	9288	6.22	5.42	4.81	4.27	3.48	2.62	2.06	1570	119.7	119.7	27.9	9.207	2.12	300	*		0.81979	1287.06987
23000	9299	6.5	5.56	4.99	4.59	3.87	3.01	2.29	1097.2	500	47.6	24.6	8.118	1.11	300	*		1.043038	1144.42177
23501	9277	6.7	5.74	5.07	4.57	3.76	2.76	2.07	1570	124.2	78.4	26.6	8.778	2.54	300	*		1.043397	1638.133649
24001	9310	7.7	6.34	5.42	4.8	3.76	2.88	2.15	664.4	286.5	32	27.2	8.976	2.06	300			1.043762	693.4753873
24501	9179	6.57	5.41	4.63	4.09	3.15	2.3	1.78	1011.4	241.1	31.7	33.2	10.956	1.68	300			1.04432	1056.22495
25000	9223	6.66	5.31	4.69	4.19	3.38	2.56	1.99	650	388.1	52.3	29.2	9.636	1.47	300	*		1.044699	679.0542047
25501	9223	7.57	6.31	5.56	5.02	4.08	3.07	2.38	859.4	291.5	41.4	24	7.92	1.36	300			1.045278	898.3119507
26000	9179	7.6	6.53	5.9	5.33	4.39	3.26	2.5	1570	141.7	72.4	21.3	7.029	1.51	300	*		1.046078	1642.341701
26501	9223	9.4	8.06	6.94	6.15	4.8	3.59	2.77	1373.2	57.7	57.7	20.2	6.666	1.69	300			1.046708	1437.34005
27000	9234	8.33	6.93	6.07	5.26	4.17	3.15	2.22	751.2	242	24.8	24.6	8.118	1.4	300			1.047367	786.7818085
27500	9135	6.54	5.23	4.53	4.05	3.29	2.52	1.97	650	332.5	71.6	29.2	9.636	1.42	300	*		1.048052	681.2337194
28000	9080	8.32	7.27	6.45	5.6	4.49	3.22	2.44	1570	61.3	73.8	21.3	7.029	1.64	300	*		1.049007	1646.941618
28546	9245	8.52	7.11	6.15	5.47	4.19	2.83	1.98	1570	50	40.9	25.8	8.514	2.18	124.4	*		1.049755	1648.115699
29001	9245	6.07	5.18	4.52	4.16	3.13	2.13	1.68	1570	158.1	32.6	35.8	11.814	3.03	300	*		1.05053	1649.331439
29501	9201	8.08	7.02	6.25	5.59	4.52	3.31	2.44	1570	99.6	62.9	21.2	6.996	1.58	199.3	*		1.05133	1650.58856
30000	9212	6.13	4.96	4.28	3.87	3.13	2.39	1.81	677	368.4	83.3	30.6	10.098	1.48	300			1.052157	712.3104098
30501	9124	10.06	8.59	7.55	6.74	5.37	3.86	2.84	1516.4	50	42.9	18.5	6.105	1.64	213.7	*		1.05301	1596.784431
31000	9223	10.01	8.38	7.3	6.54	5.11	3.69	2.82	966.7	125.3	23.9	20.2	6.666	1.79	300			1.054187	1019.082834
31502	9157	9.1	7.86	6.9	6.19	4.91	3.55	2.68	1570	101.3	21.3	21.3	7.029	1.44	300	*		1.054793	1656.024883
32000	9168	10.01	8.33	7.07	6	4.5	3.15	2.33	1128	52.3	24.7	24.1	7.953	1.67	300			1.056038	1191.210836
32500	9223	12.59	10.3	8.44	7.22	5.25	3.61	2.71	716	51.8	17.3	21.3	7.029	2.21	300			1.057328	757.0465676
33000	9245	8.8	7.18	6.04	5.16	3.92	2.8	1.94	1107.2	51.2	63.9	26.1	8.613	1.57	300			1.057989	1171.405391
33501	9146	11.47	9.44	7.97	6.8	5.09	3.59	2.7	875.4	51	24.4	20.9	6.897	1.75	263.2			1.059344	927.3501327
33921	9179	9.88	7.69	6.43	5.54	3.89	2.49	1.71	650	125.4	10.3	34.2	11.286	2.68	80.9	*		1.060038	689.0249744
34501	9113	9.4	7.33	5.99	4.93	3.49	2.39	1.87	787.8	51.3	34.6	30.7	10.131	2.11	82.6			1.128644	889.1460215
35000	9080	6.08	4.95	4.37	3.86	3.11	2.24	1.5	808.9	500	17.3	37	12.21	1.26	90.5	*		1.130294	914.2951184
35501	9168	8.27	6.48	5.41	4.73	3.54	2.55	1.91	650	153.5	33	29.5	9.735	2.12	300	*		1.131137	735.2388044
36000	9113	9.22	7.3	6.25	5.48	4.33	3.21	2.48	857.9	51.9	191.5	21.2	6.996	1.93	300			1.132421	971.5042278
36501	9453	10.25	8.07	6.72	5.76	4.27	2.98	2.2	650	99.3	24.4	26	8.58	1.96	178.8	*		1.158971	753.330999
37000	9234	8.11	6.62	5.71	5.07	4.09	3.02	2.27	650	292.6	26.1	25.5	8.415	1.36	300	*		1.159535	753.6975448
37501	9266	7.63	6.33	5.48	4.83	3.83	2.79	2.08	875.2	248.9	25.2	27.7	9.141	1.29	220.9			1.160669	1015.817214
38000	9266	9.7	8.03	6.93	6.13	4.52	3.02	2.08	1340.3	77.2	12.3	27.5	9.075	2.39	167			1.161811	1557.174917
38501	9168	7.35	5.91	5.22	4.71	3.7	2.61	1.84	1570	50	35.5	33	10.89	6.99	124.5	*		1.164119	1827.66616
39000	9135	13.04	10.16	8.3	6.81	4.75	3.1	2.25	650	50	10.6	26.5	8.745	2.78	76.9	*		1.166457	758.1971427
39500	9266	11.38	8.8	7.11	5.92	4.18	2.67	1.92	650	56	17	29	9.57	2.27	85.7	*		1.168231	759.3498693
40001	9277	9.2	6.9	5.67	4.93	3.49	2.22	1.56	650	130.1	13.8	37.5	12.375	3.11	300	*		1.327025	862.566314
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Mean:		7.71	6.44	5.6	4.96	3.89	2.83	2.13	1189.3	193.4	62.4	28.1		2.04	255.1				1003
Std. De	v:	1.77	1.42	1.18	1.01	0.75	0.53	0.39	367	141.9	71.1	6.1	2.000301	1.17	130.7				330.6384964
Var Coe	ff(%):	22.93	22.11	20.99	20.27	19.17	18.55	18.24	30.9	73.4	113.9	21.5		57.69	51.2				

VT100 Northbound (2 of 2)

	Load	Measured Deflection (mils):							Calculated Modulus Values (ksi):					Absolute	Depth to				
Station	(lbs)	R1	R2	R3	R4	R5	R6	R7	SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)		ERR/Sens	Bedrock			Adjusted to 68 F	
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39801	9201	7.7	5.73	4.79	4.08	2.89	1.93	1.28	365.2	293.5	14.3	47.6	15.708	2.19	82.1	*		1.310477	478.586
39251	9245	11.74	8.72	7.23	6.11	4.22	2.74	1.94	284	148.7	10	32.8	10.824	2.33	71	*		1.312891	372.861
38751	9190	13.6	10.75	9.14	7.83	5.67	3.65	2.55	523.3	78.6	10	22.3	7.359	2.38	124.6	*		1.314508	687.882
38251	9135	10.83	8.41	7.06	5.96	4	2.39	1.54	756.2	66.2	10.6	35.3	11.649	3.17	60.4	*		1.315319	994.645
37750	9124	12.51	10.72	9.45	8.35	6.46	4.56	3.35	1125.6	74.2	10	17.7	5.841	1.62	222.1	*		1.316947	1482.355
37250	9047	9.19	7.56	6.56	5.78	4.57	3.3	2.48	624.8	220.9	16.6	23.7	7.821	1.27	300			1.319399	824.361
36750	9113	8.82	6.92	5.8	5.01	3.83	2.82	2.17	492.8	162.7	32.6	26.6	8.778	1.78	300			1.321042	651.009
36251	9036	10.49	8.4	7.23	6.33	4.94	3.61	2.74	386.8	227.8	15.1	22.1	7.293	1.53	300			1.32269	511.616
35750	8971	6.17	4.32	3.37	2.59	1.62	0.85	0.47	739.6	97.5	25.9	86.4	28.512	3.67	43.2	*		1.324344	979.484
35250	9091	8.72	6.68	5.61	4.82	3.51	2.3	1.56	399.3	235.6	11.7	39	12.87	1.9	123	*		1.326003	529.473
34750	9124	9.49	7.46	6.42	5.76	4.72	3.65	2.89	300.6	289.3	47.9	20.1	6.633	1.45	300			1.327667	399.097
34251	9179	10.13	7.55	5.99	4.94	3.38	2.15	1.37	360.8	133.5	12.3	41	13.53	2.51	65.2	*		1.330172	479.926
33744	9014	10.98	8.45	6.6	5.35	3.56	2.31	1.65	514.5	62.1	15.4	34.7	11.451	3.04	55.8			1.331848	685.236
33251	9113	8.12	6.37	5.3	4.55	3.47	2.53	1.98	551.9	170.5	32.2	29.9	9.867	1.83	300			1.333529	735.974
32751	9014	9.62	7.87	6.78	5.96	4.72	3.5	2.78	536.3	195.9	23	21.3	7.029	1.4	300			1.336057	716.527
32250	9091	9.76	7.98	6.91	6.02	4.7	3.47	2.68	642.2	159.4	21.8	21.7	7.161	1.45	300			1.337747	859.101
31751	9014	9.17	7.03	5.73	4.87	3.64	2.73	2.14	633	52.4	97.8	25.3	8.349	1.95	300			1.339441	847.866
31251	8993	12.1	9.7	8.23	7.11	5.34	3.86	2.74	418.1	129.3	14.3	20.3	6.699	1.9	300			1.341989	561.085
30751	9036	10.3	8.32	7.1	6.24	4.84	3.53	2.68	408.5	227.3	14.4	22.8	7.524	1.77	300			1.343691	548.898
30250	9190	12.76	10.36	8.67	7.45	5.65	3.91	2.87	528.6	95.7	13.1	20.4	6.732	1.57	300			1.377159	727.966
29751	9058	8.42	6.47	5.45	4.74	3.75	2.83	1.92	376.2	211.4	46.3	26.1	8.613	1.59	300			1.378872	518.732
29250	9047	9.17	7.05	5.92	5.17	4.11	3.13	2.42	367.9	169.4	52.1	23.2	7.656	1.57	300			1.380583	507.917
28750	8971	11.51	9.17	7.71	6.5	4.69	3	1.99	687.4	80.4	10	27.9	9.207	1.99	113.8	*		1.382292	950.188
28250	9146	9.3	7.15	6.1	5.33	4.09	2.92	2.09	285	337.4	14.7	29.1	9.603	1.72	300			1.383999	394.440
27750	9025	9.72	7.6	6.38	5.52	4.2	2.99	2.26	373.2	203.7	17.7	26.5	8.745	1.77	300			1.384851	516.826
27250	9102	8.15	6.17	5.17	4.48	3.38	2.42	1.79	353.5	265.5	23.9	32.8	10.824	1.84	300			1.386553	490.147
26751	9146	8.89	6.78	5.8	5.13	4.08	3.1	2.42	306.9	263.8	44.5	24	7.92	1.51	300			1.389101	426.315
26251	9157	8.2	5.89	4.96	4.17	3.16	2.33	1.82	275.5	253.7	34.1	33.6	11.088	1.7	300			1.389948	382.931
25751	9080	7.73	6.08	5.3	4.74	3.99	3.18	2.64	405.2	271	103.9	22.2	7.326	1.09	300			1.391641	563.893
25250	9004	10.63	8.59	7.3	6.41	4.81	3.44	2.61	561.7	141.6	14.7	23	7.59	1.96	300			1.395013	783.579
24751	8993	7.89	6.37	5.57	4.92	3.89	2.94	2.19	556.5	284.7	29.4	25.4	8.382	1.42	300			1.396693	777.260
24250	8916	10.41	8.24	6.9	5.94	4.48	3.19	2.44	429.1	151	17.1	24.3	8.019	1.83	300			1.398368	600.040
23751	9135	8.87	6.71	5.53	4.74	3.64	2.68	2.12	342	190.1	33.8	28.5	9.405	1.93	300			1.400872	479.098
23250	9036	6.98	5.51	4.74	4.13	3.26	2.46	1.9	568.3	262.8	45.7	30	9.9	1.41	300			1.403364	797.532
22750	9080	8.29	6.43	5.52	4.87	3.86	2.95	2.24	373.2	274.7	41.8	25.3	8.349	1.61	300			1.405018	524.353
22251	9102	6.68	5.21	4.39	3.83	2.92	2.11	1.57	477.7	354.2	25.7	38.1	12.573	1.93	300			1.408309	672.749
21751	9014	6.97	5.43	4.55	3.82	2.85	2.04	1.52	737	155.5	35.7	36.6	12.078	1.7	180.6			1.409945	1039.129
21251	9036	7.54	5.95	5.02	4.39	3.37	2.5	1.96	520.5	242.7	32.1	30.2	9.966	1.91	300			1.412386	735.147
20750	9069	9.11	6.97	5.84	5.11	3.95	2.94	2.27	312.1	238	29.7	25.9	8.547	1.96	300			1.414812	441.563

VT100 Southbound (1 of 2)

VT100 Southbound (2 of 2)

Station	Load (lbs)	Measured Deflection (mils): R1	R2	R3	R4	R5	R6	R7	Calculated Modulus Values (ksi): SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)		Absolute ERR/Sens	Depth to Bedrock			Adjusted to 68 F ATAF	Adj. Surf Modulus
20251	9004	8.89	6.56	5.32	4.47	3.31	2.34	1.73	325.2	167.6	26.6	32.9	10.857	1.99	160.3			1.41642	460.620
19750	9113	8.31	6.29	5.16	4.43	3.34	2.5	2.02	429.8	151.5	45.7	29.8	9.834	2.15	300			1.418818	609.808
19251	9014	7.02	5.4	4.57	4.04	3.19	2.43	1.94	431.8	279.1	57.4	30.1	9.933	1.71	300			1.420406	613.331
18750	9047	9.25	7.01	5.72	4.91	3.79	2.74	2.07	321.1	182.2	30.3	27.6	9.108	1.85	300			1.422774	456.853
18250	9069	8.21	6.51	5.49	4.8	3.8	2.85	2.04	507.5	202.3	40.1	25.9	8.547	1.6	300			1.424341	722.853
17750	9069	6.27	4.83	4.13	3.73	3.06	2.22	1.69	336.6	710.5	36.5	34.5	11.385	1.31	300			1.339877	451.003
17250	8971	10.2	7.84	6.62	5.79	4.56	3.26	2.43	278.8	230.9	22.3	23	7.59	1.43	255.8			1.34058	373.754
16751	8927	9.54	7.83	6.93	6.18	4.87	3.46	2.41	508.4	295.1	10	24.2	7.986	1.51	123	*		1.342676	682.617
16250	8894	7.62	5.84	4.91	4.24	3.29	2.37	1.76	396.9	263.2	30.1	31.6	10.428	1.49	300			1.344063	533.459
15751	9058	7.5	6.04	5.26	4.72	3.71	2.77	2.07	460.8	468.5	17.4	30	9.9	1.77	300			1.346126	620.295
15250	9004	7.13	5.33	4.46	3.86	2.88	2.07	1.48	389.4	280.6	29.4	37.6	12.408	1.93	183.9			1.34749	524.713
14751	9014	7.14	5.8	5.04	4.54	3.57	2.63	1.96	490.7	512.7	15.2	32.3	10.659	1.73	300			1.393771	683.924
14251	9234	9.01	6.75	5.51	4.78	3.61	2.59	1.95	292.9	229.7	25.5	30.7	10.131	2.16	300			1.421152	416.255
13750	9069	7.69	5.72	4.87	4.23	3.35	2.44	1.84	276.5	405.8	31	31.9	10.527	1.36	300			1.492259	412.610
13250	9080	9.52	7.25	5.97	5.07	3.73	2.69	2.06	397.4	145.7	24.4	28.7	9.471	2.17	139.9			1.493437	593.492
12750	9091	9.42	7.22	5.9	5	3.76	2.8	2.18	502.7	88.1	50.7	25.8	8.514	1.95	300			1.494599	751.335
12249	9113	9.4	7.43	6.3	5.5	4.22	3.05	2.3	451.7	203.9	20	25.7	8.481	1.69	300			1.495744	675.628
11751	9091	8.22	6.66	5.75	5.06	3.92	2.82	2.06	513.9	340.7	11.9	31.4	10.362	1.69	300			1.496872	769.242
11250	9091	8.71	6.84	5.76	5.04	3.93	2.85	2.23	404.6	252.9	22.9	27.4	9.042	1.66	300			1.497982	606.084
10751	9036	8.31	6.54	5.62	4.95	3.76	2.61	1.91	361.7	391.6	10.5	35	11.55	1.71	300	*		1.498531	542.019
10251	9058	5.49	4.02	3.39	3	2.36	1.8	1.43	423.5	346.4	97.1	40.5	13.365	1.64	300			1.500151	635.314
9750	9069	18.47	13.52	10.16	7.72	4.63	2.69	1.98	147.5	50	10	26.6	8.778	6.56	41.1	*		1.501208	221.428
9250	8993	8.75	6.46	5.33	4.55	3.63	2.54	1.91	272	228.1	33.4	29.2	9.636	1.22	300			1.502761	408.751
8750	9080	7.92	6.2	5.18	4.5	3.37	2.28	1.52	411.6	316.8	12	40	13.2	1.91	300	*		1.503773	618.953
8251	9014	10.9	8.89	7.63	6.67	5.04	3.44	2.46	618.5	142.7	10	24.4	8.052	1.78	300	*		1.505257	931.002
7751	9036	9.88	8.11	7.04	6.26	4.97	3.47	2.45	487.9	271.9	10	24.4	8.052	1.38	138.4	*		1.506223	734.886
7250	9047	11.57	9.27	7.78	6.66	4.93	3.22	2.26	548.3	111.6	10	26.1	8.613	1.8	195.4	*		1.50717	826.381
6749	8905	11.94	9.39	7.83	6.7	5.19	3.74	2.76	372.4	112.8	22	19.6	6.468	1.48	300			1.508098	561.616
6251	9004	10.19	7.76	6.48	5.57	4.25	2.94	2.22	274.2	230.3	14.5	27.9	9.207	1.57	300			1.509454	413.892
5751	8927	16.16	12.24	9.73	7.89	5.31	3.44	2.39	311.2	50	10	23.1	7.623	2.56	61.3	*		1.510333	470.016
5251	9036	11.66	9.04	7.49	6.26	4.76	3.3	2.37	394	109.1	17.7	23.3	7.689	1.4	300			1.511193	595.410
4751	9004	10.57	8.47	7.13	6.15	4.69	3.25	2.4	425.1	186.1	11	26.1	8.613	1.66	300			1.512034	642.766
4246	8960	8	6.34	5.46	4.83	3.79	2.7	2.13	327.8	530	10.9	33.6	11.088	1.68	300			1.512854	495.914
3751	9004	9.82	7.54	6.16	5.2	3.93	2.65	1.85	346.3	179.4	14.9	31.1	10.263	1.63	120.7			1.513655	524.179
3250	8938	10.56	8.35	6.98	5.92	4.46	2.98	2.09	423.8	164.5	10.3	28.9	9.537	1.49	128.7			1.514435	641.817
2751	8971	7.76	6.04	5.07	4.39	3.38	2.45	1.89	450.8	243.1	28.4	31	10.23	1.69	300			1.515195	683.050
2251	9004	9.15	7.3	6.24	5.35	4.21	2.97	2.14	497.6	207.1	17.9	26.4	8.712	1.06	153.6			1.516653	754.687
1750	8982	9.04	7.2	6.1	5.19	4.03	2.89	1.65	494.3	191.7	19.6	27	8.91	1.43	300			1.517351	750.027
1250	9004	7.99	6.72	5.85	5.11	4.08	3	2.2	909	218.8	19.6	25.7	8.481	1.22	176.7			1.51836	1380.189
751	8949	9.95	7.59	6.32	5.52	4.41	3.24	2.58	280	199.3	34.2	22.6	7.458	1.43	300			1.519005	425.322
251	8905	10.74	8.81	7.66	6.57	5.06	3.59	2.57	1011.4	50.9	28.6	19.8	6.534	1.68	300			1.544259	1561.863
Mean:		9.38	7.33	6.16	5.31	4.03	2.86	2.12	455.1	217.7	26.3	29		1.83	231.7				643
Std. De	v:	2.06	1.63	1.32	1.09	0.8	0.56	0.44	164.7	115.4	18.9	8.7	2.864601	0.68	191				233
Var Coe	ff(%):	21.93	22.3	21.49	20.61	19.81	19.68	20.89	36.2	53	72	30		37.41	82.4				

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane
Unit #1
Montpelier, VT 05602
(802) 674-2033

APPENDIX D – RAW FWD DATA FOR RICHFORD-JAY STP 2914(1)

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane, Unit 1
Montpelier, VT 05602
(802) 674-2033

	Load	Measured Deflection (mils):							Calculated Modulus Values (ksi):				Absolute	Depth to		Adjusted to 68 F	
Station	(lbs)	R1	R2	R3	R4	R5	R6	R7	SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)	ERR/Sens	Bedrock		ATAF	Adj. Surf Modulus
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501	9639	9.15	7.89	6.97	6.24	4.93	3.52	2.64	1353.4	33.9	0	22.9	1.58	300		0.685297	927.4814346
1000	9606	6.8	5.76	5.03	4.47	3.59	2.48	1.77	1414.7	75.6	0	31.3	1.66	135.8		0.685297	969.4901622
1501	9551	9.35	7.83	6.66	5.77	4.36	2.92	2.08	985.7	24.2	0	27.7	1.63	141.4		0.685297	675.4975987
2000	9507	9.23	7.69	6.67	5.95	4.67	3.44	2.69	708.8	108.7	0	22.6	1.52	300		0.685297	485.7387623
2500	9540	11.99	10.38	8.96	7.78	5.45	3.2	2.29	686.5	15	0	23.4	4.61	84.2	*	0.685297	470.4566314
3000	9354	8.42	7.21	6.37	5.7	4.78	3.4	2.63	960.9	126	0	21.9	1.42	300		0.685297	658.5022244
3501	9464	6.69	5.48	4.7	4.16	3.33	2.37	1.8	802.7	170.6	0	32.4	1.36	300		0.685297	550.0881835
4000	9431	7.15	5.97	5.19	4.6	3.67	2.66	2.04	912.4	141.2	0	28.8	1.31	300		0.685297	625.2653029
4500	9332	11.23	9.4	7.94	6.86	4.86	3.08	2.05	732.2	15	0	25.8	2.7	90.8	*	0.685297	501.7747203
5000	9234	8.89	7.48	6.46	5.61	4.37	2.96	2.15	1075.5	28.3	0	26.1	1.44	173.8		0.685297	737.0373008
5500	9332	12	9.86	8.28	6.98	4.93	2.98	2	600	15	0	25.9	8.547	89.3	*	0.685297	411.1784105
6000	9266	9.57	8.1	6.97	6.06	4.41	2.87	1.96	1004.7	15	0	28.4	9.372	127.2	*	0.685297	688.5182484
6500	9299	9.92	8.16	6.91	5.95	4.41	2.8	1.88	905.6	15	0	29.4	9.702	102.5	*	0.685297	620.6052809
7000	9299	16.72	14.4	12.36	10.68	7.85	4.57	2.78	447.3	15	0	15.3	5.049	83.2	*	0.685297	306.533505
7502	9321	8.45	7.22	6.3	5.69	4.73	3.28	2.52	990.7	102.9	0	22.5	7.425	300		0.685297	678.9240855
8001	9223	8.35	7.36	6.67	6.09	5.2	3.8	2.89	1690.7	79.2	0	19.4	6.402	300		0.685297	1158.632231
8500	9179	8.81	7.73	6.94	6.33	5.37	3.8	2.88	1706.6	40.3	0	19.7	6.501	300		0.685297	1169.528459
9001	9277	8.86	7.68	6.85	6.16	5.04	3.61	2.76	1241	66.9	0	20.7	6.831	300		0.685297	850.4540124
9500	9288	7.94	6.96	6.21	5.53	4.62	3.12	2.33	1967.3	15	0	26.5	8.745	296.4	*	0.685297	1348.185478
10001	9277	10.5	9.35	8.37	7.57	6.26	4.35	3.28	1522.6	15	0	18.2	6.006	300	*	0.685297	1043.433746
10501	9245	7.98	6.96	6.23	5.62	4.74	3.28	2.45	1958.8	23	0	23.9	7.887	296.8		0.685297	1342.360451
11002	9234	7.49	6.49	5.79	5.22	4.44	3.12	2.39	1327.2	117.7	0	23.3	7.689	300		0.685297	909.526644
11500	9277	8.13	7.07	6.24	5.59	4.39	3.1	2.28	1554.7	25.9	0	25.4	8.382	197		0.685297	1065.431791
12001	9299	8.08	7.04	6.35	5.56	4.43	3.09	2.27	1733.6	16.9	0	26.7	8.811	195.7		0.685297	1188.031487
12500	9157	8.84	7.67	6.76	5.96	4.75	3.25	2.39	1483.9	15.1	0	25.1	8.283	212.9		0.685297	1016.912739
13000	9201	10.22	8.87	7.78	6.74	5.3	3.46	2.42	1102.9	15	0	22.8	7.524	134.2	*	0.685297	755.8144483
13500	9201	6.58	5.69	5.05	4.44	3.6	2.54	1.83	1744.1	51.6	0	30	9.9	146.1		0.714323	1245.850906
14000	9168	7.12	6.1	5.32	4.66	3.57	2.4	1.64	1616.8	18.2	0	34.4	11.352	104.4		0.714323	1154.917577
14500	9004	12.78	10.82	8.32	6.61	4.8	2.73	1.99	422.2	15	0	26.2	8.646	82.1	*	0.714323	301.5872098
15001	9234	10.39	7.84	6.28	5.2	3.5	2.16	1.49	515.5	20	0	35.8	11.814	60		0.776115	400.0871794
15501	9201	5.4	4.4	3.76	3.31	2.72	1.82	1.38	994.2	181.4	0	40	13.2	300		0.776115	771.6133341
16001	9004	8.18	6.72	5.69	4.88	3.68	2.32	1.64	1048.6	19.3	0	33.7	11.121	134.6		0.776115	813.8339792
16500	9157	7.09	5.81	4.84	4.17	3.1	1.91	1.3	1229.8	18.6	0	43	14.19	103.5		0.776115	954.4659809
17001	9179	7.91	6.47	5.5	4.74	3.74	2.54	1.88	780.3	78.4	0	29	9.57	213.1		0.776115	605.6023784
17500	9157	8.67	7.28	6.26	5.49	4.28	2.92	2.14	1025.8	38.4	0	25.8	8.514	193.4		0.776115	796.1385617
18001	9146	8.17	6.81	5.8	5.05	3.87	2.44	1.68	1243.3	15	0	33.9	11.187	115.2	*	0.776115	964.9435307
18500	9102	9.07	7.58	6.46	5.62	4.41	2.81	1.97	1098.4	17.2	0	28.2	9.306	134		0.776115	852.4844962
19001	9069	8.98	7.34	6.18	5.31	4.13	2.68	1.9	873.6	28.8	0	28.1	9.273	141.1		0.776115	678.0138892

VT105 Eastbound (1 of 2)

	Load	Measured Deflection (mils):							Calculated Modulus Values (ksi):					Absolute	Depth to				
Station	(lbs)	R1	R2	R3	R4	R5	R6	R7	SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)		ERR/Sens	Bedrock			Adjusted to 68 F	
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19500	9080	8.74	7.41	6.39	5.69	4.6	3.04	2.22	1149.9	34.1	0	24.3	8.019	2.25	203.1			0.776115	892.4544084
20001	9223	8.72	7.34	6.32	5.49	4.2	2.76	2	1187.3	17	0	29.6	9.768	1.62	170.4			0.77634	921.748671
20500	9146	8.81	7.3	6.2	5.39	4.18	2.72	1.94	1014.3	24.5	0	28.3	9.339	1.84	148.5			0.776381	787.4832388
21001	9190	8.72	7.26	6.17	5.33	3.95	2.52	1.73	1082.3	15	0	32.8	10.824	1.88	111.6	*		0.776425	840.3249962
21500	9168	9.11	7.67	6.54	5.67	4.21	2.72	1.81	1056.6	15	0	30	9.9	1.82	97.3	*		0.776473	820.421148
22001	9047	8.34	6.95	5.92	5.15	4.19	2.57	1.7	1276.1	15.5	0	31.1	10.263	2.66	100.3			0.776524	990.9219485
22500	9113	8.57	7.15	6.09	5.22	3.84	2.4	1.58	1052.9	15	0	33.8	11.154	1.89	92.9	*		0.77655	817.6300023
23001	9146	8.39	6.93	5.89	5.09	4.11	2.52	1.7	1151	19.8	0	31	10.23	2.67	108.2			0.776606	893.8740563
23501	9014	9.3	7.59	6.41	5.48	4.13	2.67	1.77	845.4	22.5	0	28.5	9.405	1.74	96.1			0.776666	656.5932899
24002	9069	8.45	6.8	5.65	4.76	3.55	2.26	1.59	805.5	28.1	0	33.3	10.989	1.68	127			0.776729	625.6548233
24501	9036	10.04	8.34	7.13	6.15	4.63	3.01	2.09	926.5	15	0	26.5	8.745	1.75	123.1	*		0.776795	719.7001523
25001	8982	10.89	9.13	7.88	6.83	5.54	3.45	2.39	934.4	15	0	22.1	7.293	2.46	134.8	*		0.776829	725.8688462
25500	9102	8.13	6.74	5.72	4.98	3.65	2.41	1.68	1107.7	19.5	0	33.4	11.022	2.03	138.5			0.7769	860.5719515
26001	9069	9.99	8.61	7.5	6.69	5.2	3.76	2.84	997.8	38.9	0	20	6.6	1.56	300			0.776974	775.2648344
26501	9069	9.42	7.94	6.81	5.95	4.64	3.05	2.14	1108	16.3	0	26.1	8.613	1.57	133.5			0.777013	860.9299473
27001	9124	8.55	7.06	6.04	5.33	4.15	2.89	2.08	778.3	75.2	0	25.5	8.415	1.65	153.1			0.777092	604.8106133
27502	9190	8.32	6.97	5.96	5.25	4.11	2.73	1.94	1122.7	31.5	0	27.9	9.207	1.85	141.6			0.777174	872.5337811
28000	9234	10.87	9.37	8.11	7.16	5.49	3.74	2.67	1032	15.1	0	21.5	7.095	1.59	154.3			0.777305	802.1782532
28500	9091	11.83	10.07	8.65	7.54	5.85	3.69	2.62	813.2	15	0	20.6	6.798	2.1	155	*		0.777395	632.1778459
29001	9058	8.94	7.63	6.62	5.84	4.63	2.99	2.03	1285.3	15	0	26.6	8.778	1.98	111.5	*		0.777489	999.3070194
29501	8960	12.76	10.8	9.33	8.2	6.31	4.15	2.83	762	15	0	18.2	6.006	1.78	119.1	*		0.777587	592.5209841
30001	8982	7.78	6.43	5.45	4.73	3.65	2.41	1.71	1098.9	29.1	0	31.4	10.362	1.63	135.5			0.777636	854.5446885
30501	9135	9.91	8.22	6.89	6.04	4.49	2.84	1.94	911.5	15	0	28.2	9.306	2.14	300	*		0.777739	708.908701
31001	9135	8.73	7.19	6.02	5.21	4.02	2.57	1.86	912.5	28	0	29.3	9.669	2	157.8			0.777844	709.7825562
31501	8960	9.13	7.6	6.44	5.52	4.3	2.7	1.91	997.2	17	0	28.8	9.504	1.84	137.7			0.777952	775.7741641
32001	8982	8.98	7.67	6.58	5.71	4.65	2.89	2	1208.2	15	0	27	8.91	2.2	128.2	*		0.778064	940.0571082
32501	9025	10.19	8.53	7.2	6.23	4.77	3.07	2.08	858.2	18.6	0	24.9	8.217	1.66	109.7			0.778121	667.7836166
33000	9025	11.92	10.07	8.57	7.49	5.9	3.89	2.85	790	18.7	0	19.4	6.402	1.66	231.2			0.778238	614.8077664
33501	9025	11.24	9.5	8.07	6.97	5.16	3.49	2.44	788.3	16.5	0	22.4	7.392	1.76	190.2			0.778357	613.5790649
34000	9135	8.38	6.9	5.79	4.94	3.8	2.38	1.6	979.7	23	0	32.4	10.692	1.87	102			0.77848	762.6769263
34502	9223	10.59	8.9	7.54	6.57	4.84	3.07	2.26	849	15	0	25.8	8.514	2.16	150.6	*		0.778606	661.0364591
35000	9135	9.36	7.65	6.43	5.53	4.02	2.65	1.8	845	20.7	0	29.7	9.801	2	121.9			0.778735	658.0310349
35501	9113	10.13	8.13	6.75	5.82	4.3	2.83	2.02	642.6	30.9	0	26.4	8.712	2.03	176.1			0.778867	500.4999579
36001	9157	10.05	8.27	6.88	5.91	4.41	2.85	2.01	794.4	19.5	0	27.5	9.075	1.75	135.6			0.779002	618.8393442
36500	9058	9.93	8.24	7.02	6.13	4.65	3.1	2.22	893.1	21.4	0	24.8	8.184	1.82	154.9			0.779071	695.788241
37001	9069	9.38	7.83	6.64	5.78	4.39	2.98	2.43	900.3	27.7	0	25.5	8.415	1.64	300			0.779211	701.5233584
37502	8993	8.21	6.74	5.73	4.97	3.97	2.6	1.76	869.1	53.6	0	27.7	9.141	2.04	105.7			0.779353	677.3360677
38000	9047	7.28	5.79	4.8	4.09	2.85	1.78	1.08	997	20.2	0	45.2	14.916	2.49	73			0.779499	777.160719
38501	9080	8.14	6.78	5.86	5.17	4.13	2.88	2.11	883.1	82.6	0	25.4	8.382	1.44	188.8			0.779648	688.5071466
39001	8982	10.31	8.54	7.24	6.25	4.68	2.89	1.83	828.8	15	0	26.6	8.778	2.09	86.2	*		0.779724	646.2348415
39500	8817	12.91	10.46	8.7	7.42	5.67	3.48	2.41	569.8	15	0	21.2	6.996	2.28	124.6	*		0.779877	444.3737698
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Mean:		9.25	7.76	6.65	5.80	4.48	2.95	2.10	1045.2	35.6	0	27.2		1.92	169.9				773
Std. Dev	:	1.71	1.47	1.24	1.07	0.81	0.54	0.42	322.9	36.5	0	5.3	1.8	0.58	76.2				217.8260021
Var Coef	f(%):	18.49	18.92	18.58	18.40	18.01	18.17	19.97	30.9	102.5	0	19.6		30.37	44.9				
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VT105 Eastbound (2 of 2)

	Load	Measured Deflection (mils):							Calculated Modulus Values (ksi):					Absolute	Depth to				
Station	(lbs)	R1	R2	R3	R4	R5	R6	R7	SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)		ERR/Sens	Bedrock			Adjusted to 68 F	
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39250	9234	10.97	9.42	8	7.14	5.65	3.47	2.38	1128.3	19.4	0	16.8	5.544	2.28	300			0.785254	886.0018892
38751	9299	8.33	6.65	5.46	4.61	3.62	2.27	1.68	528.1	127.3	0	24.3	8.019	1.6	129.3			0.78553	414.8384037
38250	9288	11.63	9.85	8.5	7.53	5.85	3.96	2.77	643.1	87.7	0	14	4.62	1.6	135			0.785814	505.3571496
37750	9157	9.23	7.61	6.37	5.64	4.22	2.79	1.94	670.6	93	0	19.7	6.501	2.07	300			0.786107	527.1630243
37250	9179	8.25	6.57	5.5	4.7	3.5	2.42	1.8	511.6	146.2	0	23.4	7.722	2.16	193			0.786407	402.3256874
36500	9146	7.75	6.44	5.58	4.99	4.07	2.87	2.17	571.5	301.1	0	19.1	6.303	1.15	300			0.786872	449.6973357
35751	9124	9.91	8.62	7.65	6.86	5.64	3.85	2.54	1246.8	74.5	0	14.1	4.653	1.34	100.3			0.787192	981.4710113
35001	9047	7.97	6.7	5.83	5.2	4.06	2.81	1.98	851.5	156	0	19.3	6.369	1.46	128.7			0.78752	670.5732196
34250	9069	9.05	7.65	6.57	5.74	4.47	2.96	2.07	897	78.3	0	18.5	6.105	1.35	128.4			0.787856	706.7065351
33500	9113	9.8	8.52	7.53	6.73	5.5	3.7	2.67	1413.8	44.1	0	15	4.95	1.41	183.4			0.743937	1051.777786
32750	9168	8.76	7.53	6.64	5.96	4.95	3.38	2.33	929.7	171.5	0	15.8	5.214	1.38	121			0.744236	691.9159821
32001	9014	9.9	8.36	7.27	6.38	5.13	3.39	2.43	785.1	96.7	0	15.8	5.214	1.27	167.5			0.744542	584.5397562
31250	9124	8.45	7.25	6.34	5.7	4.61	3.23	2.39	876.4	181.7	0	16.7	5.511	1.29	231.4			0.744855	652.790759
30500	9157	10.01	8.35	7.14	6.29	4.98	3.28	2.32	640.1	111.5	0	16.6	5.478	1.44	146.2			0.745014	476.8834241
29750	8982	8.14	6.65	5.67	4.83	3.67	2.36	1.58	823.5	77.8	0	22.9	7.557	1.43	98.1			0.745337	613.7853513
29250	9004	8.92	7.47	6.48	5.66	4.4	3	2.07	756.1	115.6	0	18.1	5.973	1.28	115.3			0.745668	563.7994056
29001	8949	9.53	7.91	6.8	5.97	4.83	3.08	2.16	687.2	107.8	0	17	5.61	1.88	140.8			0.746005	512.6546537
28250	9004	8.99	7.64	6.63	6.03	4.92	3.38	2.44	673.5	201.6	0	15.6	5.148	1.57	300			0.746524	502.7837209
27500	9036	8.16	6.73	5.8	5.09	4.05	2.73	2.01	634.5	181.5	0	19.7	6.501	1.25	209.2			0.746878	473.8940861
26751	9047	10.15	8.41	7.22	6.27	4.77	3.38	2.54	530.6	124.4	0	16.4	5.412	1.96	300			0.747239	396.485022
26000	9091	8.33	6.78	5.82	5.09	3.99	2.76	2.06	520.8	206.2	0	19.9	6.567	1.32	251.5			0.747607	389.3535934
25250	9080	8.66	6.98	6.1	5.43	4.43	3.15	2.39	383.2	354.7	0	17.5	5.775	1	300			0.747981	286.6263735
24500	9058	9.69	7.92	6.75	5.85	4.46	3.11	2.29	490.9	138.3	0	17.8	5.874	1.81	300			0.748171	367.2770587
23751	9080	7.25	5.79	4.91	4.24	3.19	2.21	1.6	587.7	183.6	0	25.2	8.316	1.9	300			0.748555	439.9258579
23000	9168	6.31	5.05	4.38	3.87	3.1	2.07	1.47	615.8	324.7	0	26.3	8.679	1.35	130.4			0.748946	461.2009609

VT105 Westbound (1 of 2)

	Load	Measured Deflection (mils):							Calculated Modulus Values (ksi):					Absolute	Depth to				
Station	(lbs)	R1	R2	R3	R4	R5	R6	R7	SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)		ERR/Sens	Bedrock			Adjusted to 68 F	
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22250	9069	8.93	7.5	6.47	5.71	4.48	2.85	1.99	987.5	67.1	0	18.9	6.237	1.87	131.5			0.749343	739.9766284
21501	9091	9.1	7.61	6.45	5.61	4.2	2.66	1.88	972.4	40.4	0	21	6.93	1.76	138.5			0.749747	729.0542695
20750	9091	9.94	8.15	6.68	5.84	4.21	2.6	1.76	764.9	34.6	0	21.4	7.062	2.35	300			0.750158	573.7955478
20000	9058	10.29	8.64	7.36	6.43	4.92	3.29	2.3	707.1	74.4	0	16.7	5.511	1.54	129.5			0.750574	530.7310802
19250	9080	9.67	8.01	6.84	5.97	4.81	3.19	2.15	550.7	143.9	0	16.9	5.577	1.29	107.5			0.750997	413.5742239
18500	9102	7.28	5.98	5.06	4.43	3.41	2.37	1.77	650	197	0	23.3	7.689	1.82	230.5			0.752304	488.997583
17750	9518	7.39	6.15	5.32	4.65	3.52	2.36	1.61	1040	98.6	0	25.8	8.514	1.71	102.5	*		0.761942	792.4195821
17000	9453	8.51	7.03	5.99	5.2	4.03	2.72	1.96	751	113.6	0	22.2	7.326	1.4	154.9			0.762577	572.6949874
16250	9365	8.35	6.91	5.9	5.16	3.89	2.64	1.93	1040	56.4	0	23.7	7.821	2.22	300	*		0.76321	793.7384779
15500	9453	5.51	4.57	3.95	3.47	2.61	1.89	1.4	1040	237.4	0	32.6	10.758	2.14	300	*		0.763842	794.3960936
14750	9310	15.05	11	8.65	7.07	4.82	3.19	2.31	340	25.4	0	19.7	6.501	4.21	65.4	*		0.764473	259.920965
14000	9453	8.85	7.58	6.57	5.77	4.18	2.8	1.85	1040	50	0	21.8	7.194	2.44	114.2	*		0.765103	795.7071948
13250	9420	8.39	7.04	6.04	5.31	4.15	2.87	2.17	784.4	136.9	0	21	6.93	1.45	300			0.765731	600.6395879
12500	9354	7.87	6.44	5.5	4.81	3.65	2.52	1.87	717.4	139.8	0	23.8	7.854	1.64	300			0.766358	549.7851242
11751	9332	10.46	9.06	7.82	7.07	5.65	3.89	2.94	1040	41.3	0	16.4	5.412	2.9	300	*		0.767295	797.9864273
11000	9365	9.26	7.81	6.67	5.79	4.38	3.05	2.31	830.7	78.6	0	20.1	6.633	1.93	300			0.767917	637.9086122
10251	9277	10.69	9.21	8.03	7.1	5.65	3.91	2.94	825	87.2	0	15.1	4.983	1.3	300			0.768537	634.0433439
9500	9255	11.24	9.46	8.09	6.97	5.06	3.33	2.34	830.8	25.1	0	18.7	6.171	1.89	124.3			0.768847	638.7579814
8751	9255	10.52	8.86	7.59	6.58	4.98	3.48	2.59	701.1	72.8	0	17.4	5.742	1.91	300			0.769464	539.4714378
8002	9190	11.09	9.44	8.02	7.03	5.15	3.52	2.6	800.3	39	0	17.3	5.709	2.3	145.3			0.77008	616.2947653
7250	9255	9.13	7.67	6.6	5.77	4.5	3.09	2.37	780.3	103.4	0	19.3	6.369	1.34	300			0.770693	601.3716231
6500	9113	9.3	7.83	6.81	6.05	4.83	3.49	2.7	606.1	184.8	0	16.8	5.544	1.44	300			0.771304	467.4871879
5751	9201	9.33	7.86	6.78	5.88	4.49	3.12	2.17	788.2	87	0	19.1	6.303	1.63	300			0.771912	608.4212303
5000	9234	8.04	6.65	5.72	5.03	3.94	2.85	2.24	615.8	207.9	0	21.1	6.963	1.74	300			0.772518	475.7167726
4251	9113	7.23	6.04	5.25	4.65	3.81	2.8	2.22	608.9	332.8	0	21.1	6.963	1.32	300			0.77282	470.5703343
3501	9135	8.48	6.96	5.87	5.11	3.95	2.69	1.88	624.2	129.8	0	21.8	7.194	1.5	121.3			0.773723	482.9577141
2751	9135	9.48	7.98	6.95	6.13	4.98	3.48	2.75	617.4	170.7	0	16.7	5.511	1.07	300			0.774022	477.881266
2000	9168	9.36	7.88	6.83	6	4.86	3.41	2.6	613.6	171.5	0	17.1	5.643	1.09	300			0.774619	475.3061594
1251	9102	10.57	8.84	7.56	6.53	5	3.19	2.17	816.1	39.3	0	18.4	6.072	1.52	113.1			0.775509	632.8926334
499	9058	8.48	7.06	6.07	5.31	4.11	2.84	2.13	733.3	122.6	0	20.5	6.765	1.42	300			0.776098	569.1127736
250	9113	6.63	5.44	4.73	4.15	3.26	2.24	1.64	826.1	201.5	0	25.9	8.547	1.36	171.5			0.776392	641.3772156
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Mean:		9.08	7.56	6.48	5.69	4.42	3.00	2.17	757.9	128.9	0	19.6		1.68	213.6				579
Std. De	v:	1.49	1.22	1.02	0.90	0.72	0.48	0.37	206.6	78.8	0	3.6	1.2	0.52	84.5				158.4204644
Var Coe	ff(%):	16.39	16.17	15.77	15.82	16.23	16.08	16.90	27.3	61.2	0	18.4		30.98	39.6				
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VT105 Westbound (2 of 2)

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane
Unit #1
Montpelier, VT 05602
(802) 674-2033

APPENDIX E – RAW FWD DATA FOR CAVENDISH WEATHERSFIELD STP 0146(14)

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane, Unit 1
Montpelier, VT 05602
(802) 674-2033

	Load	Measured Deflection (mils):							Calculated Modulus Values (ksi):					Absolute	Depth to			Adjusted to 68 F	
Station	(lbs)	R1	R2	R3	R4	R5	R6	R7	SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)		ERR/Sens	Bedrock			ATAF	Adj. Surf Modulus
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100	9398	10.72	8.56	7.17	6.22	4.58	3.02	1.84	580.1	56.2	0	20.6	6.798	2.12	163.3			0.8063	467.734842
501	9420	6.19	5.04	4.56	4.34	3.93	3.2	2.48	417.7	2000	0	18.8	6.204	1.2	300	*		0.8063	336.7916626
1000	9332	11.14	9.89	9.23	8.6	7.51	5.91	4.64	888.6	272.3	0	9.5	3.135	0.9	300			0.8063	716.4785047
1501	9255	19.72	16.46	14.01	12.06	9.19	6.4	4.81	373.2	32.1	0	9.8	3.234	1.68	300			0.8063	300.9112964
2002	9179	15.32	13.54	12.35	11.28	9.67	7.61	5.98	531.7	164.6	0	7.6	2.508	0.85	300			0.8063	428.7099043
2503	9146	15.76	13.46	11.7	10.21	7.83	5.29	3.77	697.7	20.2	0	12.1	3.993	1.43	165.9			0.8063	562.5557649
3001	9135	18.5	13.31	10.96	9.12	6.43	3.81	2.39	217.6	28.7	0	15.1	4.983	3.11	93			0.8063	175.4509595
3500	9573	14.83	11.99	10.31	9.04	6.81	4.39	2.97	554	33.4	0	14.5	4.785	2.31	115.2			0.8063	446.6904024
4000	9376	19.97	15.48	12.3	9.94	6.67	3.85	2.69	261.1	15.5	0	15.5	5.115	3.1	62.7		*	0.8063	210.5250254
4501	9409	17.09	13.93	11.63	9.85	7.07	4.32	2.89	478	15	0	14.9	4.917	2.1	114.1		*	0.8063	385.4115746
5002	9464	5.99	5.15	4.76	4.45	3.91	3.02	2.37	753.6	915.6	0	19.3	6.369	0.98	300			0.8063	607.6279553
5501	9332	11.67	10.33	9.4	8.67	7.45	5.72	4.46	758.1	202.8	0	10.2	3.366	0.81	300			0.953592	722.9178237
6001	9365	4.22	3.54	3.29	3.13	2.79	2.28	1.91	934.9	2000	0	25.3	8.349	1.29	300		*	0.953592	891.512826
6501	9354	5.2	4.4	4.07	3.89	3.53	2.93	2.45	759	2000	0	19.3	6.369	1.22	300		*	0.953592	723.7760562
7001	9310	10.79	8.76	7.38	6.18	4.4	2.79	2.08	747.9	24	0	23.2	7.656	1.87	93.9			0.953592	713.191189
7501	9365	5.41	4.22	3.59	3.15	2.53	1.83	1.38	554.2	386.7	0	34.9	11.517	1.39	300			0.953592	528.480488
8001	9310	5.79	4.96	4.53	4.2	3.63	2.8	2.23	792.4	735.3	0	20.9	6.897	0.86	300			0.953592	755.6260171
8501	9288	5.7	4.57	4.13	3.83	3.26	2.49	1.93	457.9	1036.6	0	24.6	8.118	0.94	300			0.953592	436.6496128
9001	9332	9.26	8.1	7.46	6.98	6.08	4.75	3.72	655	443.9	0	12.1	3.993	0.87	300			0.953592	624.6025255
9500	9255	10.58	8.32	6.85	5.74	4.12	2.63	1.87	555.4	41.1	0	23.5	7.755	1.91	102.9			0.953592	529.6247979
10000	9288	12.19	10.25	8.74	7.51	5.6	3.69	2.62	807.8	22.4	0	17.8	5.874	1.6	256.6			0.953592	770.3113283
10501	9223	18.37	14.82	12.12	9.88	6.6	3.69	2.44	311.9	15.5	0	15.5	5.115	4.09	61.3		*	0.953592	297.4252331
11002	9420	13.07	10.83	9.15	7.77	5.69	3.6	2.6	706.4	18.4	0	18.4	6.072	1.7	150		*	1.066643	753.4766992
11500	9288	16.91	14.04	11.88	10.06	7.3	4.48	3.07	504.9	15	0	14.1	4.653	2.1	123.4		*	1.066699	538.5761818
12002	9310	15.26	12.74	10.85	9.37	6.98	4.56	3.12	634.4	18.6	0	14.3	4.719	1.69	120.3			1.066761	676.7533322
12501	9277	10.38	8.18	6.7	5.63	4.07	2.7	2.05	511.7	53.5	0	23.1	7.623	1.99	111.1			1.066795	545.8790535
13000	9245	4.11	3.39	2.99	2.83	2.4	2.18	1.47	725.3	2000	0	29.5	9.735	3.58	300		*	1.066868	773.7993659
13000	9266	4.11	3.29	2.94	2.73	2.37	1.87	1.5	554.9	2000	0	33.1	10.923	1.13	300		*	1.066907	592.0267233
13500	9255	7.63	6.48	5.76	5.22	4.3	3.21	2.62	805.5	249.5	0	19	6.27	1.06	300			1.06699	859.4607018
14001	9255	5.74	4.8	4.37	4.08	3.48	2.64	1.99	667.4	745	0	22.3	7.359	1.12	300			1.06708	712.1695127
14500	9266	9.27	8.11	7.33	6.77	5.74	4.26	3.19	916.2	214.7	0	13.7	4.521	1.16	300			1.067178	977.7480503
15000	9266	4.82	4.06	3.84	3.69	3.38	2.8	2.36	963.3	2000	0	19.6	6.468	1.81	300		*	1.067281	1028.112218
15501	9310	5.34	4.39	3.96	3.7	3.24	2.48	1.94	527	1279	0	24.3	8.019	0.95	300			1.067336	562.4860619
16000	9201	5.39	4.56	4.18	3.94	3.43	2.67	2.11	643.2	1190.9	0	21.6	7.128	0.94	300			1.06745	686.5839611
16571	9201	10.08	7.61	5.92	4.72	3.16	1.78	1.27	443.6	32.2	0	32.2	10.626	3.21	58.7		*	1.067699	473.6313271
17001	9255	5.76	4.78	4.33	4.03	3.5	2.69	2.11	545.4	1004.1	0	22.2	7.326	0.83	300			1.067834	582.3965568
17501	9255	7.02	5.69	5.02	4.53	3.78	2.83	2.2	470.8	438	0	21.9	7.227	0.98	300			1.067975	502.802767
18000	9168	6.76	5.74	5.05	4.6	3.78	2.73	1.99	965.6	238.7	0	21.9	7.227	1.28	300			1.068124	1031.380108
18500	9212	9.28	7.8	6.91	6.31	5.25	3.94	3.02	491.9	273.6	0	15.3	5.049	1.14	300			1.068279	525.4862385
19101	9179	6.46	5.14	4.53	4.11	3.49	2.69	2.18	372.2	774.5	0	23.2	7.656	1.22	300			1.06844	397.6735045
19500	9255	6.99	5.56	4.88	4.43	3.74	2.85	2.29	368.8	612.5	0	22.1	7.293	1.2	300			1.068609	394.1029513
20001	9201	5.19	4	3.52	3.2	2.76	2.2	1.79	347.3	1669.4	0	28.9	9.537	1.56	300			1.068784	371.1887111
20501	9146	5.75	4.8	4.33	4.02	3.53	2.83	2.33	483.6	1394.8	0	20.9	6.897	1.02	300			1.068966	516.9519465
21001	9025	27.08	17.01	13.23	11.33	8.17	4.63	2.89	200	15	0	12.4	4.092	6.38	300		*	1.069155	213.8309078
21501	9376	5.69	4.64	4.06	3.72	3.15	2.46	2.02	512.4	788.4	0	25.8	8.514	1.55	300			1.072622	549.6117436
22000	9255	6.2	5.17	4.79	4.56	3.97	3.16	2.52	468.2	1581.5	0	18.1	5.973	0.98	300			1.072911	502.3369412
22501	9255	5.59	4.72	4.38	4.06	3.54	2.8	2.28	618.2	1192.9	0	20.8	6.864	0.63	300			1.073206	663.4558246
23002	9234	6.5	5.78	5.29	4.79	3.96	3.02	2.49	1240	290.9	0	19.6	6.468	1.28	300		*	1.07366	1331.337796
23501	9223	6.91	5.26	4.56	4.13	3.45	2.61	2.04	288.5	690.7	0	24.4	8.052	1.42	300			1.073814	309.7952853
24001	9266	6.25	5.05	4.59	4.27	3.65	2.73	2.1	457	848.7	0	22	7.26	1.11	300			1.074127	490.8760309
24502	9212	7.39	6	5.32	4.83	4.09	3.04	2.33	432.9	464.4	0	20.1	6.633	0.86	300			1.074446	465.1277637

VT131 Eastbound (1 of 2)

Station	Load (lbs)	Measured Deflection (mils): R1	R2	R3	R4	R5	R6	R7	Calculated Modulus Values (ksi): SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)		Absolute ERR/Sens	Depth to Bedrock		Adjusted to 68 F ATAF	Adj. Surf Modulus
25001	9234	5.52	4.6	4.22	3.91	3.35	2.43	1.79	768.4	620.6	0	23.9	7.887	1.78	182.9		1.074771	825.8543859
25556	9234	4.9	3.9	3.52	3.28	2.87	2.25	1.78	449.9	1885.4	0	27.1	8.943	0.82	300		1.075103	483.6886968
26000	9146	6.41	5.53	5.11	4.78	4.27	3.46	2.89	545	1410.2	0	16.1	5.313	0.6	300		1.07544	586.1147194
26500	9146	6.55	5.45	4.87	4.48	3.81	2.93	2.35	523.4	620.3	0	20.4	6.732	0.99	300		1.075957	563.1557157
27000	9201	5.25	4.36	3.96	3.73	3.31	2.62	2.13	521.2	1778.6	0	22.3	7.359	0.71	300		1.076309	560.9719938
27501	9190	5.03	4.29	3.97	3.74	3.33	2.69	2.23	661.5	1900.2	0	20.9	6.897	0.6	300		1.076666	712.2146598
28000	9201	4.43	3.82	3.53	3.34	3	2.39	1.94	838.2	1992.8	0	23.1	7.623	0.8	300		1.076847	902.6132695
28501	9157	5.72	5	4.7	4.46	3.98	3.24	2.73	782.3	1497.5	0	16.5	5.445	0.68	300		1.077213	842.7040416
29001	9223	5.93	4.97	4.56	4.3	3.84	3.11	2.56	466.8	1941.2	0	18.4	6.072	0.73	300		1.077585	503.0168418
29501	9157	6.27	5.23	4.64	4.24	3.57	2.7	2.1	609.9	502.4	0	22.3	7.359	1.04	300		1.077963	657.4496024
30000	9135	4.94	4.11	3.78	3.58	3.18	2.57	2.17	591.4	2000	0	22.3	7.359	0.84	300	*	1.078154	637.6201871
30501	9102	6.57	5.39	4.85	4.47	3.88	3.03	2.38	422	931.9	0	19.8	6.534	0.87	300		0.883875	372.9954416
31001	9080	6	4.7	4.15	3.81	3.23	2.41	1.86	1240	43.5	0	37	12.21	12.9	300	*	0.88399	1096.147359
31501	9102	5.48	4.63	4.28	4.07	3.63	2.95	2.44	551.9	2000	0	18.9	6.237	0.71	300	*	0.884226	488.0041083
32000	9157	6.63	5.07	4.39	3.98	3.35	2.59	2.1	290.4	819.6	0	24.7	8.151	1.64	300		0.884471	256.8503281
32500	9113	5.6	4.51	4.09	3.81	3.31	2.6	2.17	427.8	1445	0	23	7.59	0.84	300		0.884725	378.4855526
33000	9124	7.61	6.31	5.67	5.23	4.51	3.51	2.87	402.3	698.2	0	17	5.61	0.91	300		0.884989	356.0312673
33500	9157	5.83	4.72	4.25	3.92	3.37	2.5	1.81	495.2	801.4	0	23.9	7.887	1.03	147.5		0.885263	438.3821632
34001	9102	5.48	4.16	3.59	3.24	2.74	2.12	1.71	329.6	1043.3	0	30.1	9.933	1.64	300		0.885546	291.8758122
34502	9036	5.51	4.19	3.56	3.13	2.46	1.78	1.38	471.5	364.4	0	34.8	11.484	1.59	300		0.885838	417.6724001
35000	9277	5.44	4.41	3.96	3.65	3.18	2.52	2.11	454	1410.9	0	24.5	8.085	1.03	300		0.890464	404.2707531
35501	9234	4.49	3.61	3.34	3.15	2.85	2.32	1.93	660.4	2000	0	26.1	8.613	1.9	300	*	0.890672	588.20003
36001	9168	5.35	4.42	4.07	3.78	3.34	2.61	2.15	533.2	1480.2	0	22.4	7.392	0.5	300		0.891095	475.1319766
36501	9179	7.51	5.82	5.12	4.7	4.02	3.01	2.42	271.5	798.9	0	20.6	6.798	0.95	300		0.891527	242.049528
37000	9168	4.96	3.97	3.58	3.29	2.8	2.12	1.78	527.5	1040.9	0	28.7	9.471	0.86	300		0.891967	470.5126186
37500	9245	4.62	3.61	3.23	2.98	2.58	1.98	1.58	449.3	1665.9	0	31.4	10.362	0.81	300		0.892416	400.9624689
38001	9223	4.59	3.65	3.31	3.11	2.76	2.2	1.79	524.2	2000	0	27.9	9.207	1.16	300	*	0.892873	468.0442068
38500	9179	4.27	3.17	2.9	2.74	2.43	1.89	1.52	1240	109.3	0	50.4	16.632	16.59	300	*	0.893339	1107.74073
39100	9091	5.65	4.28	3.78	3.44	2.92	2.25	1.81	320.1	1189.4	0	27.9	9.207	1.22	300		0.893814	286.1097732
39500	9113	4.9	3.8	3.41	3.13	2.65	1.9	1.59	468.5	940.4	0	31.5	10.395	1.41	300		0.894297	418.9779438
40001	9135	4.04	3.09	2.84	2.69	2.4	1.89	1.51	605.8	2000	0	32.7	10.791	2.37	300	*	0.894788	542.0624416
40501	9135	4.36	3.42	3.13	2.96	2.61	2.06	1.64	555	2000	0	29.4	9.702	1.47	300	*	0.895287	496.884462
41001	9113	5.23	4.15	3.68	3.34	2.74	1.98	1.47	590.7	535.3	0	30.5	10.065	1.3	185.4		0.89554	528.995588
41501	9091	5.87	4.89	4.55	4.32	3.92	3.15	2.54	493.8	2000	0	17.6	5.808	0.87	300	*	0.896052	442.4705218
42000	9069	5.21	4.33	4.04	3.82	3.42	2.77	2.46	577.7	2000	0	20.2	6.666	0.84	300	*	0.896572	517.9497436
42501	9080	5.46	4.53	4.11	3.83	3.33	2.55	2	569.2	1045.8	0	22.8	7.524	0.85	300		0.8971	510.6295339
43000	9168	6.3	4.83	4.14	3.7	3.07	2.29	1.77	342.9	577.2	0	27.8	9.174	1.43	300		0.897637	307.7996054
43501	9080	5.85	4.94	4.53	4.32	3.81	3.15	2.6	486.2	2000	0	17.8	5.874	1.13	300	*	0.897908	436.5627649
44000	9036	7.43	5.97	5.26	4.82	4.05	3.15	2.71	345.9	620.8	0	19.5	6.435	1.46	300		0.898456	310.7759442
44500	9091	6.16	4.83	4.26	3.84	3.23	2.36	1.82	414.8	580.9	0	25.9	8.547	0.87	300		0.899012	372.9102652
45000	9047	6.42	5.2	4.72	4.39	3.85	2.96	2.32	388.2	1158.3	0	19.9	6.567	0.72	300		0.899576	349.2154955
45501	9069	4.13	3.42	3.15	2.99	2.64	2.06	1.6	719.3	2000	0	27.6	9.108	1.03	300	*	0.900148	647.4764976
46001	9234	3.96	2.9	2.63	2.43	2.1	1.55	1.17	435.6	2000	0	40.2	13.266	1.1	300	*	0.906606	394.9176614
46501	9190	4.33	3.33	3.05	2.85	2.51	1.92	1.49	489	2000	0	31.9	10.527	1.13	300	*	0.907263	443.651537
47000	9146	5.22	4.01	3.61	3.36	2.93	2.26	1.79	350.4	1939.4	0	26.9	8.877	0.73	300		0.907926	318.1374264
47501	9146	6.63	5.44	4.96	4.67	4.07	3.15	2.47	407.1	1163.5	0	18.6	6.138	0.89	300		0.908261	369.7529781
Mean:		7.68	6.22	5.47	4.92	4.04	2.98	2.3	562.5	959.9	0	22.4		1.64	258.4			545
Std. Dev:		4.33	3.35	2.72	2.25	1.59	1.03	0.76	207.2	732.9	0	6.9	2.291253	2.1	161.9			215.2424299
Var Coeff	(%):	56.38	53.76	49.8	45.81	39.42	34.64	32.84	36.8	76.4	0	31		128.27	62.7			

VT131 Eastbound (2 of 2)

	Load	Measured Deflection (mils):							Calculated Modulus Values (ksi):					Absolute	Depth to			Adjusted to 68 F	
Station	(lbs)	R1	R2	R3	R4	R5	R6	R7	SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)		ERR/Sens	Bedrock			ATAF	Adj. Surf Modulus
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47251	9234	5.38	4.21	3.9	3.69	3.27	2.53	2	484	2000	0	23.6	7.788	2.28	300	*		0.9089	439.9076272
46751	9255	4.52	3.55	3.24	3.03	2.63	1.96	1.5	539.5	2000	0	30.3	9.999	1.32	300	*		0.909588	490.7224769
46250	9179	6.52	5.24	4.64	4.17	3.41	2.42	1.76	494.5	523	0	24.5	8.085	1.14	159.5			0.91028	450.1335903
45750	9223	6.75	5.5	4.96	4.56	3.8	2.74	2.1	467.1	714.9	0	21.3	7.029	1.27	300			2.088626	975.5973848
45251	9212	7.57	6.16	5.54	5.09	4.35	3.21	2.44	359.3	892.3	0	18.3	6.039	0.87	300			2.091626	751.5210917
44750	9168	9.13	6.87	5.94	5.34	4.42	3.16	2.3	197.8	637.7	0	19.3	6.369	1.11	300			2.094638	414.3194239
44251	9146	4.57	3.5	3.3	3.17	2.84	2.24	1.74	716.4	2000	0	26.5	8.745	3.87	300	*		2.097664	1502.76615
43751	9102	7.64	5.28	4.39	3.84	3.05	2.17	1.62	184.3	608.2	0	29.3	9.669	1.91	300			2.099181	386.8790466
43251	9058	7.02	5.29	4.61	4.17	3.47	2.55	1.94	242	1039.9	0	23.7	7.821	1.28	300			1.655818	400.7079934
42751	9058	6.69	5.23	4.7	4.35	3.68	2.73	2.26	302.5	1327.6	0	21.5	7.095	0.96	300			1.657922	501.521467
42250	9069	4.93	3.42	3.06	2.83	2.41	1.75	1.28	288.2	2000	0	35.4	11.682	1.92	300	*		1.660035	478.4219998
41751	9036	5.33	3.55	3.13	2.92	2.52	1.85	1.37	241.9	2000	0	34.5	11.385	2.74	300	*		1.661094	401.8186453
41250	9047	5.43	4.3	3.94	3.69	3.16	2.32	1.76	405.4	1800.1	0	24.5	8.085	1.31	300			1.663219	674.2688581
40750	9058	7.67	6.18	5.65	5.22	4.4	3.24	2.47	342.8	891.4	0	17.7	5.841	1.12	300			1.665351	570.882372
40250	9058	6.29	4.78	4.28	3.97	3.34	2.44	1.94	277.8	1514	0	24.1	7.953	1.05	300			1.667491	463.2290312
39750	8971	7.24	5.8	5.13	4.65	3.8	2.69	1.99	418.4	491.1	0	21.5	7.095	1.27	212.5			1.669638	698.5766787
39251	9004	5.54	4.01	3.48	3.11	2.5	1.7	1.17	299.1	852	0	34.8	11.484	1.36	101.6			1.671793	500.033147
38750	9036	5.17	3.94	3.58	3.36	2.89	2.19	1.72	385.6	2000	0	27.1	8.943	1.52	300	*		1.672872	645.0595077
38250	9047	8.9	7.54	6.8	6.28	5.3	3.78	2.72	520.2	399.4	0	14.7	4.851	1.64	171.3			1.675036	871.3538975
37751	9014	8.61	6.79	5.96	5.3	4.3	2.96	2.26	356.5	330.1	0	19.6	6.468	1.23	300			1.677207	597.9242183
37251	9036	5.61	4.31	3.94	3.72	3.28	2.53	1.98	390.7	2000	0	23.5	7.755	2.12	300	*		1.679383	656.135039
36750	9014	5.88	4.64	4.07	3.68	3.07	2.25	1.69	388.1	932	0	26.4	8.712	1.07	300			1.681565	652.6155599
36250	9036	6.54	5.05	4.47	4.1	3.48	2.57	1.9	281.4	1334	0	23	7.59	0.93	300			1.683753	473.8081351
35750	8971	6.13	4.53	4.01	3.67	3.17	2.43	1.9	244.3	2000	0	24.8	8.184	1.29	300	*		1.685946	411.8766064
35250	9223	4.79	3.78	3.51	3.37	2.92	2.23	1.78	592.7	2000	0	26.2	8.646	2.2	300	*		1.304808	773.35982
34750	9190	6.02	4.84	4.43	4.21	3.63	2.81	2.19	401.5	2000	0	20.7	6.831	1.14	300	*		1.306252	524.4603411
34251	9113	5.81	4.53	4.06	3.8	3.3	2.56	2.04	348.1	2000	0	23.5	7.755	1.28	300	*		1.307697	455.2093812
33751	9091	6.14	4.98	4.5	4.19	3.57	2.65	2.06	419.2	1252.8	0	21.7	7.161	1	300			1.309142	548.7924361
33244	9190	5.12	4.07	3.69	3.46	2.9	2.11	1.47	465.6	1490.8	0	27.6	9.108	1.4	300			1.309865	609.873089
32750	9135	6	5.01	4.61	4.38	3.83	2.97	2.17	497.3	1881.5	0	18.8	6.204	0.93	300	*		1.31131	652.1145306
32250	9102	5.22	4.23	3.87	3.64	3.24	2.56	2.05	553.3	2000	0	22.7	7.491	1.73	300	*		1.312033	725.947704
31751	9069	7.29	6.2	5.78	5.51	5.03	4.06	3.33	671.2	1313.4	0	13.1	4.323	2.03	300	*		1.313478	881.606217
31251	9069	7.78	6.43	5.86	5.45	4.64	3.48	2.79	385.3	901.1	0	16.3	5.379	0.98	300			1.314922	506.6395185
30751	9080	7.53	5.95	5.25	4.81	4.03	2.97	2.35	290.3	893.4	0	20	6.6	1.1	300			1.316366	382.1410634
30251	9047	6.9	5.51	5.02	4.76	4.24	3.36	2.63	381.6	1729.5	0	17.3	5.709	1.91	300	*		1.317088	502.6006551
29750	9102	6.12	4.65	4.17	3.82	3.24	2.34	1.68	290	1456.5	0	25.2	8.316	0.9	139			1.31853	382.3737521
29250	9058	6.65	5.38	5	4.76	4.29	3.49	2.84	502.9	1649.1	0	16.5	5.445	2.64	300	*		1.319251	663.4513351
28750	9091	6.74	5.59	5.14	4.87	4.32	3.37	2.61	459.7	1655.7	0	16.6	5.478	1.2	300	*		1.320692	607.1219824
28250	9014	7.61	5.9	5.09	4.57	3.77	2.78	2.11	268.5	695.7	0	21.8	7.194	1.51	300			1.322131	354.9921634
27751	8993	7.92	6.52	5.91	5.48	4.65	3.43	2.63	377.4	772	0	16.5	5.445	1.04	300			1.323569	499.5147694
27251	8993	5.92	5.16	4.83	4.58	4.11	3.23	2.58	771.9	1600.8	0	16	5.28	1.05	300	*		1.325004	1022.770793
26751	9025	6.4	5.33	4.83	4.46	3.82	2.83	2.13	503.5	943.2	0	19.9	6.567	0.95	300			1.326438	667.8614908
26250	9058	6.51	5.09	4.53	4.16	3.52	2.57	1.89	317.4	1150.2	0	22.9	7.557	0.95	300			1.327154	421.2386484
25751	9025	6.74	5.52	5.06	4.74	4.13	3.16	2.46	370.8	1686.7	0	17.8	5.874	0.72	300			1.328584	492.6389713
25250	9058	5.67	4.06	3.4	2.97	2.33	1.48	0.94	343.1	431.2	0	38.9	12.837	1.92	300			1.330012	456.3269963
24750	8960	6.99	5.37	4.78	4.39	3.7	2.71	2.05	262.2	1187.1	0	21.6	7.128	0.96	300			1.331436	349.1026357
24250	9190	7.8	5.88	5.08	4.54	3.65	2.46	1.73	275.4	463.5	0	24.2	7.986	1.49	127.9			1.348242	371.3057899
23751	9080	9.4	7.7	7.02	6.53	5.56	4.17	3.26	293.2	819	0	13.7	4.521	0.96	300			1.349612	395.7061331
23251	9058	8.64	6.9	6	5.35	4.33	2.96	2.07	393.5	294.3	0	19.6	6.468	1.36	127.8			1.350294	531.340867
22750	9102	6.33	4.78	4.04	3.54	2.85	2	1.45	334.4	522.7	0	30.5	10.065	1.35	146.5			1.351656	451.9936736
22251	9058	5.5	4.22	3.69	3.33	2.71	1.83	1.22	415.7	700.6	0	31.8	10.494	1.65	90.5			1.353011	562.4466802

VT131 Westbound (1 of 2)

	Load	Measured Deflection (mils):							Calculated Modulus Values (ksi):					Absolute	Depth to			Adjusted to 68 F	
Station	(lbs)	R1	R2	R3	R4	R5	R6	R7	SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)		ERR/Sens	Bedrock			ATAF	Adj. Surf Modulus
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21751	9004	6.72	5.18	4.6	4.23	3.59	2.7	1.98	264.9	1471.2	0	21.9	7.227	1.09	300			1.353686	358.5915171
21250	9036	6.95	5.77	5.39	5.11	4.55	3.54	2.78	473.3	1553	0	15.5	5.115	1.44	300	*		1.355032	641.3367931
20751	9047	7.09	5.23	4.54	4.12	3.42	2.61	2.06	202.5	1450.8	0	23.6	7.788	1.8	300			1.35903	275.203664
20250	9091	5.98	4.54	3.9	3.52	2.78	1.88	1.43	387.1	530.3	0	31.3	10.329	1.79	300			1.359691	526.3362833
19750	9047	6.06	4.89	4.29	3.97	3.26	2.43	1.84	432.8	870.7	0	24.4	8.052	1.5	300			1.361006	589.0433549
19250	9069	6.2	4.82	4.26	3.9	3.3	2.47	1.94	308.8	1369.3	0	24.2	7.986	1.12	300			1.362314	420.6824628
18751	9004	8.98	6.84	5.78	5.13	4.18	3.02	2.23	220.9	462.6	0	20.2	6.666	1.67	300			1.362965	301.0789076
18251	9069	7.78	5.69	4.86	4.28	3.45	2.45	1.81	218.3	584.1	0	25.1	8.283	1.39	196.6			1.364261	297.8181816
17750	9004	10.52	8.17	7.04	6.22	4.98	3.52	2.59	245.3	287.5	0	16.9	5.577	1.21	218.1			1.365549	334.9692742
17250	9025	7.7	6.59	6.04	5.67	4.94	3.76	2.96	464.3	1022.7	0	14.5	4.785	1.01	300			1.278523	593.6182124
16751	8938	6.99	6.01	5.59	5.3	4.81	3.85	3.15	631	1372	0	13.7	4.521	1.54	300	*		1.279099	807.1116613
16250	8927	7.61	6.26	5.71	5.31	4.54	3.45	2.7	356.1	1071.6	0	16.3	5.379	0.87	300			1.280246	455.8957592
15750	9047	9.78	7.63	6.63	5.96	4.76	3.24	2.14	288.5	292.6	0	18	5.94	1.58	98			1.281386	369.6798758
15250	8971	7.73	6.6	6.07	5.72	5.04	3.91	3.11	415.1	1378.7	0	13.8	4.554	0.83	300	*		1.282518	532.3731995
14751	9014	8.06	6.39	5.48	4.9	3.96	2.89	2.32	340.7	414.2	0	20.9	6.897	1.62	300			1.283642	437.336814
14251	8960	5.03	3.92	3.51	3.26	2.85	2.18	1.7	414.2	2000	0	27	8.91	1.21	300	*		1.284758	532.1467229
13751	8894	8.82	7.39	6.68	6.18	5.37	4.14	3.29	308.3	1026.2	0	13.5	4.455	0.84	300			1.285866	396.4323685
13251	9069	7.24	5.96	5.52	5.21	4.63	3.7	3.01	451.2	1519.3	0	15.2	5.016	1.54	300	*		1.286965	580.6785701
12751	8993	5.41	4.2	3.74	3.47	3.05	2.46	2.03	389.2	2000	0	24.9	8.217	2.14	300	*		1.288056	501.3112543
12250	9146	14.3	11.43	9.54	8.18	6.06	4.2	3.22	349.7	74.2	0	14.3	4.719	2.1	199.8			1.301856	455.2589142
11750	9124	17.4	14.05	11.48	9.7	6.78	4.4	3.11	404.3	26.5	0	13.4	4.422	2.36	81.8			1.302803	526.7233516
11250	9004	22.44	18.8	16.16	13.96	10.25	6.75	4.7	492.7	15	0	8.8	2.904	1.9	177.5			1.30374	642.3525755
10751	9014	14.11	11.44	9.52	8.06	5.7	3.71	2.63	556	29.9	0	15.8	5.214	2.15	90.1			1.304665	725.3937405
10751	8938	14.05	11.33	9.49	8.02	5.69	3.72	2.78	528	33.2	0	15.6	5.148	2.09	93.1			1.305123	689.1051326
10250	9047	21.49	17.43	14.32	11.93	8.13	4.85	3.1	340.3	15	0	11.6	3.828	2.93	69.1	*		1.306031	444.4424987
9699	9069	14.53	12.15	10.44	8.94	6.07	3.24	1.83	629	15	0	16.8	5.544	4.43	68.5	*		1.306928	822.0576431
9250	9080	8.78	7.32	6.61	6.11	5.09	3.79	2.76	404.9	548.4	0	15.1	4.983	1.17	181.6			1.307372	529.3548049
8751	9047	4.96	3.87	3.46	3.17	2.63	1.98	1.53	414.5	1513	0	30.1	9.933	1.2	300			1.30825	542.2698078
8251	9102	6.02	4.77	4.16	3.76	3.07	2.26	1.71	425.4	726.7	0	26.8	8.844	1.41	300			1.309117	556.8984483
7751	9168	5.44	4.22	3.74	3.43	2.84	2.11	1.6	373.3	1318.6	0	28.7	9.471	1.22	300			1.309972	489.0124668
7238	9091	7.74	6.11	5.26	4.71	3.77	2.73	1.94	364.5	410.5	0	22.2	7.326	1.55	300			1.310394	477.638792
6750	9113	8.96	6.62	5.02	3.89	2.14	1.05	0.53	635.7	16.5	0	54.9	18.117	4.1	34.7	*		1.311231	833.5493112
6250	9091	6.99	6.07	5.5	5.11	4.31	3.31	2.43	720.2	642.1	0	16.8	5.544	1.1	179.1			1.312054	944.9414965
5751	9004	10.42	8.57	7.28	6.3	4.8	3.45	2.55	519.8	123	0	17.2	5.676	2.04	300			1.312865	682.4273951
5249	9080	7.67	6.02	5.24	4.73	3.8	2.81	2.07	325.3	536.6	0	21.6	7.128	1.65	300			1.313266	427.205452
4751	9004	20.13	15.92	12.93	10.68	7.04	3.99	2.38	320.3	15	0	13.6	4.488	3.51	57.7	*		1.314058	420.8927543
4250	8971	22.8	17.64	14.12	11.51	7.43	4.63	3.44	252.4	15	0	12.3	4.059	2.79	51.5	*		1.314837	331.8648179
3750	9004	22.22	16.67	12.98	10.35	6.69	4.19	2.96	218.1	16.7	0	13.7	4.521	2.99	51.6			1.315603	286.9329421
3250	9069	16.91	13.82	11.85	10.19	7.3	4.64	3.11	589.9	19.1	0	12.8	4.224	2.39	110			1.315981	776.2969797
2750	9091	18.76	14.39	11.56	9.5	6.5	4.38	3.18	247.9	33.8	0	13.5	4.455	2.89	67.8			1.318533	326.8642546
2250	9014	17.99	13.79	10.96	8.89	5.57	3.14	2.05	321.1	15	0	17.5	5.775	3.65	47	*		1.319231	423.6051588
1751	9058	7.05	5.49	5.13	4.89	4.12	3.18	2.37	304.2	1809.5	0	18.1	5.973	1.49	223.3	*		1.319916	401.5184543
1250	9036	10.98	8.33	7.06	6.4	5.31	4.05	2.98	150	679.1	0	15.3	5.049	2.23	300	*		1.320587	198.0880286
751	8993	5.21	4.2	3.97	3.84	3.45	2.98	2.55	855.1	1912.6	0	19.1	6.303	3.84	300	*		1.320917	1129.516141
250	9069	14.77	11.32	9.16	7.5	4.76	2.78	1.65	470.8	15	0	21.3	7.029	3.1	48.4	*		1.321567	622.1936268
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Mean:		8.51	6.74	5.86	5.24	4.18	2.99	2.23	396.2	989.9	0	21.2		1.68	214.1				551
Std. Dev	:	4.33	3.47	2.74	2.19	1.39	0.86	0.64	135.7	677.4	0	6.9	2.283626	0.8	184.3				199.8621983
Var Coef	f(%):	50.91	51.43	46.83	41.87	33.11	28.81	28.65	34.2	68.4	0	32.6		47.52	86.1				
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VT131 Westbound (2 of 2)

Pavement Structural Evaluation for Three Pavement Sections in Vermont:

VT 131 - Cavendish-Weathersfield
VT 100 - Stowe-Morristown
VT 105 - Richford-Jay

Final Report

submitted to

GEODesign
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by

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June 30, 2022

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APPENDIX F – INFRASENSE FWD PAVEMENT STRUCTURAL EVALUATION REPORT

1. Introduction

The objective of this project was to evaluate the structure of the pavement sections outlined in Table 1. The evaluations utilized both ground penetrating radar (GPR) and falling weight deflectometer (FWD) to calculate the pavement layer thicknesses, moduli, and effective structural number. These sections recently underwent full depth reclamation including the use of a reclaimed stabilized base with a stabilizing agent (cement or emulsion). A description of the pavement design for each project section is provided in Table 2 below. Note that, although one treatment (typical section) is applied to each entire project segment, varying amounts of aggregate are applied for super elevation throughout the project segment. The following sections describe the data collection equipment and procedures, analysis methods, and resulting deliverables.

Table 1 – Description of Pavement Sections

Project	Route	Total Mileage (each lane)
Cavendish-Weathersfield ER STP 0146(14)	VT 131	8.95 miles
Stowe-Morristown STP PS19(3)	VT 100	7.55 miles
Richford-Jay STP 2914(1)	VT 105	7.44 miles

Table 2 – Pavement Section Design

SECTION ID	DESIGN
Cavendish-Weathersfield (VT-131)	1.5" AC Wearing Course over 2.5" AC over 2.5" Plant Mix Recycled AC with Portland Cement over 8" Reclaimed Cement Stabilized Base
Richford-Jay (VT-105)	1.5" AC Wearing Course over 2.5" AC over 3" Plant Mix Recycled AC with Portland Cement over 6" Reclaimed Emulsified AC Stabilized Base over 4" Reclaimed Base
Stowe-Morrisville (VT-100)	1.5" AC Wearing Course over 3.5" AC over 6" Reclaimed Emulsified AC Stabilized Base over 4" Reclaimed Base

2. Data Collection

GPR Data Collection

GPR data was collected on November 23, 2021. The data was collected with a GSSI 1-GHz horn antenna. The 1-GHz antenna focuses on the upper 2-3 feet of the pavement construction. Data collection was carried out along the centerline of each of the two travel lanes (one per direction) at normal driving speeds, and no traffic control was required. The GPR system for this work included a GSSI SIR-4000 radar control and data acquisition unit, an electronic distance measuring instrument (DMI), and a high-resolution differential GPS using a Trimble Model SPS 985 GPS unit (see Figure 1).

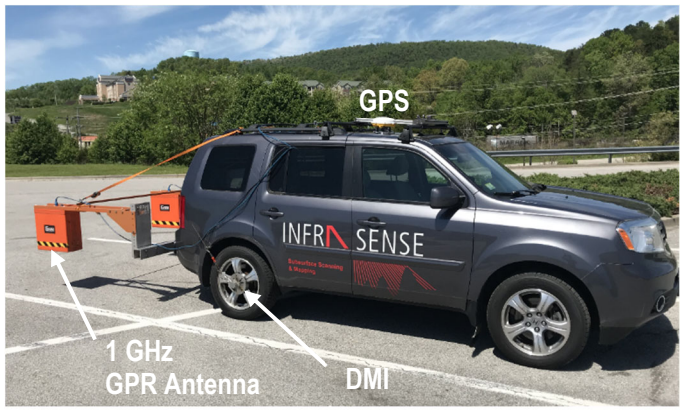


Figure 1 – GPR Data Collection System

Falling Weight Deflectometer (FWD) Testing

The initial plan was to collect FWD data in the Fall of 2021 in the same time frame as the GPR testing. However, due to timing and schedule constraints of the project, the available time had cold weather conditions that were not favorable for FWD testing, so the testing was deferred until the spring of 2022. FWD testing was carried out by Wood Environmental and Infrastructure, Inc. using a Dynatest Model 8002 FWD as shown in Figure 2 according to the following schedule.

- VT 131 tested May 17, 2022;
- VT 100 tested May 18, 2022;
- VT 105 tested May 19, 2022.

Testing was performed in accordance with ASTM D4694-09 (2020) and ASTM D4695-03 (2020) with drops performed at approximate 500-ft intervals in each direction of travel. Due to incoming adverse weather conditions, test spacing in the northbound direction of VT 105 was increased to 750 ft for a majority of the lane. A total of 1,389 locations were tested across the three project sites.

All test locations were documented in terms of linear distance using a DMI, and with GPS coordinates.

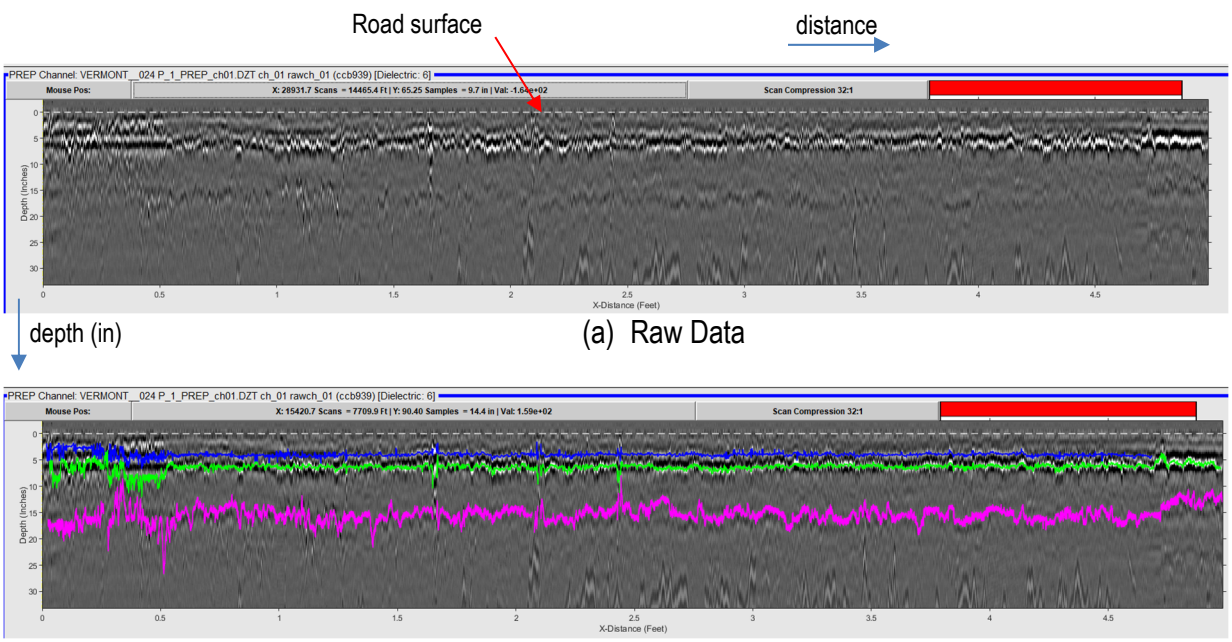
Figure 2 – FWD Equipment

3. Data Analysis

GPR Data Analysis

The GPR data analysis was carried out using Infrasense's proprietary software, *Win*Decar. Using this software, the GPR data file is observed visually on the screen in b-scan display, and the analyst "picks" the relevant pavement layers as they are observed. The picking process produces a binary file incorporating the arrival time and amplitude of all of the picked layers. When the picking for a GPR data file is complete, an output report is generated. Two output reports were generated for each site in each direction – one with layer thickness data at 5-foot intervals, and one with layer thickness data specifically at the FWD test locations. The later was determined using the GPS coordinated data for the FWD test points and served as an input into the FWD data analysis.

Figure 3 shows a sample of data from the Cavendish-Weathersfield site, going EB from Cavendish to Weathersfield. Figure 3a shows the raw GPR data. The vertical axis is estimate depth in inches, and the horizontal axis is distance in feet (x 10,000). Figure 3b shows the raw data with the layers "picked" by the analyst. The blue layer is the bottom of the 1.5-inch wearing course plus the 2.5-inch AC layer. The green layer is the bottom of the 2.5-inch plant mix recycled AC. Note that the design depth of these layers (4-inches and 6.5-inches) matches closely with the depths observed in the GPR data.



(a) Raw Data

(b) Raw data with layers "picked"

Figure 3 – Sample GPR Data from Cavendish-Weathersfield site

blue = bottom of upper AC layers
green = bottom of plant mix recycled AC
magenta = bottom of cement stabilized recycled AC

Core data is sometimes used to calibrate the GPR thickness data. In the case of these sites, cores were taken within individual lifts but there were no cores that completely sampled all lifts at a given location, and in only one site (VT-100) were all lifts sampled. For this site, the average of the wearing course cores was added to average of the AC course cores, and this sum was compared to the average depth of the AC course from the GPR data in Table 3. The results are within 5%. Given that the cores were taken at different offsets

from where the GPR data was collected, and the wearing course cores were not at the same locations as the base course cores, this difference does not appear to be significant. A summary of the calculated layer thickness values for each of the three projects is shown in Table 4. Pavement structure profile plots for each section/lane are provided in Attachment A.

Table 3 – Average Depth of AC Layer – Cores vs. GPR

Road	Avg. AC depth GPR (in.)	Avg AC depth Core (in.)
VT-100 SB	5.25	4.90
VT-100 NB	5.21	4.89

Table 4 – GPR Layer Thickness Data

	AC (in.)*		Reclaimed Stabilized Base (in.)		Reclaimed Base (in.)	
Road	Average	Stdev	Average	Stdev	Average	Stdev
VT100 - NB	5.2	0.8	6.0	1.0	6.2	2.3
VT100 - SB	5.2	0.7	6.3	1.0	7.8	2.6
VT105 - EB	6.5	0.7	6.2	1.6	Not detected	
VT105 - WB	6.3	0.6	6.2	1.8	Not detected	
VT131 - EB	6.2	0.7	7.2	1.1	Not detected	
VT131 - WB	5.8	0.5	6.6	1.5	Not detected	

* Includes all bound and plant mix layers

FWD Data Analysis

The existing structural capacity of the pavement for each section was estimated in accordance with the 1993 AASHTO *Guide for the Design of Pavement Structures* using the FWD deflection data and GPR layer thickness data. The analysis was carried out using the ModTag[1] software program, incorporating the AASHTO backcalculation algorithm. Table 5 shows the estimated effective structural number (SN_{eff}) and subgrade modulus (M_R) of the existing pavement for each project section. Note that "subgrade" in this analysis includes all material below what was detected by GPR, and will include some reclaimed base material for VT105 and VT131

Table 5 – Results of Structural Analysis

Route	SN_{eff}		Subgrade M_R (psi)	
	Mean	Std Dev	Mean	Std Dev
Route 100 – NB	2.33	0.22	32,500	7,520
Route 100 – SB	2.04	0.14	30,800	6,630
Route 105 – EB	2.50	0.17	21,800	3,920
Route 105 – WB	2.50	0.15	22,200	3,840
Route 131 – EB	3.29	0.53	27,700	9,160
Route 131 – WB	3.03	0.44	25,700	8,060

[1] https://www.virginiadot.org/business/materials-download-docs.asp

In addition to the ModTag analysis, the individual layer moduli were backcalculated using Modulus version 6.0. These results are summarized in Table 6. Detailed backcalculation results are presented in Attachment B to this report.

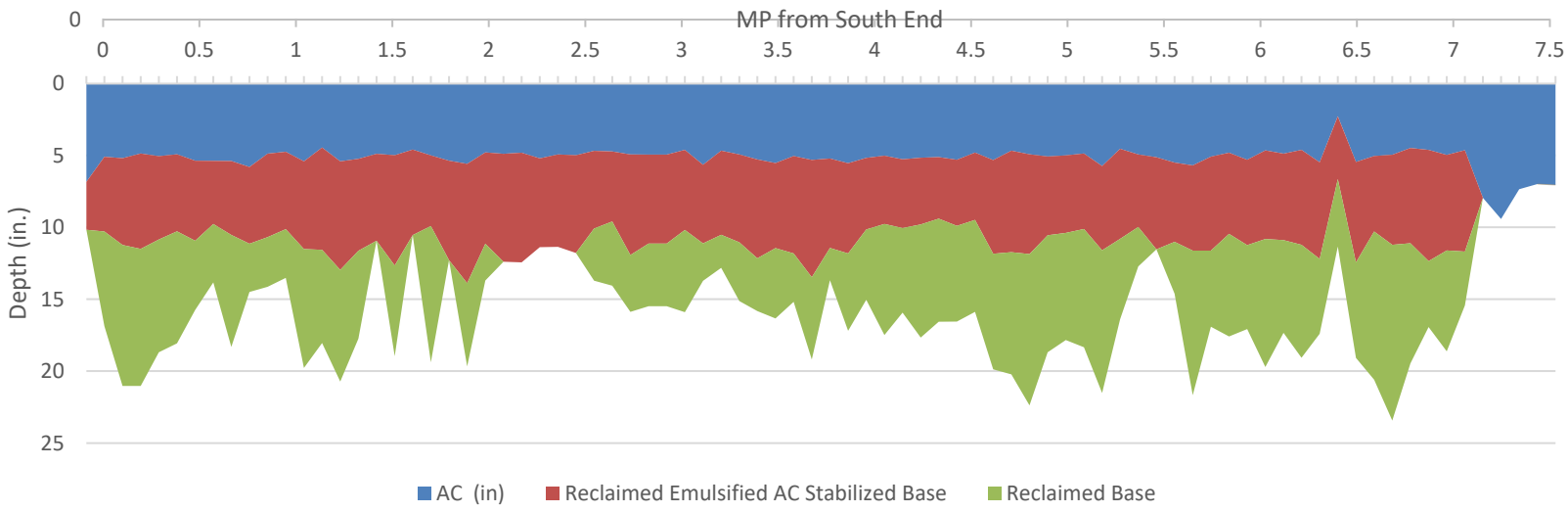
Table 6. Results of Backcalculation

Route	Direction	Layer	Modulus, ksi	
			Mean	Standard Deviation
VT 100	NB	AC*	1003	331
		Reclaimed AC Stabilized Base	190	140
		Reclaimed Base	60	20
		Subgrade	28.1	6.1
	SB	AC*	643	233
		Reclaimed AC Stabilized Base	220	120
		Reclaimed Base	30	20
		Subgrade	29.0	8.7
VT 105	EB	AC*	773	218
		Reclaimed AC Stabilized Base	40	40
		Subgrade	27.2	5.3
	WB	AC*	579	158
		Reclaimed AC Stabilized Base	130	80
		Subgrade	19.6	3.6
VT 131	EB	AC*	545	215
		Reclaimed Cement Stabilized Base	960	730
		Subgrade	22.4	6.9
	WB	AC*	551	200
		Reclaimed Cement Stabilized Base	990	680
		Subgrade	21.2	6.9

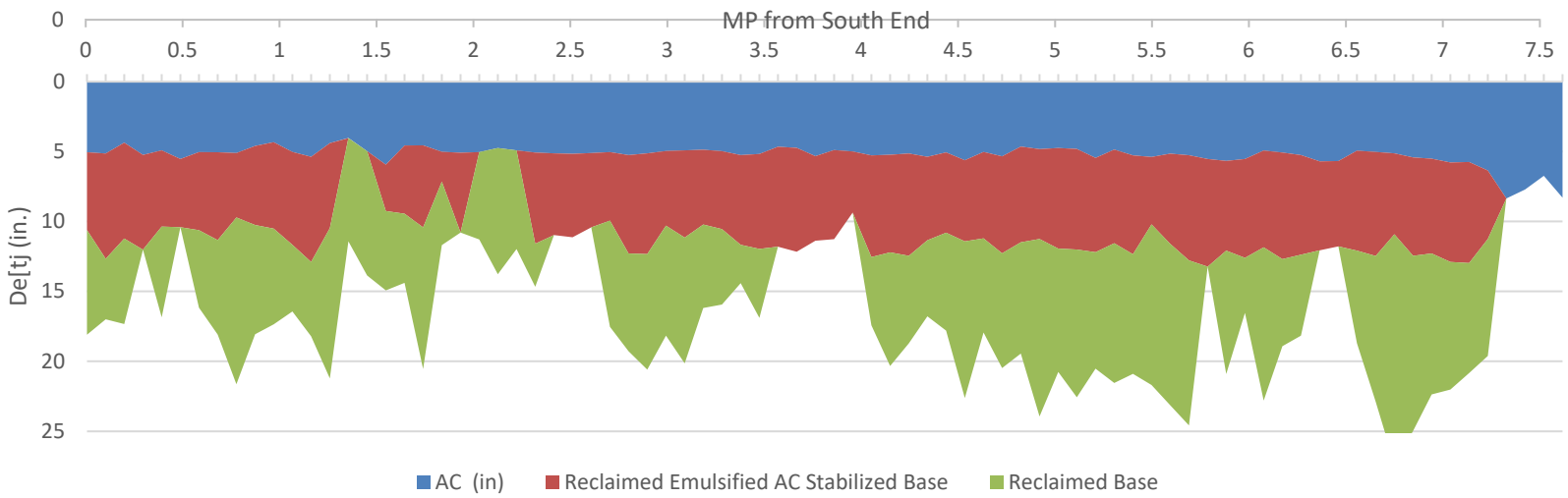
* AC modulus has been temperature adjusted to 68°F

Attachment A - Layer Thickess Plots

VT 100 NB

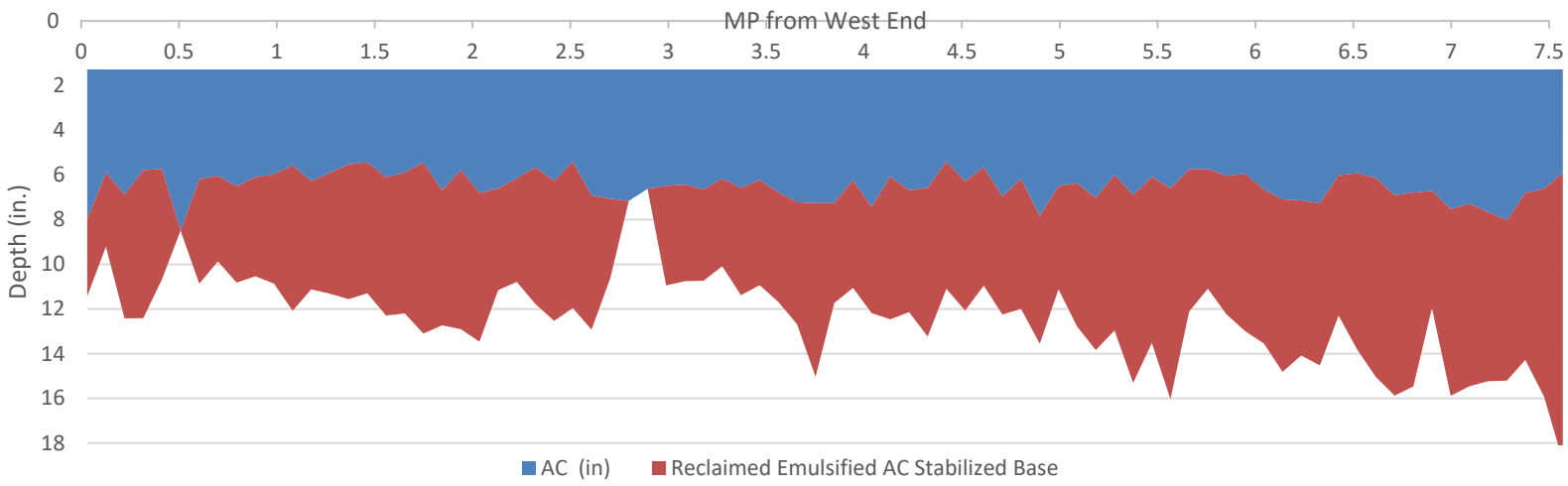


VT 100 SB

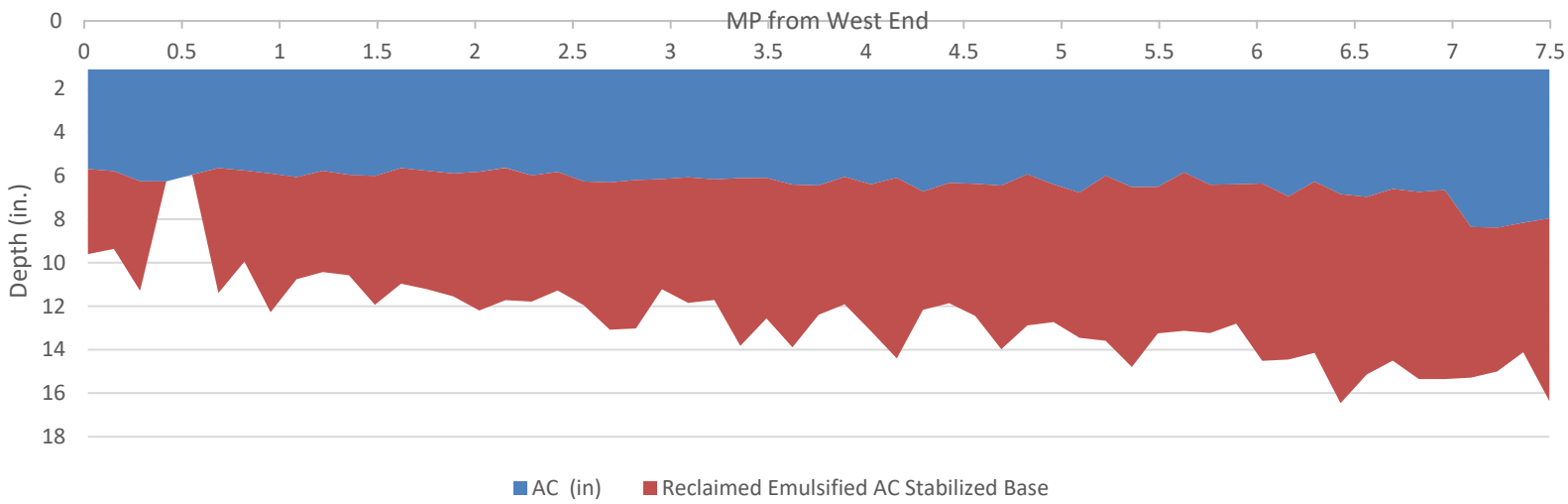


VT 105

EB


MP from West End
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
5.5
6
6.5
7
7.5
Depth (in.)
2
4
6
8
10
12
14
16
18
AC (in)
Reclaimed Emulsified AC Stabilized Base

WB


MP from West End
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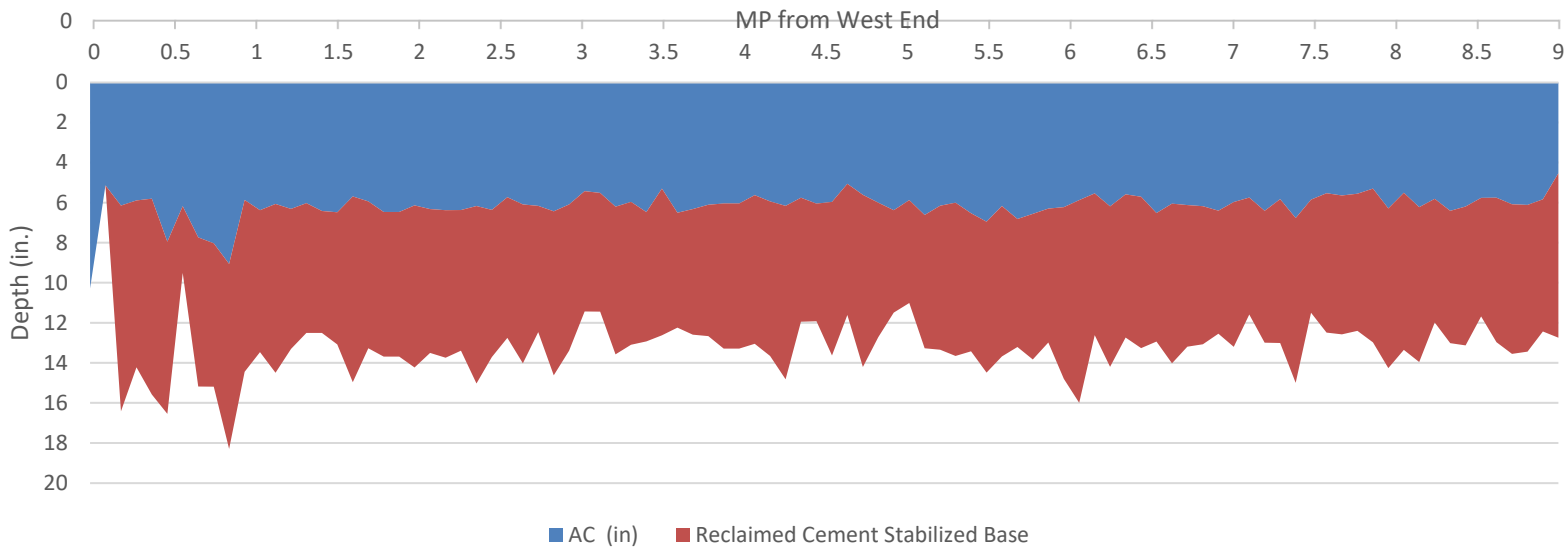
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
5.5
6
6.5
7
7.5
Depth (in.)
2
4
6
8
10
12
14
16
18
AC (in)
Reclaimed Emulsified AC Stabilized Base

VT 131

EB


MP from West End
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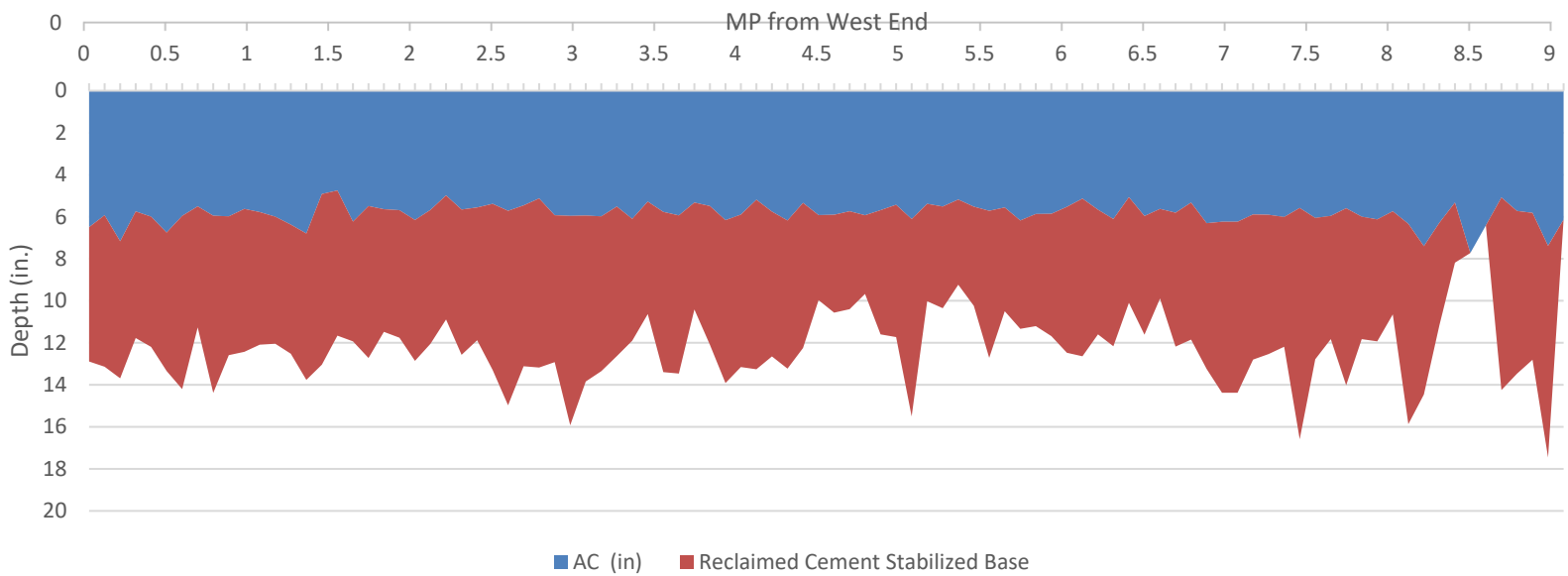
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
5.5
6
6.5
7
7.5
8
8.5
9
Depth (in.)
0
2
4
6
8
10
12
14
16
18
20
AC (in)
Reclaimed Cement Stabilized Base

WB


MP from West End
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0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
5.5
6
6.5
7
7.5
8
8.5
9
Depth (in.)
0
2
4
6
8
10
12
14
16
18
20
AC (in)
Reclaimed Cement Stabilized Base

Attachment B

FWD Data and Analysis

Provided as "FWD Data and Analysis.xlsx"

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane
Unit #1
Montpelier, VT 05602
(802) 674-2033

APPENDIX G – RESILIENT MODULUS DATA REDUCTION FOR STOWE-MORRISTOWN STP PS19(3)

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane, Unit 1
Montpelier, VT 05602
(802) 674-2033

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
150+00	4L	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.03	10					First 2 blows discounted as "seating" blows.
				3	1	1.68	512	502.0	502.0	0	1120	Data set not included. Does not appear to have been performed on a compacted material.
				4	1	2.30	702	190.0	190.0	1	2248	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
150+00	Not Reported	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	12.3					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	37.4	6.3	25.1	37	25912	
				7 to 10	4	0.20	62.1	6.2	24.7	38	26212	
				11 to 15	5	0.29	89.3	5.4	27.2	44	28705	
				16 to 20	5	0.39	117.4	5.6	28.1	42	28043	
				21 to 25	5	0.47	144	5.3	26.6	45	29168	
				26 to 30	5	0.56	171.6	5.5	27.6	43	28406	
				31 to 34	4	0.65	197.3	6.4	25.7	36	25477	
				35 to 39	5	0.74	225.5	5.6	28.2	42	27972	
				40 to 43	4	0.82	251.4	6.5	25.9	36	25336	
			Test Averages					5.9		40	27160	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
150+00	10?	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	14					First 2 blows discounted as "seating" blows.
				3 to 7	4	0.13	40	6.5	26	36	25266	
				8 to 12	4	0.22	67	6.8	27	34	24527	
				13 to 17	5	0.30	93	5.2	26	46	29649	
				18 to 22	5	0.39	118	5.0	25	49	30670	
			Test Averages					5.9		40	27219	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
160+00	4R	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.03	9					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.12	37	5.6	28	43	28187	
				8 to 11	4	0.22	67	7.5	30	30	22749	
				12 to 17	6	0.31	95	4.6	28	52	32205	
				18	1	0.71	218	123.4	123	1	3063	Excessively loose zone. Possible compaction issue
				19 to 22	4	0.80	245	6.7	27	35	24856	
				23 to 27	5	0.90	276	6.2	31	38	26137	
				28 to 31	4	1.00	304	7.2	29	32	23480	
			Test Averages					23.0		9	10204	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
160+00	10R	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	41	6.4	26	37	25549	
				7 to 10	4	0.22	69	7.0	28	33	24021	
				11 to 14	5	0.31	94	5.1	26	47	30064	
				15 to 18	4	0.40	122	7.1	28	33	23837	
				19 to 22	4	0.50	151	7.3	29	32	23249	
				23 to 27	5	0.59	179	5.5	27	43	28555	
			Test Averages					6.4		37	25594	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
216+50	L4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	18					
				1 to 4	4	0.06	37					First 4 blows discounted as "seating" blows.
				5 to 10	6	0.16	66	4.8	29.0	50	31244	
				11 to 15	5	0.26	96	6.0	30.0	39	26758	
				16 to 19	4	0.34	123	6.8	27.0	34	24592	
				20 to 24	5	0.44	151	5.6	28.0	42	28115	
				25 to 27	3	0.52	177	8.7	26.0	26	20558	
				28 to 31	4	0.62	206	7.3	29.0	32	23364	
				32 to 33	2	0.65	217	5.5	11.0	43	28480	Discount < 20mm of travel.
			Test Averages					6.5		36	25220	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
216+50	L10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	48	7.5	30.0	31	22803	
				7 to 10	4	0.25	75	6.8	27.0	34	24592	
				11 to 15	5	0.33	102	5.4	27.0	44	28857	
				16 to 19	4	0.42	127	6.3	25.0	37	25987	
				20 to 23	4	0.52	160	8.3	33.0	27	21297	
				24 to 26	3	0.61	185	8.3	25.0	27	21144	
				27 to 30	4	0.70	214	7.3	29.0	32	23364	
			Test Averages					7.1		32	23705	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
216+50	R4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.13	41	13.5	27.0	16	14963	
				5 to 8	4	0.25	75	8.5	34.0	27	20846	
				9 to 12	4	0.35	107	8.0	32.0	28	21772	
				13 to 16	4	0.44	135	7.0	28.0	33	23959	
				17 to 20	4	0.53	163	7.0	28.0	33	23959	
				21 to 24	4	0.61	185	5.5	22.0	43	28480	
			Test Averages					8.8		26	20334	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
216+50	R10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.10	30					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.19	57	9.0	27.0	25	20009	
				6 to 9	4	0.28	86	7.3	29.0	32	23364	
				10 to 13	4	0.39	118	8.0	32.0	28	21772	
				14 to 17	4	0.49	148	7.5	30.0	31	22803	
				18 to 21	4	0.59	179	7.8	31.0	29	22273	
				22 to 24	3	0.68	206	9.0	27.0	25	20009	
			Test Averages					8.1		28	21611	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
226+50	L4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	47	6.3	25.0	37	25987	
				7 to 10	4	0.26	80	8.3	33.0	27	21297	
				11 to 14	4	0.35	108	7.0	28.0	33	23959	
				15 to 18	4	0.46	141	8.3	33.0	27	21297	
				19 to 22	4	0.55	169	7.0	28.0	33	23959	
				23 to 26	4	0.65	197	7.0	28.0	33	23959	
				27 to 30	4	0.72	220	5.8	23.0	41	27587	
			Test Averages					7.3		32	23268	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
226+50	L10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.15	45	8.3	25.0	27	21144	
				6 to 8	3	0.24	72	9.0	27.0	25	20009	
				9 to 12	4	0.34	105	8.3	33.0	27	21297	
			Test Averages					8.5		26	20798	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
226+50	R4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.17	53	15.5	31.0	14	13552	
				5	1	0.29	88	35.0	35.0	5	7559	
				6 to 7	2	0.38	117	14.5	29.0	15	14216	
				8	1	0.59	181	64.0	64.0	3	4904	Possible new layer.
				9	1	0.87	265	84.0	84.0	2	4036	Discount from analysis
			Test Averages					21.7		9	10660	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
226+50	R10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.13	40	13.5	27.0	16	14963	
				5 to 8	4	0.22	67	6.8	27.0	34	24592	
				9 to 12	4	0.32	99	8.0	32.0	28	21772	
				13 to 16	4	0.43	130	7.8	31.0	29	22273	
				17 to 19	3	0.52	158	9.3	28.0	24	19495	
				20 to 21	2	0.56	171	6.5	13.0	36	25266	Discount < 20mm of travel.
			Test Averages					9.1		25	19904	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
236+50	R10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	48	7.0	35.0	33	23959	
				8 to 11	4	0.24	73	6.3	25.0	37	25987	
				12 to 16	5	0.34	103	6.0	30.0	39	26758	
				17 to 20	4	0.45	136	8.3	33.0	27	21297	
				21 to 25	5	0.55	169	6.6	33.0	35	24991	
				26 to 30	5	0.65	199	6.0	30.0	39	26758	
			Test Averages					6.7		35	24767	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
236+50	L4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.17	52	6.0	30.0	39	26758	
				8 to 11	4	0.26	80	7.0	28.0	33	23959	
				12 to 15	4	0.37	114	8.5	34.0	27	20846	
			Test Averages					7.2		32	23558	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
236+50	L10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	50	8.0	32.0	28	21772	
				7 to 10	4	0.25	77	6.8	27.0	34	24592	
				11 to 14	4	0.34	104	6.8	27.0	34	24592	
				15 to 20	6	0.45	136	5.3	32.0	45	29115	
				21 to 24	4	0.55	167	7.8	31.0	29	22273	
				25 to 29	5	0.64	195	5.6	28.0	42	28115	
				30 to 33	4	0.72	219	6.0	24.0	39	26758	
			Test Averages					6.6		35	24998	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
236+50	R4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	41	7.0	28.0	33	23959	
				7 to 11	5	0.22	68	5.4	27.0	44	28857	
				12 to 15	4	0.31	96	7.0	28.0	33	23959	
				16 to 20	5	0.41	125	5.8	29.0	41	27416	
				21 to 25	5	0.51	154	5.8	29.0	41	27416	
				26 to 29	4	0.59	181	6.8	27.0	34	24592	
				30 to 33	4	0.68	206	6.3	25.0	37	25987	
			Test Averages					6.3		37	25881	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
246+50	L4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	47	6.0	30.0	39	26758	
				8 to 12	5	0.25	75	5.6	28.0	42	28115	
				13 to 17	5	0.34	104	5.8	29.0	41	27416	
				18 to 23	6	0.44	135	5.2	31.0	46	29786	
				24 to 27	4	0.53	161	6.5	26.0	36	25266	
				28 to 31	4	0.63	191	7.5	30.0	31	22803	
				32 to 35	4	0.71	217	6.5	26.0	36	25266	
			Test Averages					6.2		38	26281	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
246+50	L10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.13	39					First 2 blows discounted as "seating" blows.
				3	1	0.19	59	20.0	20.0	10	11289	
				4 to 6	3	0.31	93	11.3	34.0	19	16962	
				7 to 11	5	0.39	119	5.2	26.0	46	29649	
				12 to 15	4	0.47	144	6.3	25.0	37	25987	
				16 to 19	4	0.56	170	6.5	26.0	36	25266	
				20 to 23	4	0.65	199	7.3	29.0	32	23364	
			Test Averages					9.4		24	19363	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
246+50	R4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	51	10.7	32.0	21	17715	
				6 to 8	3	0.32	97	15.3	46.0	14	13658	
				9 to 12	4	0.42	128	7.8	31.0	29	22273	
				13 to 16	4	0.53	161	8.3	33.0	27	21297	
				17 to 19	3	0.61	187	8.7	26.0	26	20558	
				20 to 23	4	0.71	217	7.5	30.0	31	22803	
			Test Averages					9.7		23	18971	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
246+50	R10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	41	6.8	27.0	34	24592	
				7 to 10	4	0.24	72	7.8	31.0	29	22273	
				11 to 14	4	0.33	101	7.3	29.0	32	23364	
				15 to 19	5	0.43	131	6.0	30.0	39	26758	
				20 to 24	5	0.52	158	5.4	27.0	44	28857	
				25 to 28	4	0.62	189	7.8	31.0	29	22273	
				29 to 32	4	0.73	221	8.0	32.0	28	21772	
				33 to 35	3	0.82	249	9.3	28.0	24	19495	
			Test Averages					7.3		32	23297	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
256+50	L4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.12	36					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.21	63	6.8	27.0	34	24592	
				7 to 11	5	0.29	89	5.2	26.0	46	29649	
				12 to 15	4	0.38	115	6.5	26.0	36	25266	
				16 to 20	5	0.47	143	5.6	28.0	42	28115	
				21 to 24	4	0.56	170	6.8	27.0	34	24592	
				25 to 29	5	0.65	197	5.4	27.0	44	28857	
			Test Averages					6.0		39	26652	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
256+50	L10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	40	6.3	25.0	37	25987	
				7 to 10	4	0.23	69	7.3	29.0	32	23364	
				11 to 14	4	0.31	94	6.3	25.0	37	25987	
				15 to 19	5	0.39	120	5.2	26.0	46	29649	
				20 to 23	4	0.48	145	6.3	25.0	37	25987	
				24 to 28	5	0.56	172	5.4	27.0	44	28857	
				29 to 32	4	0.65	197	6.3	25.0	37	25987	
			Test Averages					6.1		38	26377	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
256+50	R4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	11					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	36	6.3	25.0	37	25987	
				7 to 11	5	0.20	62	5.2	26.0	46	29649	
				12 to 16	5	0.29	88	5.2	26.0	46	29649	
				17 to 21	5	0.38	117	5.8	29.0	41	27416	
				22 to 25	4	0.47	142	6.3	25.0	37	25987	
			Test Averages					5.7		41	27622	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
256+50	R10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	11					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	36	6.3	25.0	37	25987	
				7 to 11	5	0.20	62	5.2	26.0	46	29649	
				12 to 15	4	0.30	91	7.3	29.0	32	23364	
				16 to 20	5	0.40	121	6.0	30.0	39	26758	
				21 to 25	5	0.49	148	5.4	27.0	44	28857	
				26 to 31	6	0.57	174	4.3	26.0	57	33788	
				32 to 36	5	0.67	203	5.8	29.0	41	27416	
			Test Averages					5.7		41	27595	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
266+50	L10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	44	6.8	27.0	34	24592	
				7 to 9	3	0.23	71	9.0	27.0	25	20009	
				10 to 14	5	0.32	97	5.2	26.0	46	29649	
				15 to 18	4	0.40	123	6.5	26.0	36	25266	
				19	1	0.49	150	27.0	27.0	7	9104	
				20 to 24	5	0.58	177	5.4	27.0	44	28857	
				25 to 29	5	0.68	206	5.8	29.0	41	27416	
			Test Averages					9.4		24	19427	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
266+50	R4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.14	42	9.0	27.0	25	20009	
				6 to 10	5	0.24	72	6.0	30.0	39	26758	
				11 to 14	4	0.32	99	6.8	27.0	34	24592	
				15 to 18	4	0.41	125	6.5	26.0	36	25266	
				19 to 22	4	0.51	155	7.5	30.0	31	22803	
				23 to 26	4	0.59	181	6.5	26.0	36	25266	
				27 to 30	4	0.68	206	6.3	25.0	37	25987	
			Test Averages					6.9		33	24136	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
266+50	R10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	44	5.8	29.0	41	27416	
				8 to 11	4	0.23	70	6.5	26.0	36	25266	
				12 to 16	5	0.33	100	6.0	30.0	39	26758	
				17 to 21	5	0.42	127	5.4	27.0	44	28857	
				22 to 25	4	0.50	152	6.3	25.0	37	25987	
				26 to 30	5	0.59	180	5.6	28.0	42	28115	
				31 to 34	4	0.69	211	7.8	31.0	29	22273	
			Test Averages					6.2		38	26180	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
276+50	L10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	48	7.8	31.0	29	22273	
				7 to 10	4	0.25	77	7.3	29.0	32	23364	
				11 to 14	4	0.33	102	6.3	25.0	37	25987	
				15 to 18	4	0.42	127	6.3	25.0	37	25987	
				19 to 22	4	0.50	153	6.5	26.0	36	25266	
				23 to 26	4	0.59	181	7.0	28.0	33	23959	
				27 to 30	4	0.69	209	7.0	28.0	33	23959	
			Test Averages					6.9		34	24316	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
276+50	R4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	11					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.13	40	5.8	29.0	41	27416	
				8 to 11	4	0.21	65	6.3	25.0	37	25987	
				12 to 16	5	0.30	90	5.0	25.0	48	30494	
				17 to 20	4	0.39	118	7.0	28.0	33	23959	
				21 to 25	5	0.49	149	6.2	31.0	38	26137	
				26 to 30	5	0.59	179	6.0	30.0	39	26758	
				31 to 34	4	0.68	207	7.0	28.0	33	23959	
			Test Averages					6.2		38	26202	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
276+50	R10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.13	40	5.2	26.0	46	29649	
				8 to 12	5	0.22	68	5.6	28.0	42	28115	
				13 to 16	4	0.31	94	6.5	26.0	36	25266	
				17 to 20	4	0.41	124	7.5	30.0	31	22803	
				21 to 23	3	0.50	152	9.3	28.0	24	19495	
				24 to 27	4	0.59	181	7.3	29.0	32	23364	
				28 to 30	3	0.69	210	9.7	29.0	23	19010	
			Test Averages					7.3		32	23265	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
286+50	L4	8kg	9/3/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	23					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	53	10.0	30	22	18598	
				6 to 8	3	0.27	82	9.5	29	23	19201	
				9 to 12	4	0.36	110	7.0	28	33	24082	
				13 to 16	4	0.45	137	6.8	27	34	24398	
				17 to 19	3	0.54	165	9.4	28	24	19346	
				20 to 22	3	0.62	190	8.2	25	28	21328	
				23 to 25	3	0.71	216	8.8	26	26	20390	
			Test Averages					8.5		26	20794	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
286+50	L10	8kg	8/28/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.15	45	15.0	30	14	13908	
				5 to 7	3	0.24	73	9.4	28	24	19445	
				8 to 11	4	0.32	98	6.2	25	38	26061	
				12 to 15	4	0.41	124	6.4	25	37	25693	
				16 to 19	4	0.50	151	6.8	27	34	24462	
				20 to 23	4	0.58	175	6.1	25	38	26366	
				24 to 27	4	0.66	202	6.6	26	36	25128	
			Test Averages					8.1		28	21671	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
286+50	R4	8kg	8/28/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.21	64					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.31	94	7.6	30	30	22695	
				7 to 10	4	0.40	121	6.7	27	35	24856	
				11 to 14	4	0.49	149	7.0	28	33	24021	
				15 to 18	4	0.57	175	6.5	26	36	25266	
				19 to 22	4	0.68	206	7.9	32	29	21920	
			Test Averages					7.1		32	23669	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
286+50	R10	8kg	8/28/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	48	8.0	32	28	21772	
				7 to 10	4	0.24	73	6.2	25	38	26289	
				11 to 13	4	0.35	107	8.4	34	27	20979	
				14 to 17	4	0.43	132	6.3	25	37	25839	
				18 to 20	3	0.52	160	9.3	28	24	19495	
				21 to 24	4	0.61	187	6.7	27	35	24657	
				25 to 28	4	0.71	216	7.4	30	31	23023	
			Test Averages					7.5		31	22855	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
296+50	L4	8kg	9/3/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	29					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	55	8.6	26	26	20730	
				6 to 8	3	0.37	112	19.0	57	11	11697	Apparent poorly compacted zone.
				9	1	0.55	167	55.6	56	3	5425	
				10 to 13	4	0.65	198	7.7	31	30	22482	
			Test Averages					22.7		9	10305	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
296+50	L10	8kg	8/28/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	17					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.15	47	10.0	30	22	18598	
				6 to 9	4	0.25	76	7.3	29	32	23306	
				10 to 13	4	0.34	104	7.1	28	33	23837	
				14 to 17	4	0.43	130	6.6	26	35	24991	
				18 to 20	3	0.56	171	13.6	41	16	14910	
				21 to 23	3	0.65	198	8.9	27	25	20116	
			Test Averages					8.9		25	20173	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
296+50	R4	8kg	8/28/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	45	6.5	26	36	25406	
				7 to 10	4	0.24	73	6.8	27	34	24462	
				11 to 14	4	0.33	102	7.3	29	32	23364	
				15 to 18	4	0.43	131	7.3	29	32	23249	
				19 to 22	4	0.51	156	6.4	25	37	25693	
				23 to 26	4	0.61	185	7.3	29	31	23192	
				27 to 30	4	0.69	211	6.5	26	36	25266	
			Test Averages					6.9		34	24325	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
296+50	R10	8kg	8/28/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	51	7.6	30	30	22641	
				7 to 10	4	0.27	83	7.8	31	29	22171	
				11 to 13	3	0.35	107	8.3	25	27	21266	
				14 to 17	4	0.44	134	6.7	27	35	24723	
				18 to 21	4	0.53	162	7.0	28	33	24021	
				22 to 24	3	0.61	187	8.3	25	27	21266	
				25 to 27	3	0.72	219	10.6	32	21	17835	
			Test Averages					8.0		28	21730	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
306+50	L4	8kg	9/3/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	45	7.0	28	33	23959	
				7 to 9	3	0.23	71	8.8	26	26	20390	
				10 to 12	3	0.36	110	12.9	39	17	15458	
				13	1	0.50	153	43.5	44	4	6468	
				14 to 17	4	0.59	181	7.1	28	33	23837	
				18	1	0.68	208	26.3	26	7	9277	
			Test Averages					17.6		12	12379	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
306+50	L10	8kg	9/3/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.15	46	9.6	29	23	19105	
				6 to 9	4	0.24	74	7.1	28	33	23717	
				10 to 13	4	0.34	102	7.0	28	33	24021	
				14 to 17	4	0.42	127	6.3	25	37	25987	
				18 to 20	3	0.50	153	8.5	26	27	20846	
				21 to 25	5	0.60	183	6.1	31	38	26319	
				26 to 30	5	0.69	210	5.3	27	45	29168	
			Test Averages					7.1		32	23654	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
306+50	R4	8kg	9/3/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	20					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	50	10.2	31	22	18335	
				6 to 9	4	0.28	84	8.6	34	26	20759	
				10 to 11	2	0.39	118	16.8	34	12	12819	
				12 to 14	3	0.47	143	8.3	25	27	21144	
				15 to 18	4	0.57	174	7.7	31	30	22377	
				19 to 22	4	0.65	198	6.1	25	38	26366	
			Test Averages					9.6		23	19099	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
306+50	R10	8kg	9/3/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.18	54	6.7	27	35	24723	
				7 to 10	4	0.26	79	6.3	25	37	25839	
				11 to 14	4	0.34	104	6.3	25	37	25839	
				15 to 19	5	0.44	134	5.9	30	40	27083	
				20 to 24	5	0.53	161	5.4	27	44	28934	
				25 to 29	5	0.62	189	5.6	28	43	28187	
				30 to 33	4	0.70	214	6.3	25	37	25912	
			Test Averages					6.1		39	26561	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
310+00	L4	8kg	9/4/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	28					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.21	64	9.0	36	25	20009	
				7 to 10	4	0.31	93	7.5	30	31	22913	
				11 to 14	4	0.40	121	6.8	27	34	24527	
				15 to 19	5	0.48	148	5.5	27	44	28630	
				20 to 24	5	0.58	177	5.8	29	41	27553	
				25 to 28	4	0.66	201	6.2	25	38	26289	
			Test Averages					6.8		34	24551	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
310+00	L10	8kg	9/4/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	46	8.2	33	28	21344	
				7 to 10	4	0.23	71	6.2	25	38	26289	
				11 to 14	4	0.32	98	6.8	27	34	24398	
				15 to 18	4	0.42	127	7.2	29	32	23422	
				19 to 23	5	0.51	155	5.6	28	42	28115	
				24 to 27	4	0.59	181	6.7	27	35	24856	
				28 to 32	5	0.69	209	5.6	28	43	28260	
			Test Averages					6.6		35	24978	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
310+00	R4	8kg	9/4/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	45	6.0	30	39	26631	
				8 to 11	3	0.23	70	8.4	25	27	20964	
				12 to 15	4	0.32	97	6.7	27	35	24657	
				16 to 19	4	0.41	124	6.8	27	34	24527	
				20 to 23	4	0.49	149	6.2	25	38	26061	
				24 to 28	5	0.58	176	5.4	27	45	29012	
				29 to 33	5	0.67	204	5.7	29	41	27691	
			Test Averages					6.5		36	25355	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
310+00	R10	8kg	9/4/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	11					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	39	7.0	28	33	24021	
				7 to 8	2	0.21	64	12.8	26	17	15589	
				9 to 13	5	0.31	93	5.8	29	41	27416	
				14 to 17	4	0.39	120	6.7	27	35	24723	
				18 to 21	4	0.48	145	6.2	25	38	26212	
				22 to 25	4	0.56	172	6.7	27	35	24856	
				26 to 30	5	0.66	200	5.7	28	42	27901	
			Test Averages					7.2		32	23377	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
320+00	L4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	37	6.0	24.0	39	26758	
				7 to 12	6	0.22	67	5.0	30.0	48	30494	
				13 to 16	4	0.30	92	6.3	25.0	37	25987	
				17 to 22	6	0.39	120	4.7	28.0	52	32040	
				23 to 26	4	0.48	145	6.3	25.0	37	25987	
				27 to 30	4	0.56	172	6.8	27.0	34	24592	
				31 to 34	4	0.65	199	6.8	27.0	34	24592	
			Test Averages					6.0		40	26911	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
320+00	L10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.03	10					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	36	6.5	26.0	36	25266	
				7 to 11	5	0.20	61	5.0	25.0	48	30494	
				12 to 16	5	0.29	88	5.4	27.0	44	28857	
				17 to 21	5	0.38	117	5.8	29.0	41	27416	
				22 to 25	4	0.47	144	6.8	27.0	34	24592	
				26 to 30	5	0.56	172	5.6	28.0	42	28115	
				31 to 34	4	0.66	201	7.3	29.0	32	23364	
			Test Averages					6.0		39	26622	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
320+00	R4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	12					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.12	37	5.0	25.0	48	30494	
				8 to 11	4	0.21	64	6.8	27.0	34	24592	
				12 to 17	6	0.31	95	5.2	31.0	46	29786	
				18 to 21	4	0.40	121	6.5	26.0	36	25266	
				22 to 26	5	0.49	150	5.8	29.0	41	27416	
				27 to 31	5	0.59	180	6.0	30.0	39	26758	
				32 to 35	4	0.69	210	7.5	30.0	31	22803	
			Test Averages					6.1		39	26436	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
320+00	R10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	48	5.2	26.0	46	29649	
				8 to 11	4	0.24	73	6.3	25.0	37	25987	
				12 to 16	5	0.33	100	5.4	27.0	44	28857	
				17 to 19	3	0.42	127	9.0	27.0	25	20009	
				20 to 23	4	0.51	154	6.8	27.0	34	24592	
				24 to 29	6	0.60	183	4.8	29.0	50	31244	
				30 to 34	5	0.69	210	5.4	27.0	44	28857	
			Test Averages					6.1		38	26384	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
330+00	L4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	12					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	37	6.3	25.0	37	25987	
				7 to 11	5	0.21	65	5.6	28.0	42	28115	
				12 to 16	5	0.31	93	5.6	28.0	42	28115	
				17 to 20	4	0.39	118	6.3	25.0	37	25987	
				21 to 25	5	0.48	145	5.4	27.0	44	28857	
				26 to 30	5	0.56	172	5.4	27.0	44	28857	
				31 to 33	3	0.62	190	6.0	18.0	39	26758	Discount < 20mm of travel.
				34 to 36	3	0.72	218	9.3	28.0	24	19495	
			Test Averages					5.8		41	27587	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
330+00	L10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.12	37	6.7	20.0	35	24812	
				6 to 7	2	0.21	63	13.0	26.0	17	15373	
				8 to 11	4	0.29	89	6.5	26.0	36	25266	
				12 to 15	4	0.37	113	6.0	24.0	39	26758	
				16 to 19	4	0.46	140	6.8	27.0	34	24592	
				20 to 23	4	0.54	166	6.5	26.0	36	25266	
				24 to 27	4	0.64	195	7.3	29.0	32	23364	
				28 to 31	4	0.72	220	6.3	25.0	37	25987	
			Test Averages					7.4		31	23103	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
330+00	R10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	42	7.3	29.0	32	23364	
				7 to 10	4	0.31	96	13.5	54.0	16	14963	
				11 to 13	3	0.41	125	9.7	29.0	23	19010	
				14 to 17	4	0.50	153	7.0	28.0	33	23959	
				18 to 20	3	0.58	178	8.3	25.0	27	21144	
				21 to 22	2	0.67	203	12.5	25.0	17	15811	
			Test Averages					9.7		23	18952	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
340+00	L4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.18	54	7.0	35.0	33	23959	
				8	1	0.36	110	56.0	56.0	3	5397	Possible poorly compacted zone.
				9 to 14	6	0.45	138	4.7	28.0	52	32040	
				15 to 20	6	0.56	170	5.3	32.0	45	29115	
				21 to 25	5	0.65	197	5.4	27.0	44	28857	
			Test Averages					15.7		13	13440	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
340+00	L10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	42	6.5	26.0	36	25266	
				7 to 10	4	0.23	69	6.8	27.0	34	24592	
				11 to 15	5	0.31	96	5.4	27.0	44	28857	
				16 to 19	4	0.40	123	6.8	27.0	34	24592	
				20 to 24	5	0.51	154	6.2	31.0	38	26137	
				25 to 30	6	0.61	187	5.5	33.0	43	28480	
				31 to 34	4	0.70	213	6.5	26.0	36	25266	
			Test Averages					6.2		38	26051	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
340+00	R4	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	42	5.4	27.0	44	28857	
				8 to 10	3	0.22	68	8.7	26.0	26	20558	
				11 to 15	5	0.34	104	7.2	36.0	32	23480	
				16 to 19	4	0.43	130	6.5	26.0	36	25266	
				20 to 23	4	0.52	160	7.5	30.0	31	22803	
				24 to 27	4	0.61	187	6.8	27.0	34	24592	
				28 to 32	5	0.72	218	6.2	31.0	38	26137	
			Test Averages					6.9		34	24237	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
340+00	R10	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	50	6.6	33.0	35	24991	
				8 to 12	5	0.25	76	5.2	26.0	46	29649	
				13 to 17	5	0.33	101	5.0	25.0	48	30494	
				18 to 22	5	0.43	130	5.8	29.0	41	27416	
				23 to 28	6	0.52	160	5.0	30.0	48	30494	
				29 to 32	4	0.63	191	7.8	31.0	29	22273	
				33 to 36	4	0.71	216	6.3	25.0	37	25987	
			Test Averages					5.9		40	26942	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
350+00	L4	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	14					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	41	6.9	28	33	24145	
				7 to 10	4	0.22	67	6.5	26	36	25266	
				11 to 14	4	0.30	92	6.3	25	37	25912	
				15 to 18	4	0.39	120	6.8	27	34	24527	
				19 to 23	5	0.47	144	5.0	25	49	30670	
				24 to 28	5	0.57	174	6.0	30	39	26822	
				29 to 34	6	0.67	203	4.8	29	50	31322	
			Test Averages					6.0		39	26653	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
350+00	L10	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 9	7	0.17	52	5.7	40	42	27911	
				10 to 13	4	0.27	81	7.3	29	32	23306	
				14 to 17	4	0.35	107	6.3	25	37	25765	
				18 to 21	4	0.44	133	6.5	26	36	25266	
				22 to 26	5	0.53	161	5.7	29	42	27760	
				27 to 31	5	0.63	192	6.2	31	38	26258	
			Test Averages					6.3		37	25929	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
350+00	R4	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	40	6.8	27	34	24398	
				7 to 11	5	0.23	70	5.9	30	40	26952	
				12 to 16	5	0.32	98	5.8	29	41	27553	
				17 to 21	5	0.41	126	5.6	28	42	28115	
				22 to 25	4	0.50	151	6.3	25	37	25987	
				26 to 30	5	0.59	179	5.6	28	42	28043	
				31 to 35	5	0.67	204	4.9	25	49	30849	
			Test Averages					5.8		40	27265	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
350+00	10R	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.13	40	9.1	27	25	19852	
				6 to 9	4	0.23	70	7.4	30	31	22968	
				10 to 13	4	0.32	98	7.2	29	32	23480	
				14 to 18	5	0.41	126	5.6	28	42	28115	
				19 to 23	5	0.50	151	5.0	25	48	30494	
				24 to 27	4	0.59	179	7.0	28	33	23898	
				28 to 31	4	0.67	204	6.2	25	38	26289	
			Test Averages					6.8		34	24499	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
360+00	L4	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	48	10.9	33	20	17404	
				6 to 8	3	0.25	75	9.0	27	25	20009	
				9 to 13	5	0.34	103	5.6	28	42	28115	
				14 to 18	5	0.43	132	5.7	29	41	27622	
				19 to 23	5	0.53	162	6.1	31	38	26319	
				24 to 27	4	0.64	194	7.9	32	29	21920	
				28 to 30	3	0.70	214	6.6	20	35	24901	
			Test Averages					7.6		30	22681	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
360+00	L10	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	42	5.7	28	42	27830	
				8 to 11	4	0.22	68	6.7	27	35	24856	
				12 to 16	5	0.33	100	6.3	31	37	25957	
				17 to 20	4	0.42	128	7.0	28	33	23898	
				21 to 25	5	0.51	156	5.6	28	43	28187	
				26 to 29	4	0.60	183	6.7	27	35	24657	
				30 to 34	5	0.70	212	5.9	30	40	26952	
			Test Averages					6.3		37	25940	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
360+00	R4	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	48	6.2	25	38	26289	
				7 to 11	5	0.25	75	5.3	27	45	29089	
				12 to 15	4	0.33	100	6.2	25	38	26061	
				16 to 20	5	0.42	128	5.6	28	43	28187	
				21 to 24	4	0.50	154	6.5	26	36	25336	
				25 to 28	4	0.60	181	7.0	28	33	24021	
				29 to 32	4	0.69	210	7.2	29	32	23480	
			Test Averages					6.3		37	25904	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
360+00	R10	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	42	5.6	28	42	28043	
				8 to 12	5	0.23	70	5.5	28	43	28333	
				13 to 16	4	0.31	95	6.2	25	38	26289	
				17 to 21	5	0.41	125	6.1	30	39	26505	
				22 to 26	5	0.50	153	5.7	28	42	27901	
				27 to 31	5	0.60	182	5.7	29	41	27691	
				32 to 35	4	0.68	208	6.5	26	36	25406	
			Test Averages					5.9		40	27120	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A10+00	L4	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.13	41	8.2	25	28	21390	
				6 to 10	5	0.23	70	5.8	29	41	27484	
				11 to 14	4	0.32	98	7.1	28	33	23777	
				15 to 17	3	0.42	127	9.7	29	23	18917	
				18	1	0.50	152	25.2	25	8	9566	Blows 18 to 20 not included. Apparently punched through stabilized base.
				19	1	0.62	189	36.4	36	5	7349	
				20	1	0.73	224	34.9	35	5	7574	
			Test Averages					7.7		30	22383	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A10+00	L10	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	41	7.1	29	32	23657	
				7 to 11	5	0.23	70	5.8	29	41	27416	
				12 to 15	4	0.32	97	6.6	27	35	24924	
				16 to 18	3	0.40	122	8.4	25	27	21024	
				19 to 23	5	0.50	151	5.9	29	40	27149	
				24 to 27	4	0.59	179	7.0	28	33	24082	
				28 to 31	4	0.67	206	6.6	26	35	25059	
			Test Averages					6.8		34	24553	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A10+00	R4	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	43	7.1	28	33	23717	
				7 to 10	4	0.24	72	7.3	29	31	23192	
				11 to 14	4	0.34	104	8.0	32	28	21772	
				15 to 17	3	0.42	129	8.4	25	27	21024	
				18 to 21	4	0.51	155	6.5	26	36	25336	
				22 to 25	4	0.59	180	6.2	25	38	26061	
				26 to 29	4	0.69	209	7.2	29	32	23539	
			Test Averages					7.2		32	23380	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A10+00	R10	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	39	6.6	26	36	25128	
				7 to 11	5	0.21	64	5.1	25	47	30149	
				12 to 16	5	0.30	92	5.5	28	43	28406	
				17 to 21	5	0.39	119	5.4	27	44	28781	
				22 to 25	4	0.47	144	6.4	25	37	25693	
				26 to 30	5	0.56	172	5.4	27	44	28705	
				31 to 35	5	0.65	200	5.6	28	43	28187	
			Test Averages					5.7		42	27740	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A20+00	L4	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	41	6.5	26	36	25197	
				7 to 11	5	0.22	68	5.2	26	46	29486	
				12 to 16	5	0.31	95	5.4	27	44	28934	
				17 to 21	5	0.40	122	5.5	28	43	28406	
				22 to 25	4	0.49	148	6.6	26	35	25059	
				26 to 29	4	0.59	180	7.8	31	29	22171	
				30 to 33	4	0.68	207	6.8	27	34	24527	
			Test Averages					6.3		37	25959	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A20+00	L10	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	49	7.4	30	31	23079	
				7 to 10	4	0.24	74	6.2	25	38	26061	
				11 to 14	4	0.33	99	6.3	25	37	25839	
				15 to 18	4	0.41	124	6.3	25	37	25765	
				19 to 22	4	0.49	151	6.6	26	35	25059	
				24 to 26	3	0.58	176	8.5	25	27	20905	
				27 to 31	5	0.68	207	6.1	31	38	26319	
			Test Averages					6.8		34	24534	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A20+00	R4	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	46	7.2	29	32	23598	
				7 to 10	4	0.24	75	7.3	29	32	23364	
				11 to 14	4	0.34	103	7.1	28	33	23777	
				15 to 18	4	0.43	131	7.1	28	33	23777	
				19 to 23	5	0.53	161	6.0	30	39	26694	
				24 to 28	5	0.63	192	6.1	31	39	26443	
				29 to 33	5	0.73	223	6.2	31	38	26258	
			Test Averages					6.7		35	24750	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A20+00	R10	8kg	9/8/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.19	59					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.28	86	6.8	27	34	24527	
				7 to 10	4	0.38	115	7.3	29	32	23364	
				11 to 14	4	0.48	146	7.7	31	30	22325	
				15 to 18	4	0.57	173	6.7	27	35	24856	
				19 to 21	3	0.65	197	8.2	25	28	21453	
			Test Averages					7.3		31	23219	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A50+00	L4	8kg	7/31/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 5	4	0.16	49	6.8	27	34	24527	
				6 to 8	3	0.26	78	9.8	29	23	18825	
				9 to 11	4	0.35	107	7.2	29	32	23539	
				12 to 15	4	0.44	133	6.6	26	35	24991	
				16 to 20	5	0.53	163	6.0	30	39	26758	
				21 to 23	3	0.62	190	9.1	27	25	19904	
				24 to 27	4	0.72	218	7.0	28	33	24021	
			Test Averages					7.5		31	22837	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A50+00	L10	8kg	7/31/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	26					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.18	55	14.7	29	14	14077	
				5 to 6	2	0.28	84	14.4	29	15	14286	
				7 to 9	3	0.37	112	9.4	28	24	19445	
				10 to 12	3	0.45	137	8.3	25	27	21266	
				13 to 15	3	0.54	164	9.0	27	25	20063	
				16 to 18	3	0.62	189	8.5	25	27	20905	
				19 to 22	4	0.71	216	6.6	27	35	24924	
				23 to 25	3	0.79	240	8.2	25	28	21328	
			Test Averages					9.9		22	18718	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A50+00	R4	8kg	8/1/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	25					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	50	8.6	26	26	20730	
				6 to 9	4	0.25	77	6.8	27	34	24527	
				10 to 14	5	0.35	107	6.0	30	39	26758	
				15 to 19	5	0.45	138	6.1	31	39	26443	
				20 to 24	5	0.55	168	6.0	30	39	26758	
				25 to 29	5	0.65	197	5.9	29	40	27149	
				30 to 33	4	0.73	223	6.3	25	37	25765	
			Test Averages					6.5		36	25208	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A50+00	R10	8kg	8/1/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	55	10.9	33	20	17404	
				6 to 8	3	0.27	82	9.0	27	25	20009	
				9 to 11	3	0.36	110	9.6	29	23	19105	
				12 to 14	3	0.47	143	10.8	32	20	17597	
				15 to 17	3	0.56	169	8.9	27	25	20225	
				18 to 21	4	0.66	200	7.7	31	30	22429	
				22 to 24	3	0.71	217	5.5	17	43	28480	Discount < 20mm of travel.
			Test Averages					9.5		24	19287	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A60+00	L4	8kg	7/31/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.19	57	19.5	39	11	11517	
				5	1	0.53	160	103.7	104	2	3470	Possible poorly compacted zone.
				6 to 9	4	0.61	187	6.7	27	35	24723	
				10 to 13	4	0.71	216	7.2	29	32	23598	
			Test Averages					34.3		6	7677	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A60+00	L10	8kg	8/1/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.28	86					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.37	113	13.4	27	16	15043	
				5 to 6	2	0.46	141	14.0	28	15	14578	
				7 to 10	4	0.55	168	6.9	28	34	24207	
				11 to 13	3	0.63	193	8.3	25	27	21205	
			Test Averages					10.7		21	17735	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A60+00	R4	8kg	8/1/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	50	9.1	27	25	19800	
				6 to 8	3	0.25	76	8.6	26	26	20730	
				9 to 13	5	0.34	104	5.7	28	42	27901	
				14 to 18	5	0.43	132	5.7	28	42	27901	
				19 to 22	4	0.53	162	7.4	30	31	22968	
				23 to 26	4	0.63	191	7.3	29	31	23136	
				27 to 31	5	0.73	222	6.1	30	39	26505	
			Test Averages					7.1		32	23657	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A60+00	R10	8kg	8/1/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.19	56	9.8	29	23	18871	
				6 to 7	2	0.27	83	13.2	26	16	15206	
				8 to 10	3	0.38	116	11.0	33	20	17291	
				11 to 13	3	0.48	146	10.2	31	22	18335	
				14 to 16	3	0.59	181	11.4	34	19	16855	
				17 to 19	3	0.70	212	10.5	31	21	17957	
				20 to 23	4	0.79	242	7.4	29	31	23136	
			Test Averages					10.5		21	17931	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A70+00	L4	8kg	7/31/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.18	54	8.5	34	27	20890	
				7 to 9	3	0.26	81	8.8	27	25	20279	
				10 to 12	3	0.35	106	8.4	25	27	21024	
				13 to 15	3	0.43	131	8.3	25	27	21205	
				16 to 19	4	0.52	159	7.1	28	33	23717	
				20 to 23	4	0.62	188	7.2	29	32	23598	
				24 to 27	4	0.70	215	6.8	27	34	24527	
			Test Averages					7.9		29	22046	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A70+00	L10	8kg	7/31/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.19	59					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.31	95	12.1	36	18	16184	
				6	1	0.48	145	50.0	50	4	5853	Possibly poorly compacted
				7 to 10	4	0.57	174	7.1	28	33	23837	
				11 to 15	5	0.67	205	6.4	32	37	25664	
				16 to 18	3	0.74	226	6.9	21	34	24292	
			Test Averages					16.5		13	12972	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A70+00	R4	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	25					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	55	10.1	30	22	18466	
				6 to 8	3	0.27	82	9.0	27	25	20063	
				9 to 11	3	0.36	109	9.2	28	24	19697	
				12 to 14	3	0.44	135	8.6	26	26	20672	
				15 to 18	4	0.54	164	7.2	29	32	23539	
				19 to 22	4	0.63	192	7.1	28	33	23777	
			Test Averages					8.5		27	20822	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A70+00	R10	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	24					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.19	59	11.8	35	18	16512	
				6 to 8	3	0.29	87	9.4	28	24	19346	
				9 to 11	3	0.38	117	9.8	29	23	18825	
				12 to 14	3	0.49	151	11.2	34	19	17070	
				15 to 17	3	0.59	179	9.6	29	23	19153	
				18 to 21	4	0.69	211	8.0	32	28	21772	
			Test Averages					10.0		22	18598	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A80+00	L4	8kg	7/31/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	43	7.1	29	32	23657	
				7 to 10	4	0.24	73	7.5	30	31	22913	
				11 to 13	3	0.35	106	11.0	33	20	17366	
				14 to 17	4	0.43	132	6.7	27	35	24856	
				18 to 22	5	0.53	161	5.7	28	42	27830	
				23 to 24	2	0.64	195	17.2	34	12	12604	
				25 to 26	2	0.75	228	16.5	33	13	12986	
			Test Averages					10.2		22	18279	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A80+00	L10	8kg	7/31/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	52	10.2	31	22	18250	
				6 to 7	2	0.26	79	13.7	27	16	14806	
				8 to 10	3	0.34	105	8.7	26	26	20446	
				11	1	0.51	155	49.6	50	4	5887	Possibly poorly compacted zone.
				12 to 15	4	0.63	193	9.7	39	23	19034	
				16 to 20	5	0.73	222	5.7	29	41	27691	
			Test Averages					16.3		13	13088	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A80+00	R4	8kg	7/31/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.13	40	8.5	25	27	20905	
				6 to 8	3	0.23	70	10.2	31	22	18292	
				9 to 11	3	0.34	105	11.6	35	19	16681	
				12 to 14	3	0.44	134	9.5	29	23	19249	
				15 to 18	4	0.53	163	7.4	30	31	23079	
				19 to 22	4	0.62	189	6.4	26	36	25477	
				23 to 26	4	0.71	216	6.9	28	34	24271	
			Test Averages					8.6		26	20613	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A80+00	R10	8kg	7/31/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	12					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.22	68	28.1	56	7	8847	
				5 to 7	3	0.32	96	9.4	28	24	19445	
				8 to 12	5	0.41	126	6.0	30	39	26694	
				13 to 16	4	0.51	154	6.9	28	33	24145	
				17 to 21	5	0.60	182	5.6	28	43	28260	
				22 to 24	3	0.69	211	9.7	29	23	18917	
			Test Averages					11.0		20	17384	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A90+00	L4	8kg	7/31/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	23					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.19	57	11.2	34	20	17106	
				6 to 8	3	0.27	83	9.0	27	25	20063	
				9 to 12	4	0.37	114	7.7	31	30	22377	
				13 to 16	4	0.47	143	7.3	29	32	23306	
				17 to 20	4	0.58	177	8.3	33	27	21114	
				21 to 23	3	0.68	208	10.5	31	21	17957	
			Test Averages					9.0		25	20021	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A90+00	L10	8kg	7/31/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	50	10.5	32	21	17876	
				6 to 8	3	0.25	76	8.9	27	25	20225	
			Test Averages					9.7		23	18963	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A90+00	R4	8kg	7/31/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	51	8.3	33	27	21159	
				7 to 10	4	0.26	80	7.3	29	32	23364	
				11 to 13	4	0.34	105	6.3	25	37	25912	
				14 to 17	4	0.45	136	7.7	31	30	22325	
				18 to 22	5	0.55	168	6.3	32	37	25722	
				23 to 26	4	0.63	193	6.3	25	37	25912	
				27 to 30	4	0.73	222	7.3	29	32	23249	
			Test Averages					7.1		33	23789	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A90+00	R10	8kg	7/31/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.11	35					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.22	66	7.8	31	29	22120	
				7 to 10	4	0.30	91	6.2	25	38	26137	
				11 to 14	4	0.39	117	6.7	27	35	24856	
				15 to 18	4	0.49	148	7.7	31	30	22377	
				19 to 23	5	0.58	177	5.7	28	42	27901	
				24 to 27	4	0.66	201	6.2	25	38	26061	
			Test Averages					6.7		35	24697	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
150+00	4L	8kg	7/29/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.03	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	49	7.3	29.0	32	23364	
				7 to 10	4	0.22	77	7.0	28.0	33	23959	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A170+00	L4	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	47	6.0	30	39	26758	
				8 to 11	4	0.25	78	7.7	31	30	22429	
				12 to 15	4	0.34	105	6.8	27	34	24462	
				16 to 19	4	0.42	129	6.2	25	38	26289	
				20 to 23	4	0.51	155	6.3	25	37	25912	
				24 to 28	5	0.60	183	5.8	29	41	27553	
				29 to 32	4	0.68	208	6.2	25	38	26061	
			Test Averages					6.4		36	25514	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A170+00	L10	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	54	11.9	36	18	16412	
				6 to 9	4	0.27	82	7.0	28	33	24082	
				10 to 14	5	0.36	111	5.8	29	41	27416	
				15 to 19	5	0.46	139	5.6	28	42	28115	
				20 to 24	5	0.54	166	5.4	27	45	29012	
				25 to 28	4	0.62	190	6.2	25	38	26061	
				29 to 32	4	0.69	211	5.1	20	47	30170	
			Test Averages					7.0		33	24040	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A170+00	R4	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	44	6.2	25	38	26061	
				7 to 8	2	0.25	76	15.7	31	13	13459	
			Test Averages					10.9		20	17400	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A170+00	R10	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	41	7.0	28	33	23959	
				7 to 10	4	0.22	66	6.4	25	37	25693	
				11 to 15	5	0.31	95	5.8	29	40	27282	
				16 to 20	5	0.41	124	5.8	29	41	27349	
				21 to 24	4	0.50	152	7.1	28	33	23837	
				25 to 27	3	0.58	177	8.3	25	27	21144	
				28 to 32	5	0.67	206	5.6	28	42	28043	
			Test Averages					6.6		35	25064	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A180+00	L4	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	39	6.5	26	36	25336	
				7 to 10	4	0.21	65	6.6	26	35	24991	
				11 to 14	4	0.30	91	6.5	26	36	25266	
				15 to 18	4	0.38	117	6.5	26	36	25406	
				19 to 22	4	0.47	143	6.6	26	36	25128	
				23 to 27	5	0.56	171	5.6	28	42	28043	
				28 to 29	2	0.70	214	21.5	43	9	10719	
			Test Averages					8.5		26	20797	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A180+00	L10	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	46	6.9	28	34	24271	
				7 to 11	5	0.25	77	6.0	30	39	26694	
				12 to 15	4	0.34	103	6.6	27	35	24924	
				16 to 19	4	0.43	130	6.8	27	34	24592	
				20 to 22	3	0.52	157	9.1	27	25	19904	
				23 to 26	4	0.60	183	6.5	26	36	25266	
				27 to 30	4	0.69	209	6.5	26	36	25406	
			Test Averages					6.9		34	24212	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A180+00	R4	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	44	5.9	30	40	27083	
				8 to 12	5	0.23	70	5.2	26	46	29731	
				13 to 17	5	0.31	94	4.9	25	49	30939	
				18 to 21	4	0.39	119	6.2	25	38	26061	
				22 to 26	5	0.49	148	5.8	29	41	27553	
				27 to 31	5	0.59	179	6.1	31	39	26443	
				32 to 34	3	0.67	206	9.1	27	25	19904	
				35 to 38	4	0.75	230	6.0	24	39	26758	
			Test Averages					6.2		38	26253	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A180+00	R10	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	44	6.8	27	34	24398	
				7 to 11	4	0.34	104	15.0	60	14	13874	
				12 to 13	2	0.45	137	16.5	33	13	12958	
				14 to 16	3	0.55	166	9.8	29	23	18825	
				17 to 18	2	0.65	199	16.1	32	13	13188	
				19 to 21	3	0.71	217	6.1	18	38	26340	Discount < 20mm of travel.
			Test Averages					12.8		17	15506	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A195+00	L4	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	46	6.7	27	35	24856	
				7 to 10	4	0.23	70	6.2	25	38	26212	
				11 to 15	5	0.39	119	9.7	49	23	18935	
				16 to 19	4	0.47	144	6.3	25	37	25912	
				20 to 23	4	0.56	172	6.9	28	34	24271	
				24 to 27	4	0.70	214	10.7	43	21	17735	
			Test Averages					7.7		30	22327	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A195+00	L10	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	46	5.5	28	43	28333	
				8 to 20	13	0.39	118	5.5	72	43	28423	
				21 to 25	5	0.48	145	5.4	27	44	28934	
				26 to 30	5	0.58	176	6.2	31	38	26258	
				31 to 35	5	0.67	204	5.6	28	42	28043	
				36 to 38	3	0.75	229	8.3	25	27	21205	
			Test Averages					6.1		39	26487	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A195+00	R4	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	11					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	41	6.1	31	38	26381	
				8 to 11	4	0.22	66	6.2	25	38	26137	
				12 to 16	5	0.31	95	5.7	29	41	27691	
				17 to 21	5	0.40	121	5.2	26	46	29486	
				22 to 26	5	0.49	150	5.7	29	42	27760	
				27 to 30	4	0.58	175	6.5	26	36	25406	
				31 to 34	4	0.66	200	6.3	25	37	25987	
			Test Averages					6.0		40	26905	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A195+00	R10	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	44	5.7	28	42	27901	
				8 to 12	5	0.24	74	6.0	30	39	26631	
				13 to 17	5	0.33	101	5.3	27	45	29089	
				18 to 22	5	0.43	132	6.2	31	38	26137	
				23 to 27	5	0.54	164	6.5	32	36	25322	
				28 to 32	5	0.64	196	6.3	32	37	25722	
				33 to 36	4	0.73	223	6.8	27	34	24592	
			Test Averages					6.1		38	26394	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A215+00	L4	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	12					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	43	6.1	31	38	26381	
				8 to 10	3	0.22	68	8.4	25	27	21084	
				11 to 14	4	0.31	94	6.6	26	35	24991	
				15 to 19	5	0.42	127	6.5	32	36	25322	
				20 to 24	5	0.50	153	5.3	27	45	29089	
				25 to 29	5	0.62	190	7.3	37	31	23204	
				30 to 33	4	0.71	217	6.6	27	35	24924	
			Test Averages					6.7		35	24742	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A215+00	L10	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	11					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	41	7.5	30	31	22803	
				7 to 11	5	0.22	68	5.3	27	45	29089	
				12 to 16	5	0.30	92	4.9	25	49	30849	
				17 to 21	5	0.40	122	5.9	30	40	27017	
				22 to 26	5	0.48	148	5.1	26	47	29896	
				27 to 31	5	0.57	175	5.5	28	43	28480	
				32 to 36	5	0.66	201	5.2	26	46	29813	
			Test Averages					5.6		42	27972	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A215+00	R4	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.10	30					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.19	59	14.3	29	15	14394	
				5 to 9	5	0.28	86	5.5	27	44	28630	
				10 to 14	5	0.36	111	5.0	25	48	30407	
				15 to 19	5	0.45	138	5.4	27	44	28705	
				20 to 24	5	0.53	163	4.9	25	49	30759	
				25 to 30	6	0.63	193	5.0	30	48	30567	
				31 to 35	5	0.71	215	4.4	22	55	33204	
			Test Averages					6.7		35	24770	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A215+00	R10	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	44	6.0	30	39	26694	
				8 to 12	5	0.24	73	5.9	29	40	27215	
				13 to 17	5	0.33	101	5.5	28	43	28333	
				18 to 22	5	0.42	128	5.3	27	45	29247	
				23 to 28	6	0.51	155	4.6	28	53	32288	
				29 to 33	5	0.60	184	5.7	29	41	27691	
				34 to 38	5	0.69	210	5.1	26	47	29896	
			Test Averages					5.5		44	28642	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A222+00	L4	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	51	9.0	36	25	19970	
				7 to 11	5	0.26	80	6.0	30	39	26822	
				12 to 16	5	0.36	110	5.9	29	40	27215	
				17 to 21	5	0.45	136	5.3	27	45	29168	
				22 to 27	6	0.53	162	4.2	25	59	34553	
				28 to 31	4	0.61	186	6.1	25	38	26366	
				32 to 36	5	0.88	269	16.6	83	13	12891	Do not include point. Apparently broke through stabilized base layer.
			Test Averages					6.1		39	26490	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A222+00	L10	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	45	7.8	31	29	22120	
				7 to 10	4	0.23	70	6.2	25	38	26061	
				11 to 13	3	0.32	96	8.9	27	25	20116	
				14 to 18	5	0.40	122	5.1	26	47	30064	
				19 to 22	4	1.72	524	100.6	402	2	3546	Do not include point. Apparently broke through
			Test Averages					7.0		33	23908	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A222+00	R4	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.03	9					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	41	8.0	32	29	21821	
				7 to 10	4	0.22	68	6.8	27	34	24398	
			Test Averages					7.4		31	23023	

Station	Offset	Hammer Type	Date	Blow Count	Blows	Depth	DCP Reading	DCP Penetration Index	Pen. / Reading	CBR	M_R	Notes
A222+00	R10	8kg	7/30/2020	(#)	(#)	(ft)	(mm)	(mm/blow)	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.15	46					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.25	76	9.8	29	23	18825	
				6 to 9	4	0.34	105	7.4	30	31	23023	
				10 to 14	5	0.44	133	5.6	28	43	28260	
				15 to 19	5	0.52	159	5.1	26	47	29896	
				20 to 24	5	0.61	187	5.7	28	42	27830	
				25 to 29	5	0.70	214	5.4	27	44	28781	
			Test Averages					6.5		36	25266	

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane
Unit #1
Montpelier, VT 05602
(802) 674-2033

APPENDIX H – RESILIENT MODULUS DATA REDUCTION FOR RICHFORD-JAY STP 2914(1)

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane, Unit 1
Montpelier, VT 05602
(802) 674-2033

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
135+10	6 R	Not Reported	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(mm)	(%)	(psi)	
				0	0	0.00	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.13	41	5.2	26	46	29649	
				8 to 10	3	0.20	61	6.7	20	35	24812	
				11	1	0.29	89	28.0	28	7	8870	Pont not included. Inferred penetration through the stabilized base.
			Test Averages					5.9		40	26973	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
135+15	2 R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	28					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	58	7.5	30	31	22803	
				7 to 10	4	0.28	85	6.8	27	34	24592	
				11	1	0.28	85.25	0.3	0	1379	261091	Discount. < 20mm travel.
			Test Averages					7.1		32	23657	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
135+15	6R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(mm)	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	23					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	50	6.8	27	34	24592	
				7 to 10	4	0.24	73	5.8	23	41	27587	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
135+15	8R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	46	5.8	29.0	41	27416	
				7 to 10	3	0.20	61	5.0	15.0	48	30494	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
135+15	10R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	42	6.5	26.0	36	25266	
				6 to 10	5	0.24	73	6.2	31.0	38	26137	
			Test Averages					6.4		37	25693	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
138+10	2R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	45	5.4	27.0	44	28857	
				7 to 10	4	0.21	65	5.0	20.0	48	30494	
			Test Averages					5.2		46	29649	

Station	Offset	Date	Hammer	Blow	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. /	CBR	M_R	Notes
138+10	4R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	25					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	53	9.3	28.0	24	19495	
				6 to 9	4	0.28	84	7.8	31.0	29	22273	
				10	1	0.30	91	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					8.5		26	20773	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
138+10	8R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	48	5.8	29.0	41	27416	
				8 to 10	3	0.20	61	4.3	13.0	57	33788	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
147+5	2R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.15	47					First 2 blows discounted as "seating" blows. Does not appear to have been compacted
				3	1	0.43	130	83.0	83.0	2	4070	Significant outlier. Do not include in test. Does not appear to be compacted stabilized base.

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
147+5	4R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	43	6.5	26.0	36	25266	
				7 to 10	4	0.21	65	5.5	22.0	43	28480	
			Test Averages					6.0		39	26758	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
147+5	8R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 8	6	0.14	42	4.5	27.0	54	32886	
				9 to 10	2	0.17	51	4.5	9.0	54	32886	Discount, < 20mm travel.
			Test Averages					4.5		54	32886	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
160+30	2R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.10	32					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.19	58	8.7	26.0	26	20558	
				6 to 9	4	0.29	88	7.5	30.0	31	22803	
				10	1	0.31	94	6.0	6.0	39	26758	Discount, < 20mm travel.
			Test Averages					8.1		28	21611	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
160+30	4R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	57	7.5	30.0	31	22803	
				7 to 10	4	0.26	80	5.8	23.0	41	27587	
			Test Averages					6.6		35	24924	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
160+30	6R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	59	8.0	32.0	28	21772	
				7 to 9	3	0.28	84	8.3	25.0	27	21144	
				10	1	0.31	95	11.0	11.0	20	17329	Discount, < 20mm travel.
			Test Averages					8.2		28	21453	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
160+30	8R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	58	7.8	31.0	29	22273	
				7 to 10	4	0.29	87	7.3	29.0	32	23364	
			Test Averages					7.5		31	22803	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
160+50	2R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	50	6.5	26.0	36	25266	
				7 to 10	4	0.23	71	5.3	21.0	46	29446	
			Test Averages					5.9		40	27165	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
160+50	4R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	53	6.5	26.0	36	25266	
				7 to 10	4	0.27	82	7.3	29.0	32	23364	
			Test Averages					6.9		34	24271	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
160+50	6R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.13	39					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.21	65	13.0	26.0	17	15373	
				4 to 6	2	0.30	90	12.5	25.0	17	15811	
				6 to 9	3	0.39	120	10.0	30.0	22	18554	
				10	1	0.42	127	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					11.8		18	16445	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
160+50	8R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	44	5.0	25.0	48	30494	
				8 to 10	3	0.19	58	4.7	14.0	52	32040	Discount, < 20mm travel.
			Test Averages					5.0		48	30494	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
160+50	8R	7/9/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	41	6.5	26.0	36	25266	
				7 to 10	4	0.21	63	5.5	22.0	43	28480	
			Test Averages					6.0		39	26758	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
138+70	2L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	47	6.3	25.0	37	25987	
				7 to 10	4	0.23	71	6.0	24.0	39	26758	
			Test Averages					6.1		38	26366	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
138+70	6L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	55	9.3	28.0	24	19495	
				6 to 9	4	0.28	85	7.5	30.0	31	22803	
				10	1	0.30	91	6.0	6.0	39	26758	Discount, < 20mm travel.
			Test Averages					8.4		27	20994	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
138+70	8L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	48	5.8	29.0	41	27416	
				8 to 10	3	0.22	66	6.0	18.0	39	26758	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
138+70	10L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	28					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	57	7.3	29.0	32	23364	
				7 to 10	4	0.27	83	6.5	26.0	36	25266	
			Test Averages					6.9		34	24271	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
147+00	2L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	49	5.8	29.0	41	27416	
				8 to 10	3	0.21	64	5.0	15.0	48	30494	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
147+00	4L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.10	31					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.21	63	10.7	32.0	21	17715	
				6 to 8	3	0.30	90	9.0	27.0	25	20009	
				9 to 10	2	0.35	108	9.0	18.0	25	20009	Discount, < 20mm travel.
			Test Averages					9.8		23	18779	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
147+00	6L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	46	6.8	27.0	34	24592	
				7 to 10	4	0.25	76	7.5	30.0	31	22803	
			Test Averages					7.1		32	23657	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
147+00	10L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.10	32					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.20	60	7.0	28.0	33	23959	
				7 to 9	4	0.28	86	6.5	26.0	36	25266	
				10	1	0.31	93	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
154+50	2L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	11					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.12	38	5.4	27.0	44	28857	
				8 to 10	3	0.17	53	5.0	15.0	48	30494	Discount, < 20mm travel.
			Test Averages					5.4		44	28857	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
154+50	6L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	41	6.3	25.0	37	25987	
				7 to 10	4	0.22	67	6.5	26.0	36	25266	
			Test Averages					6.4		37	25620	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
154+50	8L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	12					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	41	7.3	29.0	32	23364	
				7 to 9	3	0.22	67	8.7	26.0	26	20558	
				10	1	0.24	73	6.0	6.0	39	26758	Discount, < 20mm travel.
			Test Averages					8.0		29	21854	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
154+50	10L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	46	5.6	28.0	42	28115	
				8 to 10	3	0.21	63	5.7	17.0	42	27877	Discount, < 20mm travel.
			Test Averages					5.6		42	28115	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
167+20	4L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	47	7.3	29.0	32	23364	
				7 to 10	4	0.23	70	5.8	23.0	41	27587	
			Test Averages					6.5		36	25266	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
167+20	8L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.13	41	5.0	25.0	48	30494	
				8 to 10	3	0.19	57	5.3	16.0	45	29115	Discount, < 20mm travel.
			Test Averages					5.0		48	30494	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
167+20	10L	7/10/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	26					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	53	9.0	27.0	25	20009	
				6 to 9	4	0.28	85	8.0	32.0	28	21772	
				10	1	0.31	93	8.0	8.0	28	21772	Discount, < 20mm travel.
			Test Averages					8.5		27	20846	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
174+00	2R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.14	44	9.3	28.0	24	19495	
				6 to 9	4	0.23	71	6.8	27.0	34	24592	
				10	1	0.26	78	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					8.0		28	21691	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
174+00	4R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	44	6.8	27.0	34	24592	
				7 to 10	4	0.24	72	7.0	28.0	33	23959	
			Test Averages					6.9		34	24271	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
174+00	6R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	53	10.3	31.0	21	18123	
				6 to 9	4	0.26	78	6.3	25.0	37	25987	
				10	1	0.27	83	5.0	5.0	48	30494	Discount, < 20mm travel.
			Test Averages					8.3		27	21220	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
174+00	10R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	23					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	48	6.3	25.0	37	25987	
				6 to 10	5	0.23	69	4.2	21.0	59	34553	
			Test Averages					5.2		46	29547	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
183+00	2R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.10	29					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.21	63	11.3	34.0	19	16962	
				6 to 8	3	0.31	93	10.0	30.0	22	18554	
				8 to 10	2	0.37	112	9.5	19.0	23	19249	Discount, < 20mm travel.
			Test Averages					10.7		21	17715	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
183+00	4R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	50	7.0	28.0	33	23959	
				6 to 10	5	0.23	70	4.0	20.0	62	35783	
			Test Averages					5.5		43	28480	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
183+00	6R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	23					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	52	7.3	29.0	32	23364	
				6 to 9	4	0.25	77	6.3	25.0	37	25987	
				10	1	0.27	81	4.0	4.0	62	35783	Discount, < 20mm travel.
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
183+00	8R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	48	5.6	28.0	42	28115	
				8 to 10	3	0.22	68	6.7	20.0	35	24812	
			Test Averages					6.1		38	26340	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
185+00	2R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	53	8.7	26.0	26	20558	
				6 to 10	5	0.27	82	5.8	29.0	41	27416	
			Test Averages					7.2		32	23402	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
185+00	4R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	53	8.7	26.0	26	20558	
				6 to 10	5	0.27	83	6.0	30.0	39	26758	
			Test Averages					7.3		31	23173	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
185+00	6R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	49	9.3	28.0	24	19495	
				6 to 9	3	0.26	78	9.7	29.0	23	19010	
				10	1	0.28	84	6.0	6.0	39	26758	Discount, < 20mm travel.
			Test Averages					9.5		23	19249	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
185+00	8R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 7	3	0.15	47	10.0	30.0	22	18554	
				6 to 10	3	0.21	64	5.7	17.0	42	27877	Discount, < 20mm travel.
			Test Averages					10.0		22	18554	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
195+50	2R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.15	46	10.0	30.0	22	18554	
				6 to 8	3	0.23	71	8.3	25.0	27	21144	
				9 to 10	2	0.29	87	8.0	16.0	28	21772	Discount, < 20mm travel.
			Test Averages					9.2		24	19748	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
195+50	4R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	47	5.8	29.0	41	27416	
				6 to 10	3	0.21	65	6.0	18.0	39	26758	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
195+50	6R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	49	5.6	28.0	42	28115	
				8 to 10	3	0.21	65	5.3	16.0	45	29115	Discount, < 20mm travel.
			Test Averages					5.6		42	28115	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
195+50	8R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	23					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	49	6.5	26.0	36	25266	
				7 to 10	4	0.25	77	7.0	28.0	33	23959	
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
198+50	4R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	48	5.8	29.0	41	27416	
				8 to 10	3	0.21	63	5.0	15.0	48	30494	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
198+50	6R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	51	7.3	29.0	32	23364	
				7 to 9	3	0.26	78	9.0	27.0	25	20009	
				10	1	0.29	87	9.0	9.0	25	20009	Discount, < 20mm travel.
			Test Averages					8.1		28	21532	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
198+50	8R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	26					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.18	54	7.0	28.0	33	23959	
				6 to 10	5	0.26	79	5.0	25.0	48	30494	
				11	1	0.29	88	9.0	9.0	25	20009	Discount, < 20mm travel.
			Test Averages					6.0		39	26758	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
198+50	10R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	55	11.0	33.0	20	17329	
				6 to 9	4	0.28	84	7.3	29.0	32	23364	
				10	1	0.30	92	8.0	8.0	28	21772	Discount, < 20mm travel.
			Test Averages					9.1		25	19813	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
207+00	4R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	51	7.5	30.0	31	22803	
				6 to 10	4	0.25	75	6.0	24.0	39	26758	
				11	1	0.36	109	34.0	34.0	6	7717	Do not include point. Apparently punched through stabilized base layer.
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
207+00	6R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.10	30					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	55	8.3	25.0	27	21144	
				6 to 8	3	0.27	82	9.0	27.0	25	20009	
				9 to 10	1	0.32	98	16.0	16.0	13	13247	Discount, < 20mm travel.
			Test Averages					8.7		26	20558	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
207+00	8R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.17	51	6.0	30.0	39	26758	
				8 to 10	3	0.22	66	5.0	15.0	48	30494	Discount, < 20mm travel.
			Test Averages					6.0		39	26758	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
207+00	10R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	48	7.3	29.0	32	23364	
				7 to 10	4	0.25	76	7.0	28.0	33	23959	
			Test Averages					7.1		32	23657	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
213+00	2R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	43	5.8	23.0	41	27587	
				7 to 10	3	0.23	69	8.7	26.0	26	20558	Blow counts grouped due to possible change in strata between blows 6 and 7.
			Test Averages					7.2		32	23461	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
213+00	4R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	49	6.0	30.0	39	26758	
				8 to 10	3	0.22	66	5.7	17.0	42	27877	Discount, < 20mm travel.
			Test Averages					6.0		39	26758	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
213+00	6R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	43	4.8	24.0	50	31399	
				8 to 10	3	0.24	72	9.7	29.0	23	19010	
			Test Averages					7.2		32	23402	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
213+00	8R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.11	34					First 2 blows discounted as "seating" blows.
				3 to 7	6	0.20	60	4.3	26.0	57	33788	
				8 to 10	3	0.24	74	4.7	14.0	52	32040	Discount, < 20mm travel.
			Test Averages					4.3		57	33788	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
222+70	4R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	43	6.3	25.0	37	25987	
				7 to 10	4	0.21	65	5.5	22.0	43	28480	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
222+70	6R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 6	3	0.14	43	9.0	27.0	25	20009	
				6 to 9	3	0.20	60	5.7	17.0	42	27877	Discount, < 20mm travel.
			Test Averages					9.0		25	20009	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
222+70	8R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	43	5.6	28.0	42	28115	
				8 to 11	3	0.22	66	7.7	23.0	30	22447	
			Test Averages					5.6		42	28115	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
222+70	10R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	26					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	52	6.5	26.0	36	25266	
				7 to 10	4	0.26	80	7.0	28.0	33	23959	
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
230+00	2R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	50	7.5	30.0	31	22803	
				7 to 10	4	0.24	74	6.0	24.0	39	26758	
			Test Averages					7.5		31	22803	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
230+00	4R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.15	47	8.3	25.0	27	21144	
				6 to 8	3	0.24	73	8.7	26.0	26	20558	
				9 to 10	2	0.29	87	7.0	14.0	33	23959	Discount, < 20mm travel.
			Test Averages					8.5		27	20846	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
230+00	6R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	45	5.4	27.0	44	28857	
				8 to 10	3	0.20	60	5.0	15.0	48	30494	Discount, < 20mm travel.
			Test Averages					5.4		44	28857	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
230+00	10R	7/12/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	48	6.5	26.0	36	25266	
				7 to 10	4	0.26	79	7.8	31.0	29	22273	
			Test Averages					7.1		32	23657	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
182+30	2L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	43	5.8	29.0	41	27416	
				8 to 10	3	0.19	59	5.3	16.0	45	29115	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
182+30	4L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	24					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	49	8.3	25.0	27	21144	
				6 to 10	3	0.26	78	9.7	29.0	23	19010	
			Test Averages					9.0		25	20009	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
182+30	6L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	46	5.0	25.0	48	30494	
				8 to 10	3	0.20	61	5.0	15.0	48	30494	Discount, < 20mm travel.
			Test Averages					5.0		48	30494	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
182+30	10L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	26					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	56	10.0	30.0	22	18554	
				6 to 8	3	0.27	82	8.7	26.0	26	20558	
				9 to 10	2	0.33	102	10.0	20.0	22	18554	
			Test Averages					9.3		24	19495	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
185+10	2L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	44	5.8	29.0	41	27416	
				8 to 10	3	0.20	61	5.7	17.0	42	27877	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
185+10	4L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	44	5.0	25.0	48	30494	
				8 to 9	2	0.19	58	7.0	14.0	33	23959	
				10	1	0.31	93	35.0	35.0	5	7559	Point not included. Inferred to have pentrated stabilized base.
			Test Averages					5.0		48	30494	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
185+10	6L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	28					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	56	9.3	28.0	24	19495	
				6 to 9	4	0.27	83	6.8	27.0	34	24592	
				10	1	0.29	89	6.0	6.0	39	26758	Discount, < 20mm travel.
			Test Averages					8.0		28	21691	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
185+10	8L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	48	5.2	26.0	46	29649	
				8 to 10	3	0.22	67	6.3	19.0	37	25741	Discount, < 20mm travel.
			Test Averages					5.2		46	29649	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
200+00	2L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	40	6.8	27.0	34	24592	
				7 to 9	3	0.20	62	7.3	22.0	31	23173	
				10	1	1.88	573	511.0	511.0	0	1106	Point not included. Inferred to have pentrated stabilized base.
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
200+00	4L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	13					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.12	38	5.0	25.0	48	30494	
				8 to 10	3	0.18	56	6.0	18.0	39	26758	Discount, < 20mm travel.
			Test Averages					5.0		48	30494	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
200+00	6L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
*** NO ENTRIES RECORDED (DCP Reading v. BLOW GRAPH NOT PROVIDED) ***												

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
200+00	8L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.13	40					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.22	68	7.0	28.0	33	23959	
				7 to 10	4	0.31	94	6.5	26.0	36	25266	
				11	2	0.32	98	2.0	4.0	134	58811	Discount, < 20mm travel.
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
206+00	2L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	28					First 2 blows discounted as "seating" blows.
				3 to 6	3	0.20	60	10.7	32.0	21	17715	
				7 to 10	3	0.28	84	8.0	24.0	28	21772	
			Test Averages					10.7		21	17715	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
206+00	4L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 7	3	0.16	50	10.0	30.0	22	18554	
				8 to 10	3	0.22	68	6.0	18.0	39	26758	Discount, < 20mm travel.
			Test Averages					10.0		22	18554	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
206+00	6L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
*** NO ENTRIES RECORDED (DCP Reading v. BLOW GRAPH NOT PROVIDED) ***												

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
206+00	10L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	24					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	50	8.7	26.0	26	20558	
				6 to 8	3	0.27	83	11.0	33.0	20	17329	
				9 to 10	2	0.33	101	9.0	18.0	25	20009	Discount, < 20mm travel.
			Test Averages					9.8		23	18779	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
207+10	2L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	47	5.8	29.0	41	27416	
				8 to 10	3	0.21	63	5.3	16.0	45	29115	Discount, < 20mm travel.
				11	1	2.06	627	564.0	564.0	0	1031	Point not included. Inferred to have pentrated stabilized base.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
207+10	4L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	47	6.8	27.0	34	24592	
				7 to 10	3	0.24	72	8.3	25.0	27	21144	
			Test Averages					7.5		30	22713	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
207+10	6L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.18	54	8.0	32.0	28	21772	
				7 to 9	3	0.27	82	9.3	28.0	24	19495	
				10	2	0.30	92	5.0	10.0	48	30494	Discount, < 20mm travel.
			Test Averages					8.7		26	20558	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
207+10	8L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	48	8.7	26.0	26	20558	
				6 to 9	3	0.25	76	9.3	28.0	24	19495	
				10	2	0.28	85	4.5	9.0	54	32886	Discount, < 20mm travel.
			Test Averages					9.0		25	20009	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
209+20	2L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	47	7.3	29.0	32	23364	
				7 to 10	4	0.24	73	6.5	26.0	36	25266	
				11	1	0.26	78	5.0	5.0	48	30494	Discount, < 20mm travel.
			Test Averages					6.9		34	24271	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
209+20	4L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	53	10.3	31.0	21	18123	
				6 to 8	3	0.26	80	9.0	27.0	25	20009	
				9 to 10	2	0.33	102	11.0	22.0	20	17329	
			Test Averages					9.7		23	19010	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
209+20	6L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	23					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.18	54	6.2	31.0	38	26137	
				8 to 10	3	0.23	70	5.3	16.0	45	29115	Discount, < 20mm travel.
			Test Averages					6.2		38	26137	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
209+20	8L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	23					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.16	50	13.5	27.0	16	14963	
				5 to 7	3	0.27	82	10.7	32.0	21	17715	
				8 to 10	3	0.36	110	9.3	28.0	24	19495	
			Test Averages					11.2		20	17143	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
219+10	2L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					Data set not included. Little to no movement for 10 blows then significant movement noted. Should have been ended in refusal. Infer bouncing on a cobble and then deflected around.
				1 to 10	10	0.03	9					
				11 to 12	2	0.10	32	11.5	23.0	19	16785	
				13	1	0.22	68	36.0	36.0	5	7408	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
219+10	4L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	43	6.5	26.0	36	25266	
				7 to 10	4	0.23	70	6.8	27.0	34	24592	
			Test Averages					6.6		35	24924	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
219+10	6L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	52	8.3	25.0	27	21144	
				6 to 9	4	0.27	81	7.3	29.0	32	23364	
				10	1	0.29	89	8.0	8.0	28	21772	Discount, < 20mm travel.
			Test Averages					7.8		29	22188	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
219+10	10L	7/13/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	49	6.3	25.0	37	25987	
				7 to 10	4	0.24	73	6.0	24.0	39	26758	
			Test Averages					6.1		38	26366	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
230+00	2L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	

***** NO ENTRIES RECORDED (DCP Reading v. BLOW GRAPH NOT PROVIDED) *****

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
230+00	4L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	43	6.3	25.0	37	25987	
				7 to 10	4	0.20	60	4.3	17.0	58	34262	Discount, < 20mm travel.
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
230+00	6L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.11	34					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.21	63	9.7	29.0	23	19010	
				6 to 8	3	0.31	93	10.0	30.0	22	18554	
				9 to 10	2	0.37	112	9.5	19.0	23	19249	Discount, < 20mm travel.
			Test Averages					9.8		23	18779	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
230+00	8L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	

***** NO ENTRIES RECORDED (DCP Reading v. BLOW GRAPH NOT PROVIDED) *****

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
238+00	2L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.11	33					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	58	6.3	25.0	37	25987	
				6 to 8	3	0.32	97	13.0	39.0	17	15373	
				9 to 10	2	0.35	106	4.5	9.0	54	32886	Discount, < 20mm travel.
			Test Averages					9.6		23	19069	

Station	Offset	Date	Hammer	Blow	Blows	Depth	DCP	DCP Pen.	Pen. /	CBR	M_R	Notes
238+00	4L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	45	6.3	25.0	37	25987	
				7 to 10	4	0.23	70	6.3	25.0	37	25987	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
238+00	6L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	49	9.3	28.0	24	19495	
				6 to 8	3	0.26	78	9.7	29.0	23	19010	
				9 to 10	2	0.30	92	7.0	14.0	33	23959	Discount, < 20mm travel.
			Test Averages					9.5		23	19249	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
238+00	8L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.18	54	5.4	27.0	44	28857	
				8 to 10	3	0.22	68	4.7	14.0	52	32040	Discount, < 20mm travel.
			Test Averages					5.4		44	28857	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
243+50	2L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	46	6.8	27.0	34	24592	
				7 to 10	4	0.23	70	6.0	24.0	39	26758	
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
243+50	4L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	50	6.5	26.0	36	25266	
				7 to 10	4	0.24	74	6.0	24.0	39	26758	
			Test Averages					6.5		36	25266	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
243+50	6L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	54	9.0	27.0	25	20009	
				6 to 7	2	0.27	81	13.5	27.0	16	14963	
				8 to 10	3	0.34	104	7.7	23.0	30	22447	
			Test Averages					11.3		19	17052	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
243+50	8L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.11	34					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.21	64	10.0	30.0	22	18554	
				6 to 8	3	0.30	92	9.3	28.0	24	19495	
				9 to 10	1	0.36	109	17.0	17.0	12	12684	Discount, < 20mm travel.
			Test Averages					9.7		23	19010	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
255+50	2L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.22	67	20.0	40.0	10	11289	
				5 to 6	2	0.31	93	13.0	26.0	17	15373	
				7 to 10	4	0.42	127	8.5	34.0	27	20846	
			Test Averages					13.8		15	14703	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
255+50	4L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	54	9.0	27.0	25	20009	
				6 to 9	4	0.27	82	7.0	28.0	33	23959	
				10	1	0.29	89	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					8.0		28	21772	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
255+50	6L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 8	6	0.19	57	5.0	30.0	48	30494	
				9 to 10	2	0.22	66	4.5	9.0	54	32886	Discount, < 20mm travel.
			Test Averages					5.0		48	30494	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
255+50	8L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.15	45					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.24	74	9.7	29.0	23	19010	
				6	1	0.34	103	29.0	29.0	7	8649	
				7 to 10	4	0.42	129	6.5	26.0	36	25266	
			Test Averages					15.1		14	13838	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
264+00	2L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	46	5.2	26.0	46	29649	
				8 to 10	3	0.30	91	15.0	45.0	14	13874	
			Test Averages					10.1		22	18422	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
264+00	4L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	46	6.8	27.0	34	24592	
				7 to 10	4	0.23	71	6.3	25.0	37	25987	
			Test Averages					6.5		36	25266	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
264+00	6L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	58	8.5	34.0	27	20846	
				7 to 10	4	0.27	83	6.3	25.0	37	25987	
			Test Averages					7.4		31	23079	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
264+00	8L	7/14/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.18	54	6.8	27.0	34	24592	
				7 to 10	4	0.24	74	5.0	20.0	48	30494	
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
243+00	2R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 3	3	0.06	19					First 2 blows discounted as "seating" blows.
				4 to 7	4	0.16	48	7.3	29.0	32	23364	
				8 to 10	3	0.20	62	4.7	14.0	52	32040	Discount, < 20mm travel.
			Test Averages					7.3		32	23364	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
243+00	4R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	15					First 2 blows discounted as "seating" blows.
				3 to 9	7	0.15	45	4.3	30.0	57	34057	
				10	1	0.20	60	15.0	15.0	14	13874	Discount, < 20mm travel.
			Test Averages					4.3		57	34057	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
243+00	6R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	50	7.3	29.0	32	23364	
				7 to 10	4	0.23	71	5.3	21.0	46	29446	
			Test Averages					7.3		32	23364	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
243+00	8R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	42	6.3	25.0	37	25987	
				7 to 10	4	0.21	63	5.3	21.0	46	29446	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
250+90	2R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.21	65	9.5	38.0	23	19249	
				7 to 10	4	0.31	94	7.3	29.0	32	23364	
			Test Averages					8.4		27	21069	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
250+90	4R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	42	6.3	25.0	37	25987	
				7 to 10	2	0.21	65	11.5	23.0	19	16785	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
250+90	6R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	26					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	54	9.3	28.0	24	19495	
				6 to 9	4	0.28	84	7.5	30.0	31	22803	
				10	1	0.30	92	8.0	8.0	28	21772	Discount, < 20mm travel.
			Test Averages					8.4		27	20994	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
250+90	8R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted
				3 to 7	5	0.15	47	5.4	27.0	44	28857	
				8 to 10	3	0.21	64	5.7	17.0	42	27877	Discount, < 20mm travel.
			Test Averages					5.4		44	28857	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
260+25	2R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	47	7.3	29.0	32	23364	
				7 to 10	4	0.22	68	5.3	21.0	46	29446	
			Test Averages					7.3		32	23364	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
260+25	4R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	41	6.3	25.0	37	25987	
				7 to 10	4	0.21	64	5.8	23.0	41	27587	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
260+25	6R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	26					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	51	6.3	25.0	37	25987	
				7 to 10	4	0.25	76	6.3	25.0	37	25987	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
260+25	8R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	50	8.0	32.0	28	21772	
				7 to 10	4	0.24	74	6.0	24.0	39	26758	
			Test Averages					8.0		28	21772	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
268+00	2R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	28					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.18	55	6.8	27.0	34	24592	
				7 to 10	2	0.26	78	11.5	23.0	19	16785	
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
268+00	4R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	23					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	52	7.3	29.0	32	23364	
				7 to 10	4	0.26	80	7.0	28.0	33	23959	
			Test Averages					7.1		32	23657	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
268+00	6R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	46	8.0	32.0	28	21772	
				7 to 10	4	0.23	70	6.0	24.0	39	26758	
			Test Averages					8.0		28	21772	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
268+00	8R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	48	6.5	26.0	36	25266	
				7 to 10	2	0.24	74	13.0	26.0	17	15373	
			Test Averages					9.8		23	18894	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
272+15	2R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	45	7.0	28.0	33	23959	
				7 to 10	2	0.23	71	13.0	26.0	17	15373	
			Test Averages					10.0		22	18554	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
272+15	4R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.04	12					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	39	6.8	27.0	34	24592	
				7 to 10	4	0.20	61	5.5	22.0	43	28480	
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
272+15	6R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.10	32					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.20	60	9.3	28.0	24	19495	
				6 to 9	4	0.29	89	7.3	29.0	32	23364	
				10	1	0.32	97	8.0	8.0	28	21772	Discount, < 20mm travel.
			Test Averages					8.3		27	21220	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
272+15	8R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	26					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	51	8.3	25.0	27	21144	
				6 to 9	4	0.25	76	6.3	25.0	37	25987	
				10	1	0.27	82	6.0	6.0	39	26758	Discount, < 20mm travel.
			Test Averages					7.3		32	23268	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
289+00	2R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 7	6	0.14	43	4.5	27.0	54	32886	
				8 to 10	2	0.19	57	7.0	14.0	33	23959	Discount, < 20mm travel.
			Test Averages					4.5		54	32886	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
289+00	4R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	42	5.0	25.0	48	30494	
				8 to 10	3	0.18	56	4.7	14.0	52	32040	Discount, < 20mm travel.
			Test Averages					5.0		48	30494	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
289+00	6R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	14					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.13	40	5.2	26.0	46	29649	
				8 to 10	3	0.19	57	5.7	17.0	42	27877	Discount, < 20mm travel.
			Test Averages					5.2		46	29649	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
289+00	8R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	42	6.5	26.0	36	25266	
				7 to 10	4	0.20	61	4.8	19.0	51	31636	Discount, < 20mm travel.
			Test Averages					6.5		36	25266	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
302+40	2R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.14	42	8.3	25.0	27	21144	
				6 to 10	5	0.24	72	6.0	30.0	39	26758	
			Test Averages					8.3		27	21144	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
302+40	4R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	

***** NO ENTRIES RECORDED (DCP Reading v. BLOW GRAPH NOT PROVIDED) *****

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
302+40	6R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.17	51	6.2	31.0	38	26137	
				8 to 10	3	0.22	66	5.0	15.0	48	30494	Discount, < 20mm travel.
			Test Averages					6.2		38	26137	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
302+40	8R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	

***** NO ENTRIES RECORDED (DCP Reading v. BLOW GRAPH NOT PROVIDED) *****

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
308+60	2R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	

***** NO ENTRIES RECORDED (DCP Reading v. BLOW GRAPH NOT PROVIDED) *****

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
308+60	4R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	46	6.5	26.0	36	25266	
				7 to 10	4	0.22	67	5.3	21.0	46	29446	
			Test Averages					6.5		36	25266	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
308+60	6R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	45	5.8	29.0	41	27416	
				8 to 10	3	0.19	59	4.7	14.0	52	32040	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
308+60	8R	7/15/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	

***** NO ENTRIES RECORDED (DCP Reading v. BLOW GRAPH NOT PROVIDED) *****

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
287+50	2L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	1.04	318					First 2 blows discounted as "seating" blows.
				3 to 6	4	1.13	344	6.5	26.0	36	25266	
				7 to 10	4	1.21	369	6.3	25.0	37	25987	
			Test Averages					6.4		37	25620	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
287+50	4L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	43	5.0	25.0	48	30494	
				8 to 10	3	0.20	61	6.0	18.0	39	26758	Discount, < 20mm travel.
			Test Averages					5.0		48	30494	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
287+50	6L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	26					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	57	7.8	31.0	29	22273	
				7 to 10	4	0.28	84	6.8	27.0	34	24592	
			Test Averages					7.3		32	23364	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
287+50	8L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	41	6.3	25.0	37	25987	
				7 to 10	4	0.20	62	5.3	21.0	46	29446	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
299+35	2L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	47	5.8	29.0	41	27416	
				8 to 10	3	0.20	62	5.0	15.0	48	30494	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
299+35	4L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	45	5.8	29.0	41	27416	
				8 to 10	3	0.19	59	4.7	14.0	52	32040	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
299+35	6L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	46	6.3	25.0	37	25987	
				7 to 10	4	0.23	70	6.0	24.0	39	26758	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
299+35	8L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	28					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.18	54	6.5	26.0	36	25266	
				7 to 11	5	0.26	78	4.8	24.0	50	31399	
			Test Averages					6.5		36	25266	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
310+10	2L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	42	5.2	26.0	46	29649	
				8 to 10	3	0.19	58	5.3	16.0	45	29115	Discount, < 20mm travel.
			Test Averages					5.2		46	29649	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
310+10	4L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.10	30					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.24	72	8.4	42.0	27	21024	
				8 to 9	3	0.31	93	7.0	21.0	33	23959	
			Test Averages					8.4		27	21024	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
310+10	6L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.10	30					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.19	58	14.0	28.0	15	14578	
				5 to 7	3	0.31	94	12.0	36.0	18	16281	
				8 to 10	3	0.39	119	8.3	25.0	27	21144	
			Test Averages					11.4		19	16844	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
310+10	8L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 8	6	0.15	45	4.7	28.0	52	32040	
				9 to 10	2	0.18	56	5.5	11.0	43	28480	Discount, < 20mm travel.
			Test Averages					4.7		52	32040	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
313+25	2L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	43	5.2	26.0	46	29649	
				8 to 10	3	0.19	57	4.7	14.0	52	32040	Discount, < 20mm travel.
			Test Averages					5.2		46	29649	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
313+25	4L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	48	5.6	28.0	42	28115	
				8 to 10	3	0.21	64	5.3	16.0	45	29115	Discount, < 20mm travel.
			Test Averages					5.6		42	28115	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
313+25	6L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	48	5.6	28.0	42	28115	
				8 to 10	3	0.20	62	4.7	14.0	52	32040	Discount, < 20mm travel.
			Test Averages					5.6		42	28115	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
313+25	8L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	45	5.2	26.0	46	29649	
				8 to 10	3	0.21	63	6.0	18.0	39	26758	Discount, < 20mm travel.
			Test Averages					5.2		46	29649	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
329+00	2L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	48	6.8	27.0	34	24592	
				7 to 10	3	0.23	70	7.3	22.0	31	23173	
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
329+00	4L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	45	6.8	27.0	34	24592	
				7 to 10	3	0.22	68	7.7	23.0	30	22447	
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
329+00	6L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	53	8.7	26.0	26	20558	
				6 to 10	5	0.27	82	5.8	29.0	41	27416	
			Test Averages					7.2		32	23402	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
329+00	8L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	23					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	50	6.8	27.0	34	24592	
				7 to 10	4	0.24	74	6.0	24.0	39	26758	
			Test					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
336+00	2L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	26					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	52	6.5	26.0	36	25266	
				7 to 10	4	0.25	77	6.3	25.0	37	25987	
			Test Averages					6.4		37	25620	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
336+00	4L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.10	30					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	59	7.3	29.0	32	23364	
				7 to 10	4	0.27	83	6.0	24.0	39	26758	
			Test Averages					7.3		32	23364	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
336+00	6L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.13	39					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.24	72	11.0	33.0	20	17329	
				6 to 8	3	0.34	104	10.7	32.0	21	17715	
				9 to 10	2	0.41	126	11.0	22.0	20	17329	
			Test Averages					10.8		20	17519	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
336+00	8L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.08	25					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.18	54	5.8	29.0	41	27416	
				8 to 10	3	0.23	70	5.3	16.0	45	29115	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
344+10	2L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	48	6.5	26.0	36	25266	
				7 to 10	4	0.24	74	6.5	26.0	36	25266	
			Test Averages					6.5		36	25266	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
344+10	4L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.18	54	8.0	32.0	28	21772	
				7 to 10	3	0.27	82	9.3	28.0	24	19495	
			Test Averages					8.7		26	20558	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
344+10	6L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.09	28					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.18	54	6.5	26.0	36	25266	
				7 to 10	4	0.26	78	6.0	24.0	39	26758	
			Test Averages					6.5		36	25266	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
344+10	8L	7/16/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	44	6.5	26.0	36	25266	
				7 to 10	4	0.23	69	6.3	25.0	37	25987	
			Test Averages					6.4		37	25620	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
321+00	2R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	16					
				1 to 2	2	0.03	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	52	7.0	28.0	33	23959	
				7 to 10	4	0.19	73	5.3	21.0	46	29446	
			Test Averages					7.0		33	23959	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
321+00	4R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.03	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	48	6.5	26.0	36	25266	
				7 to 10	4	0.19	72	6.0	24.0	39	26758	
			Test Averages					6.5		36	25266	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
321+00	6R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.04	21					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	50	7.3	29.0	32	23364	
				7 to 10	4	0.22	76	6.5	26.0	36	25266	
			Test Averages					6.9		34	24271	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
321+00	8R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	8					
				1 to 2	2	0.03	16					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.12	45	5.8	29.0	41	27416	
				8 to 10	4	0.18	63	4.5	18.0	54	32886	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
326+40	2R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.04	24					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.12	49	8.3	25.0	27	21144	
				6 to 10	5	0.20	73	4.8	24.0	50	31399	
			Test Averages					8.3		27	21144	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
326+40	4R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	16					
				1 to 2	2	0.02	23					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	50	6.8	27.0	34	24592	
				7 to 10	4	0.20	76	6.5	26.0	36	25266	
			Test Averages					6.6		35	24924	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
326+40	6R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	15					
				1 to 2	2	0.04	26					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.13	56	10.0	30.0	22	18554	
				6 to 9	4	0.23	84	7.0	28.0	33	23959	
				10	1	0.25	90	6.0	6.0	39	26758	Discount, < 20mm travel.
			Test Averages					8.5		27	20846	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
326+40	8R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	18					
				1 to 2	2	0.02	23					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.10	48	6.3	25.0	37	25987	
				7 to 10	4	0.17	71	5.8	23.0	41	27587	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
337+50	4R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	15					
				1 to 2	2	0.03	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	51	6.8	27.0	34	24592	
				7 to 10	4	0.20	75	6.0	24.0	39	26758	
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
337+50	6R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.02	19					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	49	7.5	30.0	31	22803	
				7 to 9	3	0.22	78	9.7	29.0	23	19010	
				10	1	0.24	85	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					8.6		26	20701	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
337+50	8R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.03	24					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.14	56	10.7	32.0	21	17715	
				6 to 8	3	0.23	85	9.7	29.0	23	19010	
				9 to 10	2	0.28	100	7.5	15.0	31	22803	Discount, < 20mm travel.
			Test Averages					10.2		22	18335	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
353+00	2R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	6					
				1 to 2	2	0.03	14					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	43	7.3	29.0	32	23364	
				7 to 10	4	0.21	70	6.8	27.0	34	24592	
			Test Averages					7.0		33	23959	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
353+00	4R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.02	21					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	55	8.5	34.0	27	20846	
				7 to 10	4	0.21	79	6.0	24.0	39	26758	
			Test Averages					8.5		27	20846	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
353+00	6R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	27					
				1 to 2	2	0.02	32					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	62	7.5	30.0	31	22803	
				7 to 9	3	0.24	101	13.0	39.0	17	15373	
				10	1	0.26	106	5.0	5.0	48	30494	Discount, < 20mm travel.
			Test Averages					10.3		22	18228	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
353+00	8R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	17					
				1 to 2	2	0.04	30					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.15	62	10.7	32.0	21	17715	
				6 to 8	3	0.26	96	11.3	34.0	19	16962	
				9 to 11	3	0.33	117	7.0	21.0	33	23959	
			Test Averages					11.0		20	17329	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
366+00	2R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	15					
				1 to 2	2	0.03	25					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.15	60	11.7	35.0	19	16613	
				6 to 8	3	0.25	90	10.0	30.0	22	18554	
				9 to 10	2	0.29	104	7.0	14.0	33	23959	Discount, < 20mm travel.
			Test Averages					10.8		20	17519	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
366+00	4R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.16	61					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.23	82	10.5	21.0	21	17916	
			Test Averages					10.5		21	17916	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
366+00	6R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	21					
				1 to 2	2	0.04	32					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.13	61	9.7	29.0	23	19010	
				6 to 9	4	0.23	92	7.8	31.0	29	22273	
				10	1	0.26	100	8.0	8.0	28	21772	Discount, < 20mm travel.
			Test Averages					8.7		26	20488	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
366+00	8R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	9					
				1 to 2	2	0.03	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.11	44	5.4	27.0	44	28857	
				8 to 10	4	0.16	59	3.8	15.0	66	37477	Discount, < 20mm travel.
			Test Averages					5.4		44	28857	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
378+00	2R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.05	26					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	61	11.7	35.0	19	16613	
				6 to 8	3	0.25	88	9.0	27.0	25	20009	
				9 to 10	2	0.31	107	9.5	19.0	23	19249	Discount, < 20mm travel.
			Test Averages					10.3		21	18123	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
378+00	4R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.04	21					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.13	49	5.6	28.0	42	28115	
				8 to 10	3	0.18	65	5.3	16.0	45	29115	Discount, < 20mm travel.
			Test Averages					5.6		42	28115	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
378+00	6R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	8					
				1 to 2	2	0.02	15					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.10	40	6.3	25.0	37	25987	
				7 to 10	4	0.19	65	6.3	25.0	37	25987	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
378+00	8R	7/19/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.03	21					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.11	47	5.2	26.0	46	29649	
				8 to 10	3	0.16	61	4.7	14.0	52	32040	Discount, < 20mm travel.
			Test Averages					5.2		46	29649	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
356+00	2L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.02	16					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.11	44	5.6	28.0	42	28115	
				8	1	0.21	73	29.0	29.0	7	8649	
				9	1	0.47	154	81.0	81.0	2	4142	Point not included. Inferred to have pentrated stabilized base.
			Test Averages					5.6		42	28115	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
356+00	4L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	50					
				1 to 2	2	0.35	156					First 2 blows discounted as "seating" blows.
				3 to 9	7	0.44	184	4.0	28.0	62	35783	
				10	1	0.46	191	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					4.0		62	35783	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
356+00	6L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.02	19					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	59	8.0	40.0	28	21772	
				8 to 10	3	0.22	78	6.3	19.0	37	25741	Discount, < 20mm travel.
			Test Averages					8.0		28	21772	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
356+00	8L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	3					
				1 to 2	2	0.05	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.13	42	5.0	25.0	48	30494	
				8 to 10	3	0.17	55	4.3	13.0	57	33788	Discount, < 20mm travel.
			Test Averages					5.0		48	30494	Notes

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	
365+30	2L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.01	16					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.10	42	8.7	26.0	26	20558	
				6 to 9	4	0.19	70	7.0	28.0	33	23959	
				10	1	0.22	78	8.0	8.0	28	21772	Discount, < 20mm travel.
			Test Averages					7.8		29	22103	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
365+30	4L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.03	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	45	6.3	25.0	37	25987	
				7 to 10	4	0.20	73	7.0	28.0	33	23959	
			Test Averages					6.6		35	24924	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
365+30	6L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	15					
				1 to 2	2	0.04	26					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	57	7.8	31.0	29	22273	
				7 to 10	4	0.22	82	6.3	25.0	37	25987	
			Test Averages					7.0		33	23959	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
365+30	8L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.03	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	51	7.3	29.0	32	23364	
				7 to 10	4	0.20	72	5.3	21.0	46	29446	
			Test Averages					7.3		32	23364	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
379+15	2L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.02	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.11	47	6.0	30.0	39	26758	
				8 to 10	3	0.18	67	6.7	20.0	35	24812	
			Test Averages					6.0		39	26758	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
379+15	4L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	13					
				1 to 2	2	0.04	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	54	7.5	30.0	31	22803	
				7 to 10	4	0.20	74	5.0	20.0	48	30494	
			Test Averages					7.5		31	22803	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
379+15	6L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	16					
				1 to 2	2	0.04	27					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.12	53	8.7	26.0	26	20558	
				6 to 8	3	0.21	80	9.0	27.0	25	20009	
				9 to 10	2	0.26	96	8.0	16.0	28	21772	Discount, < 20mm travel.
			Test Averages					8.8		25	20279	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
379+15	8L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.03	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	52	7.0	28.0	33	23959	
				7 to 10	3	0.19	73	7.0	21.0	33	23959	
			Test Averages					7.0		33	23959	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
386+70	2L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.03	22					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	47	8.3	25.0	27	21144	
				6 to 9	4	0.20	72	6.3	25.0	37	25987	
				10	1	0.21	76	4.0	4.0	62	35783	Discount, < 20mm travel.
			Test Averages					7.3		32	23268	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
386+70	4L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.04	26					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.13	53	9.0	27.0	25	20009	
				6 to 9	4	0.21	78	6.3	25.0	37	25987	
				10	1	0.24	88	10.0	10.0	22	18554	Discount, < 20mm travel.
			Test Averages					7.6		30	22534	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
386+70	6L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	20					
				1 to 2	2	0.05	34					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.15	65	10.3	31.0	21	18123	
				6 to 8	3	0.25	95	10.0	30.0	22	18554	
				9 to 10	2	0.32	117	11.0	22.0	20	17329	
			Test Averages					10.2		22	18335	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
386+70	8L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	21					
				1 to 2	2	0.05	35					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.13	62	9.0	27.0	25	20009	
				6 to 9	4	0.23	91	7.3	29.0	32	23364	
				10	1	0.26	101	10.0	10.0	22	18554	Discount, < 20mm travel.
			Test Averages					8.1		28	21532	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
394+20	2L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	11					
				1 to 2	2	0.03	21					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.14	54	11.0	33.0	20	17329	
				6 to 8	3	0.23	82	9.3	28.0	24	19495	
				9 to 10	2	0.28	96	7.0	14.0	33	23959	Discount, < 20mm travel.
			Test Averages					10.2		22	18335	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
394+20	4L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	11					
				1 to 2	2	0.03	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	48	7.0	28.0	33	23959	
				7 to 10	4	0.17	63	3.8	15.0	66	37477	Discount, < 20mm travel.
			Test Averages					7.0		33	23959	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
394+20	6L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	13					
				1 to 2	2	0.02	20					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	46	8.7	26.0	26	20558	
				6 to 8	3	0.19	71	8.3	25.0	27	21144	
				9 to 10	2	0.24	87	8.0	16.0	28	21772	Discount, < 20mm travel.
			Test Averages					8.5		27	20846	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
394+20	8L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.02	20					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.13	55	17.5	35.0	12	12423	
				6 to 8	3	0.22	81	8.7	26.0	26	20558	
				9 to 10	2	0.27	95	7.0	14.0	33	23959	Discount, < 20mm travel.
			Test Averages					13.1		16	15303	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
408+75	2L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	13					
				1 to 2	2	0.03	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	52	7.5	30.0	31	22803	
				7 to 10	4	0.20	73	5.3	21.0	46	29446	
			Test Averages					7.5		31	22803	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
408+75	4L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.04	26					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	56	7.5	30.0	31	22803	
				7 to 11	5	0.23	84	5.6	28.0	42	28115	
			Test Averages					6.6		36	25128	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
408+75	6L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	15					
				1 to 2	2	0.05	30					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.13	56	8.7	26.0	26	20558	
				6 to 10	5	0.24	87	6.2	31.0	38	26137	
			Test Averages					7.4		31	22949	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
408+75	8L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	18					
				1 to 2	2	0.04	31					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	63	8.0	32.0	28	21772	
				7 to 10	3	0.23	87	8.0	24.0	28	21772	
			Test Averages					8.0		28	21772	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
416+10	2L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	16					
				1 to 2	2	0.05	31					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.14	58	9.0	27.0	25	20009	
				6 to 9	4	0.23	85	6.8	27.0	34	24592	
				10	1	0.25	93	8.0	8.0	28	21772	Discount, < 20mm travel.
			Test Averages					7.9		29	22019	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
416+10	4L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.02	19					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.10	45	5.2	26.0	46	29649	
				8 to 10	3	0.16	64	6.3	19.0	37	25741	Discount, < 20mm travel.
			Test Averages					5.2		46	29649	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
416+10	6L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	24					
				1 to 2	2	0.07	46					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.16	73	13.5	27.0	16	14963	
				5 to 6	2	0.24	98	12.5	25.0	17	15811	
				7 to 9	3	0.34	128	10.0	30.0	22	18554	
				10	1	0.38	139	11.0	11.0	20	17329	Discount, < 20mm travel.
			Test Averages					12.0		18	16281	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
416+10	8L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	16					
				1 to 2	2	0.03	25					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	54	7.3	29.0	32	23364	
				7 to 10	4	0.20	77	5.8	23.0	41	27587	
			Test Averages					7.3		32	23364	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
430+00	2L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.04	26					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	52	6.5	26.0	36	25266	
				7 to 10	4	0.21	77	6.3	25.0	37	25987	
			Test Averages					6.4		37	25620	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
430+00	4L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.02	18					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.10	43	5.0	25.0	48	30494	
				8 to 10	3	0.15	58	5.0	15.0	48	30494	Discount, < 20mm travel.
			Test Averages					5.0		48	30494	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
430+00	6L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	8					
				1 to 2	2	0.02	15					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.11	41	5.2	26.0	46	29649	
				8 to 10	3	0.16	56	5.0	15.0	48	30494	Discount, < 20mm travel.
			Test Averages					5.2		46	29649	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
430+00	8L	7/20/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.01	14					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.10	39	5.0	25.0	48	30494	
				8 to 10	3	0.15	57	6.0	18.0	39	26758	Discount, < 20mm travel.
			Test Averages					5.0		48	30494	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
388+15	2R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	7					
				1 to 2	2	0.02	12					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	41	7.3	29.0	32	23364	
				7 to 10	4	0.19	65	6.0	24.0	39	26758	
			Test Averages					7.3		32	23364	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
388+15	4R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	17					
				1 to 2	2	0.03	26					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	57	7.8	31.0	29	22273	
				7 to 10	4	0.22	84	6.8	27.0	34	24592	
			Test Averages					7.3		32	23364	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
388+15	6R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	8					
				1 to 2	2	0.03	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	44	6.5	26.0	36	25266	
				7 to 10	4	0.19	67	5.8	23.0	41	27587	
			Test Averages					6.5		36	25266	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
388+15	8R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	17					
				1 to 2	2	0.04	30					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.12	55	8.3	25.0	27	21144	
				6 to 9	4	0.23	88	8.3	33.0	27	21297	
				10	1	0.25	94	6.0	6.0	39	26758	Discount, < 20mm travel.
			Test Averages					8.3		27	21220	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
395+45	2R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	11					
				1 to 2	2	0.03	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	47	6.8	27.0	34	24592	
				7 to 10	4	0.20	73	6.5	26.0	36	25266	
			Test Averages					6.6		35	24924	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
395+45	4R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	16					
				1 to 2	2	0.04	28					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.13	56	9.3	28.0	24	19495	
				6 to 9	3	0.23	86	10.0	30.0	22	18554	
				10	1	0.25	93	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					9.7		23	19010	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
395+45	6R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	20					
				1 to 2	2	0.05	36					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.15	66	10.0	30.0	22	18554	
				6 to 8	3	0.24	94	9.3	28.0	24	19495	
				9 to 10	4	0.29	108	3.5	14.0	72	39377	Discount, < 20mm travel.
			Test Averages					9.7		23	19010	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
395+45	8R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	21					
				1 to 2	2	0.02	27					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.10	52	6.3	25.0	37	25987	
				7 to 11	5	0.18	77	5.0	25.0	48	30494	
			Test Averages					5.6		42	28025	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
406+30	2R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.03	21					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	49	7.0	28.0	33	23959	
				7 to 10	4	0.20	73	6.0	24.0	39	26758	
			Test Averages					7.0		33	23959	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
406+30	4R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.04	26					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.13	53	9.0	27.0	25	20009	
				6 to 8	3	0.21	78	8.3	25.0	27	21144	
				9 to 10	2	0.26	92	7.0	14.0	33	23959	Discount, < 20mm travel.
			Test Averages					8.7		26	20558	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
406+30	6R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	16					
				1 to 2	2	0.03	26					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.12	53	9.0	27.0	25	20009	
				6 to 9	4	0.22	82	7.3	29.0	32	23364	
				10	1	0.24	89	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					8.1		28	21532	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
406+30	8R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.02	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.12	47	6.0	30.0	39	26758	
				8 to 10	3	0.68	218	57.0	171.0	3	5329	Point not included. Inferred to have pentrated stabilized base.
			Test Averages					6.0		39	26758	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
417+65	2R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	9					
				1 to 2	2	0.03	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	49	7.8	31.0	29	22273	
				7 to 10	4	0.21	72	5.8	23.0	41	27587	
			Test Averages					7.8		29	22273	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
417+65	4R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	11					
				1 to 2	2	0.02	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.10	43	6.3	25.0	37	25987	
				7 to 11	5	0.20	71	5.6	28.0	42	28115	
			Test Averages					5.9		40	27001	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
417+65	6R	7/21/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	18					
				1 to 2	2	0.10	48					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.18	73	12.5	25.0	17	15811	
				5 to 7	2	0.27	101	14.0	28.0	15	14578	
				8 to 9	3	0.42	146	15.0	45.0	14	13874	
			Test Averages					13.8		15	14703	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
9+45	2L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.03	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	43	6.3	25.0	37	25987	
				7 to 10	4	0.18	66	5.8	23.0	41	27587	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
9+45	4L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	11					
				1 to 2	2	0.02	18					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	44	8.7	26.0	26	20558	
				6 to 8	3	0.19	70	8.7	26.0	26	20558	
				9 to 10	2	0.25	88	9.0	18.0	25	20009	Discount, < 20mm travel.
			Test Averages					8.7		26	20558	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
9+45	6L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.03	20					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.13	49	5.8	29.0	41	27416	
				8 to 10	3	0.19	69	6.7	20.0	35	24812	
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
9+45	8L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	17					
				1 to 2	2	0.05	31					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.14	61	10.0	30.0	22	18554	
				6 to 8	3	0.24	91	10.0	30.0	22	18554	
				9 to 10	2	0.30	109	9.0	18.0	25	20009	Discount, < 20mm travel.
			Test Averages					10.0		22	18554	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
423+10	2R	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	20					
				1 to 2	2	0.03	29					First 2 blows discounted as "seating" blows.
				3	1	0.14	63	34.0	34.0	6	7717	Discount data set. Significant outlier. Possibly uncompacted location.
			Test Averages					34.0		6	7717	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
441+10	2L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.02	18					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.13	53	11.7	35.0	19	16613	
				6 to 8	3	0.24	85	10.7	32.0	21	17715	
				9 to 10	2	0.30	103	9.0	18.0	25	20009	Discount, < 20mm travel.
				11 to 12	2	1.52	475	186.0	372.0	1	2283	Point not included. Inferred to have pentrated stabilized base.
			Test Averages					11.2		20	17143	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
441+10	4L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.03	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	51	7.3	29.0	32	23364	
				7 to 10	3	0.19	71	6.7	20.0	35	24812	
			Test Averages					7.3		32	23364	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
441+10	6L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	9					
				1 to 2	2	0.02	14					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	42	7.0	28.0	33	23959	
				7 to 10	3	0.19	66	8.0	24.0	28	21772	
			Test Averages					7.0		33	23959	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
441+10	8L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	15					
				1 to 2	2	0.03	24					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.12	53	9.7	29.0	23	19010	
				6 to 9	4	0.22	81	7.0	28.0	33	23959	
				10	1	0.23	86	5.0	5.0	48	30494	Discount, < 20mm travel.
			Test Averages					8.3		27	21144	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
453+20	2R	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	7					
				1 to 2	2	0.02	12					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	42	7.5	30.0	31	22803	
				7 to 10	4	0.20	68	6.5	26.0	36	25266	
			Test Averages					7.0		33	23959	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
453+20	4R	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.03	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	49	6.3	25.0	37	25987	
				7 to 10	4	0.20	74	6.3	25.0	37	25987	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
453+20	6R	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.02	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	44	6.8	27.0	34	24592	
				7 to 10	4	0.19	67	5.8	23.0	41	27587	
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
453+20	8R	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	16					
				1 to 2	2	0.03	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	52	7.0	28.0	33	23959	
				7 to 10	4	0.18	72	5.0	20.0	48	30494	
			Test Averages					7.0		33	23959	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
460+70	2L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.03	18					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	44	8.7	26.0	26	20558	
				6 to 9	4	0.20	71	6.8	27.0	34	24592	
				10	1	0.22	76	5.0	5.0	48	30494	Discount, < 20mm travel.
			Test Averages					7.7		30	22360	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
460+70	4L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.01	14					First 2 blows discounted as "seating" blows.
				3 to 8	6	0.12	48	5.7	34.0	42	27877	
				9 to 10	2	0.16	58	5.0	10.0	48	30494	Discount, < 20mm travel.
			Test Averages					5.7		42	27877	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
460+70	6L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	7					
				1 to 2	2	0.03	15					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.12	44	5.8	29.0	41	27416	
				8 to 10	2	0.17	60	8.0	16.0	28	21772	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
460+70	8L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	16					
				1 to 2	2	0.03	24					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	51	9.0	27.0	25	20009	
				6 to 9	4	0.22	82	7.8	31.0	29	22273	
				10	1	0.24	90	8.0	8.0	28	21772	Discount, < 20mm travel.
			Test Averages					8.4		27	21069	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
469+70	2L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	15					
				1 to 2	2	0.03	23					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	51	7.0	28.0	33	23959	
				7 to 10	4	0.23	84	8.3	33.0	27	21297	
			Test Averages					7.6		30	22534	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
469+70	4L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.03	22					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.12	48	8.7	26.0	26	20558	
				6 to 9	4	0.22	80	8.0	32.0	28	21772	
				10	1	0.25	88	8.0	8.0	28	21772	Discount, < 20mm travel.
			Test Averages					8.3		27	21144	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
469+70	6L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.03	19					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	45	8.7	26.0	26	20558	
				6 to 9	4	0.21	75	7.5	30.0	31	22803	
				10	1	0.24	82	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					8.1		28	21611	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
469+70	8L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	20					
				1 to 2	2	0.04	33					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.15	66	11.0	33.0	20	17329	
				6 to 8	3	0.25	96	10.0	30.0	22	18554	
				9 to 10	2	0.32	117	10.5	21.0	21	17916	
			Test Averages					10.5		21	17916	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
476+00	2L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	8					
				1 to 2	2	0.02	13					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.10	39	6.5	26.0	36	25266	
				7 to 10	4	0.18	64	6.3	25.0	37	25987	
			Test Averages					6.4		37	25620	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
476+00	4L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.03	18					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.12	46	5.6	28.0	42	28115	
				8 to 10	3	0.18	64	6.0	18.0	39	26758	Discount, < 20mm travel.
			Test Averages					5.6		42	28115	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
476+00	6L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	11					
				1 to 2	2	0.03	20					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.13	50	6.0	30.0	39	26758	
				8 to 10	3	0.19	70	6.7	20.0	35	24812	
			Test Averages					6.0		39	26758	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
476+00	8L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.02	21					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	50	7.3	29.0	32	23364	
				7 to 10	4	0.21	78	7.0	28.0	33	23959	
			Test Averages					7.1		32	23657	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
487+30	2L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	8					
				1 to 2	2	0.04	19					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.13	48	5.8	29.0	41	27416	
				8 to 10	3	0.20	68	6.7	20.0	35	24812	
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
487+30	4L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	13					
				1 to 2	2	0.03	21					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	46	8.3	25.0	27	21144	
				6 to 9	4	0.20	75	7.3	29.0	32	23364	
				10	1	0.22	81	6.0	6.0	39	26758	Discount, < 20mm travel.
			Test Averages					7.8		29	22188	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
487+30	6L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	8					
				1 to 2	2	0.01	12					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.11	41	5.8	29.0	41	27416	
				8 to 10	3	0.15	55	4.7	14.0	52	32040	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
487+30	8L	7/22/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	8					
				1 to 2	2	0.02	14					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.10	39	6.3	25.0	37	25987	
				7 to 10	4	0.17	60	5.3	21.0	46	29446	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
14+00	2L	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	16					
				1 to 2	2	0.02	23					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.10	48	6.3	25.0	37	25987	
				7 to 11	5	0.20	76	5.6	28.0	42	28115	
			Test Averages					5.9		40	27001	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
14+00	6L	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	15					
				1 to 2	2	0.02	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.10	47	6.3	25.0	37	25987	
				7 to 10	4	0.18	71	6.0	24.0	39	26758	
			Test Averages					6.3		37	25987	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
14+00	8L	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	16					
				1 to 2	2	0.03	25					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	50	8.3	25.0	27	21144	
				6 to 9	4	0.21	80	7.5	30.0	31	22803	
				10	1	0.24	88	8.0	8.0	28	21772	Discount, < 20mm travel.
			Test Averages					7.9		29	21936	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
14+00	4L	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	7					
				1 to 2	2	0.02	14					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	40	8.7	26.0	26	20558	
				6 to 9	4	0.21	70	7.5	30.0	31	22803	
				10	1	0.23	76	6.0	6.0	39	26758	Discount, < 20mm travel.
			Test Averages					8.1		28	21611	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
29+90	2L	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	15					
				1 to 2	2	0.02	21					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	49	9.3	28.0	24	19495	
				6 to 10	5	0.22	81	6.4	32.0	37	25549	
			Test Averages					7.9		29	22036	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
29+90	4L	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.03	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	54	7.5	30.0	31	22803	
				7 to 10	4	0.22	82	7.0	28.0	33	23959	
			Test Averages					7.3		32	23364	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
29+90	6L	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	16					
				1 to 2	2	0.05	32					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	66	11.3	34.0	19	16962	
				6 to 8	3	0.28	101	11.7	35.0	19	16613	
				9 to 10	2	0.35	123	11.0	22.0	20	17329	
			Test Averages					11.5		19	16785	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
29+90	8L	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	18					
				1 to 2	2	0.03	26					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.11	51	12.5	25.0	17	15811	
				5 to 8	4	0.21	81	7.5	30.0	31	22803	
				9 to 10	5	0.26	96	3.0	15.0	85	43978	Discount, < 20mm travel.
			Test Averages					10.0		22	18554	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
450+25	2R	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	11					
				1 to 2	2	0.03	21					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	46	8.3	25.0	27	21144	
				6 to 9	4	0.21	75	7.3	29.0	32	23364	
				10	1	0.23	82	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					7.8		29	22188	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
450+25	4R	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	8					
				1 to 2	2	0.03	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	42	6.3	25.0	37	25987	
				7 to 9	3	0.19	67	8.3	25.0	27	21144	
				10	1	0.22	74	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					7.3		32	23268	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
450+00	6R	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.02	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	46	7.0	28.0	33	23959	
				7 to 10	4	0.19	71	6.3	25.0	37	25987	
			Test Averages					6.6		35	24924	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
450+00	8R	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	18					
				1 to 2	2	0.05	33					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.15	64	10.3	31.0	21	18123	
				6 to 8	3	0.24	92	9.3	28.0	24	19495	
				9 to 10	2	0.31	112	10.0	20.0	22	18554	
			Test Averages					9.8		23	18779	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
463+50	2R	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.02	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	45	6.8	27.0	34	24592	
				7 to 9	3	0.19	70	8.3	25.0	27	21144	
				10	1	0.21	77	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					7.5		30	22713	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
463+50	4R	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	13					
				1 to 2	2	0.03	23					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.12	51	9.3	28.0	24	19495	
				6 to 9	4	0.23	84	8.3	33.0	27	21297	
				10	1	0.26	92	8.0	8.0	28	21772	Discount, < 20mm travel.
			Test Averages					8.8		26	20348	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
463+50	6R	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.03	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	52	7.5	30.0	31	22803	
				7 to 10	4	0.21	78	6.5	26.0	36	25266	
			Test Averages					7.0		33	23959	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
463+50	8R	7/23/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	17					
				1 to 2	2	0.04	28					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.12	54	8.7	26.0	26	20558	
				6 to 9	4	0.21	81	6.8	27.0	34	24592	
				10	1	0.24	89	8.0	8.0	28	21772	Discount, < 20mm travel.
			Test Averages					7.7		30	22360	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
4+00	2R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	9					
				1 to 2	2	0.02	15					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	44	9.7	29.0	23	19010	
				6 to 8	3	0.20	70	8.7	26.0	26	20558	
				9 to 10	2	0.26	88	9.0	18.0	25	20009	Discount, < 20mm travel.
			Test Averages					9.2		24	19748	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
4+00	4R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	13					
				1 to 2	2	0.03	23					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.12	49	8.7	26.0	26	20558	
				6 to 8	3	0.22	80	10.3	31.0	21	18123	
				9 to 10	2	0.28	99	9.5	19.0	23	19249	Discount, < 20mm travel.
			Test Averages					9.5		23	19249	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
4+00	6R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.03	21					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	50	7.3	29.0	32	23364	
				7 to 10	4	0.22	80	7.5	30.0	31	22803	
			Test Averages					7.4		31	23079	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
4+00	8R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	8					
				1 to 2	2	0.04	19					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.14	50	10.3	31.0	21	18123	
				6 to 9	4	0.26	86	9.0	36.0	25	20009	
				10	1	0.29	96	10.0	10.0	22	18554	Discount, < 20mm travel.
			Test Averages					9.7		23	19010	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
13+80	2R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	6					
				1 to 2	2	0.03	16					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.12	44	5.6	28.0	42	28115	
				8 to 10	3	0.19	64	6.7	20.0	35	24812	
			Test Averages					5.6		42	28115	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
13+80	4R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	9					
				1 to 2	2	0.01	13					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.10	41	5.6	28.0	42	28115	
				8 to 10	3	0.16	58	5.7	17.0	42	27877	Discount, < 20mm travel.
			Test Averages					5.6		42	28115	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
13+80	6R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	16					
				1 to 2	2	0.03	26					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	51	8.3	25.0	27	21144	
				6 to 9	4	0.20	78	6.8	27.0	34	24592	
				10	1	0.22	84	6.0	6.0	39	26758	Discount, < 20mm travel.
			Test Averages					7.5		30	22713	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
13+80	8R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.02	17					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	48	7.8	31.0	29	22273	
				7 to 10	4	0.22	78	7.5	30.0	31	22803	
			Test Averages					7.6		30	22534	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
29+75	2R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	9					
				1 to 2	2	0.03	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	45	6.8	27.0	34	24592	
				7 to 10	4	0.19	68	5.8	23.0	41	27587	
			Test Averages					6.8		34	24592	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
29+75	4R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	12					
				1 to 2	2	0.03	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	50	7.5	30.0	31	22803	
				7 to 10	4	0.21	76	6.5	26.0	36	25266	
			Test Averages					7.0		33	23959	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
29+75	6R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	9					
				1 to 2	2	0.02	16					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.11	42	5.2	26.0	46	29649	
				8 to 10	3	0.16	57	5.0	15.0	48	30494	Discount, < 20mm travel.
			Test Averages					5.2		46	29649	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
29+75	8R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	18					
				1 to 2	2	0.04	29					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.12	56	9.0	27.0	25	20009	
				6 to 9	4	0.21	82	6.5	26.0	36	25266	
				10	1	0.23	88	6.0	6.0	39	26758	Discount, < 20mm travel.
			Test Averages					7.8		29	22273	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
479+50	2R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	9					
				1 to 2	2	0.02	14					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.11	44	6.0	30.0	39	26758	
				8 to 10	3	0.17	61	5.7	17.0	42	27877	Discount, < 20mm travel.
			Test Averages					6.0		39	26758	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
479+50	4R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	6					
				1 to 2	2	0.02	13					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.12	42	7.3	29.0	32	23364	
				6 to 9	4	0.18	60	4.5	18.0	54	32886	Discount, < 20mm travel.
			Test Averages					7.3		32	23364	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
479+50	6R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	11					
				1 to 2	2	0.03	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.11	46	6.5	26.0	36	25266	
				7 to 10	4	0.19	68	5.5	22.0	43	28480	
			Test Averages					6.5		36	25266	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
479+50	8R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	13					
				1 to 2	2	0.03	22					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	47	8.3	25.0	27	21144	
				6 to 9	4	0.20	75	7.0	28.0	33	23959	
				10	1	0.22	81	6.0	6.0	39	26758	Discount, < 20mm travel.
			Test Averages					7.7		30	22447	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
486+30	2R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.02	16					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	62	15.3	46.0	14	13658	
				6 to 9	4	0.26	90	7.0	28.0	33	23959	
				10	1	0.28	95	5.0	5.0	48	30494	Discount, < 20mm travel.
			Test Averages					11.2		20	17143	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
486+30	4R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	14					
				1 to 2	2	0.03	24					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.12	51	9.0	27.0	25	20009	
				6 to 9	4	0.22	81	7.5	30.0	31	22803	
				10	1	0.24	88	7.0	7.0	33	23959	Discount, < 20mm travel.
			Test Averages					8.3		27	21297	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
486+30	6R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	11					
				1 to 2	2	0.02	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.11	46	5.8	29.0	41	27416	
				8 to 10	3	0.17	64	6.0	18.0	39	26758	Discount, < 20mm travel.
			Test Averages					5.8		41	27416	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	Pen. / Reading	CBR	M_R	Notes
486+30	8R	7/26/2021	8kg	(#)	(#)	(ft)	(mm)	mm/blow	mm	(%)	(psi)	
				0	0	0	10					
				1 to 2	2	0.03	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	49	7.3	29.0	32	23364	
				7 to 10	4	0.22	77	7.0	28.0	33	23959	
			Test Averages					7.1		32	23657	

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane
Unit #1
Montpelier, VT 05602
(802) 674-2033

APPENDIX I – RESILIENT MODULUS DATA REDUCTION FOR CAVENDISH-WEATHERSFIELD STP 0146(14)

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane, Unit 1
Montpelier, VT 05602
(802) 674-2033

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
24+71	7 LT	6/7 or 8,2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.13	39	19.5	10	11496	39	First 2 blows discounted as
				3 to 5	3	0.22	68	9.7	23	19010	29	
				6 to 9	4	0.31	93	6.3	37	25987	25	
				10 to	2	0.34	104	5.5	43	28480	11	Discount, < 20mm travel.
		Test Averages						8.0	29	21854		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	MR	Pen. / Reading	Notes
25+20	8' LT		8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.26	80					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.35	108	14.0	15	14578	28	
				5 to 7	3	0.45	137	9.7	23	19010	29	
				8 to 11	4	0.57	175	9.5	23	19249	38	
												Blow 12 Was not incorporated - Punched through base.
		Test Averages						11.1	20	17266		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
28+55	10 LT	6/7 or 8,2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0.00	13					
				1 to 2	2	0.03	23	5.0	48	30494		First 2 blows discounted as "seating" blows.
				3 to 7	5	0.12	50	5.4	44	28857	27	
				8 to 10	3	0.19	70	6.7	35	24812	20	
		Test Averages						6.0	39	26652		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
31+64	14 LT	6/7 or 8,2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0.00	18					
				1 to 2	2	0.04	30					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.13	58	7.0	33	23959	28	
				7 to 10	4	0.22	85	6.8	34	24592	27	
		Test Averages						6.9	34	24271		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
31+67	6 RT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0.00	24					First 2 blows discounted as "seating" blows.
				1 to 2	2	0.04	37					
				3 to 5	3	0.13	64	9.0	25	20009	27	
				6 to 10	5	0.23	93	5.8	41	27416	29	
		Test Averages						7.4	31	23023		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
35+00	7 RT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	First 2 blows discounted as "seating" blows.
				0	0	0.00	0.00					
				1 to 2	2	0.09	28					
				3 to 6	4	0.19	57	7.3	32	23364	29	
				7 to 10	4	0.27	83	6.5	36	25266	26	
		Test Averages						6.9	34	24271		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	Depth	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
35+00	7 RT (-2??)	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1	1	0.02	5	5.0	48	30494	5	This entire data set was not included in our analysis. It is not clear why this varies so significantly from the data set above from the same date and location. It is possible this was performed prior to compaction.
				2	1	0.08	25	20.0	10	11289	20	
				3	1	0.10	31	6.0	39	26758	6	
				4	1	0.19	57	26.0	8	9354	26	
				5	1	0.35	107	50.0	4	5853	50	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
37+50	10 LT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0.00	27					
				1 to 2	2	0.02	34					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.11	61	9.0	25	20009	27	
				6 to 10	5	0.23	98	7.4	31	23023	37	37mm on high end of travel
		Test Averages						8.2	28	21390		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
38+42	4 LT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0.00	12					
				1 to 2	2	0.02	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.11	46	5.8	41	27416	29	
				8 to 10	3	0.17	63	5.7	42	27877	17	Discount, < 20mm travel.
		Test Averages						5.8	41	27416		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
43+50	8 RT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0.00	17					
				1 to 2	2	0.04	28					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	66	12.7	17	15662	38	
				6 to 8	3	0.25	93	9.0	25	20009	27	
				9 to 10	2	0.30	108	7.5	31	22803	15	Discount, < 20mm travel.
		Test Averages						10.8	20	17519		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
44+29	3 LT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0.00	6					
				1 to 2	2	0.07	27					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.17	58	15.5	14	13552	31	
				5 to 6	2	0.27	89	15.5	14	13552	31	
				7 to 9	3	0.36	115	8.7	26	20558	26	
				10 to	2	0.43	137	11.0	20	17329	22	
		Test Averages						12.7	17	15662		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
47+52	3 RT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0.00	23					
				1 to 2	2	0.04	35				12	First 2 blows discounted as "seating" blows.
				3 to 5	3	0.13	63	9.3	24	19495	28	
				6 to 10	5	0.23	93	6.0	39	26758	30	
		Test Averages						7.7	30	22447		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
48+03	5 RT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1	1	0.10	30	30.0	6	8442	30	This data set was not included in our analysis. It is apparent from the readings that this was not performed through a compacted stabilized base.
				2	1	0.26	78	48.0	4	6027	48	
				3	1	1.40	428	350.0	0	1451	350	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
48+51	3 LT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0.00	14					
				1 to 2	2	0.03	22					First 2 blows discounted as
				3 to 7	5	0.11	49	5.4	44	28857	27	
				8 to 10	3	0.16	64	5.0	48	30494	15	Discount, < 20mm travel.
		Test Averages						5.4	44	28857		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
53+47	9 RT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.14	43	6.3	37	25987	25	
				7 to 10	4	0.22	66	5.8	41	27587	23	
		Test Averages						6.0	39	26758		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
54+00	6 LT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	31					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.20	61	7.5	31	22803	30	
				7 to 10	4	0.29	87	6.5	36	25266	26	
				11	1	2.37	721	634.0	0	948	634	Point not included. Based on penetration, the test appears to have punched through the reclaimed stabilized base layer.
		Test Average						7.0	33	23959		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
54+29	6 LT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 3	3	0.09	28					First three blows discounted as "seating" blows.
				4 to 8	5	0.18	56	5.6	42	28115	28	
				9 to 10	2	0.21	65	4.5	54	32886	9	Discount, < 20mm travel.
		Test Average						5.6	42	28115		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
55+08	8 RT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.11	34					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.20	60	8.7	26	20558	26	
				6 to 9	4	0.29	88	7.0	33	23959	28	
				10	1	0.31	95	7.0	33	23959	7	Discount, < 20mm travel.
		Test Average						7.8	29	22103		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
57+87	2 RT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	44	5.4	44	28857	27	
				8 to 10	3	0.19	58	4.7	52	32040	14	Discount, < 20mm travel.
		Test Average						5.4	44	28857		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
59+02	? LT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	47	5.2	46	29649	26	
				8 to 10	3	0.20	61	4.7	52	32040	14	Discount, < 20mm travel.
		Test Average						5.2	46	29649		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
59+02	? LT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	47	5.2	46	29649	26	
				8 to 10	3	0.20	61	4.7	52	32040	14	Discount, < 20mm travel.
		Test Averages						5.2	46	29649		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
59+80	6 RT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	49	7.0	33	23959	28	
				7 to 10	4	0.22	68	4.8	51	31636	19	Discount, < 20mm travel.
		Test Averages						7.0	33	23959		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
61+02	8 RT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.09	26					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	51	6.3	37	25987	25	
				7 to 10	4	0.25	75	6.0	39	26758	24	
		Test Averages						6.1	38	26366		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
65+56	10 RT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1	1	0.08	23					First blow discounted as "seating" blow.
				2 to 3	2	0.15	47	12.0	18	16281	24	
				4 to 6	3	0.25	76	9.7	23	19010	29	
				7 to 10	4	0.34	104	7.0	33	23959	28	
				11	1	0.71	215	111.0	1	3305	111	Point not included. Based on penetration, the test appears to have punched through the reclaimed stabilized base layer.
		Test Averages						9.6	23	19169		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
67+07	? LT	6/8/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 3	3	0.09	26					First 3 blows discounted as "seating" blows.
				4 to 8	5	0.18	55	5.8	41	27416	29	
				9 to 11	3	0.23	70	5.0	48	30494	15	Discount, < 20mm travel.
		Test Averages						5.8	41	27416		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
60+00	2 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 4	4	0.11	34.4					First 4 blows discounted as "seating" blows.
				5 to 7	3	0.20	60	8.5	26	20788	26	
				8 to 10	3	0.26	78.5	6.2	38	26238	19	Discount, < 20mm travel.
		Test Averages						8.5	26	20788		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
60+55	12 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.15	44.4					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.25	75.4	15.5	14	13552	31	
				5 to 6	2	0.34	102.3	13.5	16	15003	27	
				7 to 8	2	0.42	127.4	12.6	17	15766	25	
				9 to 10	2	0.48	146.8	9.7	23	18963	19	Discount, < 20mm travel.
		Test Averages						13.8	15	14703		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
299+31	4 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	31.4					First 2 blows discounted as "seating" blows.
				2 to 5	4	0.21	64.7	8.3	27	21159	33	
				6 to 8	3	0.32	97.1	10.8	20	17558	32	
				9 to 10	2	0.38	116.5	9.7	23	18963	19	Discount, < 20mm travel.
		Test Averages						9.6	23	19159		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
310+00	2 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.12	37.7					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.20	62.4	12.4	17	15949	25	
				5 to 7	3	0.31	94.7	10.8	20	17597	32	
				8 to 10	3	0.41	124.4	9.9	22	18688	30	
		Test Averages						11.0	20	17322		

Station	Offset	Date	Hammer Type	Blow Count	data Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
310+44	4 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1	1	0.15	46.4					First blow discounted as "seating" blow.
				2 to 4	3	0.27	82.5	12.0	18	16249	36	
				5 to 6	2	0.35	107.6	12.6	17	15766	25	
				7 to 9	3	0.45	137.9	10.1	22	18422	30	
				10	1	0.48	145.3	7.4	31	23023	7	Discount, < 20mm travel.
		Test Averages						11.6	19	16722		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
310+45	6 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.06	19.6					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	51	7.9	29	22070	31	
				7	1	0.26	78.8	27.8	7	8915	28	
				8 to 10	3	0.32	97.3	6.2	38	26238	19	Discount, < 20mm travel.
		Test Averages						17.8	12	12260		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
311+58	9 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	29					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	54.7	8.6	26	20730	26	
				6 to 9	4	0.27	82.4	6.9	33	24145	28	
				10	1	0.29	89.3	6.9	34	24207	7	Discount, < 20mm travel.
		Test Averages						7.7	29	22282		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
318+20	5 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1	1	0.06	18.9					First blow discounted as "seating" blow.
				2 to 4	3	0.14	44	8.4	27	21084	25	
				5 to 8	4	0.23	71.1	6.8	34	24527	27	
				9 to 10	2	0.27	81.9	5.4	44	28857	11	Discount, < 20mm travel.
		Test Averages						7.6	30	22650		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
319+02	3 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	31.8					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.20	60.8	7.3	32	23364	29	
				7 to 10	4	0.28	84.4	5.9	40	27083	24	
		Test Averages						6.6	35	25059		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
321+00	4 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	29.6					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	58.7	7.3	32	23306	29	
				7 to 10	4	0.28	84.8	6.5	36	25197	26	
		Test Averages						6.9	34	24207		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
321+67	14 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.06	19.6					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	44.5	6.2	38	26061	25	
				7 to 10	4	0.21	65.5	5.3	46	29446	21	
		Test Averages						5.7	41	27630		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
324+85	3 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.09	26.5					First 2 blows discounted as "seating" blows.
				3 to 8	6	0.18	56.1	4.9	49	30789	30	
				9 to 10	2	0.22	68.3	6.1	39	26443	12	Discount, < 20mm travel.
		Test Averages						4.9	49	30789		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
325+45	6 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.07	21.6					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	47.3	8.6	26	20730	26	
				6 to 9	4	0.26	79.9	8.2	28	21484	33	
				10	1	0.28	85.3	5.4	44	28857	5	Discount, < 20mm travel.
		Test Averages						8.4	27	21099		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
329+75	20 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	29.6					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.19	58.4	9.6	23	19105	29	
				6 to 9	4	0.28	86	6.9	34	24207	28	
				10	1	0.30	92.6	6.6	35	24991	7	Discount, < 20mm travel.
		Test Averages						8.3	27	21297		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
330+20	13 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	29.5					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	59.3	7.5	31	22913	30	
				7 to 10	4	0.27	83.1	6.0	40	26919	24	
		Test Averages						6.7	35	24723		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
336+00	4 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.09	28.5					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	54.5	8.7	26	20558	26	
				6 to 10	5	0.26	80.7	5.2	46	29486	26	
		Test Averages						7.0	33	24074		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
336+73	10 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1	1	0.10	29.9					First blow discounted as "seating" blow.
				2 to 6	5	0.20	60.1	6.0	39	26631	30	
				7 to 10	4	0.28	84.5	6.1	39	26443	24	
		Test Averages						6.1	39	26537		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
338+40	3 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1	1	0.07	20.9					First blow discounted as "seating" blow.
				2 to 4	3	0.16	50.2	9.8	23	18871	29	
				5 to 7	3	0.26	78	9.3	24	19595	28	
				8 to 9	2	0.30	90.7	6.4	37	25693	13	Discount, < 20mm travel.
		Test Averages						9.5	23	19225		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
338+95	5 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.14	43.9					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.23	68.6	8.2	28	21328	25	
				6 to 9	4	0.33	101.3	8.2	28	21437	33	
				10	1	0.36	109	7.7	30	22377	8	Discount, < 20mm travel.
		Test Averages						8.2	28	21382		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
347+35	3 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	29.7					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.18	54.2	6.1	38	26366	25	
				7 to 10	4	0.26	78.5	6.1	39	26521	24	
		Test Averages						6.1	39	26443		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
347+93	12 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.08	25.2					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.17	51.4	8.7	26	20446	26	
				6 to 8	3	0.25	77.2	8.6	26	20672	26	
				9 to 10	2	0.30	92.9	7.9	29	22070	16	Discount, < 20mm travel.
		Test Averages						8.7	26	20558		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
351+99	5 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	31					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.19	56.9	8.6	26	20615	26	
				6 to 9	4	0.29	88	7.8	29	22222	31	
				10	1	0.30	92.7	4.7	52	31877	5	Discount, < 20mm travel.
		Test Averages						8.2	28	21382		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
352+58	11 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1	1	0.08	23.9					First blow discounted as "seating" blow.
				2 to 4	3	0.17	50.9	9.0	25	20009	27	
				5 to 8	4	0.26	78	6.8	34	24527	27	
				9 to 10	2	0.30	90.2	6.1	39	26443	12	Discount, < 20mm travel.
		Test Averages						7.9	29	21994		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
358+44	6 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.08	23.2					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	54.9	10.6	21	17835	32	
				6 to 8	3	0.26	79.9	8.3	27	21144	25	
				9 to 10	2	0.33	99.5	9.8	23	18825	20	
		Test Averages						9.6	23	19153		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
358+90	4 LT	6/11/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.09	28.6					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	57.9	7.3	31	23192	29	
				7 to 10	4	0.29	88.2	7.6	30	22641	30	
		Test Averages						7.5	31	22913		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
296+05	9 RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 3	3	0.12	36.4					First 3 blows discounted as "seating" blows.
				4 to 7	4	0.21	63.5	6.8	34	24527	27	
				8 to 10	3	0.27	83.6	6.7	35	24723	20	
		Test Averages						6.7	34	24625		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
309+69	2 RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.07	21.1					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	50.4	7.3	31	23192	29	
				7 to 10	4	0.26	78.7	7.1	33	23777	28	
		Test Averages						7.2	32	23480		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
311+53	6 RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 3	3	0.11	32.4					First 3 blows discounted as "seating" blows.
				4 to 8	5	0.20	62.4	6.0	39	26758	30	
				9 to 10	2	0.25	76.4	7.0	33	23959	14	Discount, < 20mm travel.
		Test Averages						6.0	39	26758		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
320+80	1 RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 3	3	0.06	17.1					First 3 blows discounted as "seating" blows.
				4 to 9	6	0.15	46.4	4.9	49	31014	29	
				10	1	0.17	51.8	5.4	44	28857	5	Discount, < 20mm travel.
		Test Averages						4.9	49	31014		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
323+12	10 RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	31.3					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.20	60.4	7.3	32	23306	29	
				7 to 9	3	0.29	88.9	9.5	23	19249	29	
				10	1	0.31	93.1	4.2	59	34553	4	Discount, < 20mm travel.
		Test Averages						8.4	27	21046		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
325+41	12 RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.08	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	50.4	6.6	35	24991	26	
				7 to 10	4	0.24	72.2	5.5	44	28667	22	
		Test Averages						6.0	39	26679		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
329+76	4 RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.08	24.1					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	50.8	6.7	35	24790	27	
				7 to 10	4	0.25	75.1	6.1	39	26521	24	
		Test Averages						6.4	37	25620		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
337+65	4 RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 3	3	0.08	24.2					First 3 blows discounted as "seating" blows.
				4 to 7	4	0.16	49	6.2	38	26137	25	
				8 to 10	3	0.22	68.2	6.4	37	25549	19	Discount, < 20mm travel.
		Test Averages						6.2	38	26137		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
342+54	14 RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.09	27.5					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.18	56.2	7.2	32	23539	29	
				7 to 10	4	0.27	81.7	6.4	37	25620	26	
		Test Averages						6.8	34	24527		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
345+76	9 RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 3	3	0.08	25.4					First 3 blows discounted as "seating" blows.
				4 to 8	5	0.17	52.7	5.5	44	28630	27	
				9 to 10	2	0.21	64.5	5.9	40	27083	12	Discount, < 20mm travel.
		Test Averages						5.5	44	28630		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
351+80	4 RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	30.2					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.20	59.6	7.4	31	23136	29	
				7 to 10	4	0.27	83	5.9	40	27248	23	
		Test Averages						6.6	35	24991		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
360+23	11 RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.05	14.5					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.14	44	5.9	40	27083	30	
				8 to 10	3	0.20	60.9	5.6	42	27995	17	Discount, < 20mm travel.
		Test Averages						5.9	40	27083		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
362+87	? RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.11	33.4					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.20	61.6	9.4	24	19395	28	
				6 to 8	3	0.29	87.9	8.8	26	20390	26	
				9 to 11	3	0.36	108.5	6.9	34	24292	21	
		Test Averages						8.3	27	21124		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
368+95	3 RT	6/16/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.06	19.3					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	49.6	6.1	39	26568	30	
				8 to 10	3	0.21	63.1	4.5	54	32886	14	Discount, < 20mm travel.
		Test Averages						6.1	39	26568		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
1+04	5 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	32					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.19	57	8.3	27	21144	25	
				6 to 9	4	0.28	84	6.8	34	24592	27	
				10	1	0.30	90	6.0	39	26758	6	Discount, < 20mm travel.
		Test Averages						7.5	30	22713		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
3+48	4 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0.00	22					
				1 to 2	2	0.06	40					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	70	10.0	22	18554	30	
				6 to 9	4	0.25	99	7.3	32	23364	29	
				10	1	0.27	103	4.0	62	35783	4	Discount, < 20mm travel.
		Test Averages						8.6	26	20629		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
5+03	8 LT	UNKNOWN	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0.00	26					
				1 to 2	2	0.05	40					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.16	74	11.3	19	16962	34	
				6 to 9	4	0.24	100	6.5	36	25266	26	
				10 to	2	0.29	113	6.5	36	25266	13	Discount, < 20mm travel.
		Test Averages						8.9	25	20143		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
6+36	10 LT	UNKNOWN	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.08	24					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.17	51	6.8	34	24592	27	
				7 to 10	4	0.24	72	5.3	46	29446	21	
		Test Averages						6.0	39	26758		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
6+69	5 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.09	26					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.18	56	7.5	31	22803	30	
				7 to 10	4	0.26	78	5.5	43	28480	22	
		Test Averages						6.5	36	25266		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
6+00	12 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.09	28					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	54	8.7	26	20558	26	
				6 to 9	4	0.26	79	6.3	37	25987	25	
				10	1	0.28	84	5.0	48	30494	5	Discount, < 20mm travel.
		Test Averages						7.5	31	22894		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
8+92	2 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0.00	38					
				1 to 2	2	0.07	60					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.24	110	25.0	8	9620	50	
				5 to 6	2	0.36	148	19.0	11	11712	38	
				7 to 8	2	0.47	180	16.0	13	13247	32	
				8 to 10	2	0.53	200	10.0	22	18554	20	
		Test Averages						17.5	12	12423		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
9+65	4 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	54	11.3	19	16962	34	
				6 to 8	3	0.30	90	12.0	18	16281	36	
				9 to 10	2	0.37	112	11.0	20	17329	22	
		Test Averages						11.4	19	16844		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
13+32	2 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0.00	470					
				1 to 2	2	0.07	491					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	520	7.3	32	23364	29	
				7 to 10	4	0.24	543	5.8	41	27587	23	
		Test Averages						6.5	36	25266		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
14+35	10 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.06	19					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	50	7.8	29	22273	31	
				7 to 10	4	0.24	74	6.0	39	26758	24	
		Test Averages						6.9	34	24271		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
14+45	13 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	30					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.20	61	10.3	21	18123	31	
				7 to 9	3	0.29	89	9.3	24	19495	28	
				10	1	0.31	94	5.0	48	30494	5	Discount, < 20mm travel.
		Test Averages						9.8	23	18779		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
15+50	5 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.11	34					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.22	66	10.7	21	17715	32	
				6 to 10	5	0.32	97	6.2	38	26137	31	
		Test Averages						8.4	27	20964		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
15+75	7 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	29					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.19	57	9.3	24	19495	28	
				6 to 8	3	0.27	83	8.7	26	20558	26	
				9 to 10	2	0.31	93	5.0	48	30494	10	Discount, < 20mm travel.
		Test Averages						9.0	25	20009		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
15+98	5 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.14	44					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.26	80	18.0	11	12175	36	
				5 to 6	2	0.38	116	18.0	11	12175	36	
				7 to 8	2	0.47	144	14.0	15	14578	28	
				8 to 10	2	0.53	161	8.5	27	20846	17	Discount, < 20mm travel.
		Test Averages						16.7	13	12865		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
17+09	7 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.13	40					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.22	68	14.0	15	14578	28	
				5 to 7	3	0.32	98	10.0	22	18554	30	
				8 to 10	3	0.40	122	8.0	28	21772	24	
		Test Averages						10.7	21	17715		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
18+30	5 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.30	90					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.39	120	7.5	31	22803	30	
				7 to 10	4	0.47	144	6.0	39	26758	24	
		Test Averages						6.8	34	24592		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
21+65	13 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.16	48					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.25	77	14.5	15	14216	29	
				5 to 6	2	0.33	102	12.5	17	15811	25	
				7 to 9	3	0.42	128	8.7	26	20558	26	
				10	1	0.45	137	9.0	25	20009	9	Discount, < 20mm travel.
		Test Averages						11.9	18	16390		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
21+75	8 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.11	34					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.22	68	11.3	19	16962	34	
				5 to 7	3	0.31	93	8.3	27	21144	25	
				8 to 10	3	0.39	118	8.3	27	21144	25	
		Test Averages						9.3	24	19495		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
23+05	3 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.16	50					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.25	76	13.0	17	15373	26	
				5 to 8	4	0.36	110	8.5	27	20846	34	
				9 to 10	2	0.41	125	7.5	31	22803	15	Discount, < 20mm travel.
		Test Averages						10.8	20	17617		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
23+08	2 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.21	64					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.31	96	16.0	13	13247	32	
				5 to 7	3	0.40	122	8.7	26	20558	26	
				8 to 10	3	0.46	140	6.0	39	26758	18	Discount, < 20mm travel.
		Test Averages						12.3	18	15964		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
367+95	4 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.09	27					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.19	57	6.0	39	26758	30	
				8 to 10	3	0.24	73	5.3	45	29115	16	Discount, < 20mm travel.
		Test Averages						6.0	39	26758		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
370+34	8 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.12	38					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.21	65	5.4	44	28857	27	
				8 to 10	3	0.27	82	5.7	42	27877	17	Discount, < 20mm travel.
		Test Averages						5.4	44	28857		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
376+73	12 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	50	5.6	42	28115	28	
				8 to 10	3	0.23	69	6.3	37	25741	19	Discount, < 20mm travel.
		Test Averages						5.6	42	28115		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
376+75	2 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	29					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	59	7.5	31	22803	30	
				7 to 10	4	0.28	84	6.3	37	25987	25	
		Test Averages						6.9	34	24271		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
379+48	12 RT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.07	22					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	49	6.8	34	24592	27	
				7 to 10	4	0.23	71	5.5	43	28480	22	
		Test Averages						6.1	38	26366		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
380+05	5 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.07	21					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	48	6.8	34	24592	27	
				7 to 10	4	0.24	72	6.0	39	26758	24	
		Test Averages						6.4	37	25620		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
380+24	9 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	48	7.0	33	23959	28	
				7 to 10	4	0.25	77	7.3	32	23364	29	
		Test Averages						7.1	32	23657		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
382+03	9 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.16	50	6.0	39	26758	30	
				8 to 10	3	0.23	71	7.0	33	23959	21	
		Test Averages						6.5	36	25266		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
385+39	2 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.06	17					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.15	45	5.6	42	28115	28	
				8 to 10	3	0.20	60	5.0	48	30494	15	Discount, < 20mm travel.
		Test Averages						5.6	42	28115		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
386+14	5 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.08	24					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.20	60	7.2	32	23480	36	
				8 to 10	3	0.28	86	8.7	26	20558	26	
		Test Averages						7.9	29	21903		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
387+20	7 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.08	25					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.17	51	5.2	46	29649	26	
				8 to 10	3	0.25	76	8.3	27	21144	25	
		Test Averages						6.8	34	24548		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
390+54	3 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.05	16					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	49	8.3	27	21297	33	
				8 to 10	3	0.23	70	7.0	33	23959	21	
		Test Averages						7.6	30	22534		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
391+90	5 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.11	33					First 2 blows discounted as "seating" blows.
				3 to 4	2	0.20	61	14.0	15	14578	28	
				5 to 9	5	0.31	93	6.4	37	25549	32	
				10	1	0.32	97	4.0	62	35783	4	Discount, < 20mm travel.
		Test Averages						10.2	22	18292		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
392+35	6 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.15	45	6.3	37	25987	25	
				7 to 10	4	0.22	68	5.8	41	27587	23	
		Test Averages						6.0	39	26758		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
395+07	4 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.09	28				28	First 2 blows discounted as "seating" blows.
				3 to 6	4	0.19	59	7.8	29	22273	31	
				7 to 10	4	0.27	83	6.0	39	26758	24	
		Test Averages						6.9	34	24271		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
397+09	11 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.06	18					First 2 blows discounted as "seating" blows.
				3 to 6	4	0.16	50	8.0	28	21772	32	
				7 to 10	4	0.23	71	5.3	46	29446	21	
		Test Averages						6.6	35	24924		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
398+00	8 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	30					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	56	8.7	26	20558	26	
				6 to 9	4	0.29	87	7.8	29	22273	31	
				10	1	0.30	92	5.0	48	30494	5	Discount, < 20mm travel.
		Test Averages						8.2	28	21375		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
400+80	8 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.10	31					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.18	56	8.3	27	21144	25	
				6 to 9	4	0.27	83	6.8	34	24592	27	
				10	1	0.30	91	8.0	28	21772	8	Discount, < 20mm travel.
		Test Averages						7.5	30	22713		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
401+80	10 (no offset dir.)	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.14	42					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.24	74	10.7	21	17715	32	
				6 to 8	3	0.35	106	10.7	21	17715	32	
				9 to 10	2	0.41	126	10.0	22	18554	20	
		Test Averages						10.4	21	17985		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
402+97	8 RT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.08	24					First 2 blows discounted as "seating" blows.
				3 to 7	5	0.18	56	6.4	37	25549	32	
				8 to 10	3	0.26	78	7.3	31	23173	22	
		Test Averages						6.9	34	24292		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
403+10	3 RT	6/10/2021	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.12	36					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.22	67	10.3	21	18123	31	
				6 to 8	3	0.31	94	9.0	25	20009	27	
				8 to 10	2	0.33	102	4.0	62	35783	8	Discount, < 20mm travel.
		Test Averages						9.7	23	19010		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
403+50	6 LT	Unknown	8kg	(#)	(#)	(ft)	(mm)	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0					
				1 to 2	2	0.07	20					First 2 blows discounted as "seating" blows.
				3 to 5	3	0.15	46	8.7	26	20558	26	
				6 to 9	4	0.23	71	6.3	37	25987	25	
				10	1	0.25	75	4.0	62	35783	4	Discount, < 20mm travel.
		Test Averages						7.5	31	22894		

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane
Unit #1
Montpelier, VT 05602
(802) 674-2033

APPENDIX J – RESILIENT MODULUS DATA REDUCTION FOR ESSEX-RICHMOND STP 2931(1)

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane, Unit 1
Montpelier, VT 05602
(802) 674-2033

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722070.9	1493256.1	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	358					
						5	5	0.16	407					First 5 blows discounted as "seating" blows.
						10	5	0.25	434	5.4	44	28857	27	
						10 to 20	10	0.37	471	3.7	67	37840	37	Combined 10 blows to achieve >25mm pen.
						25	5	0.44	492	4.2	59	34553	21	
				Test Averages					128*	4.4	55	33240		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722065.2	1493254.6	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	360					
						5	5	0.08	385					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.19	418	3.3	77	41074	33	Combined 10 blows to achieve >25mm pen.
						15 to 25	10	0.29	448	3.0	85	43978	30	Combined 10 blows to achieve >25mm pen.
				Test Averages					126.6*	3.2	81	42467		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722058.7	1493253.3	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	380					
						5	5	0.09	407					First 5 blows discounted as "seating" blows.
						10	5	0.16	429	4.4	56	33420	22	
						15	5	0.24	453	4.8	50	31399	24	
						20	5	0.31	476	4.6	53	32372	23	
						25	5	0.39	498	4.4	56	33420	22	
				Test Averages					130.8*	4.6	54	32627		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722067.9	1493264.7	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	369					
						5	5	0.11	404					First 5 blows discounted as "seating" blows.
						10	5	0.19	426	4.4	56	33420	22	
						15	5	0.26	448	4.4	56	33420	22	
						20	5	0.33	469	4.2	59	34553	21	
						25	5	0.39	488	3.8	65	37123	19	Discount, < 20mm travel.
				Test Averages					134.3*	4.3	57	33788		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722064.1	1493264.2	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	367					
						5	5	0.10	398					First 5 blows discounted as "seating" blows.
						10	5	0.18	422	4.8	50	31399	24	
						15	5	0.26	446	4.8	50	31399	24	
						20	5	0.33	468	4.4	56	33420	22	
						25	5	0.36	477	1.8	151	63424	9	Discount, < 20mm travel.
				Test Averages					125*	4.7	52	32040		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722060.1	1493263.6	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	372					
						5	5	0.09	399					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.22	440	4.1	60	35155	41	Combined 10 blows to achieve >25mm pen.
						20	5	0.29	461	4.2	59	34553	21	
						25	5	0.36	483	4.4	56	33420	22	
				Test Averages					125.4*	4.2	58	34358		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722066.1	1493274.8	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	363					
						5	5	0.16	412					First 5 blows discounted as "seating" blows.
						10	5	0.26	442	6.0	39	26758	30	
						15	5	0.34	468	5.2	46	29649	26	
						20	5	0.43	494	5.2	46	29649	26	
						25	5	0.52	522	5.6	42	28115	28	
				Test Averages					133.9*	5.5	43	28480		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722062.1	1493273.6	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	367					
						5	5	0.11	402					First 5 blows discounted as "seating" blows.
						10	5	0.18	423	4.2	59	34553	21	
						15	5	0.26	445	4.4	56	33420	22	
						20	5	0.32	465	4.0	62	35783	20	
						25	5	0.38	482	3.4	74	40204	17	Discount, < 20mm travel.
				Test Averages					126.4*	4.2	59	34553		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722058.2	1493273	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	366					
						5	5	0.11	400					First 5 blows discounted as "seating" blows.
						10	5	0.18	421	4.2	59	34553	21	
						15	5	0.25	441	4.0	62	35783	20	
						20	5	0.31	462	4.2	59	34553	21	
						25	5	0.39	486	4.8	50	31399	24	
				Test Averages					125.6*	4.3	57	33975		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722064.6	1493284.1	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	376					
						5	5	0.16	425					First 5 blows discounted as "seating" blows.
						10	5	0.26	456	6.2	38	26137	31	
						15	5	0.37	490	6.8	34	24462	34	
						20	5	0.49	524	6.8	34	24462	34	
						25	5	0.56	546	4.4	56	33420	22	
				Test Averages					134.1*	6.1	39	26600		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722060.9	1493283.3	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	361					
						5	5	0.11	396					First 5 blows discounted as "seating" blows.
						10	5	0.20	423	5.4	44	28857	27	
						15	5	0.29	448	5.0	48	30494	25	
						20	5	0.36	471	4.6	53	32372	23	
						25	5	0.43	493	4.4	56	33420	22	
				Test Averages					127.8*	4.9	50	31167		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722056.2	1493282.7	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	367					
						5	5	0.14	411					First 5 blows discounted as "seating" blows.
						10	5	0.23	437	5.2	46	29649	26	
						15	5	0.31	462	5.0	48	30494	25	
						20	5	0.41	491	5.8	41	27416	29	
						25	5	0.49	517	5.2	46	29649	26	
				Test Averages					133.4*	5.3	45	29247		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722062.2	1493293.8	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	367					
						5	5	0.21	431					First 5 blows discounted as "seating" blows.
						10	5	0.33	469	7.6	30	22588	38	
						15	5	0.44	501	6.4	37	25549	32	
						20	5	0.52	525	4.8	50	31399	24	
						25	5	0.63	558	6.6	35	24991	33	
				Test Averages					136*	6.4	37	25693		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722059	1493292.7	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	366					
						5	5	0.11	401					First 5 blows discounted as "seating" blows.
						10	5	0.21	430	5.8	41	27416	29	
						15	5	0.28	450	4.0	62	35783	20	
						20	5	0.34	471	4.2	59	34553	21	
						25	5	0.41	490	3.8	65	37123	19	Discount, < 20mm travel.
				Test Averages					129.7*	4.7	52	32040		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722054.4	1493291.9	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	367					
						5	5	0.11	401					First 5 blows discounted as "seating" blows.
						10	5	0.19	425	4.8	50	31399	24	
						15	5	0.29	454	5.8	41	27416	29	
						20	5	0.37	481	5.4	44	28857	27	
						25	5	0.47	510	5.8	41	27416	29	
				Test Averages					139.9*	5.5	44	28667		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722060.7	1493303.4	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	336					
						5	5	0.38	451					First 5 blows discounted as "seating" blows.
						10	5	0.56	506	11.0	20	17329	55	
						15	5	0.71	552	9.2	24	19697	46	
						20	5	0.81	582	6.0	39	26758	30	
						25	5	0.89	608	5.2	46	29649	26	
				Test Averages					139.4*	7.9	29	22070		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722057.3	1493302.5	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	365					
						5	5	0.16	415					First 5 blows discounted as "seating" blows.
						10	5	0.31	458	8.6	26	20672	43	
						15	5	0.44	498	8.0	28	21772	40	
						20	5	0.55	534	7.2	32	23480	36	
						25	5	0.66	567	6.6	35	24991	33	
				Test Averages					135.7*	7.6	30	22588		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722052.8	1493301.5	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	359					
						5	5	0.12	396					First 5 blows discounted as "seating" blows.
						10	5	0.22	426	6.0	39	26758	30	
						15	5	0.33	459	6.6	35	24991	33	
						20	5	0.43	491	6.4	37	25549	32	
						25	5	0.53	520	5.8	41	27416	29	
				Test Averages					131.7*	6.2	38	26137		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722058.9	1493313.4	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	363					
						5	5	0.34	467					First 5 blows discounted as "seating" blows.
						10	5	0.52	523	11.2	20	17106	56	
						15	5	0.68	570	9.4	24	19395	47	
						20	5	0.77	597	5.4	44	28857	27	
						25	5	0.88	630	6.6	35	24991	33	
				Test Averages					132.1*	8.2	28	21484		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722055.4	1493312	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	362					
						5	5	0.19	420					First 5 blows discounted as "seating" blows.
						10	5	0.37	475	11.0	20	17329	55	
						15	5	0.58	539	12.8	17	15545	64	
						20	5	0.86	624	17.0	12	12684	85	
						25	5	1.23	738	22.8	9	10277	114	
				Test Averages					127.6*	15.9	13	13307		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722050.5	1493311.3	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	362					
						5	5	0.13	402					First 5 blows discounted as "seating" blows.
						10	5	0.23	431	5.8	41	27416	29	
						15	5	0.32	460	5.8	41	27416	29	
						20	5	0.41	487	5.4	44	28857	27	
						25	5	0.49	510	4.6	53	32372	23	
				Test Averages					124.5*	5.4	44	28857		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722057.1	1493323.1	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	366					
						5	5	0.29	453					First 5 blows discounted as "seating" blows.
						10	5	0.47	510	11.4	19	16891	57	
						15	5	0.59	547	7.4	31	23023	37	
						20	5	0.71	582	7.0	33	23959	35	
						25	5	0.83	618	7.2	32	23480	36	
				Test Averages					132.2*	8.3	27	21297		
								(Dry Density from Raw Sheets*)						

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722053.4	1493321.9	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	361					
						5	5	0.24	434					First 5 blows discounted as "seating" blows.
						10	5	0.49	509	15.0	14	13874	75	
						15	5	0.83	614	21.0	10	10901	105	
						20	5	1.12	701	17.4	12	12474	87	
						25	5	1.41	792	18.2	11	12079	91	
				Test Averages					137.5*	17.9	12	12223		
								(Dry Density from Raw Sheets*)						

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722049.4	1493321.4	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	367					
						5	5	0.14	411					First 5 blows discounted as "seating" blows.
						10	5	0.24	441	6.0	39	26758	30	
						15	5	0.34	470	5.8	41	27416	29	
						20	5	0.41	493	4.6	53	32372	23	
						25	5	0.49	515	4.4	56	33420	22	
				Test Averages					133.8*	5.2	46	29649		
								(Dry Density from Raw Sheets*)						

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722055.6	1493332.8	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	390					
						5	5	0.25	467					First 5 blows discounted as "seating" blows.
						10	5	0.38	506	7.8	29	22171	39	
						15	5	0.54	556	10.0	22	18554	50	
						20	5	0.64	585	5.8	41	27416	29	
						25	5	0.72	608	4.6	53	32372	23	
				Test Averages					143.4*	7.1	33	23837		
								(Dry Density from Raw Sheets*)						

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722051.4	1493331.9	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	366					
						5	5	0.35	473					First 5 blows discounted as "seating" blows.
						10	5	0.51	520	9.4	24	19395	47	
						15	5	0.63	557	7.4	31	23023	37	
						20	5	0.74	592	7.0	33	23959	35	
						25	5	0.87	631	7.8	29	22171	39	
				Test Averages					132.9*	7.9	29	21969		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	MR	Pen. / Reading	Notes
		722047.5	1493331.2	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	356					
						5	5	0.23	426					First 5 blows discounted as "seating" blows.
						10	5	0.36	467	8.2	28	21390	41	
						15	5	0.47	499	6.4	37	25549	32	
						20	5	0.55	525	5.2	46	29649	26	
						25	5	0.64	550	5.0	48	30494	25	
				Test Averages					132.9*	6.2	38	26137		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722054	1493342.7	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	375					
						5	5	0.18	430					First 5 blows discounted as "seating" blows.
						10	5	0.36	486	11.2	20	17106	56	
						15	5	0.47	517	6.2	38	26137	31	
						20	5	0.57	549	6.4	37	25549	32	
						25	5	0.71	590	8.2	28	21390	41	
				Test Averages					134.5*	8.0	28	21772		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722049.8	1493341.7	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	363					
						5	5	0.28	448					First 5 blows discounted as "seating" blows.
						10	5	0.42	492	8.8	26	20334	44	
						15	5	0.56	534	8.4	27	21024	42	
						20	5	0.69	573	7.8	29	22171	39	
						25	5	0.88	630	11.4	19	16891	57	
				Test Averages					143.9*	9.1	25	19852		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722046	1493341.1	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	370					
						5	5	0.20	430					First 5 blows discounted as "seating" blows.
						10	5	0.31	466	7.2	32	23480	36	
						15	5	0.42	497	6.2	38	26137	31	
						20	5	0.50	522	5.0	48	30494	25	
						25	5	0.59	550	5.6	42	28115	28	
				Test Averages					137.6*	6.0	39	26758		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722052.1	1493352.4	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	368					
						5	5	0.33	470					First 5 blows discounted as "seating" blows.
						10	5	0.48	514	8.8	26	20334	44	
						15	5	0.63	560	9.2	24	19697	46	
						20	5	0.83	620	12.0	18	16281	60	
						25	5	1.06	690	14.0	15	14578	70	
				Test Averages					134.2*	11.0	20	17329		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722048.5	1493352.4	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	370					
						5	5	0.27	452					First 5 blows discounted as "seating" blows.
						10	5	0.46	511	11.8	18	16478	59	
						15	5	0.63	561	10.0	22	18554	50	
						20	5	0.84	627	13.2	16	15206	66	
						25	5	1.30	767	28.0	7	8870	140	
				Test Averages					137.7*	15.8	13	13398		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722044.4	1493350.9	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	360					
						5	5	0.18	415					First 5 blows discounted as "seating" blows.
						10	5	0.29	449	6.8	34	24462	34	
						15	5	0.39	480	6.2	38	26137	31	
						20	5	0.49	510	6.0	39	26758	30	
						25	5	0.58	538	5.6	42	28115	28	
				Test Averages					139.9*	6.2	38	26289		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722050.6	1493362.4	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	360					
						5	5	0.28	444					First 5 blows discounted as "seating" blows.
						10	5	0.44	493	9.8	23	18825	49	
						15	5	0.57	533	8.0	28	21772	40	
						20	5	0.68	566	6.6	35	24991	33	
						25	5	0.76	592	5.2	46	29649	26	
				Test Averages					132.7*	7.4	31	23023		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722046.8	1493361.6	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	357					
						5	5	0.18	411					First 5 blows discounted as "seating" blows.
						10	5	0.28	443	6.4	37	25549	32	
						15	5	0.41	481	7.6	30	22588	38	
						20	5	0.53	518	7.4	31	23023	37	
						25	5	0.67	561	8.6	26	20672	43	
				Test Averages					134.9*	7.5	31	22803		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722042.4	1493360.9	8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	356					
						5	5	0.21	421					First 5 blows discounted as "seating" blows.
						10	5	0.36	467	9.2	24	19697	46	
						15	5	0.47	500	6.6	35	24991	33	
						20	5	0.57	530	6.0	39	26758	30	
						25	5	0.66	556	5.2	46	29649	26	
				Test Averages					134*	6.8	34	24592		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
237+00	10.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	362					
						5	5	0.28	446					First 5 blows discounted as "seating" blows.
						10	5	0.41	487	8.2	28	21390	41	
						15	5	0.53	523	7.2	32	23480	36	
						20	5	0.64	556	6.6	35	24991	33	
						25	5	0.79	603	9.4	24	19395	47	
				Test Averages					135.1*	7.9	29	22070		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
242+00	4.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	357					
						5	5	0.18	411					First 5 blows discounted as "seating" blows.
						10	5	0.30	449	7.6	30	22588	38	
						15	5	0.48	504	11.0	20	17329	55	
						20	5	0.67	562	11.6	19	16681	58	
						25	5	0.87	623	12.2	18	16089	61	
				Test Averages					134.6*	10.6	21	17795		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
	7.5 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	367					
						5	5	0.17	420					First 5 blows discounted as "seating" blows.
						10	5	0.30	459	7.8	29	22171	39	
						15	5	0.42	495	7.2	32	23480	36	
						20	5	0.53	529	6.8	34	24462	34	
						25	5	0.63	558	5.8	41	27416	29	
				Test Averages					136.8*	6.9	34	24207		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
	5.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	365					
						5	5	0.24	437					First 5 blows discounted as "seating" blows.
						10	5	0.35	472	7.0	33	23959	35	
						15	5	0.45	503	6.2	38	26137	31	
						20	5	0.54	531	5.6	42	28115	28	
						25	5	0.63	558	5.4	44	28857	27	
				Test Averages					135*	6.1	39	26600		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
	3.5 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	363					
						5	5	0.20	424					First 5 blows discounted as "seating" blows.
						10	5	0.30	453	5.8	41	27416	29	
						15	5	0.42	490	7.4	31	23023	37	
						20	5	0.58	541	10.2	22	18292	51	
						25	5	0.77	597	11.2	20	17106	56	
				Test Averages					133.8*	8.7	26	20587		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
261+00	11.5 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	360					
						5	5	0.21	423					First 5 blows discounted as "seating" blows.
						10	5	0.34	464	8.2	28	21390	41	
						15	5	0.49	509	9.0	25	20009	45	
						20	5	0.59	540	6.2	38	26137	31	
						25	5	0.70	572	6.4	37	25549	32	
				Test Averages					134.8*	7.5	31	22913		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
263+50	7.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	364					
						5	5	0.22	430					First 5 blows discounted as "seating" blows.
						10	5	0.31	460	6.0	39	26758	30	
						15	5	0.39	483	4.6	53	32372	23	
						15 to 25	10	0.55	532	4.9	49	30939	49	Combined 10 blows to achieve >25mm pen.
				Test Averages					132.3*	5.2	46	29786		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
268+50	3.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	366					
						5	5	0.17	417					First 5 blows discounted as "seating" blows.
						10	5	0.24	439	4.4	56	33420	22	
						15	5	0.31	460	4.2	59	34553	21	
						20	5	0.41	492	6.4	37	25549	32	
						25	5	0.56	536	8.8	26	20334	44	
				Test Averages					132.3*	6.0	40	26919		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
273+50	8.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	361					
						5	5	0.19	420					First 5 blows discounted as "seating" blows.
						10	5	0.32	460	8.0	28	21772	40	
						15	5	0.42	490	6.0	39	26758	30	
						20	5	0.52	518	5.6	42	28115	28	
						25	5	0.59	540	4.4	56	33420	22	
				Test Averages					142.2*	6.0	39	26758		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
278+50	12.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	371					
						5	5	0.17	422					First 5 blows discounted as "seating" blows.
						10	5	0.26	451	5.8	41	27416	29	
						15	5	0.35	478	5.4	44	28857	27	
						20	5	0.43	503	5.0	48	30494	25	
						25	5	0.51	526	4.6	53	32372	23	
				Test Averages					136.8*	5.2	46	29649		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
263+00	12.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	355					
						5	5	0.15	400					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.25	432	3.2	79	41990	32	Combined 10 blows to achieve >25mm pen.
						15 to 25	10	0.38	471	3.9	64	36439	39	Combined 10 blows to achieve >25mm pen.
				Test Averages					133.1*	3.6	71	38979		

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
268+00	7.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	361					
						5	5	0.14	403					First 5 blows discounted as "seating" blows.
						10	5	0.24	434	6.2	38	26137	31	
						15	5	0.33	463	5.8	41	27416	29	
						20	5	0.43	492	5.8	41	27416	29	
						25	5	0.54	525	6.6	35	24991	33	
				Test Averages					133.3*	6.1	39	26443		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
273+00	3.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	389					
						5	5	0.14	431					First 5 blows discounted as "seating" blows.
						10	5	0.23	460	5.8	41	27416	29	
						15	5	0.31	482	4.4	56	33420	22	
						20	5	0.39	507	5.0	48	30494	25	
						25	5	0.48	535	5.6	42	28115	28	
				Test Averages					139.6*	5.2	46	29649		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
278+00	10.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	363					
						5	5	0.09	390					First 5 blows discounted as "seating" blows.
						5 to 20	15	0.19	422	2.1	125	56152	32	Combined 15 blows to achieve > 25mm pen.
						25	5	0.22	430	1.6	172	69012	8	Discount, < 20mm travel.
				Test Averages					142.1*	2.1	125	56152		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
322+00	12.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	367					
						5	5	0.12	403					First 5 blows discounted as "seating" blows.
						10	5	0.21	432	5.8	41	27416	29	
						15	5	0.30	459	5.4	44	28857	27	
						20	5	0.38	483	4.8	50	31399	24	
						25	5	0.46	508	5.0	48	30494	25	
				Test Averages					138.7*	5.3	46	29446		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
317+00	4.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	366					
						5	5	0.14	409					First 5 blows discounted as "seating" blows.
						10	5	0.21	430	4.2	59	34553	21	
						10 to 20	10	0.34	469	3.9	64	36439	39	Combined 10 blows to achieve >25mm pen.
						25	5	0.40	487	3.6	70	38590	18	Discount, < 20mm travel.
				Test Averages					135*	4.1	61	35466		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
312+00	11.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	366					
						5	5	0.13	406					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.23	437	3.1	82	42956	31	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.32	465	2.8	92	46208	28	Combined 10 blows to achieve > 25mm pen.
				Test Averages					141.2*	3.0	87	44511		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
307+00	7.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	366					
						5	5	0.12	403					First 5 blows discounted as "seating" blows.
						10	5	0.19	425	4.4	56	33420	22	
						15	5	0.26	445	4.0	62	35783	20	
						20	5	0.33	467	4.4	56	33420	22	
						25	5	0.38	483	3.2	79	41990	16	Discount, < 20mm travel.
				Test Averages					141.7*	4.3	58	34166		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
302+00	8.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	364					
						5	5	0.20	424					First 5 blows discounted as "seating" blows.
						10	5	0.29	451	5.4	44	28857	27	
						15	5	0.36	474	4.6	53	32372	23	
						15 to 25	10	0.49	513	3.9	64	36439	39	Combined 10 blows to achieve > 25mm pen.
				Test Averages					140.6*	4.6	52	32205		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
297+00	10.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0.00	360					
						5	5	0.10	389					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.18	415	2.6	100	48728	26	Combined 10 blows to achieve >25mm pen.
						15 to 25	10	0.28	444	2.9	89	45060	29	Combined 10 blows to achieve >25mm pen.
				Test Averages					139.9*	2.8	94	46808		
								(Dry Density from Raw Sheets*)						

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
292+00	3.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	364					
						5	5	0.12	401					First 5 blows discounted as "seating" blows.
						10	5	0.21	427	5.2	46	29649	26	
						15	5	0.29	452	5.0	48	30494	25	
						15 to 25	10	0.40	485	3.3	77	41074	33	Combined 10 blows to achieve >25mm pen.
				Test Averages					137.2*	4.5	54	32886		
								(Dry Density from Raw Sheets*)						

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
322+00	2.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	362					
						5	5	0.21	425					First 5 blows discounted as "seating" blows.
						10	5	0.31	457	6.4	37	25549	32	
						15	5	0.40	483	5.2	46	29649	26	
						20	5	0.47	506	4.6	53	32372	23	
						25	5	0.54	527	4.2	59	34553	21	
				Test Averages					132.1*	5.1	47	30064		
								(Dry Density from Raw Sheets*)						

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
317+00	4.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	368					
						5	5	0.09	394					First 5 blows discounted as "seating" blows.
						5 to 20	15	0.19	425	2.1	130	57445	31	Combined 15 blows to achieve > 25mm pen.
						25	5	0.22	435	2.0	134	58811	10	Discount, < 20mm travel.
				Test Averages					125.9*	2.1	130	57445		
								(Dry Density from Raw Sheets*)						

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
312+00	2.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	359					
						5	5	0.09	387					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.17	412	2.5	105	50118	25	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.25	436	2.4	110	51606	24	
				Test Averages					128.7*	2.5	107	50849		
								(Dry Density from Raw Sheets*)						

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
307+00	5.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	369					
						5	5	0.23	439					First 5 blows discounted as "seating" blows.
						10	5	0.34	472	6.6	35	24991	33	
						15	5	0.42	498	5.2	46	29649	26	
						20	5	0.52	527	5.8	41	27416	29	
						25	5	0.61	554	5.4	44	28857	27	
				Test Averages					133.2*	5.8	41	27587		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
302+00	2.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	366					
						5	5	0.10	395					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.19	425	3.0	85	43978	30	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.30	456	3.1	82	42956	31	Combined 10 blows to achieve > 25mm pen.
				Test Averages					132.9*	3.1	84	43460		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
297+00	6.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	360					
						5	5	0.09	388					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.20	420	3.2	79	41990	32	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.27	441	2.1	127	56790	21	
				Test Averages					135*	2.7	98	48068		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
292+00	7.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	366					
						5	5	0.19	425					First 5 blows discounted as "seating" blows.
						10	5	0.30	457	6.4	37	25549	32	
						15	5	0.39	485	5.6	42	28115	28	
						20	5	0.48	513	5.6	42	28115	28	
						25	5	0.58	544	6.2	38	26137	31	
				Test Averages					141*	6.0	40	26919		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
361+00	6.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	361					
						5	5	0.07	381					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.18	415	3.4	74	40204	34	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.29	450	3.5	72	39377	35	Combined 10 blows to achieve > 25mm pen.
				Test Averages					na*	3.5	73	39786		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
355+00	7.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	360					
						5	5	0.08	384					First 5 blows discounted as "seating" blows.
						10	5	0.15	406	4.4	56	33420	22	
						10 to 20	10	0.24	432	2.6	100	48728	26	Combined 10 blows to achieve >25mm pen.
						25	5	0.28	444	2.4	110	51606	12	Discount, < 20mm travel.
				Test Averages					122*	3.5	72	39377		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
350+00	2.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	366					
						5	5	0.13	406					First 5 blows discounted as "seating" blows.
						10	5	0.21	431	5.0	48	30494	25	
						15	5	0.29	454	4.6	53	32372	23	
						20	5	0.36	475	4.2	59	34553	21	
						25	5	0.43	496	4.2	59	34553	21	
				Test Averages					124.6*	4.5	54	32886		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
345+00	3.5 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	362					
						5	5	0.08	385					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.16	410	2.5	105	50118	25	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.23	431	2.1	127	56790	21	
				Test Averages					124.6*	2.3	115	53205		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
340+00	4.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	362					
						5	5	0.08	385					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.17	415	3.0	85	43978	30	Combined 10 blows to achieve >25mm pen.
						15 to 25	10	0.26	441	2.6	100	48728	26	Combined 10 blows to achieve >25mm pen.
				Test Averages					129.9*	2.8	92	46208		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
355+00	6.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	360					
						5	5	0.15	407					First 5 blows discounted as "seating" blows.
						10	5	0.24	432	5.0	48	30494	25	
						15	5	0.31	455	4.6	53	32372	23	
						20	5	0.38	477	4.4	56	33420	22	
						25	5	0.45	497	4.0	62	35783	20	
				Test Averages					134.1*	4.5	54	32886		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
330+00	7.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	372					
						5	5	0.07	394					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.17	423	2.9	89	45060	29	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.25	447	2.4	110	51606	24	
				Test Averages					132*	2.7	98	48068		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
326+00	3.5 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	365					
						5	5	0.07	386					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.17	416	3.0	85	43978	30	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.25	441	2.5	105	50118	25	Combined 10 blows to achieve > 25mm pen.
				Test Averages					129.9*	2.8	94	46808		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
361+00	3.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	361					
						5	5	0.15	406					First 5 blows discounted as "seating" blows.
						10	5	0.24	435	5.8	41	27416	29	
						15	5	0.33	462	5.4	44	28857	27	
						20	5	0.41	486	4.8	50	31399	24	
						25	5	0.52	521	7.0	33	23959	35	
				Test Averages					126.5*	5.8	41	27587		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
355+00	4.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	362					
						5	5	0.08	387					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.18	416	2.9	89	45060	29	Combined 10 blows to achieve > 25mm pen.
						15 to 25	5	0.26	440	4.8	50	31399	24	
				Test Averages					126.7*	3.9	65	36777		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
350+00	3.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	360					
						5	5	0.08	385					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.17	411	2.6	100	48728	26	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.23	429	1.8	151	63424	18	
				Test Averages					124.9*	2.6	100	48728		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
345+00	8.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	366					
						5	5	0.09	392					First 5 blows discounted as "seating" blows.
						5 to 25	20	0.17	418	1.3	218	80087	26	Combined 20 blows to achieve > 25mm pen.
				Test Averages					124.6*	1.3	218	80087		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
340+00	4.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	362					
						5	5	0.08	385					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.16	412	2.7	96	47428	27	Combined 10 blows to achieve > 25mm pen.
						15 to 25	5	0.28	446	6.8	34	24462	34	Combined 10 blows to achieve > 25mm pen.
				Test Averages					127.7*	4.8	51	31636		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
335+00	8.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	370					
						5	5	0.11	404					First 5 blows discounted as "seating" blows.
						10	5	0.20	430	5.2	46	29649	26	
						15	5	0.27	451	4.2	59	34553	21	
						20	5	0.33	472	4.2	59	34553	21	
						25	5	0.39	488	3.2	79	41990	16	Discount, < 20mm travel.
				Test Averages					128.2*	4.2	59	34553		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
330+00	8.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	357					
						5	5	0.07	377					First 5 blows discounted as "seating" blows.
						10	5	0.15	403	5.2	46	29649	26	
						15	5	0.25	434	6.2	38	26137	31	
						20	5	0.37	469	7.0	33	23959	35	
						25	5	0.47	500	6.2	38	26137	31	
				Test Averages					123.8*	6.2	38	26289		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
326+00	8.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	358					
						5	5	0.08	382					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.18	412	3.0	85	43978	30	Combined 10 blows to achieve > 25mm pen.
						15 to 20	10	0.27	440	2.8	92	46208	28	Combined 10 blows to achieve > 25mm pen.
				Test Averages					136.6*	2.9	89	45060		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
24+00	5.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	361					
						5	5	0.12	397					First 5 blows discounted as "seating" blows.
						10	5	0.20	421	4.8	50	31399	24	
						10 to 25	15	0.29	448	1.8	151	63424	27	Combined 15 blows to achieve > 25mm pen.
				Test Averages					136.2*	3.3	77	41074		
							(Dry Density from Raw Sheets*)							

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
19+00	1.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	389					
						5	5	0.14	431					First 5 blows discounted as "seating" blows.
						10	5	0.25	464	6.6	35	24991	33	
						15	5	0.38	504	8.0	28	21772	40	
						20	5	0.53	550	9.2	24	19697	46	
						25	5	0.68	595	9.0	25	20009	45	
				Test Averages					133.1*	8.2	28	21390		
							(Dry Density from Raw Sheets*)							

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
14+00	4.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	362					
						5	5	0.09	390					First 5 blows discounted as "seating" blows.
						10	5	0.16	412	4.4	56	33420	22	
						15	5	0.24	434	4.4	56	33420	22	
						20	5	0.33	463	5.8	41	27416	29	
						25	5	0.43	494	6.2	38	26137	31	
				Test Averages					125.8*	5.2	46	29649		
							(Dry Density from Raw Sheets*)							

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
9+00	2.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	367					
						5	5	0.19	424					First 5 blows discounted as "seating" blows.
						10	5	0.32	464	8.0	28	21772	40	
						15	5	0.41	492	5.6	42	28115	28	
						20	5	0.48	512	4.0	62	35783	20	
						25	5	0.54	531	3.8	65	37123	19	Discount, < 20mm travel.
				Test Averages					128.1*	5.9	40	27193		
							(Dry Density from Raw Sheets*)							

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
4+00	6.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	376					
						5	5	0.23	447					First 5 blows discounted as "seating" blows.
						10	5	0.47	519	14.4	15	14286	72	
						15	5	0.74	603	16.8	12	12792	84	
						20	5	1.00	682	15.8	13	13367	79	
						25	5	1.52	838	31.2	6	8208	156	Point not included. Inferred to have punched through stabilized base layer.
				Test Averages					125.9*	15.7	13	13449		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
370+00	10.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	360					
						5	5	0.10	390					First 5 blows discounted as "seating" blows.
						10	5	0.19	419	5.8	41	27416	29	
						15	5	0.31	454	7.0	33	23959	35	
						20	5	0.43	492	7.6	30	22588	38	
						25	5	0.54	525	6.6	35	24991	33	
				Test Averages					124.7*	6.8	34	24592		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
365+00	13.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	363					
						5	5	0.16	413					First 5 blows discounted as "seating" blows.
						10	5	0.27	445	6.4	37	25549	32	
						15	5	0.34	467	4.4	56	33420	22	
						20	5	0.41	488	4.2	59	34553	21	
						25	5	0.48	510	4.4	56	33420	22	
				Test Averages					129.8*	4.9	50	31167		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
24+00	3.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	360					
						5	5	0.19	418					First 5 blows discounted as "seating" blows.
						10	5	0.34	463	9.0	25	20009	45	
						15	5	0.52	517	10.8	20	17558	54	
						20	5	0.68	566	9.8	23	18825	49	
						25	5	0.91	638	14.4	15	14286	72	
				Test Averages					134.2*	11.0	20	17329		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
19+00	7.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	362					
						5	5	0.17	414					First 5 blows discounted as "seating" blows.
						10	5	0.32	460	9.2	24	19697	46	
						15	5	0.44	495	7.0	33	23959	35	
						20	5	0.53	524	5.8	41	27416	29	
						25	5	0.62	551	5.4	44	28857	27	
				Test Averages					136.2*	6.9	34	24334		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
14+00	3.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	364					
						5	5	0.19	421					First 5 blows discounted as "seating" blows.
						10	5	0.30	456	7.0	33	23959	35	
						15	5	0.40	486	6.0	39	26758	30	
						20	5	0.48	509	4.6	53	32372	23	
						25	5	0.53	525	3.2	79	41990	16	Discount, < 20mm travel.
				Test Averages					124.5*	5.9	40	27193		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
9+00	4.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	360					
						5	5	0.20	422					First 5 blows discounted as "seating" blows.
						10	5	0.35	468	9.2	24	19697	46	
						15	5	0.50	513	9.0	25	20009	45	
						20	5	0.69	570	11.4	19	16891	57	
						25	5	0.94	647	15.4	14	13615	77	
				Test Averages					130.5*	11.3	19	17052		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
4+00	7.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	367					
						5	5	0.13	406					First 5 blows discounted as "seating" blows.
						10	5	0.27	450	8.8	26	20334	44	
						15	5	0.39	486	7.2	32	23480	36	
						20	5	0.48	512	5.2	46	29649	26	
						25	5	0.54	531	3.8	65	37123	19	Discount, < 20mm travel.
				Test Averages					124.5*	7.1	33	23797		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
370+00	4.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	355					
						5	5	0.17	406					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.26	434	2.8	92	46208	28	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.42	484	5.0	48	30494	50	Combined 10 blows to achieve > 25mm pen.
				Test Averages					133.5*	3.9	64	36439		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
365+00	8.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	370					
						5	5	0.16	419					First 5 blows discounted as "seating" blows.
						10	5	0.26	450	6.2	38	26137	31	
						15	5	0.38	485	7.0	33	23959	35	
						20	5	0.51	524	7.8	29	22171	39	
						25	5	0.69	581	11.4	19	16891	57	
				Test Averages					126*	8.1	28	21579		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
56+00	13.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	361					
						5	5	0.11	394					First 5 blows discounted as "seating" blows.
						10	5	0.20	422	5.6	42	28115	28	
						15	5	0.32	459	7.4	31	23023	37	
						20	5	0.44	494	7.0	33	23959	35	
						25	5	0.56	533	7.8	29	22171	39	
				Test Averages					137.1*	7.0	33	24082		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
51+00	4.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	370					
						5	5	0.15	417					First 5 blows discounted as "seating" blows.
						10	5	0.24	444	5.4	44	28857	27	
						15	5	0.35	476	6.4	37	25549	32	
						20	5	0.44	503	5.4	44	28857	27	
						25	5	0.50	521	3.6	70	38590	18	Discount, < 20mm travel.
				Test Averages					136.1*	5.7	41	27645		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
46+00	8.5 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	364					
						5	5	0.17	416					First 5 blows discounted as "seating" blows.
						10	5	0.29	451	7.0	33	23959	35	
						15	5	0.39	483	6.4	37	25549	32	
						20	5	0.50	515	6.4	37	25549	32	
						25	5	0.62	553	7.6	30	22588	38	
				Test Averages					132.9*	6.9	34	24334		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
41+00	6.5 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	357					
						5	5	0.10	386					First 5 blows discounted as "seating" blows.
						10	5	0.16	406	4.0	62	35783	20	
						15	5	0.23	427	4.2	59	34553	21	
						20	5	0.30	447	4.0	62	35783	20	
						25	5	0.39	475	5.6	42	28115	28	
				Test Averages					135.3*	4.5	55	33151		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
36+00	8.5 LY			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	368					
						5	5	0.19	425					First 5 blows discounted as "seating" blows.
						10	5	0.30	458	6.6	35	24991	33	
						15	5	0.39	487	5.8	41	27416	29	
						15 to 25	10	0.51	524	3.7	67	37840	37	Combined 10 blows to achieve > 25mm pen.
				Test Averages					133.3*	5.4	44	28986		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
31+00	7.0 LT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	368					
						5	5	0.11	401					First 5 blows discounted as "seating" blows.
						10	5	0.18	423	4.4	56	33420	22	
						15	5	0.25	445	4.4	56	33420	22	
						20	5	0.32	465	4.0	62	35783	20	
						25	5	0.40	490	5.0	48	30494	25	
				Test Averages					132.9*	4.5	55	33151		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
56+00	5.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	375					
						5	5	0.09	401					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.19	434	3.3	77	41074	33	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.31	469	3.5	72	39377	35	Combined 10 blows to achieve > 25mm pen.
				Test Averages					143*	3.4	74	40204		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
51+00	2.0 RT			8/7/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	372					
						5	5	0.11	405					First 5 blows discounted as "seating" blows.
						10	5	0.21	435	6.0	39	26758	30	
						15	5	0.31	465	6.0	39	26758	30	
						20	5	0.40	495	6.0	39	26758	30	
						25	5	0.47	515	4.0	62	35783	20	
				Test Averages					133.7*	5.5	43	28480		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722070.9	1493256.1	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	373					
						5	5	0.10	403					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.22	439	3.6	70	38590	36	Combined 10 blows to achieve > 25mm pen.
						15 to 25	5	0.32	471	6.4	37	25549	32	Combined 10 blows to achieve > 25mm pen.
				Test Averages					128*	5.0	48	30494		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722065.2	1493254.6	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	360					
						5	5	0.13	400					First 5 blows discounted as "seating" blows.
						10	5	0.23	430	6.0	39	26758	30	
						15	5	0.31	456	5.2	46	29649	26	
						20	5	0.40	483	5.4	44	28857	27	
						25	5	0.49	510	5.4	44	28857	27	
				Test Averages					126.6*	5.5	43	28480		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722058.7	1493253.3	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	371					
						5	5	0.10	401					First 5 blows discounted as "seating" blows.
						10	5	0.19	428	5.4	44	28857	27	
						15	5	0.29	460	6.4	37	25549	32	
						20	5	0.39	489	5.8	41	27416	29	
						25	5	0.47	514	5.0	48	30494	25	
				Test Averages					130.8*	5.7	42	27936		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722067.9	1493264.7	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	364					
						5	5	0.11	399					First 5 blows discounted as "seating" blows.
						10	5	0.19	423	4.8	50	31399	24	
						15	5	0.27	446	4.6	53	32372	23	
						20	5	0.33	466	4.0	62	35783	20	
						25	5	0.41	488	4.4	56	33420	22	
				Test Averages					134.3*	4.5	55	33151		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722064.1	1493264.2	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	356					
						5	5	0.15	402					First 5 blows discounted as "seating" blows.
						10	5	0.25	431	5.8	41	27416	29	
						15	5	0.32	455	4.8	50	31399	24	
						20	5	0.40	477	4.4	56	33420	22	
						25	5	0.47	500	4.6	53	32372	23	
				Test Averages					125*	4.9	49	30939		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722060.1	1493263.6	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	362					
						5	5	0.11	396					First 5 blows discounted as "seating" blows.
						10	5	0.21	425	5.8	41	27416	29	
						15	5	0.30	454	5.8	41	27416	29	
						20	5	0.41	486	6.4	37	25549	32	
						25	5	0.50	515	5.8	41	27416	29	
				Test Averages					125.4*	6.0	40	26919		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722066.1	1493274.8	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	361					
						5	5	0.11	395					First 5 blows discounted as "seating" blows.
						10	5	0.18	416	4.2	59	34553	21	
						15	5	0.25	436	4.0	62	35783	20	
						15 to 25	10	0.36	470	3.4	74	40204	34	Combined 10 blows to achieve > 25mm pen.
				Test Averages					133.9*	3.9	64	36663		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722062.1	1493273.6	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	363					
						5	5	0.12	401					First 5 blows discounted as "seating" blows.
						10	5	0.20	425	4.8	50	31399	24	
						15	5	0.27	446	4.2	59	34553	21	
						15 to 25	10	0.41	487	4.1	60	35155	41	Combined 10 blows to achieve > 25mm pen.
				Test Averages					126.4*	4.4	56	33603		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722058.2	1493273	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	353					
						5	5	0.07	373					First 5 blows discounted as "seating" blows.
						5 to 20	15	0.19	410	2.5	106	50602	37	Combined 15 blows to achieve > 25mm pen.
						25	5	0.23	423	2.6	100	48728	13	Discount, < 20mm travel.
				Test Averages					125.6*	2.5	106	50602		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722064.6	1493284.1	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	357					
						5	5	0.10	389					First 5 blows discounted as "seating" blows.
						10	5	0.17	410	4.2	59	34553	21	
						15	5	0.24	431	4.2	59	34553	21	
						20	5	0.32	454	4.6	53	32372	23	
						25	5	0.39	476	4.4	56	33420	22	
				Test Averages					134.1*	4.4	56	33695		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722060.9	1493283.3	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	367					
						5	5	0.14	410					First 5 blows discounted as "seating" blows.
						10	5	0.21	432	4.4	56	33420	22	
						15	5	0.29	454	4.4	56	33420	22	
						20	5	0.35	475	4.2	59	34553	21	
						25	5	0.42	495	4.0	62	35783	20	
				Test Averages					127.8*	4.3	58	34262		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722056.2	1493282.7	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	361					
						5	5	0.07	383					First 5 blows discounted as "seating" blows.
						5 to 20	15	0.19	419	2.4	110	51606	36	Combined 15 blows to achieve > 25mm pen.
						25	5	0.24	433	2.8	92	46208	14	Discount, < 20mm travel.
				Test Averages					133.4*	2.4	110	51606		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722062.2	1493293.8	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	375					
						5	5	0.09	403					First 5 blows discounted as "seating" blows.
						10	5	0.16	424	4.2	59	34553	21	
						10 to 20	10	0.27	457	3.3	77	41074	33	Combined 10 blows to achieve > 25mm pen.
						25	5	0.33	476	3.8	65	37123	19	Discount, < 20mm travel.
				Test Averages					136*	3.8	66	37477		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722059	1493292.7	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	373					
						5	5	0.15	418					First 5 blows discounted as "seating" blows.
						10	5	0.22	440	4.4	56	33420	22	
						15	5	0.30	463	4.6	53	32372	23	
						20	5	0.36	484	4.2	59	34553	21	
						25	5	0.45	510	5.2	46	29649	26	
				Test Averages					129.7*	4.6	53	32372		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722054.4	1493291.9	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	370					
						5	5	0.07	391					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.17	422	3.1	82	42956	31	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.28	454	3.2	79	41990	32	Combined 10 blows to achieve > 25mm pen.
				Test Averages					139.9*	3.2	81	42467		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722060.7	1493303.4	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	366					
						5	5	0.08	390					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.18	421	3.1	82	42956	31	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.28	452	3.1	82	42956	31	Combined 10 blows to achieve > 25mm pen.
				Test Averages					139.4*	3.1	82	42956		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722057.3	1493302.5	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	363					
						5	5	0.17	416					First 5 blows discounted as "seating" blows.
						10	5	0.27	444	5.6	42	28115	28	
						15	5	0.33	464	4.0	62	35783	20	
						20	5	0.41	489	5.0	48	30494	25	
						25	5	0.50	514	5.0	48	30494	25	
				Test Averages					135.7*	4.9	49	30939		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722052.8	1493301.5	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	362					
						5	5	0.12	398					First 5 blows discounted as "seating" blows.
						5 to 15	10	0.22	430	3.2	79	41990	32	Combined 10 blows to achieve > 25mm pen.
						15 to 25	10	0.32	461	3.1	82	42956	31	Combined 10 blows to achieve > 25mm pen.
				Test Averages					131.7*	3.2	81	42467		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722058.9	1493313.4	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	374					
						5	5	0.09	401					First 5 blows discounted as "seating" blows.
						10	5	0.16	423	4.4	56	33420	22	
						15	5	0.23	445	4.4	56	33420	22	
						20	5	0.30	465	4.0	62	35783	20	
						25	5	0.37	486	4.2	59	34553	21	
				Test Averages					132.1*	4.3	58	34262		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722055.4	1493312	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	361					
						5	5	0.11	394					First 5 blows discounted as "seating" blows.
						10	5	0.19	420	5.2	46	29649	26	
						15	5	0.26	441	4.2	59	34553	21	
						20	5	0.34	466	5.0	48	30494	25	
						25	5	0.42	490	4.8	50	31399	24	
				Test Averages					127.6*	4.8	50	31399		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722050.5	1493311.3	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	411					
						5	5	0.08	435					First 5 blows discounted as "seating" blows.
						10	5	0.15	457	4.4	56	33420	22	
						15	5	0.23	481	4.8	50	31399	24	
						20	5	0.23	481	0.0				Point not included. Inferred to be a recording error.
						25	5	0.31	507	5.2	46	29649	26	
				Test Averages					124.5*	4.8	50	31399		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722057.1	1493323.1	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	365					
						5	5	0.15	411					First 5 blows discounted as "seating" blows.
						10	5	0.24	438	5.4	44	28857	27	DCP Reading reported as "138". Appears to be a typo. Changed to 438.
						15	5	0.32	463	5.0	48	30494	25	
						20	5	0.40	487	4.8	50	31399	24	
						25	5	0.49	513	5.2	46	29649	26	
				Test Averages					132.2*	5.1	47	30064		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722053.4	1493321.9	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	363					
						5	5	0.13	404					First 5 blows discounted as "seating" blows.
						10	5	0.22	430	5.2	46	29649	26	
						15	5	0.32	460	6.0	39	26758	30	
						20	5	0.41	487	5.4	44	28857	27	
						25	5	0.49	513	5.2	46	29649	26	
				Test Averages					137.5*	5.5	44	28667		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722049.4	1493321.4	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	373					
						5	5	0.12	411					First 5 blows discounted as "seating" blows.
						10	5	0.22	440	5.8	41	27416	29	
						15	5	0.29	462	4.4	56	33420	22	
						20	5	0.38	489	5.4	44	28857	27	
						25	5	0.46	514	5.0	48	30494	25	
				Test Averages					133.8*	5.2	47	29855		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722055.6	1493332.8	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	366					
						5	5	0.12	403					First 5 blows discounted as "seating" blows.
						10	5	0.19	424	4.2	59	34553	21	
						15	5	0.27	448	4.8	50	31399	24	
						20	5	0.34	471	4.6	53	32372	23	
						25	5	0.42	494	4.6	53	32372	23	
				Test Averages					143.4*	4.6	54	32627		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722051.4	1493331.9	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	360					
						5	5	0.15	405					First 5 blows discounted as "seating" blows.
						10	5	0.25	435	6.0	39	26758	30	
						15	5	0.34	463	5.6	42	28115	28	
						20	5	0.43	490	5.4	44	28857	27	
						25	5	0.53	521	6.2	38	26137	31	
				Test Averages					132.9*	5.8	41	27416		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722047.5	1493331.2	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	366					
						5	5	0.12	404					First 5 blows discounted as "seating" blows.
						10	5	0.21	430	5.2	46	29649	26	
						15	5	0.28	452	4.4	56	33420	22	
						20	5	0.36	477	5.0	48	30494	25	
						25	5	0.44	501	4.8	50	31399	24	
				Test Averages					132.9*	4.9	50	31167		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722054	1493342.7	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	367					
						5	5	0.14	409					First 5 blows discounted as "seating" blows.
						10	5	0.23	436	5.4	44	28857	27	
						15	5	0.31	461	5.0	48	30494	25	
						20	5	0.40	488	5.4	44	28857	27	
						25	5	0.49	517	5.8	41	27416	29	
				Test Averages					134.5*	5.4	44	28857		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722049.8	1493341.7	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	364					
						5	5	0.13	404					First 5 blows discounted as "seating" blows.
						10	5	0.24	438	6.8	34	24462	34	
						15	5	0.33	466	5.6	42	28115	28	
						20	5	0.43	495	5.8	41	27416	29	
						25	5	0.51	520	5.0	48	30494	25	
				Test Averages					143.9*	5.8	41	27416		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722046	1493341.1	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	362					
						5	5	0.12	400					First 5 blows discounted as "seating" blows.
						10	5	0.21	427	5.4	44	28857	27	
						15	5	0.28	447	4.0	62	35783	20	
						20	5	0.36	471	4.8	50	31399	24	
						25	5	0.43	492	4.2	59	34553	21	
				Test Averages					137.6*	4.6	53	32372		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722052.1	1493352.4	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	368					
						5	5	0.13	407					First 5 blows discounted as "seating" blows.
						10	5	0.21	431	4.8	50	31399	24	
						15	5	0.28	453	4.4	56	33420	22	
						20	5	0.35	476	4.6	53	32372	23	
						25	5	0.44	501	5.0	48	30494	25	
				Test Averages					134.2*	4.7	52	31877		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722048.5	1493352.4	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	363					
						5	5	0.12	400					First 5 blows discounted as "seating" blows.
						10	5	0.22	430	6.0	39	26758	30	
						15	5	0.31	457	5.4	44	28857	27	
						20	5	0.40	484	5.4	44	28857	27	
						25	5	0.49	512	5.6	42	28115	28	
				Test Averages					137.7*	5.6	42	28115		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722044.4	1493350.9	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	364					
						5	5	0.13	404					First 5 blows discounted as "seating" blows.
						10	5	0.22	432	5.6	42	28115	28	
						15	5	0.31	458	5.2	46	29649	26	
						20	5	0.39	482	4.8	50	31399	24	
						25	5	0.46	504	4.4	56	33420	22	
				Test Averages					139.9*	5.0	48	30494		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722050.6	1493362.4	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	367					
						5	5	0.14	410					First 5 blows discounted as "seating" blows.
						10	5	0.23	438	5.6	42	28115	28	
						15	5	0.32	464	5.2	46	29649	26	
						20	5	0.40	490	5.2	46	29649	26	
						25	5	0.50	518	5.6	42	28115	28	
				Test Averages					132.7*	5.4	44	28857		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722046.8	1493361.6	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	360					
						5	5	0.17	412					First 5 blows discounted as "seating" blows.
						10	5	0.28	446	6.8	34	24462	34	
						15	5	0.40	482	7.2	32	23480	36	
						20	5	0.51	515	6.6	35	24991	33	
						25	5	0.60	543	5.6	42	28115	28	
				Test Averages					134.9*	6.6	36	25128		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
		722042.4	1493360.9	8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	363					
						5	5	0.12	400					First 5 blows discounted as "seating" blows.
						10	5	0.21	427	5.4	44	28857	27	
						15	5	0.29	452	5.0	48	30494	25	
						20	5	0.38	478	5.2	46	29649	26	
						25	5	0.47	505	5.4	44	28857	27	
				Test Averages					134*	5.3	46	29446		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
237+00	10.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	367					
						5	5	0.13	406					First 5 blows discounted as "seating" blows.
						10	5	0.22	434	5.6	42	28115	28	
						15	5	0.31	461	5.4	44	28857	27	
						20	5	0.37	481	4.0	62	35783	20	
						25	5	0.46	508	5.4	44	28857	27	
				Test Averages					135.1*	5.1	47	30064		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
242+00	4.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	360					
						5	5	0.14	404					First 5 blows discounted as "seating" blows.
						10	5	0.25	437	6.6	35	24991	33	
						15	5	0.34	465	5.6	42	28115	28	
						20	5	0.41	485	4.0	62	35783	20	
						25	5	0.48	507	4.4	56	33420	22	
				Test Averages					134.6*	5.2	47	29855		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
247+00	7.5 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	361					
						5	5	0.13	401					First 5 blows discounted as "seating" blows.
						10	5	0.21	424	4.6	53	32372	23	
						15	5	0.28	445	4.2	59	34553	21	
						20	5	0.35	469	4.8	50	31399	24	
						25	5	0.43	493	4.8	50	31399	24	
				Test Averages					136.8*	4.6	53	32372		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
251+00	5.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	370					
						5	5	0.14	413					First 5 blows discounted as "seating" blows.
						10	5	0.22	437	4.8	50	31399	24	
						15	5	0.29	458	4.2	59	34553	21	
						20	5	0.38	486	5.6	42	28115	28	
						25	5	0.47	513	5.4	44	28857	27	
				Test Averages					135*	5.0	48	30494		

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
256+00	3.5 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	370					
						5	5	0.14	414					First 5 blows discounted as "seating" blows.
						10	5	0.25	446	6.4	37	25549	32	
						15	5	0.35	476	6.0	39	26758	30	
						20	5	0.46	510	6.8	34	24462	34	
						25	5	0.57	543	6.6	35	24991	33	
				Test Averages					133.8*	6.5	36	25406		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
261+00	11.5 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	365					
						5	5	0.10	395					First 5 blows discounted as "seating" blows.
						10	5	0.18	420	5.0	48	30494	25	
						15	5	0.25	442	4.4	56	33420	22	
						20	5	0.32	464	4.4	56	33420	22	
						25	5	0.40	487	4.6	53	32372	23	
				Test Averages					134.8*	4.6	53	32372		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
263+50	7.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	370					
						5	5	0.11	403					First 5 blows discounted as "seating" blows.
						10	5	0.20	431	5.6	42	28115	28	
						15	5	0.28	456	5.0	48	30494	25	
						20	5	0.37	482	5.2	46	29649	26	
						25	5	0.44	505	4.6	53	32372	23	
				Test Averages					132.3*	5.1	47	30064		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
268+50	3.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	370					
						5	5	0.18	425					First 5 blows discounted as "seating" blows.
						10	5	0.31	466	8.2	28	21390	41	
						15	5	0.45	506	8.0	28	21772	40	
						20	5	0.57	545	7.8	29	22171	39	
						25	5	0.67	575	6.0	39	26758	30	
				Test Averages					132.3*	7.5	31	22803		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
268+50	3.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	368					
						5	5	0.12	406					First 5 blows discounted as "seating" blows.
						10	5	0.21	431	5.0	48	30494	25	
						15	5	0.29	455	4.8	50	31399	24	
						20	5	0.37	481	5.2	46	29649	26	
						25	5	0.46	508	5.4	44	28857	27	
				Test Averages					132.3*	5.1	47	30064		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
273+50	8.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	361					
						5	5	0.12	397					First 5 blows discounted as "seating" blows.
						10	5	0.19	420	4.6	53	32372	23	
						10 to 20	10	0.31	455	3.5	72	39377	35	Combined 10 blows to achieve > 25mm pen.
						25	5	0.36	472	3.4	74	40204	17	Discount, < 20mm travel.
				Test Averages					142.2*	4.1	61	35466		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
278+50	12.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	365					
						5	5	0.13	405					First 5 blows discounted as "seating" blows.
						10	5	0.22	432	5.4	44	28857	27	
						15	5	0.29	454	4.4	56	33420	22	
						20	5	0.36	476	4.4	56	33420	22	
						25	5	0.45	502	5.2	46	29649	26	
				Test Averages					136.8*	4.9	50	31167		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
263+00	12.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	371					
						5	5	0.13	410					First 5 blows discounted as "seating" blows.
						10	5	0.22	438	5.6	42	28115	28	
						15	5	0.31	466	5.6	42	28115	28	
						20	5	0.39	490	4.8	50	31399	24	
						25	5	0.48	516	5.2	46	29649	26	
				Test Averages					133.1*	5.3	45	29247		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
268+00	7.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	365					
						5	5	0.14	407					First 5 blows discounted as "seating" blows.
						10	5	0.25	440	6.6	35	24991	33	
						15	5	0.34	468	5.6	42	28115	28	
						20	5	0.43	497	5.8	41	27416	29	
						25	5	0.52	525	5.6	42	28115	28	
				Test Averages					133.3*	5.9	40	27083		
						(Dry Density from Raw Sheets*)								

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
273+00	3.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	360					
						5	5	0.13	400					First 5 blows discounted as "seating" blows.
						10	5	0.21	424	4.8	50	31399	24	
						15	5	0.30	450	5.2	46	29649	26	
						20	5	0.37	473	4.6	53	32372	23	
						25	5	0.45	497	4.8	50	31399	24	
				Test Averages					139.6*	4.9	50	31167		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
278+00	10.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	370					
						5	5	0.17	423					First 5 blows discounted as "seating" blows.
						10	5	0.31	465	8.4	27	21024	42	
						15	5	0.44	503	7.6	30	22588	38	
						20	5	0.52	530	5.4	44	28857	27	
						25	5	0.60	552	4.4	56	33420	22	
				Test Averages					142.1*	6.5	36	25406		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
322+00	12.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	364					
						5	5	0.13	404					First 5 blows discounted as "seating" blows.
						10	5	0.23	434	6.0	39	26758	30	
						15	5	0.31	458	4.8	50	31399	24	
						20	5	0.40	486	5.6	42	28115	28	
						25	5	0.49	512	5.2	46	29649	26	
				Test Averages					138.7*	5.4	44	28857		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
317+00	4.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	365					
						5	5	0.12	403					First 5 blows discounted as "seating" blows.
						10	5	0.22	431	5.6	42	28115	28	
						15	5	0.30	455	4.8	50	31399	24	
						20	5	0.37	477	4.4	56	33420	22	
						25	5	0.45	502	5.0	48	30494	25	
				Test Averages					135*	5.0	49	30714		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
312+00	11.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	370					
						5	5	0.15	415					First 5 blows discounted as "seating" blows.
						10	5	0.28	456	8.2	28	21390	41	
						15	5	0.40	493	7.4	31	23023	37	
						20	5	0.51	525	6.4	37	25549	32	
						25	5	0.59	550	5.0	48	30494	25	
				Test Averages					141.2*	6.8	34	24592		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
307+00	7.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	367					
						5	5	0.13	407					First 5 blows discounted as "seating" blows.
						10	5	0.23	438	6.2	38	26137	31	
						15	5	0.33	469	6.2	38	26137	31	
						20	5	0.43	498	5.8	41	27416	29	
						25	5	0.53	528	6.0	39	26758	30	
				Test Averages					141.7*	6.1	39	26600		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
302+00	8.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	364					
						5	5	0.13	405					First 5 blows discounted as "seating" blows.
						10	5	0.23	433	5.6	42	28115	28	
						15	5	0.31	458	5.0	48	30494	25	
						20	5	0.39	483	5.0	48	30494	25	
						25	5	0.47	507	4.8	50	31399	24	
				Test Averages					140.6*	5.1	47	30064		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
297+00	10.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	372					
						5	5	0.14	414					First 5 blows discounted as "seating" blows.
						10	5	0.26	451	7.4	31	23023	37	
						15	5	0.38	489	7.6	30	22588	38	
						20	5	0.46	513	4.8	50	31399	24	
						25	5	0.55	540	5.4	44	28857	27	
				Test Averages					139.9*	6.3	37	25839		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
292+00	3.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	365					
						5	5	0.11	400					First 5 blows discounted as "seating" blows.
						10	5	0.20	427	5.4	44	28857	27	
						15	5	0.28	451	4.8	50	31399	24	
						20	5	0.35	473	4.4	56	33420	22	
						25	5	0.43	495	4.4	56	33420	22	
				Test Averages					137.2*	4.8	51	31636		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
322+00	2.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	361					
						5	5	0.19	420					First 5 blows discounted as "seating" blows.
						10	5	0.34	465	9.0	25	20009	45	
						15	5	0.50	513	9.6	23	19105	48	
						20	5	0.62	550	7.4	31	23023	37	
						25	5	0.72	580	6.0	39	26758	30	
				Test Averages					132.1*	8.0	28	21772		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
317+00	4.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	370					
						5	5	0.16	419					First 5 blows discounted as "seating" blows.
						10	5	0.27	453	6.8	34	24462	34	
						15	5	0.39	490	7.4	31	23023	37	
						20	5	0.50	521	6.2	38	26137	31	
						25	5	0.59	550	5.8	41	27416	29	
				Test Averages					125.9*	6.6	36	25128		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
312+00	2.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	363					
						5	5	0.15	410					First 5 blows discounted as "seating" blows.
						10	5	0.24	437	5.4	44	28857	27	
						15	5	0.33	464	5.4	44	28857	27	
						20	5	0.43	494	6.0	39	26758	30	
						25	5	0.52	521	5.4	44	28857	27	
				Test Averages					128.7*	5.6	43	28296		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
307+00	5.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	366					
						5	5	0.17	418					First 5 blows discounted as "seating" blows.
						10	5	0.29	453	7.0	33	23959	35	
						15	5	0.45	502	9.8	23	18825	49	
						20	5	0.57	540	7.6	30	22588	38	
						25	5	0.64	561	4.2	59	34553	21	
				Test Averages					133.2*	7.2	32	23598		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
302+00	2.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	370					
						5	5	0.13	409					First 5 blows discounted as "seating" blows.
						10	5	0.22	436	5.4	44	28857	27	
						15	5	0.31	463	5.4	44	28857	27	
						20	5	0.40	491	5.6	42	28115	28	
						25	5	0.49	520	5.8	41	27416	29	
				Test Averages					132.9*	5.6	43	28296		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
297+00	6.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	373					
						5	5	0.13	413					First 5 blows discounted as "seating" blows.
						10	5	0.23	443	6.0	39	26758	30	
						15	5	0.32	471	5.6	42	28115	28	
						20	5	0.39	493	4.4	56	33420	22	
						25	5	0.48	519	5.2	46	29649	26	
				Test Averages					135*	5.3	45	29247		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
292+00	7.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	367					
						5	5	0.19	426					First 5 blows discounted as "seating" blows.
						10	5	0.36	477	10.2	22	18292	51	
						15	5	0.52	525	9.6	23	19105	48	
						20	5	0.62	557	6.4	37	25549	32	
						25	5	0.69	578	4.2	59	34553	21	
				Test Averages					141*	7.6	30	22588		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
361+00	6.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	368					
						5	5	0.15	414					First 5 blows discounted as "seating" blows.
						10	5	0.26	446	6.4	37	25549	32	
						15	5	0.38	483	7.4	31	23023	37	
						20	5	0.48	513	6.0	39	26758	30	
						25	5	0.56	539	5.2	46	29649	26	
				Test Averages					na*	6.3	37	25987		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
355+00	7.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	363					
						5	5	0.13	403					First 5 blows discounted as "seating" blows.
						10	5	0.23	434	6.2	38	26137	31	
						15	5	0.32	461	5.4	44	28857	27	
						20	5	0.40	486	5.0	48	30494	25	
						25	5	0.49	513	5.4	44	28857	27	
				Test Averages					122*	5.5	43	28480		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
350+00	2.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	371					
						5	5	0.13	412					First 5 blows discounted as "seating" blows.
						10	5	0.24	443	6.2	38	26137	31	
						15	5	0.34	475	6.4	37	25549	32	
						20	5	0.44	506	6.2	38	26137	31	
						25	5	0.52	528	4.4	56	33420	22	
				Test Averages					124.6*	5.8	41	27416		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
345+00	3.5 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	365					
						5	5	0.16	414					First 5 blows discounted as "seating" blows.
						10	5	0.28	451	7.4	31	23023	37	
						15	5	0.39	485	6.8	34	24462	34	
						20	5	0.50	516	6.2	38	26137	31	
						25	5	0.58	541	5.0	48	30494	25	
				Test Averages					124.6*	6.4	37	25693		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
340+00	4.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	365					
						5	5	0.13	404					First 5 blows discounted as "seating" blows.
						10	5	0.21	430	5.2	46	29649	26	
						15	5	0.29	453	4.6	53	32372	23	
						20	5	0.37	478	5.0	48	30494	25	
						25	5	0.46	505	5.4	44	28857	27	
				Test Averages					129.9*	5.1	48	30277		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
355+00	6.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	360					
						5	5	0.12	396					First 5 blows discounted as "seating" blows.
						10	5	0.20	421	5.0	48	30494	25	
						15	5	0.27	442	4.2	59	34553	21	
						20	5	0.35	466	4.8	50	31399	24	
						25	5	0.43	490	4.8	50	31399	24	
				Test Averages					134.1*	4.7	52	31877		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
330+00	7.0 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	365					
						5	5	0.12	401					First 5 blows discounted as "seating" blows.
						10	5	0.22	432	6.2	38	26137	31	
						15	5	0.31	460	5.6	42	28115	28	
						20	5	0.41	491	6.2	38	26137	31	
						25	5	0.51	521	6.0	39	26758	30	
				Test Averages					132*	6.0	39	26758		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
326+00	3.5 LT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	369					
						5	5	0.13	408					First 5 blows discounted as "seating" blows.
						10	5	0.24	442	6.8	34	24462	34	
						15	5	0.32	468	5.2	46	29649	26	
						20	5	0.41	494	5.2	46	29649	26	
						25	5	0.49	518	4.8	50	31399	24	
				Test Averages					129.9*	5.5	43	28480		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
361+00	3.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	369					
						5	5	0.08	394					First 5 blows discounted as "seating" blows.
						10	5	0.16	417	4.6	53	32372	23	
						10 to 20	10	0.28	455	3.8	65	37123	38	Combined 10 blows to achieve > 25mm pen.
						25	5	0.35	477	4.4	56	33420	22	
				Test Averages					126.5*	4.3	58	34166		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
355+00	4.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	361					
						5	5	0.11	394					First 5 blows discounted as "seating" blows.
						10	5	0.20	423	5.8	41	27416	29	
						15	5	0.29	448	5.0	48	30494	25	
						20	5	0.36	470	4.4	56	33420	22	
						25	5	0.44	496	5.2	46	29649	26	
				Test Averages					126.7*	5.1	47	30064		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
350+00	3.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	366					
						5	5	0.14	408					First 5 blows discounted as "seating" blows.
						10	5	0.23	437	5.8	41	27416	29	
						15	5	0.32	463	5.2	46	29649	26	
						20	5	0.41	490	5.4	44	28857	27	
						25	5	0.49	516	5.2	46	29649	26	
				Test Averages					124.9*	5.4	44	28857		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
345+00	8.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	370					
						5	5	0.10	402					First 5 blows discounted as "seating" blows.
						10	5	0.17	422	4.0	62	35783	20	
						15	5	0.24	444	4.4	56	33420	22	
						15 to 25	10	0.35	478	3.4	74	40204	34	Combined 10 blows to achieve > 25mm pen.
				Test Averages					124.6*	3.9	63	36217		
									(Dry Density from Raw Sheets*)					

Station	Offset	Northing	Easting	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
340+00	4.0 RT			8/15/2018	8kg	(#)	(#)	(ft)	(mm)	mm/blow	(%)	(psi)	(mm)	
						0	0	0	362					
						5	5	0.12	400					First 5 blows discounted as "seating" blows.
						10	5	0.21	425	5.0	48	30494	25	
						15	5	0.30	452	5.4	44	28857	27	
						20	5	0.39	480	5.6	42	28115	28	
						25	5	0.46	501	4.2	59	34553	21	
				Test Averages					127.7*	5.1	48	30277		
									(Dry Density from Raw Sheets*)					

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane
Unit #1
Montpelier, VT 05602
(802) 674-2033

APPENDIX K – RESILIENT MODULUS DATA REDUCTION FOR JOHNSON-MORRISTOWN STP 2919(1)

GEO DESIGN

GEODesign, Inc.
85 Granite Shed Lane, Unit 1
Montpelier, VT 05602
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Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M346+00	4 L	9/16/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.19	57						First 5 blows discounted as "seating" blows.
				10	5	0.32	98	2	16.4	13	13015	41	
				15	5	0.45	138	2	16.0	13	13247	40	
				20	5	0.61	186	2	19.2	11	11624	48	
			Test Averages						17.2	12	12578		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M346+00	4 R	9/16/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.17	51						First 5 blows discounted as "seating" blows.
				10	5	0.28	84	2	13.2	16	15206	33	
				15	5	0.41	124	2	16.0	13	13247	40	
				20	5	0.54	166	2	16.8	12	12792	42	
			Test Averages						15.3	14	13658		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M346+00	10 L	9/16/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.08	23						First 5 blows discounted as "seating" blows.
				10	5	0.16	48	2	10.0	22	18554	25	
				20	10	0.28	85	2	7.4	31	23023	37	
				25	5	0.35	106	2	8.4	27	21024	21	
				30	5	0.48	147	2	16.4	13	13015	41	
				35	5	0.64	194	2	18.8	11	11801	47	
			Test Averages						12.2	18	16089		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M346+00	10 R	9/16/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.11	33						First 5 blows discounted as "seating" blows.
				10	5	0.20	60	2	10.8	20	17558	27	
				20	10	0.33	100	2	8.0	28	21772	40	
				30	10	0.46	140	2	8.0	28	21772	40	
				35	5	0.54	166	2	10.4	21	18040	26	
			Test Averages						9.3	24	19545		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H103+00	4 L	8/24/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.06	17						First 5 blows discounted as "seating" blows.
				25	20	0.18	55	2	3.8	65	37123	38	
				35	10	0.25	75	2	4.0	62	35783	20	
				45	10	0.32	99	2	4.8	50	31399	24	
				55	10	0.40	122	2	4.6	53	32372	23	
				65	10	0.52	157	2	7.0	33	23959	35	
			Test Averages						4.8	50	31213		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H103+00	4 R	8/27/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				7	7	0.09	28						First 7 blows discounted as "seating" blows.
				14	7	0.16	50	2	6.3	37	25881	22	
				28	14	0.26	78	2	4.0	62	35783	28	
				42	14	0.36	111	2	4.7	51	31808	33	
				56	14	0.47	143	2	4.6	53	32517	32	
				63	7	0.51	156	2	3.7	67	37735	13	Discount, < 20mm travel.
			Test Averages						4.9	49	30971		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H103+00	10 L	8/24/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.11	33						First 10 blows discounted as "seating" blows.
				30	20	0.22	68	2	3.5	72	39377	35	
				40	10	0.32	97	2	5.8	41	27416	29	
				50	10	0.40	121	2	4.8	50	31399	24	
				60	10	0.48	147	2	5.2	46	29649	26	
				70	10	0.58	177	2	6.0	39	26758	30	
			Test Averages						5.1	48	30234		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H103+00	10 R	8/24/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.13	41						First 10 blows discounted as "seating" blows.
				20	10	0.26	78	2	7.4	31	23023	37	
				30	10	0.39	120	2	8.4	27	21024	42	
				40	10	0.52	160	2	8.0	28	21772	40	
			Test Averages						7.9	29	21903		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H113+00	4 L	8/24/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.11	34						First 10 blows discounted as "seating" blows.
				20	10	0.21	63	2	5.8	41	27416	29	
				30	10	0.32	98	2	7.0	33	23959	35	
				40	10	0.52	159	2	12.2	18	16089	61	Inferred to have punched through stabilized base. Point not included.
			Test Averages						6.4	37	25549		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H113+00	4 R	8/27/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				7	7	0.08	23						First 7 blows discounted as "seating" blows.
				21	14	0.19	59	2	5.1	47	29884	36	
				35	14	0.27	82	2	3.3	77	41202	23	
				49	14	0.36	109	2	3.9	64	36728	27	
				63	14	0.44	134	2	3.6	70	38811	25	
				70	7	0.46	139	2	1.4	196	74852	5	Discount < 20mm per reading.
			Test Averages						4.0	62	36014		
Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H113+00	10 L	8/24/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.13	41						First 10 blows discounted as "seating" blows.
				20	10	0.26	78	2	7.4	31	23023	37	
				30	10	0.39	120	2	8.4	27	21024	42	
				40	10	0.52	160	2	8.0	28	21772	40	
			Test Averages						7.9	29	21903		
Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H113+00	10 R	8/26/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.09	26						First 10 blows discounted as "seating" blows.
				20	10	0.15	45	2	3.8	65	37123	19	
				30	10	0.22	66	2	4.2	59	34553	21	
				40	10	0.28	86	2	4.0	62	35783	20	
				50	10	0.43	130	2	8.8	26	20334	44	
				60	10	0.52	158	2	5.6	42	28115	28	
			Test Averages						5.3	45	29326		
Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H132+00	4 L	8/27/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				7	7	0.09	27						First 7 blows discounted as "seating" blows.
				21	14	0.18	56	2	4.1	59	34894	29	
				28	7	0.26	78	2	6.3	37	25881	22	
				35	7	0.33	101	2	6.6	35	25069	23	
				42	7	0.42	127	2	7.4	31	22960	26	
				56	14	0.51	154	2	3.9	64	36728	27	
			Test Averages						5.7	42	27911		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H132+00	4 R	8/26/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.07	20						First 10 blows discounted as "seating" blows.
				20	10	0.15	45	2	5.0	48	30494	25	
				40	20	0.27	83	2	3.8	65	37123	38	
				50	10	0.36	109	2	5.2	46	29649	26	
				60	10	0.45	136	2	5.4	44	28857	27	
				70	10	0.56	172	2	7.2	32	23480	36	
			Test Averages						5.3	45	29168		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H132+00	10 L	8/27/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				7	7	0.14	44						First 7 blows discounted as "seating" blows.
				14	7	0.25	76	2	9.1	24	19785	32	
				21	7	0.34	103	2	7.7	30	22347	27	
				28	7	0.42	128	2	7.1	32	23615	25	
				42	14	0.52	160	2	4.6	53	32517	32	
			Test Averages						7.1	32	23615		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H132+00	10 R	8/27/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.05	16						First 10 blows discounted as "seating" blows.
				20	10	0.12	37	2	4.2	59	34553	21	
				40	20	0.23	71	2	3.4	74	40204	34	
				60	20	0.36	110	2	3.9	64	36439	39	
				70	10	0.44	133	2	4.6	53	32372	23	
				80	10	0.51	155	2	4.4	56	33420	22	
			Test Averages						4.1	60	35155		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H142+00	4 L	8/27/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.06	18						First 10 blows discounted as "seating" blows.
				30	20	0.19	58	2	4.0	62	35783	40	
				40	10	0.27	83	2	5.0	48	30494	25	
				50	10	0.36	109	2	5.2	46	29649	26	
				60	10	0.44	134	2	5.0	48	30494	25	
				70	10	0.52	160	2	5.2	46	29649	26	
			Test Averages						4.9	49	31030		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H142+00	4 R	8/26/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.15	46						First 10 blows discounted as "seating" blows.
				20	10	0.25	75	2	5.8	41	27416	29	
				30	10	0.32	97	2	4.4	56	33420	22	
				40	10	0.38	117	2	4.0	62	35783	20	
				50	10	0.46	141	2	4.8	50	31399	24	
				60	10	0.54	166	2	5.0	48	30494	25	
			Test Averages						4.8	50	31399	Pen. / Reading	

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	Depth	Hammer Factor	DCP Pen. Index	CBR	M_R		Notes
H142+00	10 L	8/27/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)		
				10	10	0.05	16						
				20	10	0.12	37	2	4.2	59	34553	21	
				40	20	0.23	71	2	3.4	74	40204	34	H142+00 10L & 10R have identical data. This is believed to be a reporting error. It is unclear which location these readings are actually from.
				50	10	0.32	98	2	5.4	44	28857	27	
				70	20	0.44	133	2	3.5	72	39377	35	
				80	10	0.51	155	2	4.4	56	33420	22	
			Test Averages						4.2	59	34672		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	Depth	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H142+00	10 R	8/27/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)		
				10	10	0.05	16						
				20	10	0.12	37	2	4.2	59	34553	21	
				40	20	0.23	71	2	3.4	74	40204	34	H142+00 10L & 10R have identical data. This is believed to be a reporting error. It is unclear which location these readings are actually from.
				50	10	0.32	98	2	5.4	44	28857	27	
				70	20	0.43	133	2	3.5	72	39377	35	
				80	10	0.51	155	2	4.4	56	33420	22	
			Test Averages						4.2	59	34672		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H152+00	4 L	8/27/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.09	27						First 10 blows discounted as "seating" blows.
				20	10	0.15	47	2	4.0	62	35783	20	
				30	10	0.23	70	2	4.6	53	32372	23	
				50	20	0.35	106	2	3.6	70	38590	36	
				60	10	0.42	129	2	4.6	53	32372	23	
				70	10	0.51	156	2	5.4	44	28857	27	
			Test Averages						4.4	55	33204		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H152+00	4 R	8/26/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.11	34						First 10 blows discounted as "seating" blows.
				20	10	0.21	63	2	5.8	41	27416	29	
				30	10	0.30	91	2	5.6	42	28115	28	
				40	10	0.40	123	2	6.4	37	25549	32	
				50	10	0.52	157	2	6.8	34	24462	34	
			Test Averages						6.2	38	26289		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H152+00	10 L	8/27/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				7	7	0.08	23						First 7 blows discounted as "seating" blows.
				21	14	0.19	58	2	5.0	48	30494	35	
				35	14	0.29	89	2	4.4	55	33266	31	
				49	14	0.42	129	2	5.7	41	27711	40	
				56	7	0.48	147	2	5.1	47	29884	18	
			Test Averages						5.0	48	30288		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H152+00	10 R	8/27/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.11	33						First 10 blows discounted as "seating" blows.
				30	20	0.27	81	2	4.8	50	31399	48	
				40	10	0.35	107	2	5.2	46	29649	26	
				50	10	0.44	134	2	5.4	44	28857	27	
				60	10	0.53	162	2	5.6	42	28115	28	
			Test Averages						5.3	46	29446		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H122+00	4 L	8/26/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.06	17						First 10 blows discounted as "seating" blows.
				40	30	0.16	50	2	2.2	121	54927	33	
				70	30	0.25	75	2	1.7	165	67022	25	
				90	20	0.34	103	2	2.8	92	46208	28	
				110	20	0.41	125	2	2.2	121	54927	22	
				130	20	0.49	148	2	2.3	115	53205	23	
				140	10	0.52	160	2	2.4	110	51606	12	
			Test Averages						2.2	119	54338		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H122+00	4 R	8/24/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.15	46						First 10 blows discounted as "seating" blows.
				20	10	0.25	75	2	5.8	41	27416	29	
				30	10	0.32	97	2	4.4	56	33420	22	
				40	10	0.38	117	2	4.0	62	35783	20	
				50	10	0.46	141	2	4.8	50	31399	24	
				60	10	0.54	166	2	5.0	48	30494	25	
			Test Averages						4.8	50	31399		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H122+00	10 L	8/26/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.07	20						First 10 blows discounted as "seating" blows.
				30	20	0.16	49	2	2.9	89	45060	29	
				50	20	0.23	70	2	2.1	127	56790	21	
				70	20	0.31	94	2	2.4	110	51606	24	
				90	20	0.40	123	2	2.9	89	45060	29	
				110	20	0.51	155	2	3.2	79	41990	32	
			Test Averages						2.7	96	47428		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H122+00	10 R	8/24/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.15	46						First 10 blows discounted as "seating" blows.
				20	10	0.27	81	2	7.0	33	23959	35	
				30	10	0.37	114	2	6.6	35	24991	33	
				40	10	0.48	147	2	6.6	35	24991	33	
				50	10	0.55	168	2	4.2	59	34553	21	
			Test Averages						6.1	39	26443		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M10+00	4 L	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.08	24						First 10 blows discounted as "seating" blows.
				20	10	0.15	46	2	4.4	56	33420	22	
				40	20	0.27	83	2	3.7	67	37840	37	
				60	20	0.39	118	2	3.5	72	39377	35	
				80	20	0.50	152	2	3.4	74	40204	34	
			Test Averages						3.8	66	37477		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M10+00	4 R	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.06	19						First 10 blows discounted as "seating" blows.
				30	20	0.19	58	2	3.9	64	36439	39	
				40	10	0.26	79	2	4.2	59	34553	21	
				60	20	0.37	113	2	3.4	74	40204	34	
				70	10	0.44	133	2	4.0	62	35783	20	
				80	10	0.50	153	2	4.0	62	35783	20	
			Test Averages						3.9	64	36439		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M10+00	10 L	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.09	28						First 10 blows discounted as "seating" blows.
				30	20	0.19	59	2	3.1	82	42956	31	
				50	20	0.28	85	2	2.6	100	48728	26	
				70	20	0.37	114	2	2.9	89	45060	29	
				90	20	0.47	144	2	3.0	85	43978	30	
				100	10	0.52	159	2	3.0	85	43978	15	
			Test Averages						2.9	89	45060		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M10+00	10 R	8/27/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.05	16						First 10 blows discounted as "seating" blows.
				30	20	0.17	52	2	3.6	70	38590	36	
				50	20	0.31	93	2	4.1	60	35155	41	
				70	20	0.45	138	2	4.5	54	32886	45	
				80	10	0.53	163	2	5.0	48	30494	25	
			Test Averages						4.3	57	33975		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M20+00	4 L	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.10	31						First 10 blows discounted as "seating" blows.
				20	10	0.18	56	2	5.0	48	30494	25	
				40	20	0.29	87	2	3.1	82	42956	31	
				60	20	0.40	122	2	3.5	72	39377	35	
				80	20	0.52	159	2	3.7	67	37840	37	
			Test Averages						3.8	65	36949		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M20+00	4 R	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.09	26						First 10 blows discounted as "seating" blows.
				20	10	0.15	47	2	4.2	59	34553	21	
				40	20	0.27	81	2	3.4	74	40204	34	
				60	20	0.37	114	2	3.3	77	41074	33	
				80	20	0.50	151	2	3.7	67	37840	37	
				90	10	0.57	173	2	4.4	56	33420	22	
			Test Averages						3.8	65	37123		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M20+00	10 L	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.09	28						First 10 blows discounted as "seating" blows.
				30	20	0.16	50	2	2.2	121	54927	22	
				50	20	0.27	83	2	3.3	77	41074	33	
				70	20	0.37	114	2	3.1	82	42956	31	
				110	40	0.52	158	2	2.2	121	54927	44	
			Test Averages						2.7	96	47428		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M20+00	10 R	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.10	29						First 10 blows discounted as "seating" blows.
				30	20	0.20	61	2	3.2	79	41990	32	
				60	30	0.31	96	2	2.3	113	52659	35	
				80	20	0.41	125	2	2.9	89	45060	29	
				100	20	0.50	152	2	2.7	96	47428	27	
			Test Averages						2.8	93	46406		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M29+00	4 L	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.10	29						First 10 blows discounted as "seating" blows.
				20	10	0.19	59	2	6.0	39	26758	30	
				40	20	0.26	80	2	2.1	127	56790	21	
				60	20	0.34	105	2	2.5	105	50118	25	
				80	20	0.43	132	2	2.7	96	47428	27	
				100	20	0.52	159	2	2.7	96	47428	27	
			Test Averages						3.2	79	41990		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M29+00	4 R	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.06	19						First 10 blows discounted as "seating" blows.
				30	20	0.16	48	2	2.9	89	45060	29	
				50	20	0.24	73	2	2.5	105	50118	25	
				70	20	0.33	101	2	2.8	92	46208	28	
				90	20	0.44	133	2	3.2	79	41990	32	
				110	20	0.55	167	2	3.4	74	40204	34	
			Test Averages						3.0	87	44403		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M29+00	10 L	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.06	18						First 10 blows discounted as "seating" blows.
				20	10	0.14	44	2	5.2	46	29649	26	
				40	20	0.24	73	2	2.9	89	45060	29	
				60	20	0.34	104	2	3.1	82	42956	31	
				80	20	0.47	142	2	3.8	65	37123	38	
				90	10	0.53	161	2	3.8	65	37123	19	
			Test Averages						3.8	66	37477		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M29+00	10 R	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.09	27						First 10 blows discounted as "seating" blows.
				30	20	0.20	61	2	3.4	74	40204	34	
				50	20	0.31	94	2	3.3	77	41074	33	
				70	20	0.45	136	2	4.2	59	34553	42	
				80	10	0.53	161	2	5.0	48	30494	25	
			Test Averages						4.0	62	35944		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M54+00	4 L	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.06	18						First 10 blows discounted as "seating" blows.
				30	20	0.16	50	2	3.2	79	41990	32	
				50	20	0.31	96	2	4.6	53	32372	46	
				70	20	0.40	122	2	2.6	100	48728	26	
				90	20	0.52	158	2	3.6	70	38590	36	
			Test Averages						3.5	72	39377		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M54+00	4 R	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.15	45						First 10 blows discounted as "seating" blows.
				20	10	0.25	75	2	6.0	39	26758	30	
				30	10	0.32	98	2	4.6	53	32372	23	
				40	10	0.39	119	2	4.2	59	34553	21	
				60	20	0.51	156	2	3.7	67	37840	37	
			Test Averages						4.6	53	32247		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M54+00	10 L	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.09	26						First 10 blows discounted as "seating" blows.
				20	10	0.15	47	2	4.2	59	34553	21	
				30	10	0.22	67	2	4.0	62	35783	20	
				50	20	0.35	107	2	4.0	62	35783	40	
				60	10	0.43	132	2	5.0	48	30494	25	
				70	10	0.50	153	2	4.2	59	34553	21	
			Test Averages						4.3	57	34089		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M54+00	10 R	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.09	27						First 10 blows discounted as "seating" blows.
				20	10	0.15	47	2	4.0	62	35783	20	
				40	20	0.28	84	2	3.7	67	37840	37	
				50	10	0.34	105	2	4.2	59	34553	21	
				70	20	0.48	145	2	4.0	62	35783	40	
				80	10	0.53	162	2	3.4	74	40204	17	
			Test Averages						4.0	62	35944		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M64+00	4 L	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.13	40						First 10 blows discounted as "seating" blows.
				20	10	0.23	71	2	6.2	38	26137	31	
				30	10	0.35	106	2	7.0	33	23959	35	
				40	10	0.45	138	2	6.4	37	25549	32	
				50	10	0.53	161	2	4.6	53	32372	23	
			Test Averages						6.1	39	26600		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M64+00	4 R	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.15	47						First 10 blows discounted as "seating" blows.
				20	10	0.24	74	2	5.4	44	28857	27	
				30	10	0.32	97	2	4.6	53	32372	23	
				40	10	0.42	127	2	6.0	39	26758	30	
				50	10	0.51	156	2	5.8	41	27416	29	
			Test Averages						5.5	44	28667		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M64+00	10 L	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.19	58						First 10 blows discounted as "seating" blows.
				20	10	0.44	134	2	15.2	14	13743	76	
				30	10	0.60	182	2	9.6	23	19105	48	
			Test Averages						12.4	17	15903		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M64+00	10 R	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.14	43						First 10 blows discounted as "seating" blows.
				20	10	0.23	71	2	5.6	42	28115	28	
				30	10	0.31	94	2	4.6	53	32372	23	
				40	10	0.38	115	2	4.2	59	34553	21	
				60	20	0.49	148	2	3.3	77	41074	33	
				70	10	0.54	165	2	3.4	74	40204	17	
			Test Averages						4.4	55	33285		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M74+00	4 L	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.11	33						First 10 blows discounted as "seating" blows.
				20	10	0.20	61	2	5.6	42	28115	28	
				30	10	0.29	87	2	5.2	46	29649	26	
				40	10	0.36	111	2	4.8	50	31399	24	
				50	10	0.45	138	2	5.4	44	28857	27	
				60	10	0.52	157	2	3.8	65	37123	19	
			Test Averages						5.3	46	29446		
Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M74+00	4 R	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.12	36						First 10 blows discounted as "seating" blows.
				20	10	0.19	58	2	4.4	56	33420	22	
				40	20	0.27	83	2	2.5	105	50118	25	
				50	10	0.35	107	2	4.8	50	31399	24	
				70	20	0.45	137	2	3.0	85	43978	30	
				90	20	0.53	163	2	2.6	100	48728	26	
			Test Averages						3.5	73	39703		
Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M74+00	10 L	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.05	15						First 5 blows discounted as "seating" blows.
				15	10	0.14	43	2	5.6	42	28115	28	
				25	10	0.24	73	2	6.0	39	26758	30	
				35	10	0.34	103	2	6.0	39	26758	30	
				40	5	0.41	126	2	9.2	24	19697	23	
				50	10	0.50	153	2	5.4	44	28857	27	
			Test Averages						6.4	36	25435		
Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M74+00	10 R	9/1/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.11	33						First 10 blows discounted as "seating" blows.
				20	10	0.20	62	2	5.8	41	27416	29	
				30	10	0.28	86	2	4.8	50	31399	24	
				40	10	0.39	118	2	6.4	37	25549	32	
				60	20	0.52	158	2	4.0	62	35783	40	
			Test Averages						5.3	46	29446		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M84+00	4 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.12	36						First 10 blows discounted as "seating" blows.
				30	20	0.25	77	2	4.1	60	35155	41	
				40	10	0.35	106	2	5.8	41	27416	29	
				50	10	0.43	131	2	5.0	48	30494	25	
				70	20	0.52	157	2	2.6	100	48728	26	
			Test Averages						4.4	56	33557		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M84+00	4 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.14	44						First 10 blows discounted as "seating" blows.
				20	10	0.25	77	2	6.6	35	24991	33	
				30	10	0.35	108	2	6.2	38	26137	31	
				40	10	0.44	135	2	5.4	44	28857	27	
				50	10	0.57	173	2	7.6	30	22588	38	
			Test Averages						6.5	36	25406		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M84+00	10 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.14	44						First 10 blows discounted as "seating" blows.
				20	10	0.23	70	2	5.2	46	29649	26	
				40	20	0.36	109	2	3.9	64	36439	39	
				50	10	0.42	129	2	4.0	62	35783	20	
				70	20	0.54	164	2	3.5	72	39377	35	
			Test Averages						4.2	59	34851		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M84+00	10 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.19	57						First 10 blows discounted as "seating" blows.
				20	10	0.34	105	2	9.6	23	19105	48	
				30	10	0.65	199	2	18.8	11	11801	94	
			Test Averages						14.2	15	14430		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M94+00	10 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.20	62						First 10 blows discounted as "seating" blows.
				20	10	0.35	107	2	9.0	25	20009	45	
				30	10	0.51	156	2	9.8	23	18825	49	
				40	10	0.57	174	2	3.6	70	38590	18	
			Test Averages						9.4	24	19395		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M94+00	4 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.08	24						First 10 blows discounted as "seating" blows.
				20	10	0.17	53	2	5.8	41	27416	29	
				40	20	0.31	94	2	4.1	60	35155	41	
				50	10	0.38	115	2	4.2	59	34553	21	
				70	20	0.49	148	2	3.3	77	41074	33	
				80	10	0.53	161	2	2.6	100	48728	13	
			Test Averages						4.4	56	33695		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M94+00	4 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.20	62						First 10 blows discounted as "seating" blows.
				20	10	0.35	107	2	9.0	25	20009	45	
				30	10	0.49	148	2	8.2	28	21390	41	
				40	10	0.58	178	2	6.0	39	26758	30	
			Test Averages						7.7	30	22308		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M94+00	10 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.08	23						First 10 blows discounted as "seating" blows.
				20	10	0.16	48	2	5.0	48	30494	25	
				30	10	0.23	69	2	4.2	59	34553	21	
				40	10	0.31	94	2	5.0	48	30494	25	
				60	20	0.39	120	2	2.6	100	48728	26	
				70	10	0.46	140	2	4.0	62	35783	20	
				80	10	0.54	166	2	5.2	46	29649	26	
			Test Averages						4.3	57	33788		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M104+00	4 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.12	36						First 10 blows discounted as "seating" blows.
				20	10	0.22	68	2	6.4	37	25549	32	
				30	10	0.31	93	2	5.0	48	30494	25	
				40	10	0.39	120	2	5.4	44	28857	27	
				60	20	0.52	160	2	4.0	62	35783	40	
			Test Averages						5.2	46	29649		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading		DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M104+00	4 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)	Hammer Factor	(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.10	32						First 10 blows discounted as "seating" blows.
				30	20	0.22	66	2	3.4	74	40204	34	
				50	20	0.32	99	2	3.3	77	41074	33	
				70	20	0.43	132	2	3.3	77	41074	33	
			Test Averages						3.3	76	40779		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M104+00	10 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.10	31						First 10 blows discounted as "seating" blows.
				30	20	0.24	72	2	4.1	60	35155	41	
				40	10	0.33	100	2	5.6	42	28115	28	
				60	20	0.44	133	2	3.3	77	41074	33	
				70	10	0.52	157	2	4.8	50	31399	24	
				80	10	0.56	171	2	2.8	92	46208	14	
			Test Averages						4.5	55	33151		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M104+00	10 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.09	26						First 5 blows discounted as "seating" blows.
				15	10	0.20	62	2	7.2	32	23480	36	
				25	10	0.31	94	2	6.4	37	25549	32	
				35	10	0.42	129	2	7.0	33	23959	35	
				50	15	0.54	164	2	4.7	52	32040	35	
			Test Averages						6.3	37	25790		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M114+00	4 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.10	30						First 10 blows discounted as "seating" blows.
				20	10	0.18	55	2	5.0	48	30494	25	
				30	10	0.28	86	2	6.2	38	26137	31	
				50	20	0.41	124	2	3.8	65	37123	38	
				70	20	0.53	162	2	3.8	65	37123	38	
			Test Averages						4.7	52	31877		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M114+00	4 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.15	45						First 5 blows discounted as "seating" blows.
				10	5	0.23	69	2	9.6	23	19105	24	
				15	5	0.34	103	2	13.6	16	14884	34	
				20	5	0.43	131	2	11.2	20	17106	28	
				25	5	0.52	157	2	10.4	21	18040	26	
				30	5	0.59	179	2	8.8	26	20334	22	
			Test Averages						10.7	20	17652		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M114+00	10 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.10	32						First 10 blows discounted as "seating" blows.
				20	10	0.20	61	2	5.8	41	27416	29	
				30	10	0.28	84	2	4.6	53	32372	23	
				40	10	0.35	106	2	4.4	56	33420	22	
				50	10	0.44	133	2	5.4	44	28857	27	
				60	10	0.53	161	2	5.6	42	28115	28	
			Test Averages						5.2	46	29813		
Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M114+00	10 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.12	38						First 5 blows discounted as "seating" blows.
				10	5	0.24	72	2	13.6	16	14884	34	
				15	5	0.32	97	2	10.0	22	18554	25	
				20	5	0.41	125	2	11.2	20	17106	28	
				25	5	0.48	146	2	8.4	27	21024	21	
				30	5	0.55	169	2	9.2	24	19697	23	
			Test Averages						10.5	21	17941		
Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M124+00	4 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.08	25						First 10 blows discounted as "seating" blows.
				10	5	0.17	51	2	10.4	21	18040	26	
				20	10	0.28	85	2	6.8	34	24462	34	
				30	10	0.39	118	2	6.6	35	24991	33	
				40	10	0.49	150	2	6.4	37	25549	32	
				45	5	0.52	159	2	3.6	70	38590	9	
			Test Averages						7.6	30	22695		
Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M124+00	10 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.09	26						First 5 blows discounted as "seating" blows.
				10	5	0.15	46	2	8.0	28	21772	20	
				15	5	0.23	69	2	9.2	24	19697	23	
				20	5	0.41	124	2	22.0	9	10544	55	
				30	10	0.53	162	2	7.6	30	22588	38	
			Test Averages						11.7	19	16579		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M124+00	4 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.06	19						First 10 blows discounted as "seating" blows.
				30	20	0.20	60	2	4.1	60	35155	41	
				50	20	0.29	89	2	2.9	89	45060	29	
				70	20	0.37	114	2	2.5	105	50118	25	
				90	20	0.46	140	2	2.6	100	48728	26	
				100	10	0.54	164	2	4.8	50	31399	24	
			Test Averages						3.4	75	40375		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M124+00	10 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.11	33						First 10 blows discounted as "seating" blows.
				30	20	0.18	54	2	2.1	127	56790	21	
				40	10	0.24	74	2	4.0	62	35783	20	
				60	20	0.34	104	2	3.0	85	43978	30	
				80	20	0.44	134	2	3.0	85	43978	30	
				100	20	0.53	163	2	2.9	89	45060	29	
			Test Averages						3.0	85	43978		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M140+00	4 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.12	36						First 10 blows discounted as "seating" blows.
				20	10	0.23	69	2	6.6	35	24991	33	
				30	10	0.35	108	2	7.8	29	22171	39	
				40	10	0.50	151	2	8.6	26	20672	43	
				50	10	0.54	164	2	2.6	100	48728	13	
			Test Averages						7.7	30	22447		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M140+00	10 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.09	26						First 5 blows discounted as "seating" blows.
				15	10	0.21	65	2	7.8	29	22171	39	
				20	5	0.30	91	2	10.4	21	18040	26	
				30	10	0.43	130	2	7.8	29	22171	39	
				35	5	0.51	154	2	9.6	23	19105	24	
			Test Averages						8.9	25	20170		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M140+00	4 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.13	39						First 10 blows discounted as "seating" blows.
				20	10	0.21	64	2	5.0	48	30494	25	
				30	10	0.29	87	2	4.6	53	32372	23	
				50	20	0.37	114	2	2.7	96	47428	27	
				70	20	0.46	141	2	2.7	96	47428	27	
				80	10	0.54	165	2	4.8	50	31399	24	
			Test Averages						4.0	63	36042		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M140+00	10 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.12	36						First 10 blows discounted as "seating" blows.
				20	10	0.22	67	2	6.2	38	26137	31	
				30	10	0.31	94	2	5.4	44	28857	27	
				40	10	0.40	121	2	5.4	44	28857	27	
				50	10	0.49	148	2	5.4	44	28857	27	
				60	10	0.56	172	2	4.8	50	31399	24	
			Test Averages						5.4	44	28705		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M150+00	4 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.11	33						First 5 blows discounted as "seating" blows.
				10	5	0.23	70	2	14.8	14	14009	37	
				15	5	0.32	97	2	10.8	20	17558	27	
				35	20	0.41	124	2	2.7	96	47428	27	
				50	15	0.51	156	2	4.3	58	34166	32	
			Test Averages						8.1	28	21500		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M150+00	10 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.06	17						First 5 blows discounted as "seating" blows.
				10	5	0.13	39	2	8.8	26	20334	22	
				15	5	0.21	64	2	10.0	22	18554	25	
				20	5	0.30	92	2	11.2	20	17106	28	
				25	5	0.41	124	2	12.8	17	15545	32	
				35	10	0.52	159	2	7.0	33	23959	35	
			Test Averages						10.0	22	18607		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M150+00	4 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.13	40						First 10 blows discounted as "seating" blows.
				20	10	0.20	60	2	4.0	62	35783	20	
				40	20	0.32	98	2	3.8	65	37123	38	
				60	20	0.43	130	2	3.2	79	41990	32	
				80	20	0.55	169	2	3.9	64	36439	39	
			Test Averages						3.7	67	37658		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M150+00	10 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.09	28						First 10 blows discounted as "seating" blows.
				20	10	0.18	55	2	5.4	44	28857	27	
				40	20	0.30	92	2	3.7	67	37840	37	
				50	10	0.37	114	2	4.4	56	33420	22	
				70	20	0.46	139	2	2.5	105	50118	25	
				90	20	0.56	170	2	3.1	82	42956	31	
			Test Averages						3.8	65	36984		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M160+00	4 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.11	35						First 5 blows discounted as "seating" blows.
				15	10	0.21	65	2	6.0	39	26758	30	
				20	5	0.28	85	2	8.0	28	21772	20	
				25	5	0.34	105	2	8.0	28	21772	20	
				30	5	0.42	128	2	9.2	24	19697	23	
				40	10	0.53	162	2	6.8	34	24462	34	
			Test Averages						7.6	30	22588		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M160+00	10 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.17	52						First 5 blows discounted as "seating" blows.
				10	5	0.26	79	2	10.8	20	17558	27	
				15	5	0.34	103	2	9.6	23	19105	24	
				20	5	0.42	128	2	10.0	22	18554	25	
				25	5	0.50	153	2	10.0	22	18554	25	
				30	5	0.57	174	2	8.4	27	21024	21	
			Test Averages						9.8	23	18880		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M160+00	4 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.06	19						First 10 blows discounted as "seating" blows.
				30	20	0.21	63	2	4.4	56	33420	44	
				40	10	0.29	89	2	5.2	46	29649	26	
				60	20	0.40	121	2	3.2	79	41990	32	
				80	20	0.52	159	2	3.8	65	37123	38	
			Test Averages						4.2	59	34851		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M160+00	10 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.07	20						First 10 blows discounted as "seating" blows.
				20	10	0.15	46	2	5.2	46	29649	26	
				30	10	0.22	66	2	4.0	62	35783	20	
				40	10	0.29	88	2	4.4	56	33420	22	
				50	10	0.36	111	2	4.6	53	32372	23	
				70	20	0.49	149	2	3.8	65	37123	38	
			Test Averages						4.4	56	33420		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M170+00	4 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.07	21						First 10 blows discounted as "seating" blows.
				30	20	0.16	50	2	2.9	89	45060	29	
				50	20	0.28	85	2	3.5	72	39377	35	
				70	20	0.40	121	2	3.6	70	38590	36	
				90	20	0.51	156	2	3.5	72	39377	35	
			Test Averages						3.4	75	40417		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M170+00	4 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.11	35						First 5 blows discounted as "seating" blows.
				10	5	0.19	57	2	8.8	26	20334	22	
				15	5	0.26	79	2	8.8	26	20334	22	
				25	10	0.38	116	2	7.4	31	23023	37	
				30	5	0.45	136	2	8.0	28	21772	20	
				35	5	0.52	159	2	9.2	24	19697	23	
			Test Averages						8.4	27	20952		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M170+00	10 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.08	24						First 10 blows discounted as "seating" blows.
				30	20	0.21	64	2	4.0	62	35783	40	
				40	10	0.30	91	2	5.4	44	28857	27	
				50	10	0.36	111	2	4.0	62	35783	20	
				60	10	0.44	134	2	4.6	53	32372	23	
				70	10	0.51	156	2	4.4	56	33420	22	
			Test Averages						4.5	54	32991		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M170+00	10 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.12	38						First 5 blows discounted as "seating" blows.
				10	5	0.21	64	2	10.4	21	18040	26	
				15	5	0.29	87	2	9.2	24	19697	23	
				20	5	0.37	113	2	10.4	21	18040	26	
				25	5	0.45	138	2	10.0	22	18554	25	
				30	5	0.52	158	2	8.0	28	21772	20	
			Test Averages						9.6	23	19105		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M180+00	4 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.12	37						First 10 blows discounted as "seating" blows.
				20	10	0.21	65	2	5.6	42	28115	28	
				40	20	0.35	108	2	4.3	57	33975	43	
				50	10	0.44	133	2	5.0	48	30494	25	
				60	10	0.51	155	2	4.4	56	33420	22	
			Test Averages						4.8	50	31283		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M180+00	4 R	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.09	28						First 10 blows discounted as "seating" blows.
				30	20	0.25	77	2	4.9	49	30939	49	
				40	10	0.35	107	2	6.0	39	26758	30	
				50	10	0.42	129	2	4.4	56	33420	22	
				70	20	0.52	160	2	3.1	82	42956	31	
			Test Averages						4.6	53	32372		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M180+00	10 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.13	39						First 10 blows discounted as "seating" blows.
				20	10	0.28	84	2	9.0	25	20009	45	
				40	20	0.41	124	2	4.0	62	35783	40	
				60	20	0.54	165	2	4.1	60	35155	41	
			Test Averages						5.7	42	27760		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M180+00	10 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.13	41						First 5 blows discounted as "seating" blows.
				10	5	0.22	66	2	10.0	22	18554	25	
				15	5	0.30	90	2	9.6	23	19105	24	
				25	10	0.43	130	2	8.0	28	21772	40	
				30	5	0.51	156	2	10.4	21	18040	26	
			Test Averages						9.5	23	19249		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M190+00	4 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.13	39						First 10 blows discounted as "seating" blows.
				20	10	0.22	67	2	5.6	42	28115	28	
				30	10	0.31	95	2	5.6	42	28115	28	
				40	10	0.39	120	2	5.0	48	30494	25	
				50	10	0.46	140	2	4.0	62	35783	20	
				60	10	0.53	161	2	4.2	59	34553	21	
			Test Averages						4.9	49	31030		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M190+00	10 L	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.10	29						First 10 blows discounted as "seating" blows.
				20	10	0.18	56	2	5.4	44	28857	27	
				30	10	0.27	83	2	5.4	44	28857	27	
				40	10	0.35	106	2	4.6	53	32372	23	
				60	20	0.47	142	2	3.6	70	38590	36	
				70	10	0.52	158	2	3.2	79	41990	16	
			Test Averages						4.8	51	31636		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M190+00	10 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.07	22						First 5 blows discounted as "seating" blows.
				10	5	0.21	63	2	16.4	13	13015	41	
				15	5	0.28	84	2	8.4	27	21024	21	
				20	5	0.36	110	2	10.4	21	18040	26	
				25	5	0.43	130	2	8.0	28	21772	20	
				30	5	0.50	153	2	9.2	24	19697	23	
				35	5	0.58	177	2	9.6	23	19105	24	
			Test Averages						10.3	21	18123		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M190+00	4 R	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.07	21						First 10 blows discounted as "seating" blows.
				30	20	0.19	59	2	3.8	65	37123	38	
				40	10	0.28	84	2	5.0	48	30494	25	
				50	10	0.36	110	2	5.2	46	29649	26	
				60	10	0.43	131	2	4.2	59	34553	21	
				70	10	0.52	159	2	5.6	42	28115	28	
			Test Averages						4.8	51	31588		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M200+00	10 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				5	5	0.10	29						First 5 blows discounted as "seating" blows.
				15	10	0.22	67	2	7.6	30	22588	38	
				25	10	0.34	103	2	7.2	32	23480	36	
				35	10	0.45	138	2	7.0	33	23959	35	
				45	10	0.53	163	2	5.0	48	30494	25	
			Test Averages						6.7	35	24723		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M200+00	4 L	9/14/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.09	28						First 10 blows discounted as "seating" blows.
				20	10	0.19	57	2	5.8	41	27416	29	
				30	10	0.29	89	2	6.4	37	25549	32	
				50	20	0.43	131	2	4.2	59	34553	42	
				70	20	0.52	159	2	2.8	92	46208	28	
			Test Averages						4.8	50	31399		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M200+00	4 R	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.08	24						First 10 blows discounted as "seating" blows.
				30	20	0.19	58	2	3.4	74	40204	34	
				40	10	0.26	79	2	4.2	59	34553	21	
				50	10	0.33	101	2	4.4	56	33420	22	
				60	10	0.43	130	2	5.8	41	27416	29	
				80	20	0.55	167	2	3.7	67	37840	37	
			Test Averages						4.3	57	33975		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M200+00	10 L	9/14/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.16	48						First 10 blows discounted as "seating" blows.
				20	10	0.24	74	2	5.2	46	29649	26	
				30	10	0.31	95	2	4.2	59	34553	21	
				50	20	0.43	130	2	3.5	72	39377	35	
				60	10	0.50	151	2	4.2	59	34553	21	
				70	10	0.57	173	2	4.4	56	33420	22	
			Test Averages						4.3	57	33975		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M210+00	4 L	9/14/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.09	26						First 10 blows discounted as "seating" blows.
				20	10	0.17	53	2	5.4	44	28857	27	
				30	10	0.26	80	2	5.4	44	28857	27	
				50	20	0.37	114	2	3.4	74	40204	34	
				70	20	0.47	142	2	2.8	92	46208	28	
				90	20	0.53	163	2	2.1	127	56790	21	
			Test Averages						3.8	65	36984		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M210+00	10 L	9/14/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.09	27						First 10 blows discounted as "seating" blows.
				20	10	0.15	47	2	4.0	62	35783	20	
				30	10	0.26	78	2	6.2	38	26137	31	
				40	10	0.35	108	2	6.0	39	26758	30	
				50	10	0.42	129	2	4.2	59	34553	21	
				60	10	0.52	160	2	6.2	38	26137	31	
			Test Averages						5.3	45	29168		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M210+00	10 R	9/10/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.20	60						First 10 blows discounted as "seating" blows.
				20	10	0.30	92	2	6.4	37	25549	32	
				30	10	0.41	125	2	6.6	35	24991	33	
				40	10	0.49	148	2	4.6	53	32372	23	
				50	10	0.56	170	2	4.4	56	33420	22	
			Test Averages						5.5	43	28480		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
M210+00	4 R	9/13/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.10	32						First 10 blows discounted as "seating" blows.
				20	10	0.22	67	2	7.0	33	23959	35	
				30	10	0.33	100	2	6.6	35	24991	33	
				40	10	0.42	127	2	5.4	44	28857	27	
				50	10	0.49	149	2	4.4	56	33420	22	
				60	10	0.57	174	2	5.0	48	30494	25	
			Test Averages						5.7	42	27830		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H122+00	4 L	8/26/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.06	17						First 10 blows discounted as "seating" blows.
				40	30	0.16	50	2	2.2	121	54927	33	
				70	30	0.25	75	2	1.7	165	67022	25	
				90	20	0.34	103	2	2.8	92	46208	28	
				110	20	0.41	125	2	2.2	121	54927	22	
				140	30	0.52	160	2	2.3	113	52659	35	
			Test Averages						2.2	118	54222		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H122+00	4 R	8/24/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.15	46						First 10 blows discounted as "seating" blows.
				20	10	0.25	75	2	5.8	41	27416	29	
				30	10	0.32	97	2	4.4	56	33420	22	
				40	10	0.38	117	2	4.0	62	35783	20	
				50	10	0.46	141	2	4.8	50	31399	24	
				60	10	0.54	166	2	5.0	48	30494	25	
			Test Averages						4.8	50	31399		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H122+00	10 L	8/26/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.07	20						First 10 blows discounted as "seating" blows.
				30	20	0.16	49	2	2.9	89	45060	29	
				50	20	0.23	70	2	2.1	127	56790	21	
				70	20	0.31	94	2	2.4	110	51606	24	
				90	20	0.40	123	2	2.9	89	45060	29	
				110	20	0.51	155	2	3.2	79	41990	32	
			Test Averages						2.7	96	47428		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H122+00	10 R	8/24/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.15	46						First 10 blows discounted as "seating" blows.
				20	10	0.27	81	2	7.0	33	23959	35	
				30	10	0.37	114	2	6.6	35	24991	33	
				40	10	0.48	147	2	6.6	35	24991	33	
				50	10	0.55	168	2	4.2	59	34553	21	
			Test Averages						6.1	39	26443		

Station	Offset	Date	Hammer Type	Blow Count	Blows	Depth	DCP Reading	Hammer Factor	DCP Pen. Index	CBR	M_R	Pen. / Reading	Notes
H122+00	10 R	8/24/2021	4.6kg	(#)	(#)	(ft)	(mm)		(mm/blow)	(%)	(psi)	(mm)	
				0	0	0	0						
				10	10	0.15	46						First 10 blows discounted as "seating" blows.
				20	10	0.27	81	2	7.0	33	23959	35	
				30	10	0.37	114	2	6.6	35	24991	33	
				40	10	0.48	147	2	6.6	35	24991	33	
				50	10	0.55	168	2	4.2	59	34553	21	
			Test Averages						6.1	39	26443		

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APPENDIX L – RECOMMENDED VTRANS DCP SPEC EDITS

DYNAMIC CONE PENETROMETER (DCP) TESTING

1. DESCRIPTION. Work under this item requires the Contractor to perform dynamic cone penetrometer testing of the reclaimed stabilized base layer and reporting results.

2. TESTING.

(a) Dynamic cone penetrometer testing shall be done in accordance with the provisions outlined in ASTM D6951, "Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications". Testing locations shall be conducted every 1,000 linear feet along the proposed highway alignment and within the limits of the reclaimed stabilized base layer. Testing locations will be determined by the Engineer.

(b) The hammer used during the test shall be the full 8-kg dual mass hammer.

(c) Each testing location will receive four individual tests. Tests shall be positioned such that each directional width of the roadway receives two separate tests. Tests shall be four feet and ten feet offset and perpendicular to the roadway centerline. *(Note – This may be different if combining with FWD Testing)*

(d) Testing shall be conducted XX Months following ~~the completion~~ placement and compaction of the reclaim stabilized base layer and prior to the installation of any subsequent surface courses.

(e) When performing a DCP test through a core hole, remaining standing water shall be removed and the test shall be completed within 10-minutes of coring to prevent excessive saturation from water used during the coring process.

(f) Prior to starting each test, seat the DCP with two blows from the hammer.

(g) Measurements consist of recording the number of blows between readings. The tip should be advanced a minimum of 25mm between readings. The target distance of tip movement between readings is 25mm to 50mm.

(h) The DCP testing shall be extended until at a minimum the reclaimed stabilized base layer has been fully penetrated, or refusal is encountered. Refusal shall be considered less than 2 mm of movement after 3 blows or if the handle has deflected more than 3-inches from vertical.

(i) Test reports shall be provided to the Engineer immediately following testing at each testing location. A complete test report summarizing every test within the project limits should also be provided to the Engineer. The reports shall include, but not be limited to, the following information: date; time; station and offset; mile marker; elapsed time since placement and compaction of the reclaimed stabilized base layer; depth change between ~~blows~~ measurements in graphical format; ~~total depth of penetration with each data point in~~

~~graphical format; and CBR (Californian Bearing Ratio)% versus depth in graphical format~~ and number of blows vs. distance traveled in tabular format.

3. METHOD OF MEASUREMENT. The accepted quantity of Special Provision (Dynamic Cone Penetrometer Testing) will be paid for at the Contract unit lump sum price. Payment will be full compensation for all dynamic cone penetrometer equipment, labor, testing, test reports, and any incidentals necessary to complete, collect and report the data tested. All necessary traffic control needed to complete the work will be incidental to item 641.11 — Traffic Control, All-Inclusive.

4. BASIS OF PAYMENT. The quantity of Special Provision (Dynamic Cone Penetrometer Testing) will to be paid for at the Contract lump sum price. Partial payments will be made as follows:

   (a) 80% of the Contract lump sum price will be paid upon the completion of the required testing.

   (b) 20% of the Contract lump sum price will be paid upon receiving a complete report of the testing results.

   Payment will be made under:

Pay Item	Pay Unit
900.645 Special Provision (Dynamic Cone Penetrometer Testing)	Lump Sum

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APPENDIX M – LIMITATIONS

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Geotechnical Limitations

Explorations

1. The analyses and recommendations submitted in this report are based in part upon the data obtained from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until construction. If variations then appear evident, it will be necessary to reevaluate the recommendations of this report.

2. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretations of widely spaced explorations and samples; actual soil transitions are probably more erratic. For specific information, refer to the exploration logs.

3. Water level readings and moisture conditions have been made in the explorations, and from the samples at times and under conditions stated on the logs. These data have been reviewed and interpretations have been made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater and moisture condition may occur due to variations in rainfall, temperature, and other factors occurring since the time measurements were made.

Review

4. In the event that any changes in the nature, design or location of the proposed structures is planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing by GEODesign, Inc. We recommend that we be provided the opportunity to review and comment on the finalized project design and relevant construction specifications in order that earthwork and foundation recommendations may be properly interpreted and implemented in the design and specifications.

Use of Report

5. This report has been prepared for the exclusive use of **the Vermont Agency of Transportation**, for specific application to the **Statistical Analysis of DCP Data** research project as described in GEODesign's scope of services/ contract and related documents, in accordance with generally accepted soil and foundation engineering practices. No other warranty, express or implied, is made.

6. This report has been prepared for this specific project by GEODesign, Inc. This report is for design purposes only and is not sufficient to prepare an accurate bid. Contractors wishing a copy of the report may secure it with the understanding that its scope is limited to design considerations only, unless otherwise specified in the report.

7. Unless otherwise noted, the scope of our services did not include environmental assessment or investigation for the presence of hazardous or toxic materials in the soil, surface water, groundwater or air, on, below, or around this site.

Minnesota," *Nondestructive Testing of Pavements and Backcalculation of Moduli: Third Volume, ASTM STP 1375,* S. D. Tayabji and E. O. Lukanen, Eds., American Society for Testing and Materials, West Conshohocken, PA.

13. Tingle, J. S., and Jersey, S. R. (2007). "Evaluation of In Situ Pavement Layers with the Dynamic Cone Penetrometer (DCP)," U.S. Army Engineer Research and Development Center, Vicksburg, MS.

14. von Quintus, H. and Killingsworth, B., (1997). "Design Pamphlet for the Backcalculation of Pavement Layer Moduli in Support of the 1993 AASHTO Guide for the Design of Pavement Structures", *FHWA-RD-97-076,* FHWA Office or Engineering Research & Development, McLean, VA

15. von Quintus, H. and Killingsworth, B., (1997). "Design Pamphlet for the Determination of Design Subgrade Support of the AASHTO Guide for the Design of Pavement Structures", *FHWA-RD-97-083,* FHWA Office or Engineering Research & Development, McLean, VA

16. Tompkins, D., (2021). "Modulus and Dynamic Cone Penetrometer Data Collection for Full-Depth Reclamation Projects", *Report No. MN 2021-05,* Minnesota Department of Transportation Office of Research & Inovation and American Engineering Testing, Inc. St. Paul, MN

17. Benson, C., Edil, T., Ebrahimi, A., Kootstra, L. Li, and Bloom, P. (2009). "Appendicies to Use of Fly Ash for Reconstruction of Bituminous Roads", *Report No. MN/RC 2009-27A*, Minnesota Department of Transportation, St. Paul, MN, University of Wisconsin Department of Civil and Environmental Engineering, Madison, WI, University of Minnesota Department of Soil, Water, and Climate, St. Paul, MN

18. Edil, T,B., and Benson, C.H. (2007). "Demonstration of Ash Utilization in Low Volume Roads", *Report No. MN/RC-2007-12*, Minnesota Department of Transportation, St. Paul, MN and University of Wisconsin-Madison Department of Civil and Environmental Engineering, Madison, WI