FINAL DATA REPORT Rev. 2
GEOTECHNICAL EXPLORATION AND TESTING

TURKEY POINT COL PROJECT
FLORIDA CITY, FLORIDA

October 6, 2008

VOLUME 4

Prepared By:

MACTEC Engineering and Consulting, Inc.
Raleigh, North Carolina

MACTEC Project No. 6468-07-1950

Prepared For:

Bechtel Power Corporation
Subcontract No. 25409-102-HC4-CY00-00001

Contents

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Appendix F – RCTS Data Reports

Prepared By:

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APPENDIX F CONTENTS

FUGRO CONSULTANTS, INC.

6100 Hillcroft (77081)
P.O. Box 740010
Houston, Texas 77274
Tel: 713-369-5400
Fax: 713-369-5518

June 24, 2008

Ms. Siesta Williams
MACTEC
3301 Atlantic Avenue
Raleigh, NC 27604

RE: Two (2) Reports For The Turkey Point Project

Dear Ms. Williams:

Fugro has completed two (2) RCTS tests, which are B630-UD8 and B630-UD2 for the Turkey Point project. Fugro has incorporated, as needed, Dr. Kenneth Stokoe's comments into the final reports. The final reports and the associated RCTS Test Approvals by Dr. Kenneth Stokoe have been attached.

Please let us know if you have questions. Thanks.

Very truly yours,

Fugro Consultants, Inc.

Jiewu Meng, PhD, P.E.
Project Engineer

Bill DeGroff, P.E.
Laboratory Department Manager

Enclosures

RCTS TEST APROVAL

PROJECT SITE/NAME	Turkey Point

Test ID	Sample ID	Depth B.S. (Ft)	Approved By (Initials)	Date
RCTS#A	B630-UD8	163.1	KHS ⊕	18 June '08
RCTS#B	B630-UD2	131.9	KHS ⊕	18 June '08

Two RCTS tests for the site referenced above were tested, and two reports were prepared, by Fugro Consultants, Inc.

I have reviewed the data and associated results listed above and found them to be reasonable.

Approved By:

K. H. Stokoe

Dr. Kenneth Stokoe

⊕ Consider minor comments on a few figures.

APPENDIX A

Specimen B630-UD8

Borehole B630
Sample UD8
Depth = 163.1 ft (49.7 m)
Total Unit Weight = 118.7 lb/ft^3
Water Content = 33.0 %
Estimated In-Situ Ko = 0.5
Estimated In-Situ Mean Effective Stress = 47 psi

FUGRO JOB #: 0401-1701
Testing Station: RC9

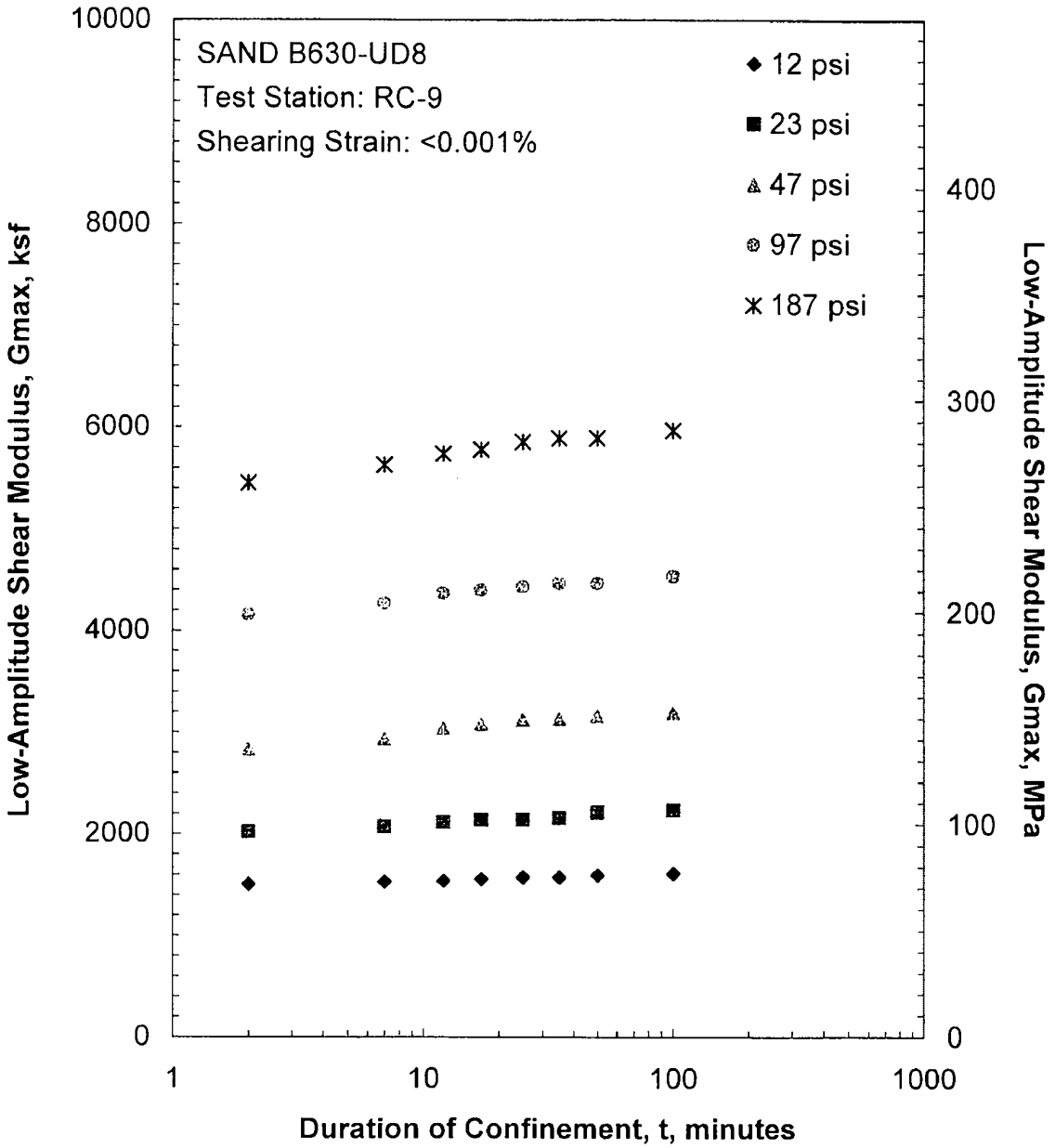


Figure A.1 Variation in Low-Amplitude Shear Modulus with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

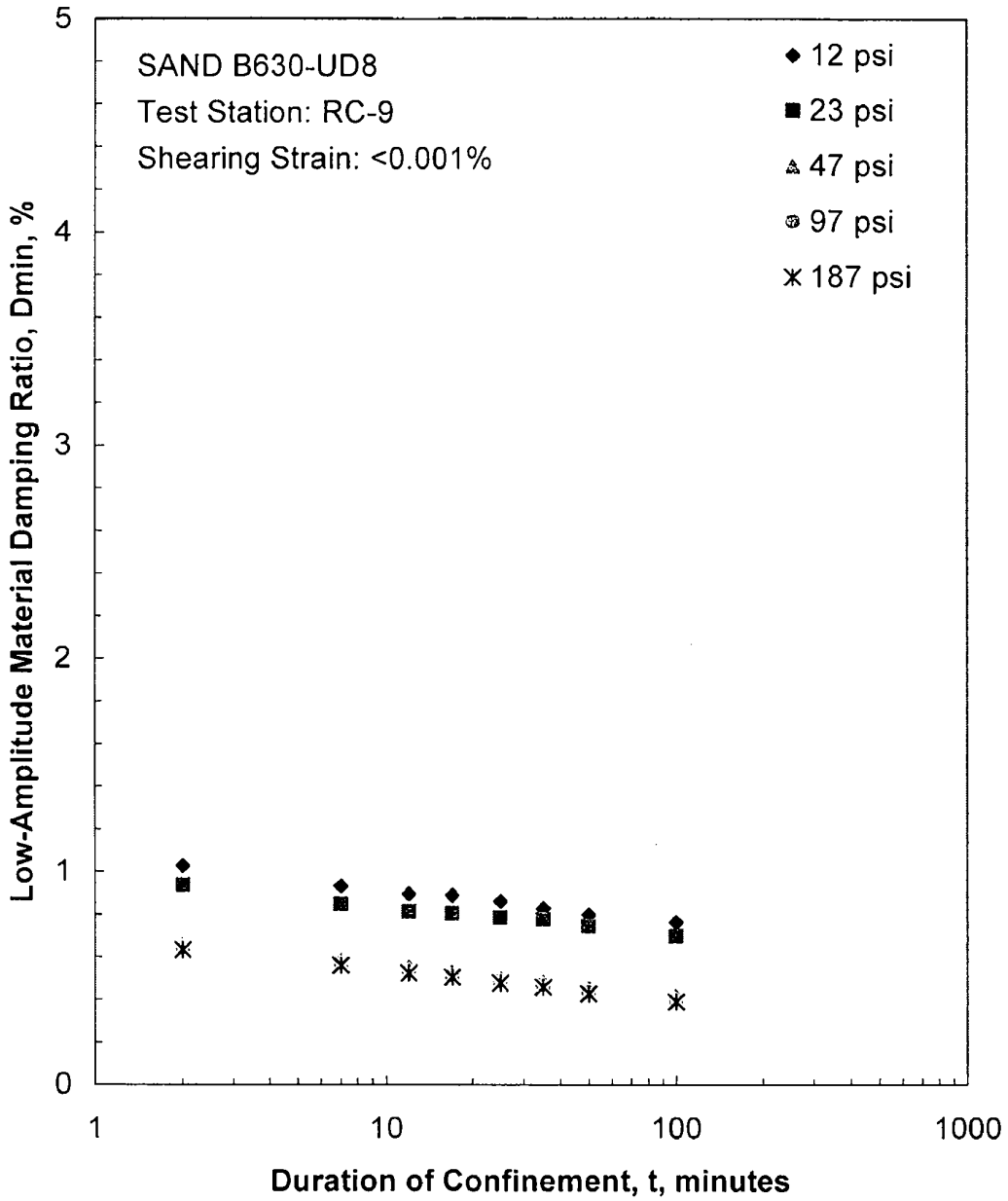


Figure A.2 Variation in Low-Amplitude Material Damping Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

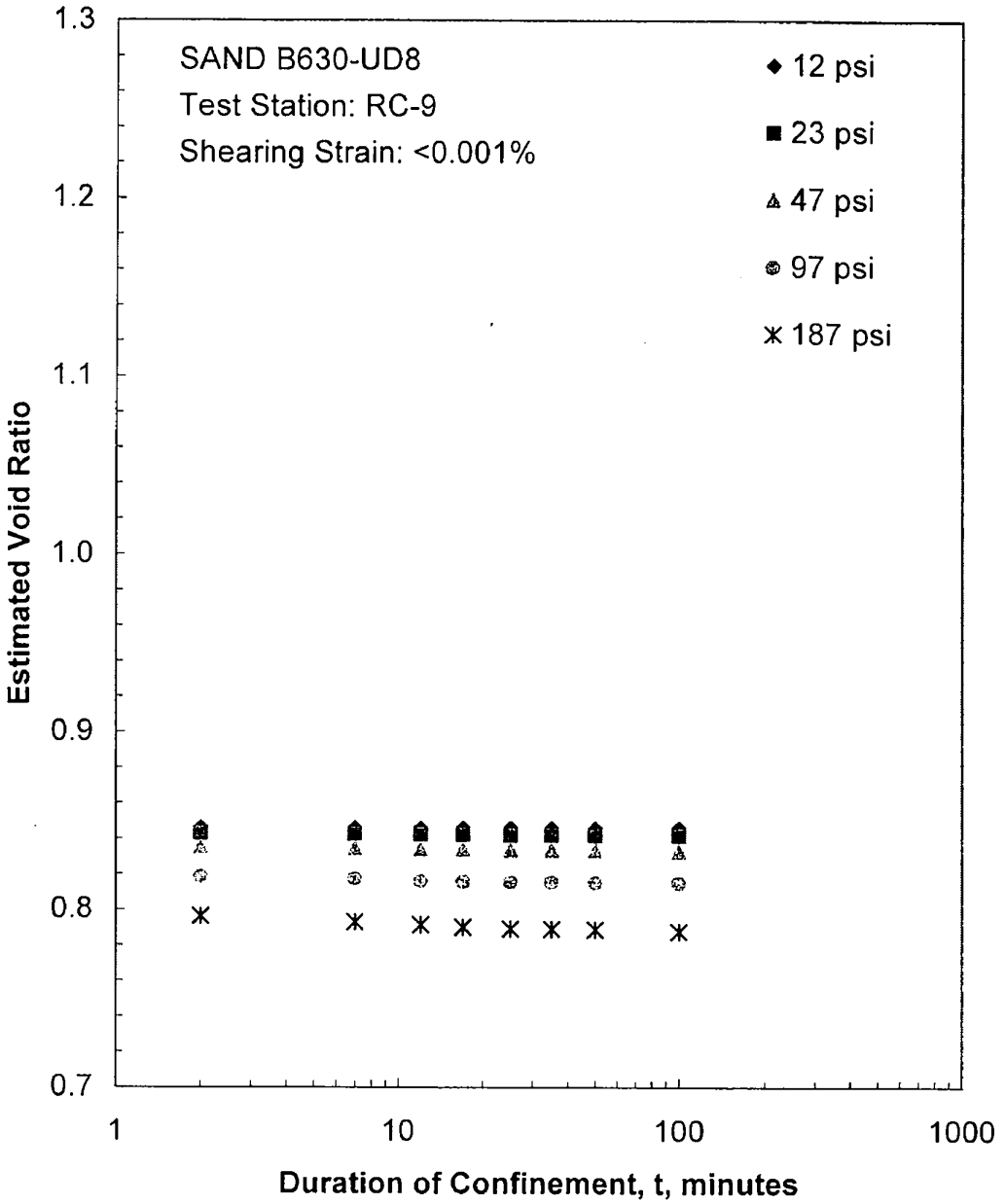


Figure A.3 Variation in Estimated Void Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

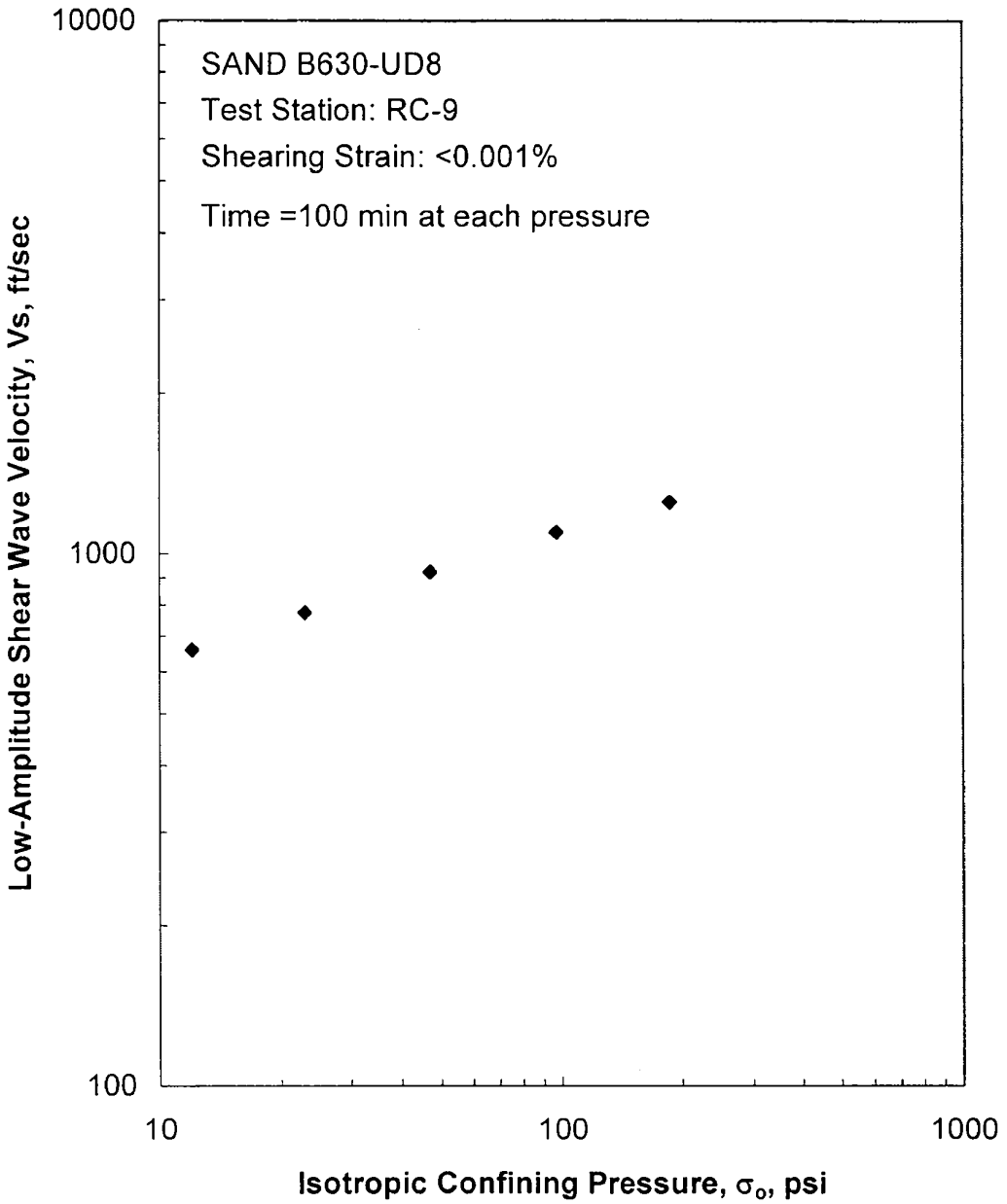


Figure A.4 Variation in Low-Amplitude Shear Wave Velocity with Isotropic Confining Pressure from Resonant Column Tests

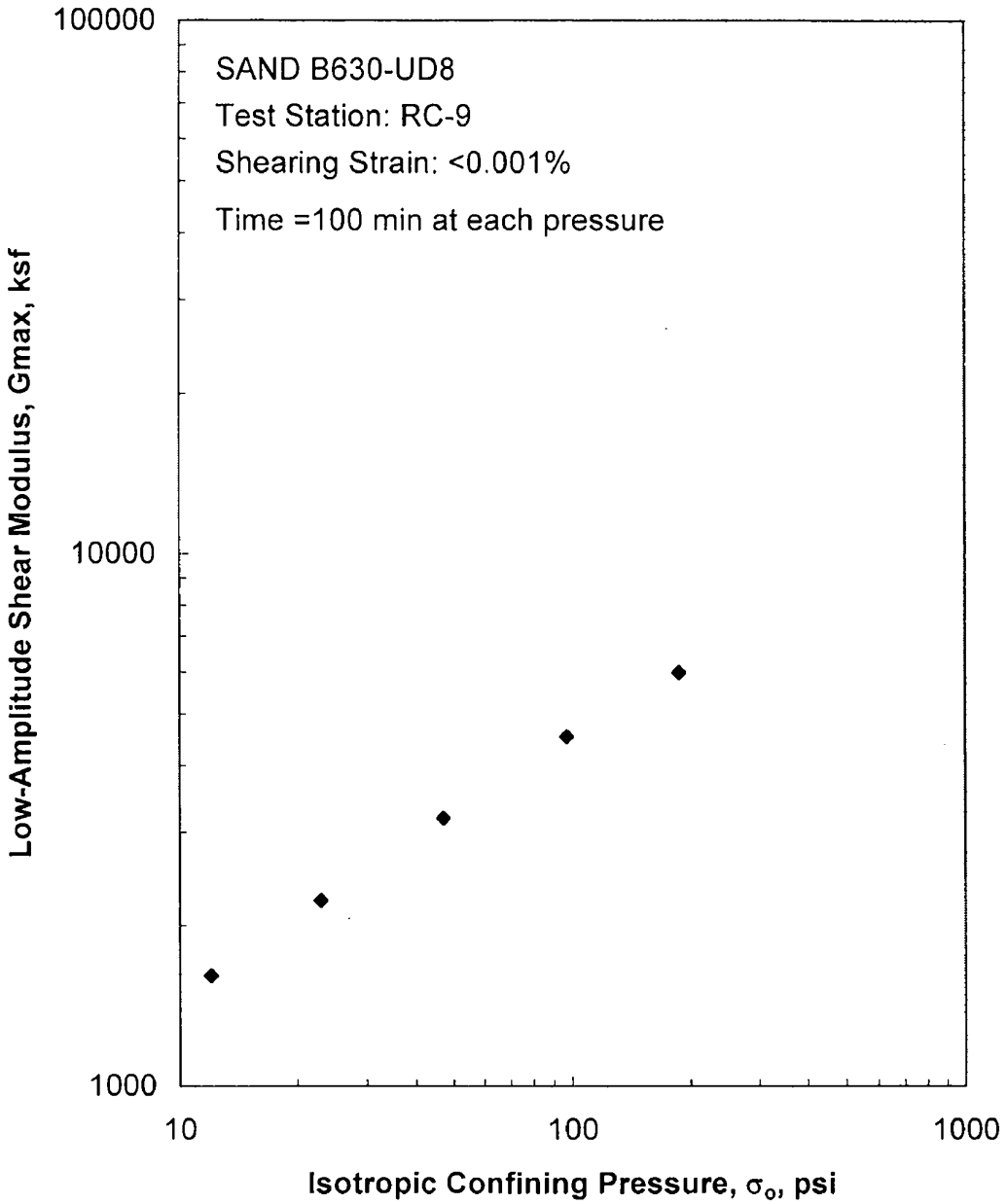


Figure A.5 Variation in Low-Amplitude Shear Modulus with Isotropic Confining Pressure from Resonant Column Tests

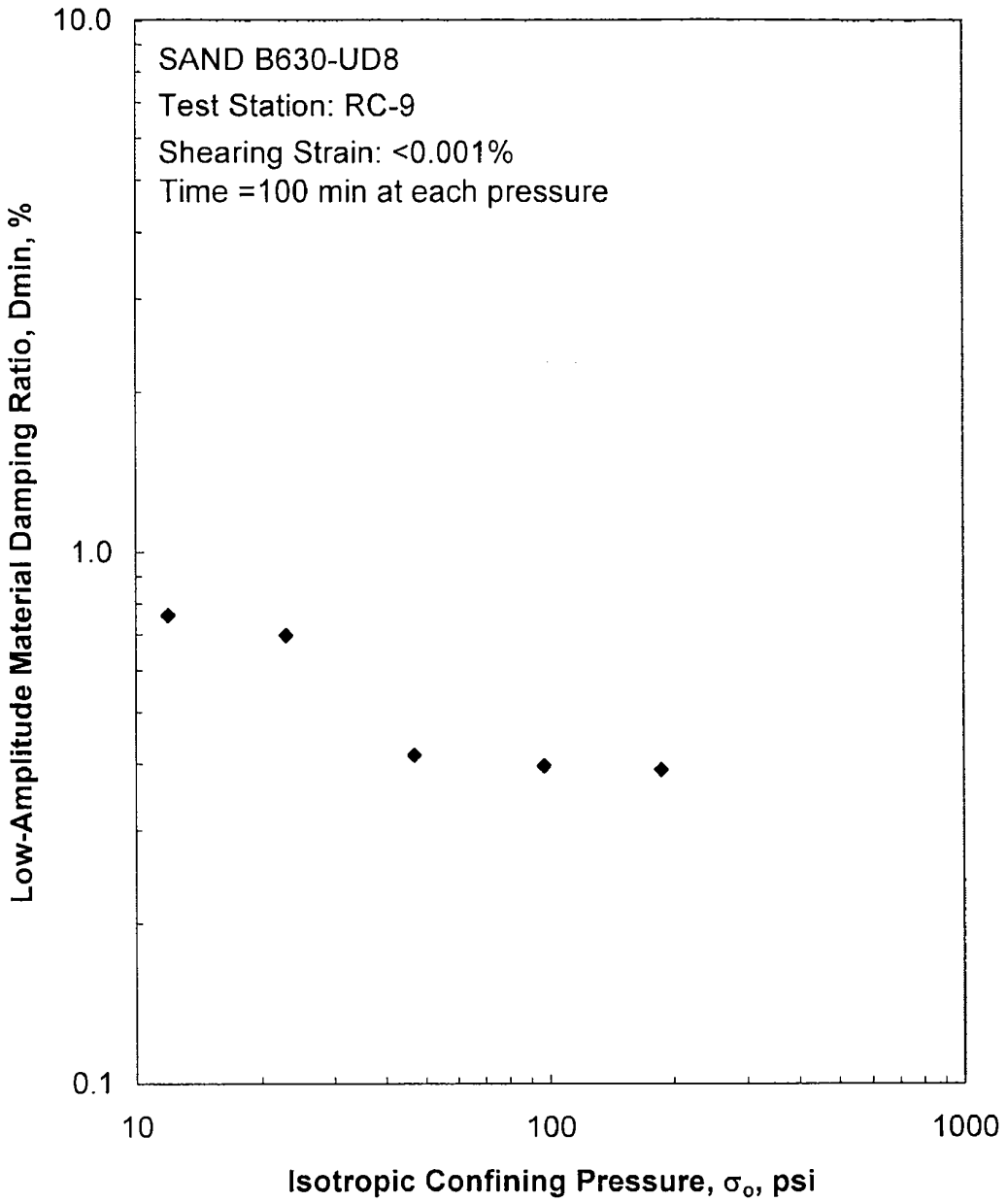


Figure A.6 Variation in Low-Amplitude Material Damping Ratio with Isotropic Confining Pressure from Resonant Column Tests

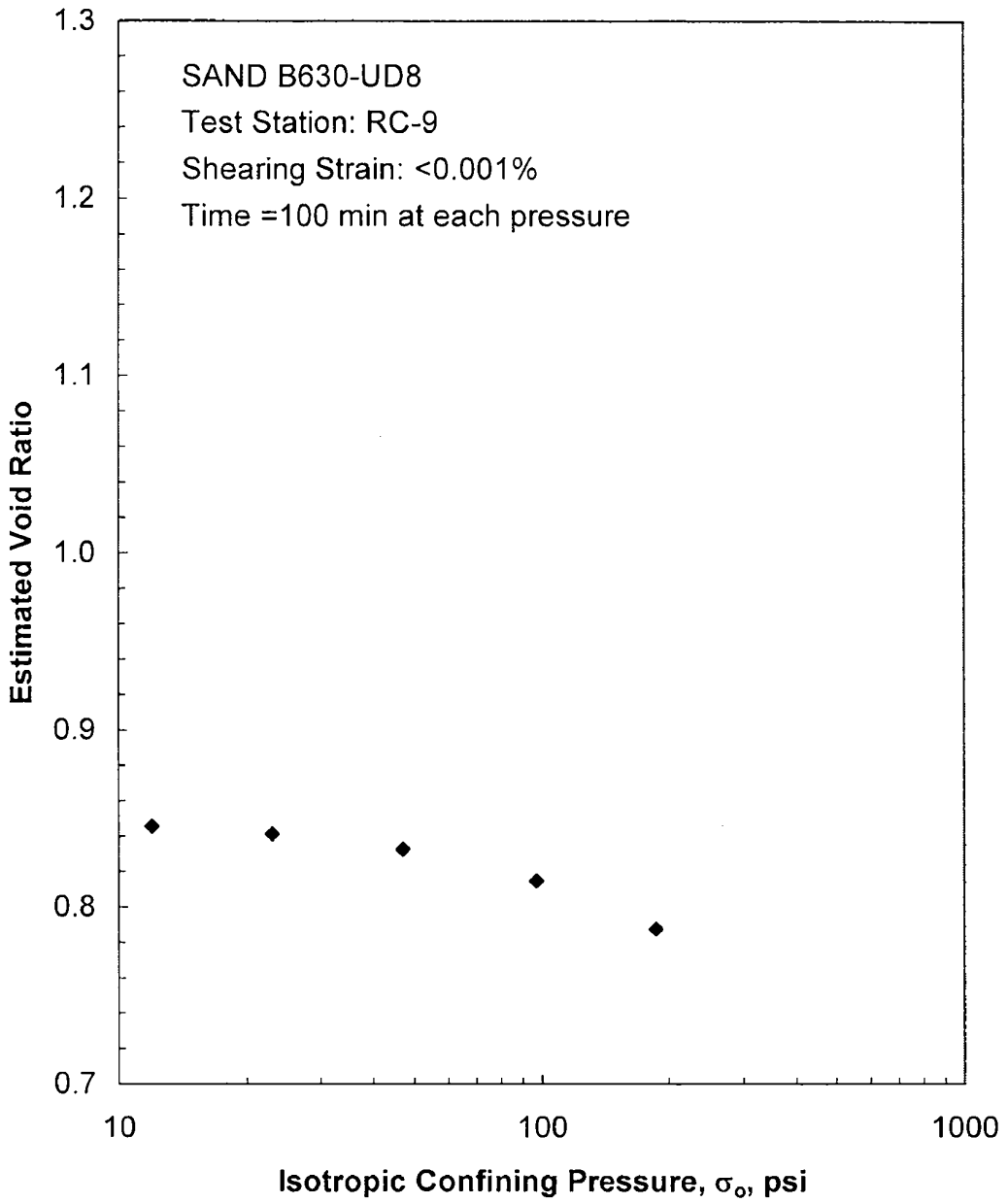


Figure A.7 Variation in Estimated Void Ratio with Isotropic Confining Pressure from Resonant Column Tests

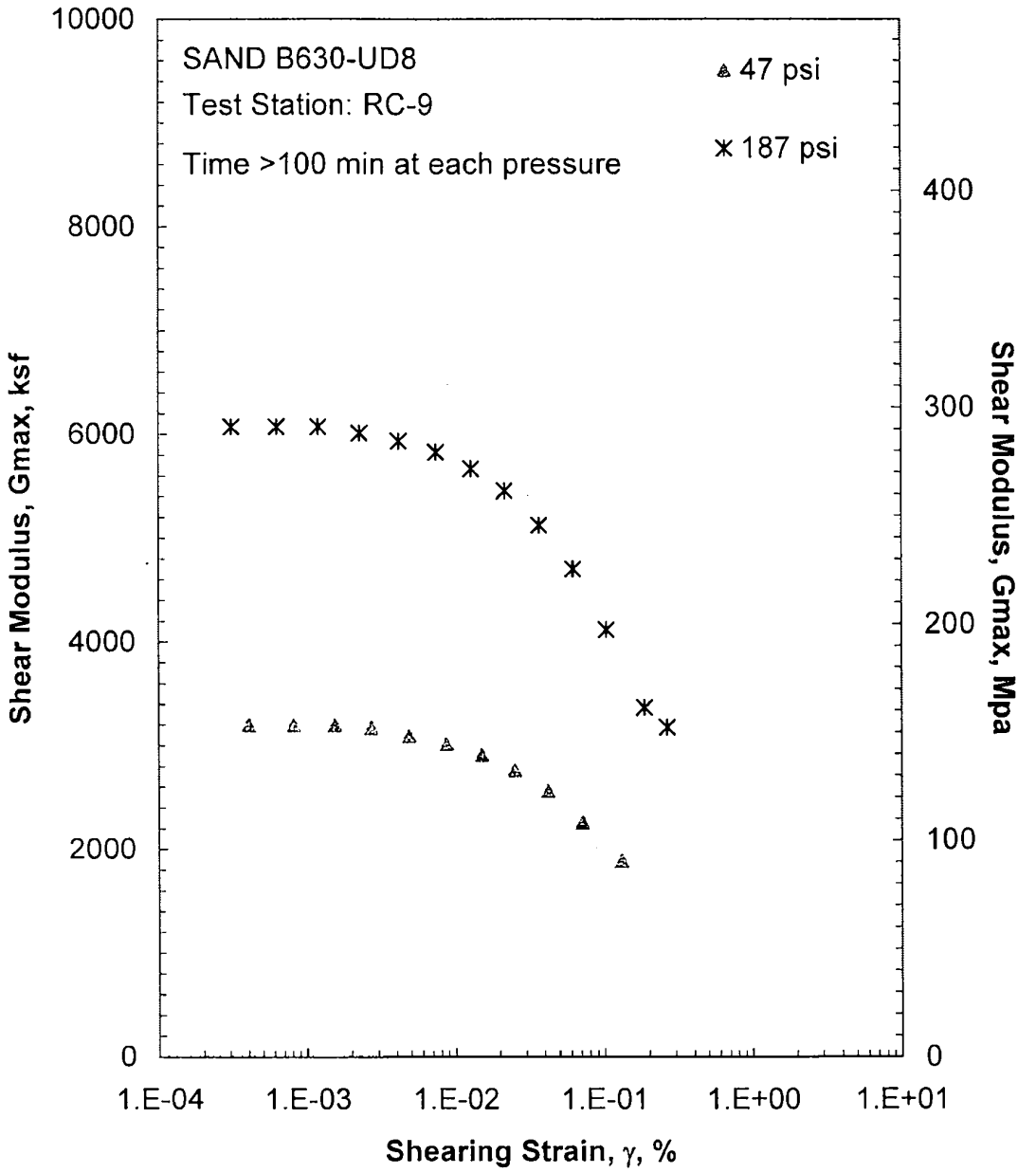


Figure A.8 Comparison of the Variation in Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

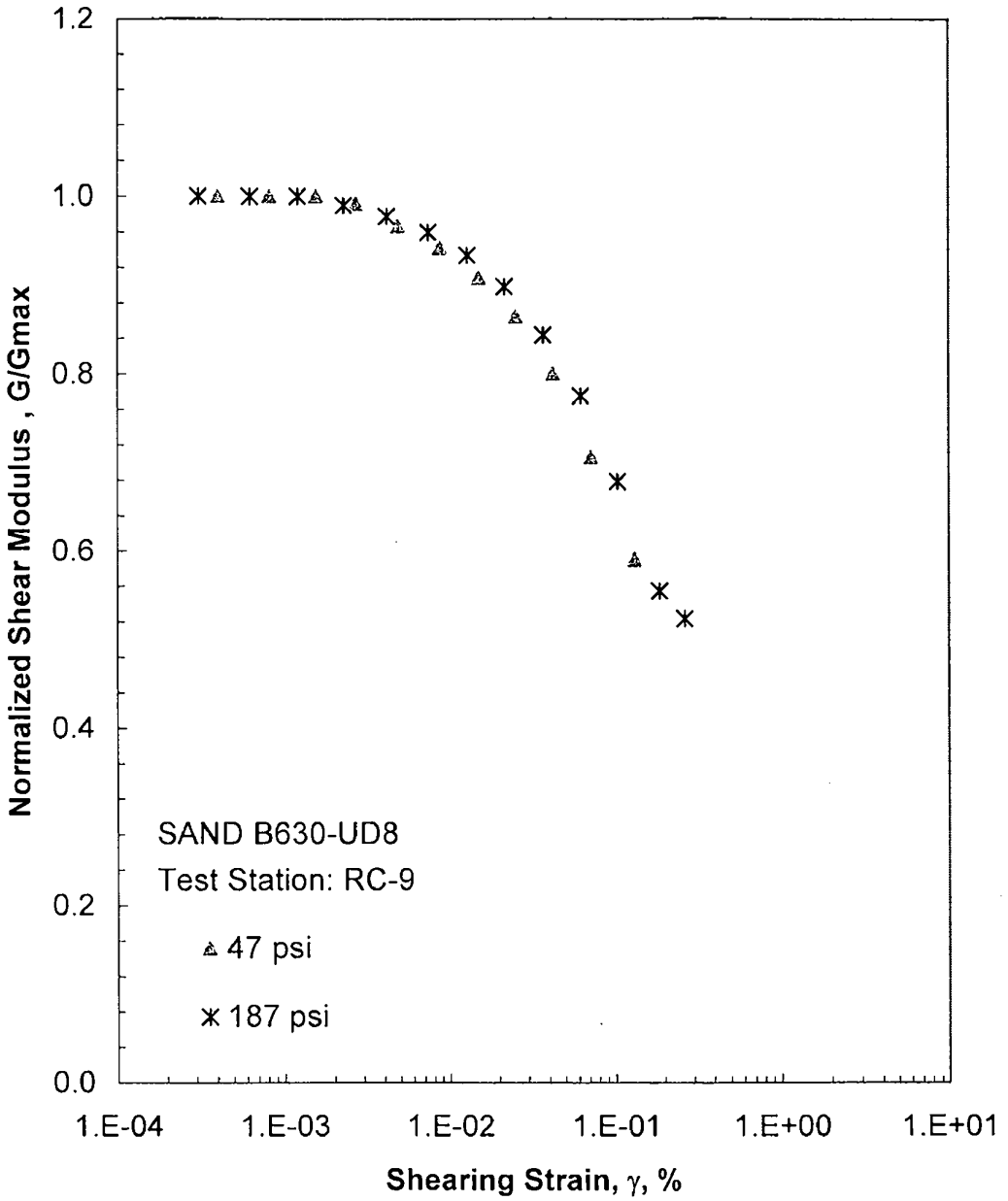


Figure A.9 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

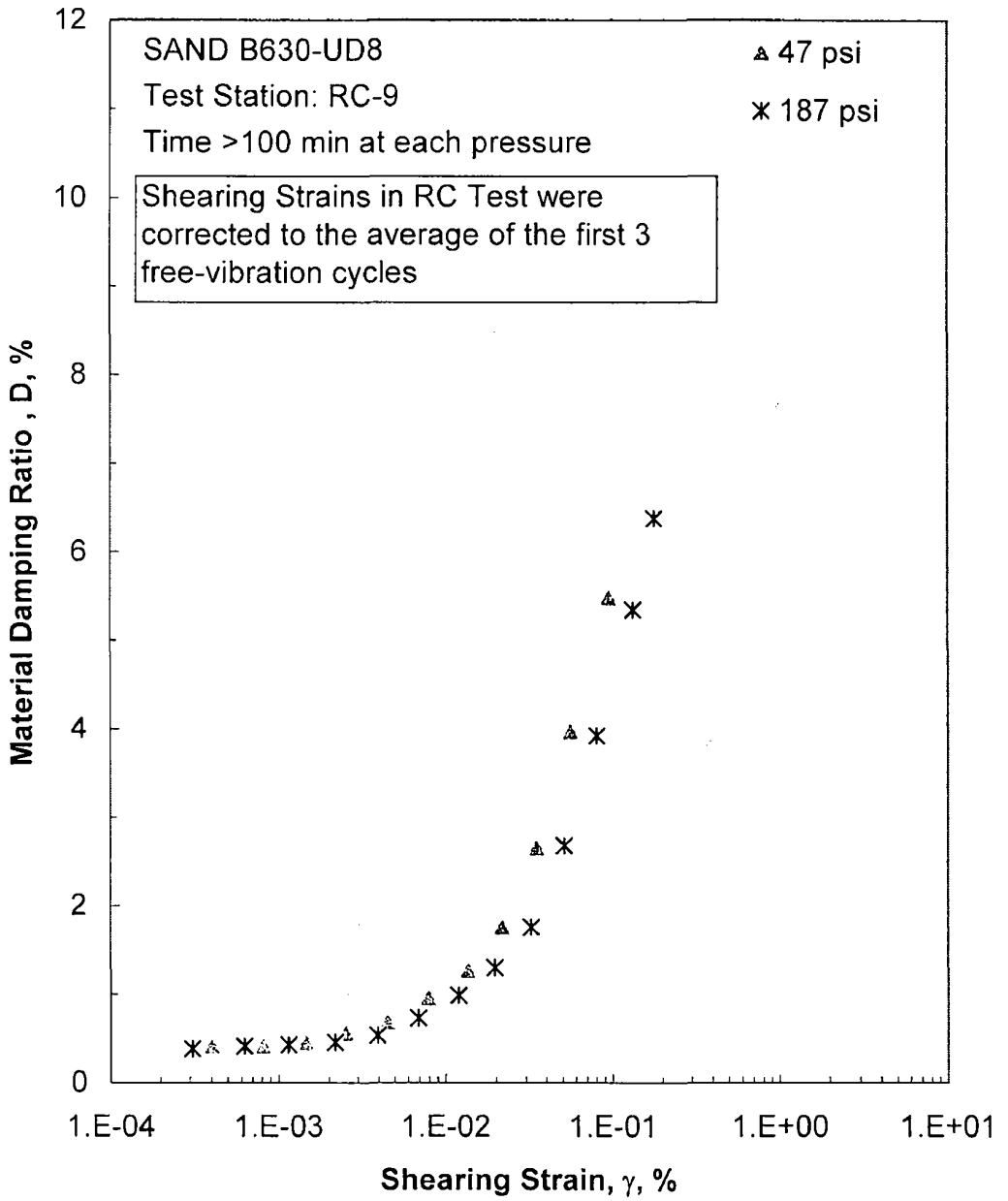


Figure A.10 Comparison of the Variation in Material Damping Ratio with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

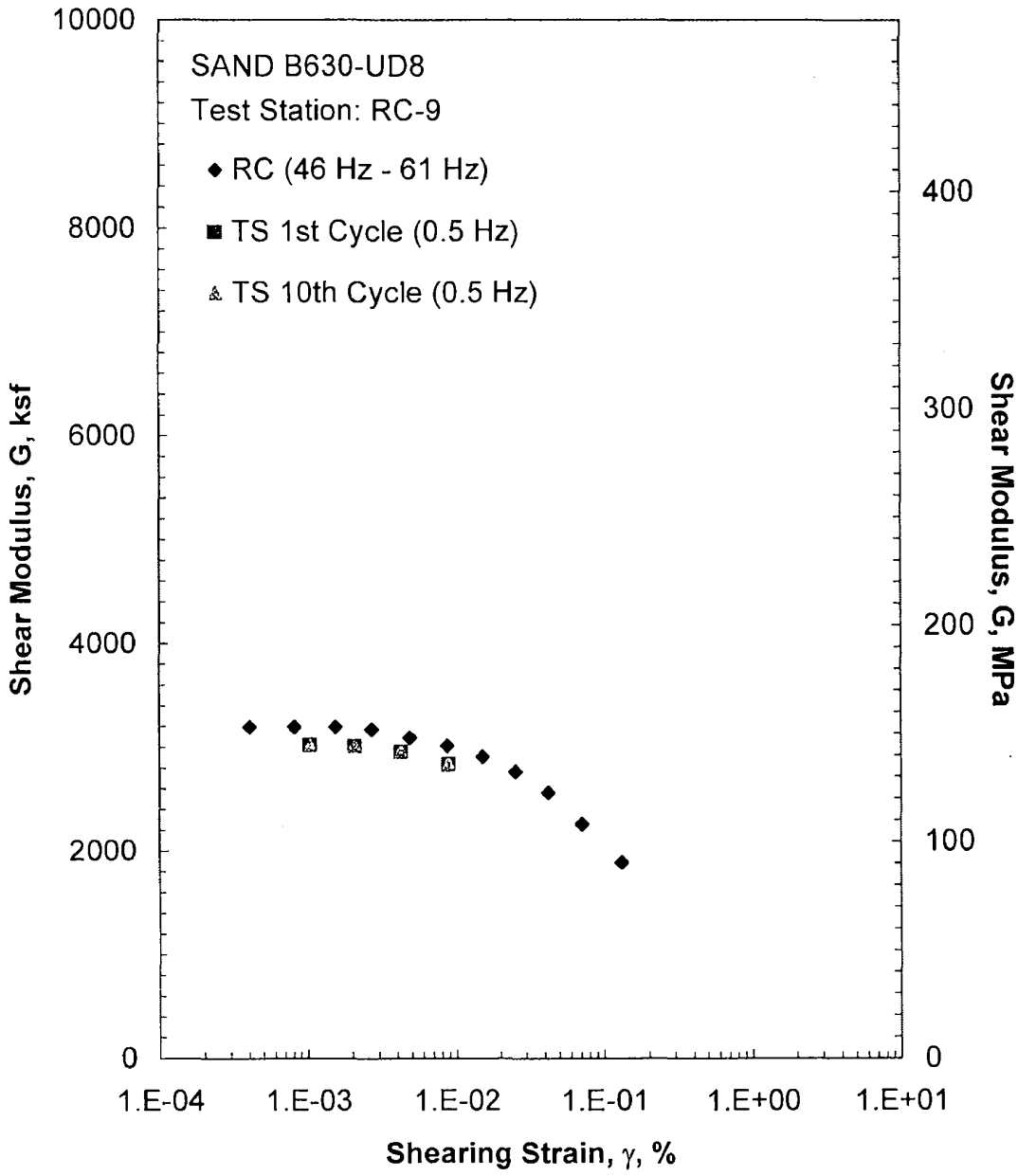


Figure A.11 Comparison of the Variation in Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 47 psi from the Combined RCTS Tests

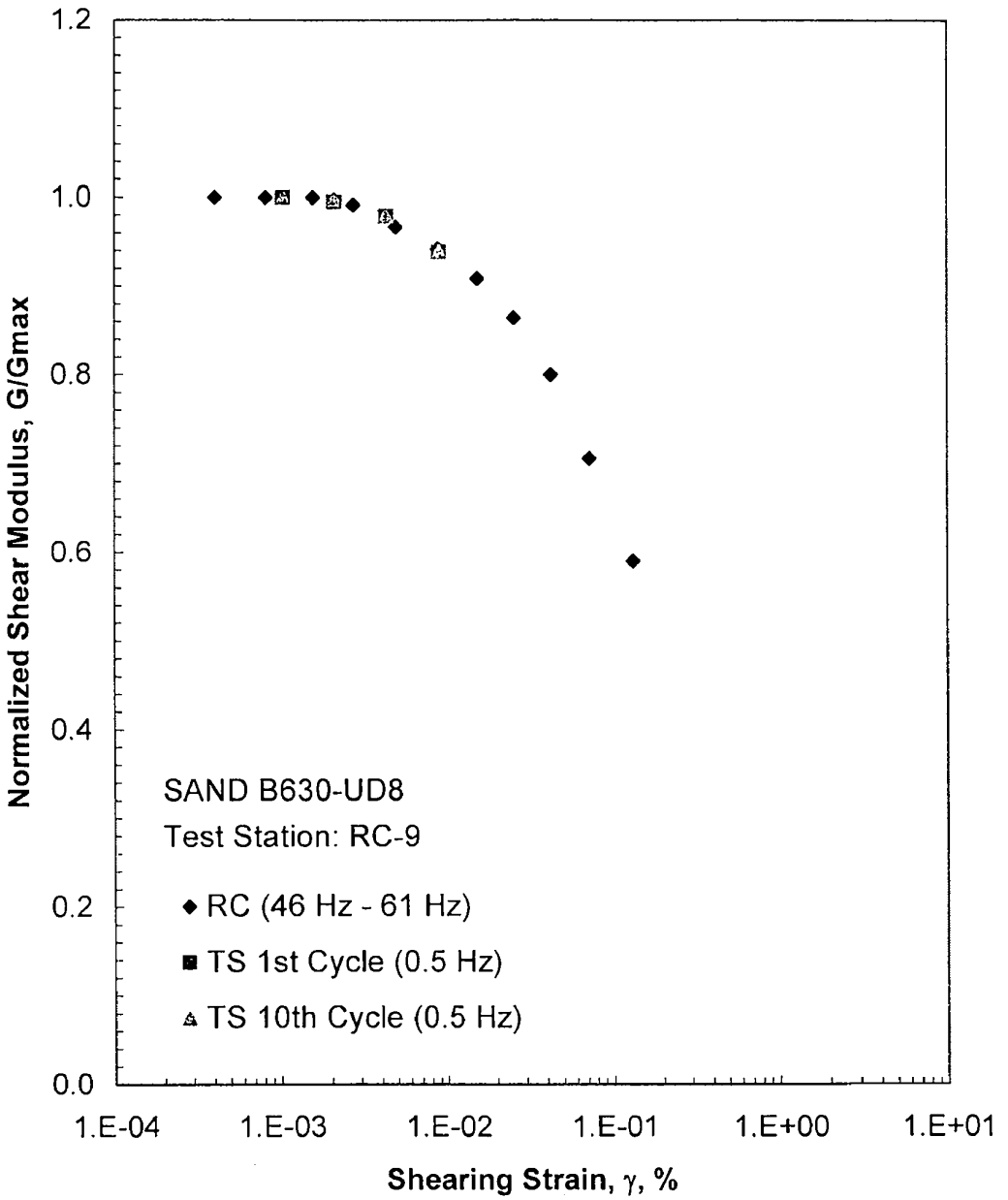


Figure A.12 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 47 psi from the Combined RCTS Tests

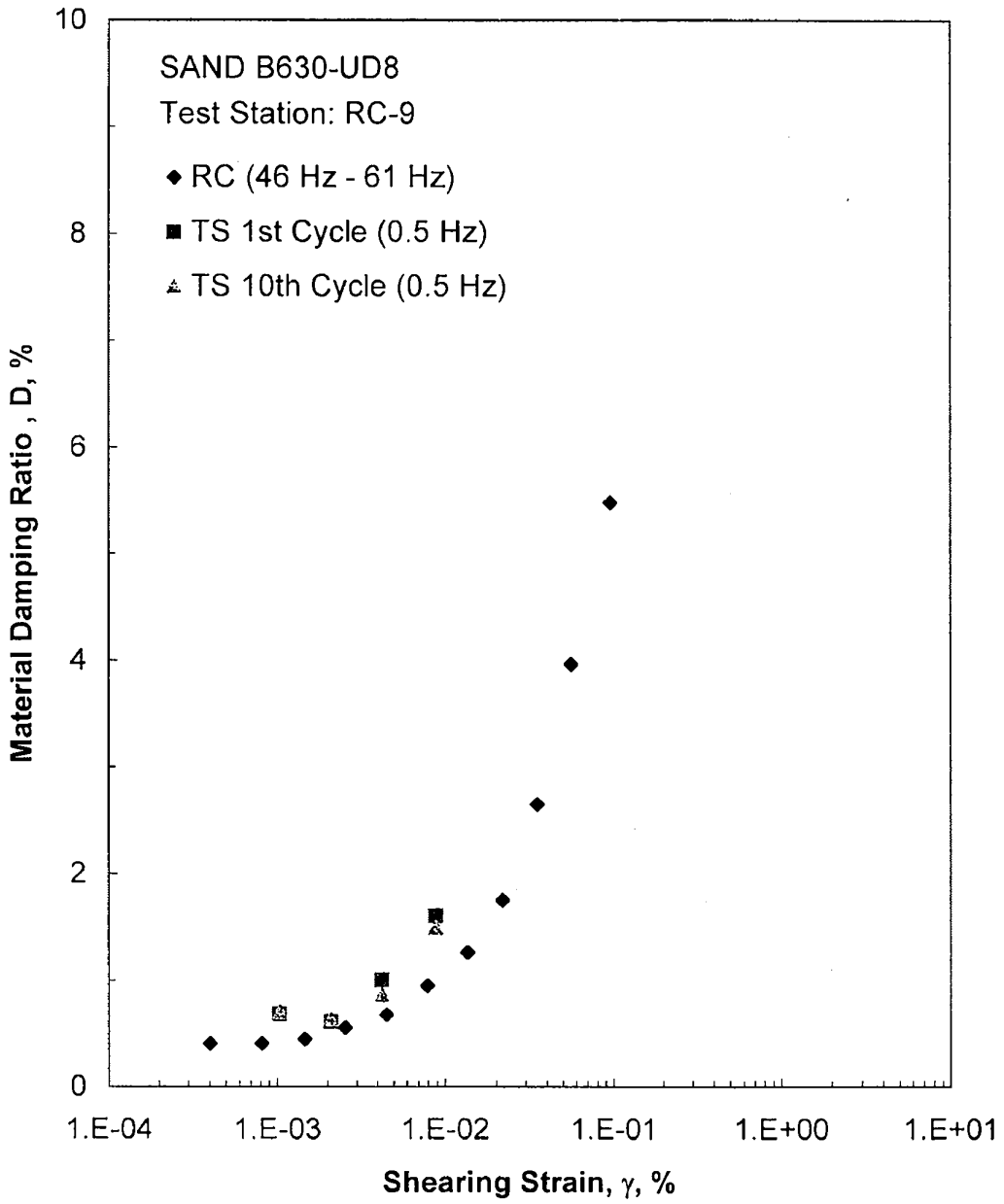


Figure A.13 Comparison of the Variation in Material Damping Ratio with Shearing Strain at an Isotropic Confining Pressure of 47 psi from the Combined RCTS Tests

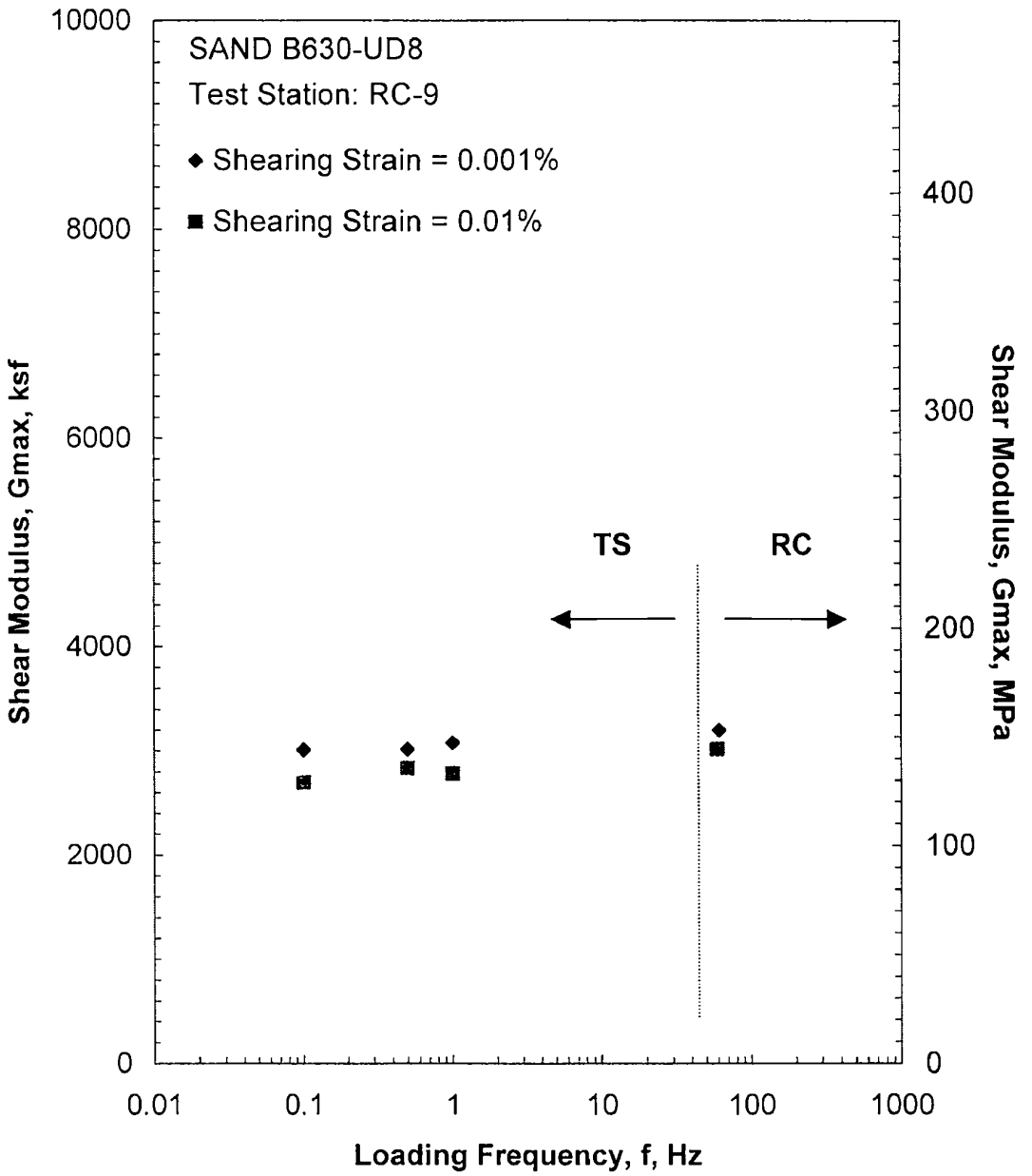


Figure A.14 Comparison of the Variation in Shear Modulus with Loading Frequency at an Isotropic Confining Pressure of 47 psi from the Combined RCTS Tests

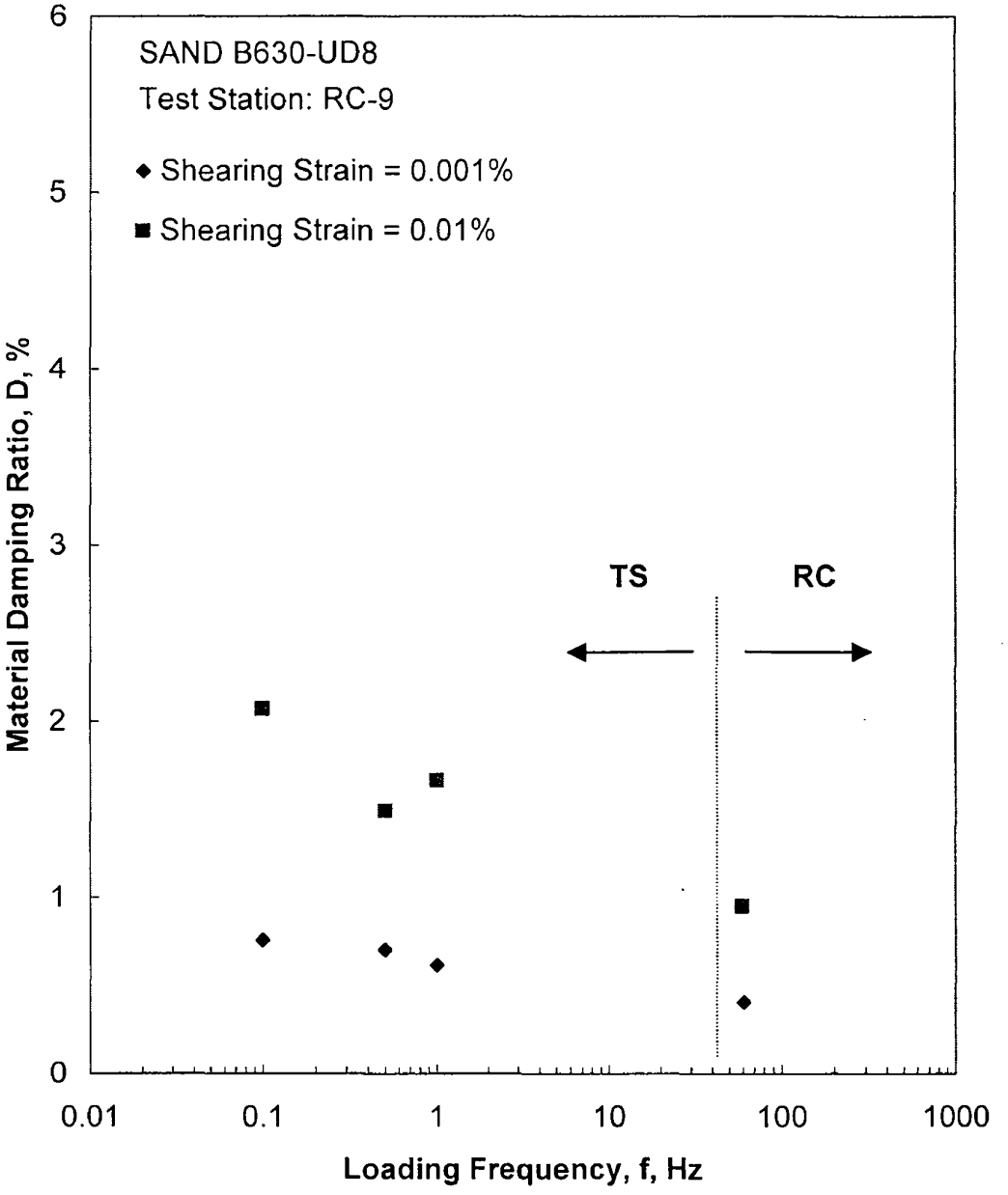


Figure A.15 Comparison of the Variation in Material Damping Ratio with Loading Frequency at an Isotropic Confining Pressure of 47 psi from the Combined RCTS Tests

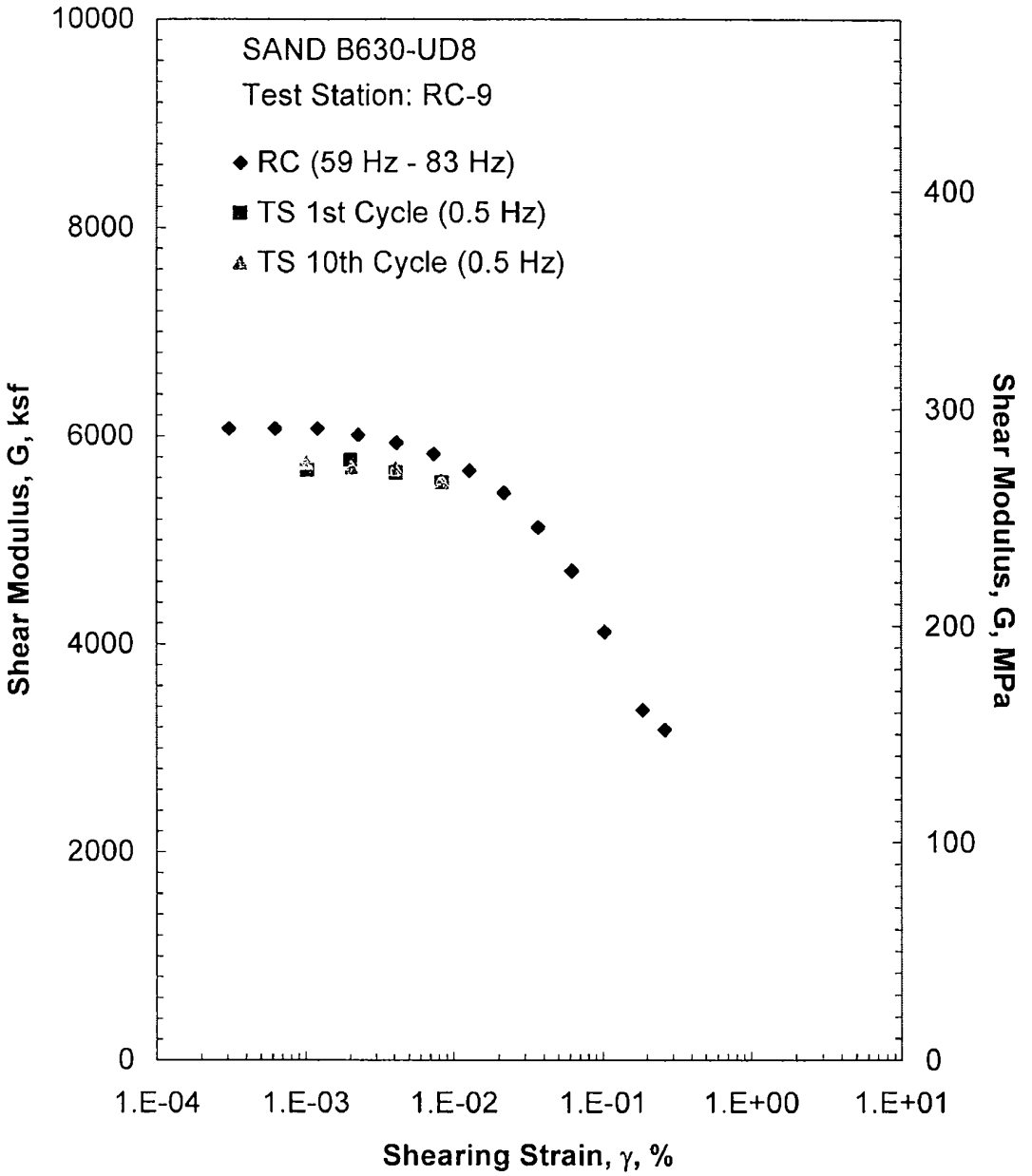


Figure A.16 Comparison of the Variation in Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 187 psi from the Combined RCTS Tests

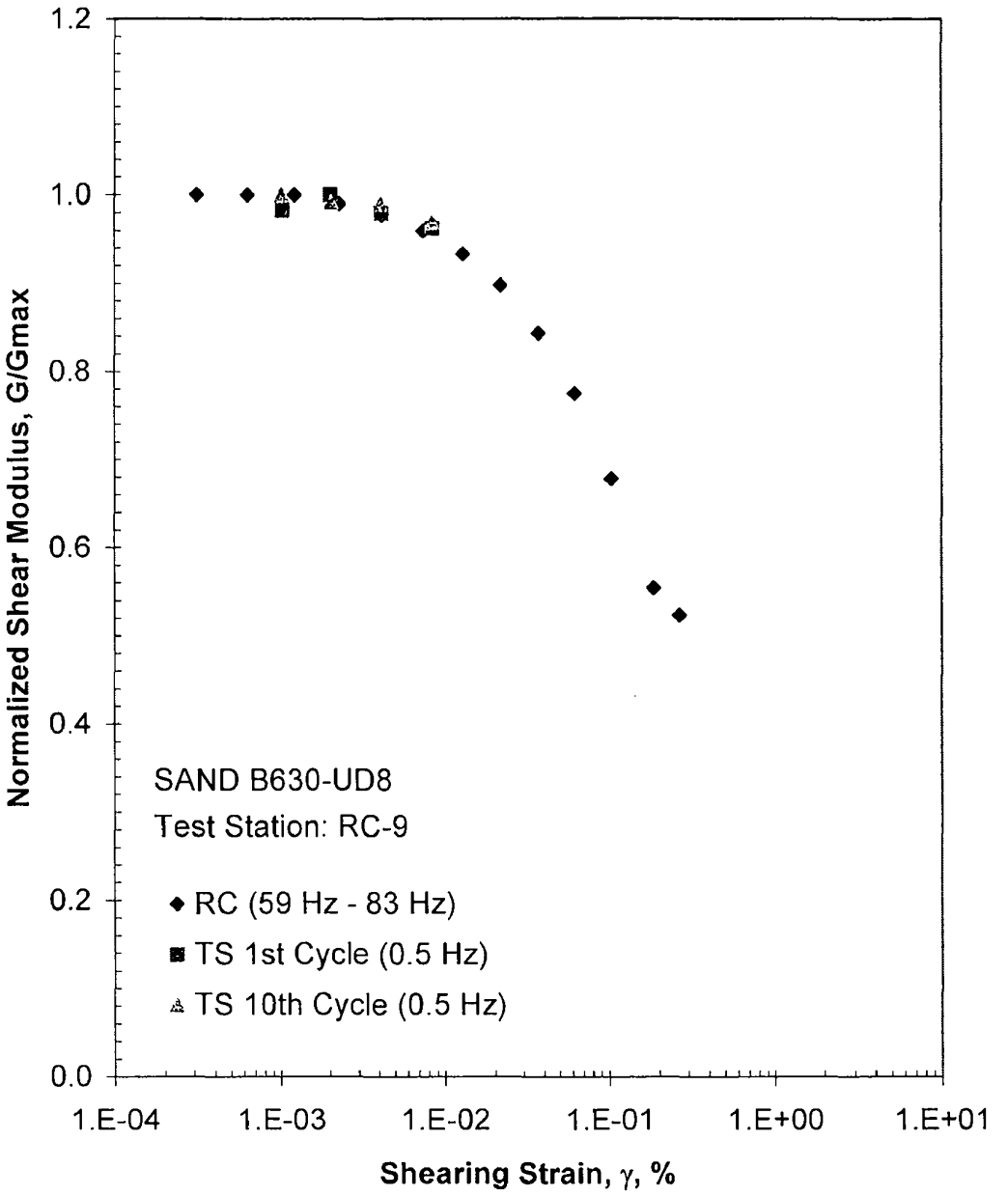


Figure A.17 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 187 psi from the Combined RCTS Tests

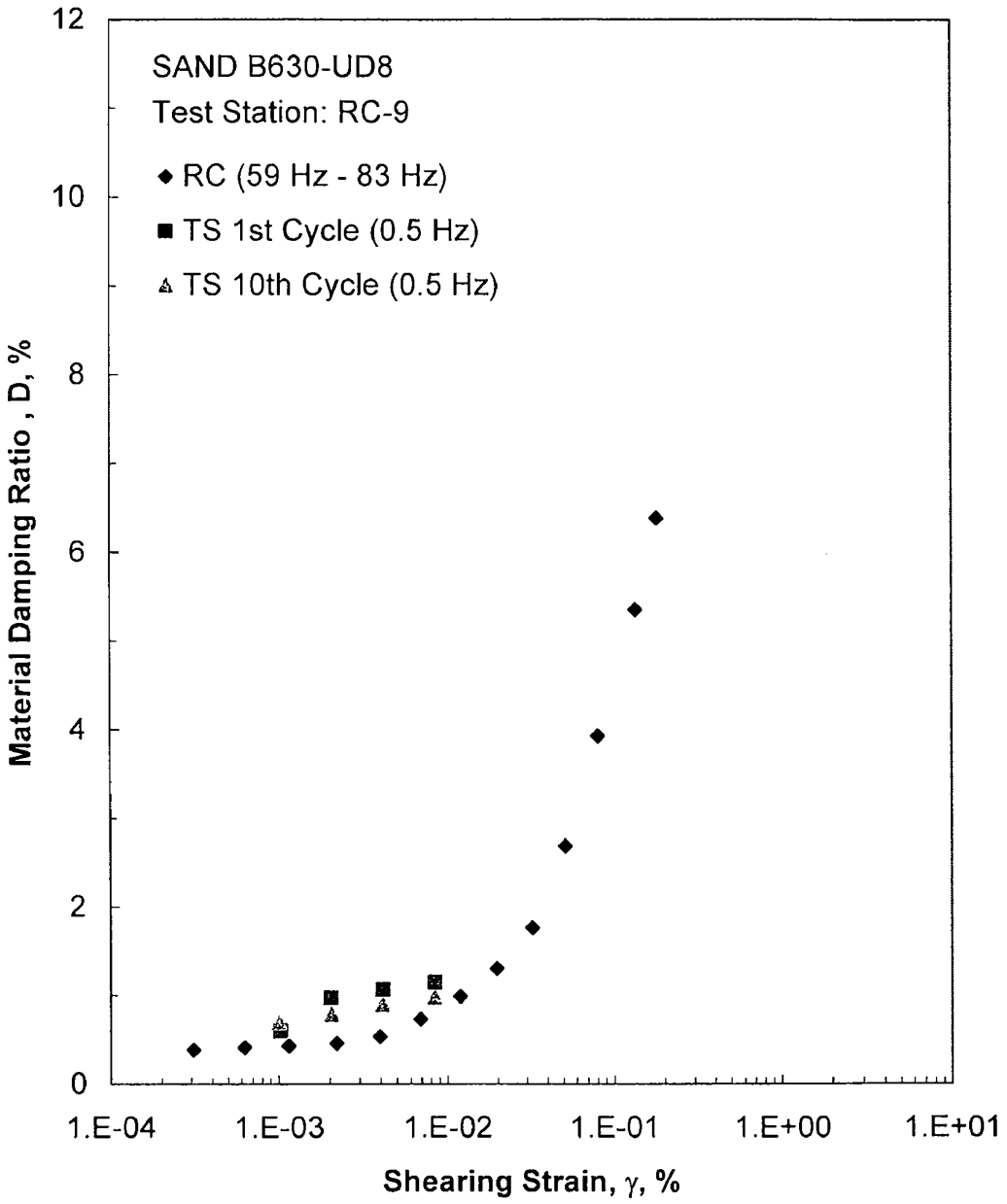


Figure A.18 Comparison of the Variation in Material Damping Ratio with Shearing Strain at an Isotropic Confining Pressure of 187 psi from the Combined RCTS Tests

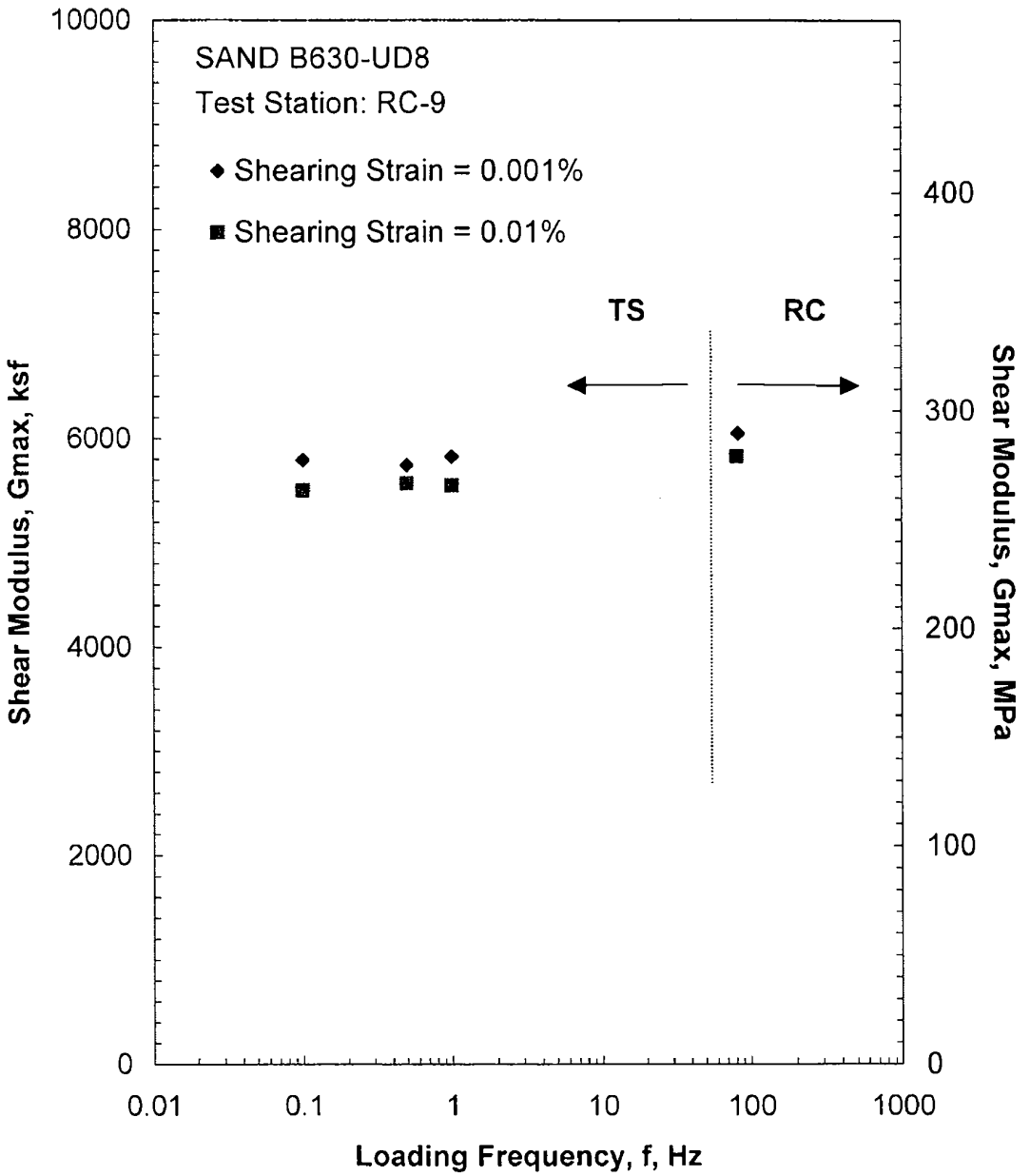


Figure A.19 Comparison of the Variation in Shear Modulus with Loading Frequency at an Isotropic Confining Pressure of 187 psi from the Combined RCTS Tests

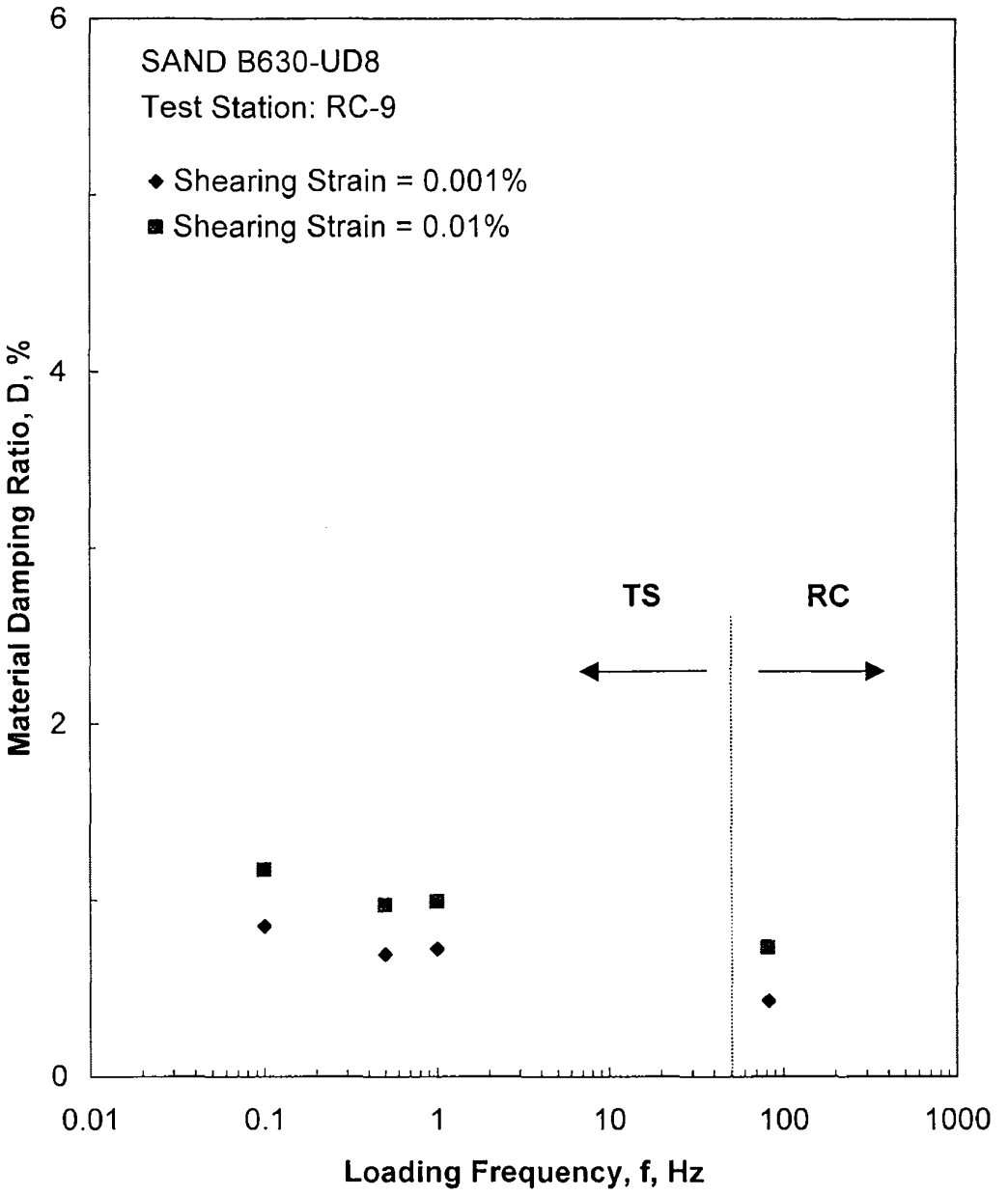


Figure A.20 Comparison of the Variation in Material Damping Ratio with Loading Frequency at an Isotropic Confining Pressure of 187 psi from the Combined RCTS Tests

Table A.1 Variation in Low-Amplitude Shear Wave Velocity, Low-Amplitude Shear Modulus, Low-Amplitude Material Damping Ratio and Estimated Void Ratio with Isotropic Confining Pressure from RC Tests of Specimen B630-UD8

Isotropic Confining Pressure, σ_o			Low-Amplitude Shear Modulus, G_{max}		Low-Amplitude Shear Wave Velocity, Vs	Low-Amplitude Material Damping Ratio, Dmin	Estimated Void Ratio, e
(psi)	(psf)	(kPa)	(ksf)	(MPa)	(fps)	(%)	
12	1728	83	1609	77	659	0.76	0.85
23	3312	158	2230	107	775	0.70	0.84
47	6768	324	3183	153	924	0.42	0.83
97	13968	668	4530	217	1097	0.40	0.81
187	26928	1288	5967	286	1249	0.39	0.79

Table A.2 Variation in Shear Modulus and Material Damping Ratio with Shearing Strain from RC Tests of Specimen B630-UD8; Isoptropic Confining Pressure, σ_o=47 psi (6.8 ksf = 324 kPa)

Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Average[+] Shearing Strain, %	Material Damping Ratio[x], D, %
4.04E-04	3196	1.00	4.04E-04	0.41
8.14E-04	3196	1.00	8.14E-04	0.41
1.55E-03	3196	1.00	1.46E-03	0.45
2.71E-03	3170	0.99	2.55E-03	0.55
4.86E-03	3090	0.97	4.52E-03	0.68
8.70E-03	3011	0.94	7.91E-03	0.95
1.51E-02	2903	0.91	1.36E-02	1.26
2.53E-02	2762	0.86	2.18E-02	1.75
4.22E-02	2556	0.80	3.50E-02	2.65
7.15E-02	2254	0.71	5.58E-02	3.96
1.31E-01	1886	0.59	9.54E-02	5.48

[+] Average Shearing Strain from the First Three Cycles of the Free Vibration Decay Curve

[x] Average Damping Ratio from the First Three Cycles of the Free Vibration Decay Curve

Table A.3 Variation in Shear Modulus, Normalized Shear Modulus and Material Damping Ratio with Shearing Strain from TS Tests of Specimen B630-UD8; Isotropic Confining Pressure, σ_o= 47 psi (6.8 ksf = 324 kPa)

First Cycle				Tenth Cycle			
Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %	Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %
1.03E-03	3020	1.00	0.68	1.04E-03	3016	1.00	0.70
2.09E-03	3005	0.99	0.61	2.09E-03	3010	1.00	0.63
4.25E-03	2956	0.98	1.00	4.25E-03	2954	0.98	0.86
8.86E-03	2834	0.94	1.60	8.87E-03	2832	0.94	1.49

Table A.4 Variation in Shear Modulus and Material Damping Ratio with Shearing Strain from RC Tests of Specimen B630-UD8; Isoptropic Confining Pressure, σ_o= 187 psi (26.9 ksf = 1288 kPa)

Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Average[+] Shearing Strain, %	Material Damping Ratio[x], D, %
3.09E-04	6071	1.00	3.09E-04	0.38
6.26E-04	6071	1.00	6.26E-04	0.41
1.21E-03	6071	1.00	1.14E-03	0.43
2.28E-03	6009	0.99	2.19E-03	0.46
4.16E-03	5935	0.98	3.95E-03	0.54
7.40E-03	5825	0.96	6.88E-03	0.73
1.28E-02	5666	0.93	1.19E-02	0.99
2.17E-02	5453	0.90	1.97E-02	1.30
3.69E-02	5120	0.84	3.25E-02	1.76
6.19E-02	4703	0.77	5.14E-02	2.68
1.03E-01	4115	0.68	8.04E-02	3.92
1.86E-01	3365	0.55	1.34E-01	5.34
2.64E-01	3175	0.52	1.80E-01	6.37

[+] Average Shearing Strain from the First Three Cycles of the Free Vibration Decay Curve

[x] Average Damping Ratio from the First Three Cycles of the Free Vibration Decay Curve

Table A.5 Variation in Shear Modulus, Normalized Shear Modulus and Material Damping Ratio with Shearing Strain from TS Tests of Specimen B630-UD8; Isotropic Confining Pressure, σ_o=187 psi (26.9 ksf = 1288 kPa)

First Cycle				Tenth Cycle			
Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %	Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %
1.03E-03	5671	0.98	0.60	1.01E-03	5744	1.00	0.69
2.02E-03	5768	1.00	0.97	2.05E-03	5698	0.99	0.78
4.13E-03	5650	0.98	1.06	4.10E-03	5684	0.99	0.89
8.40E-03	5551	0.96	1.14	8.38E-03	5565	0.97	0.97

APPENDIX B

Specimen B630-UD2

Borehole B630
Sample UD2
Depth = 131.9 ft (40.2 m)
Total Unit Weight = 120.1 lb/ft^3
Water Content = 33.8 %
Estimated In-Situ Ko = 0.5
Estimated In-Situ Mean Effective Stress = 38 psi

FUGRO JOB #: 0411-08-1701
Testing Station: RC5

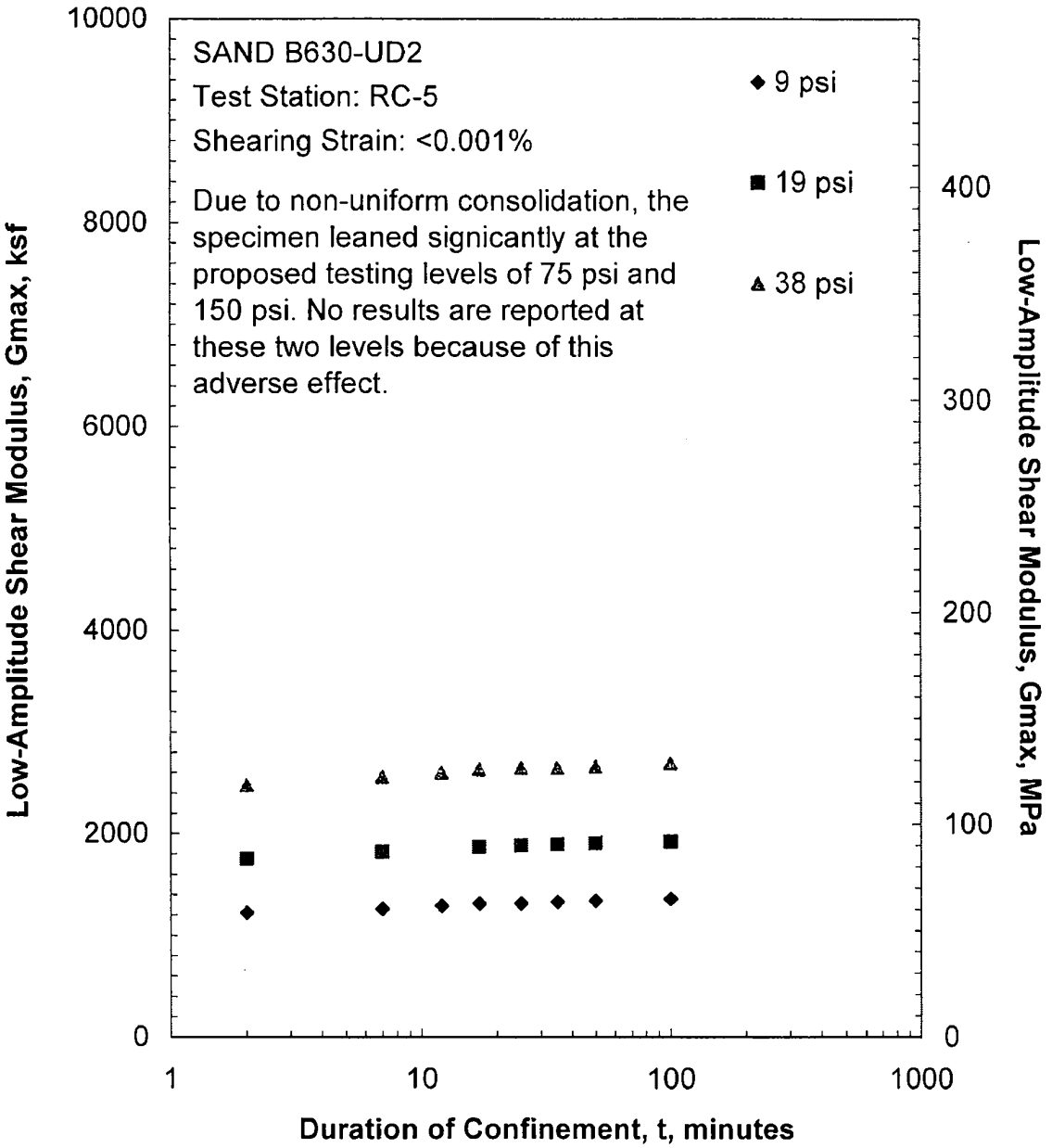


Figure B.1 Variation in Low-Amplitude Shear Modulus with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

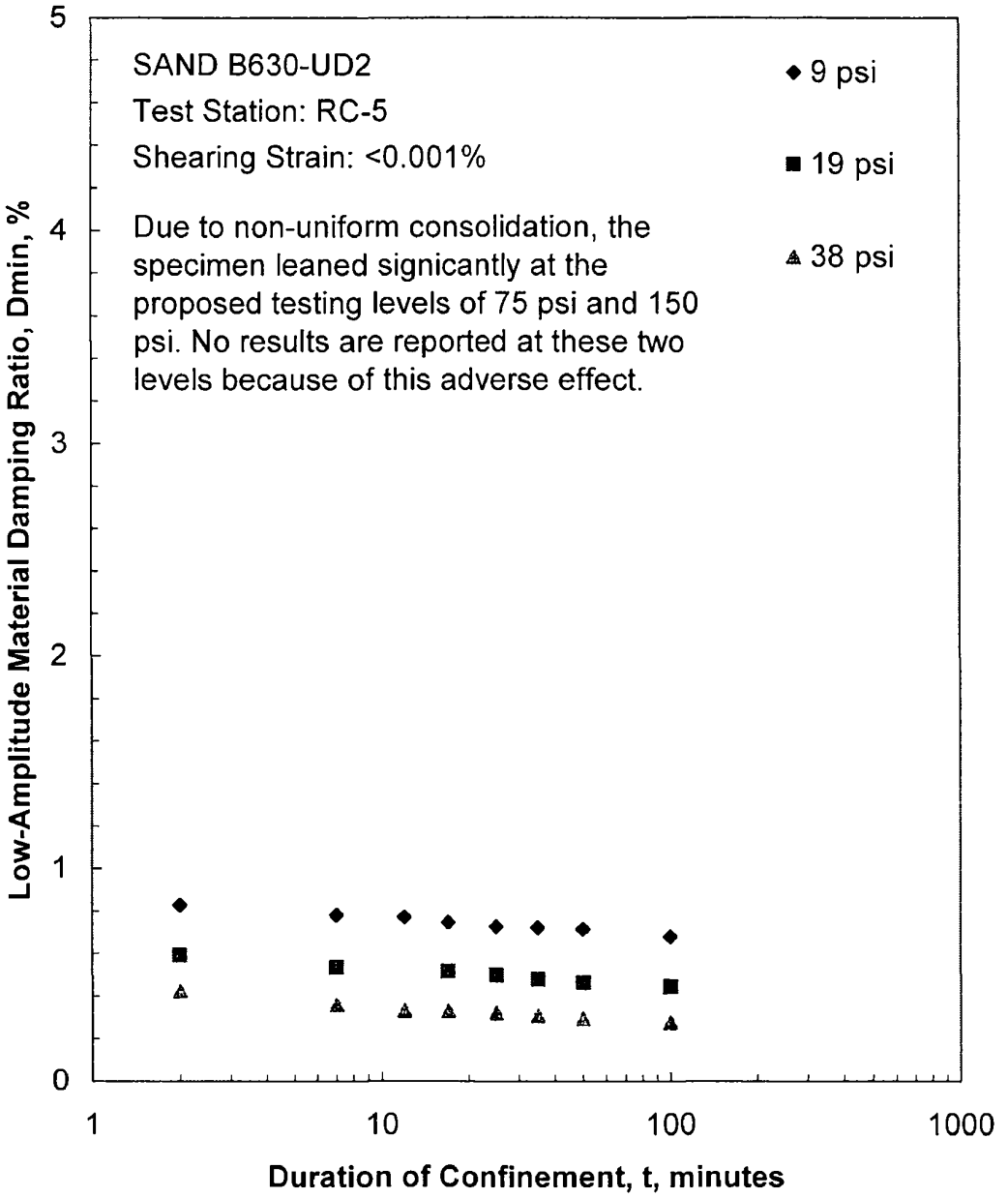


Figure B.2 Variation in Low-Amplitude Material Damping Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

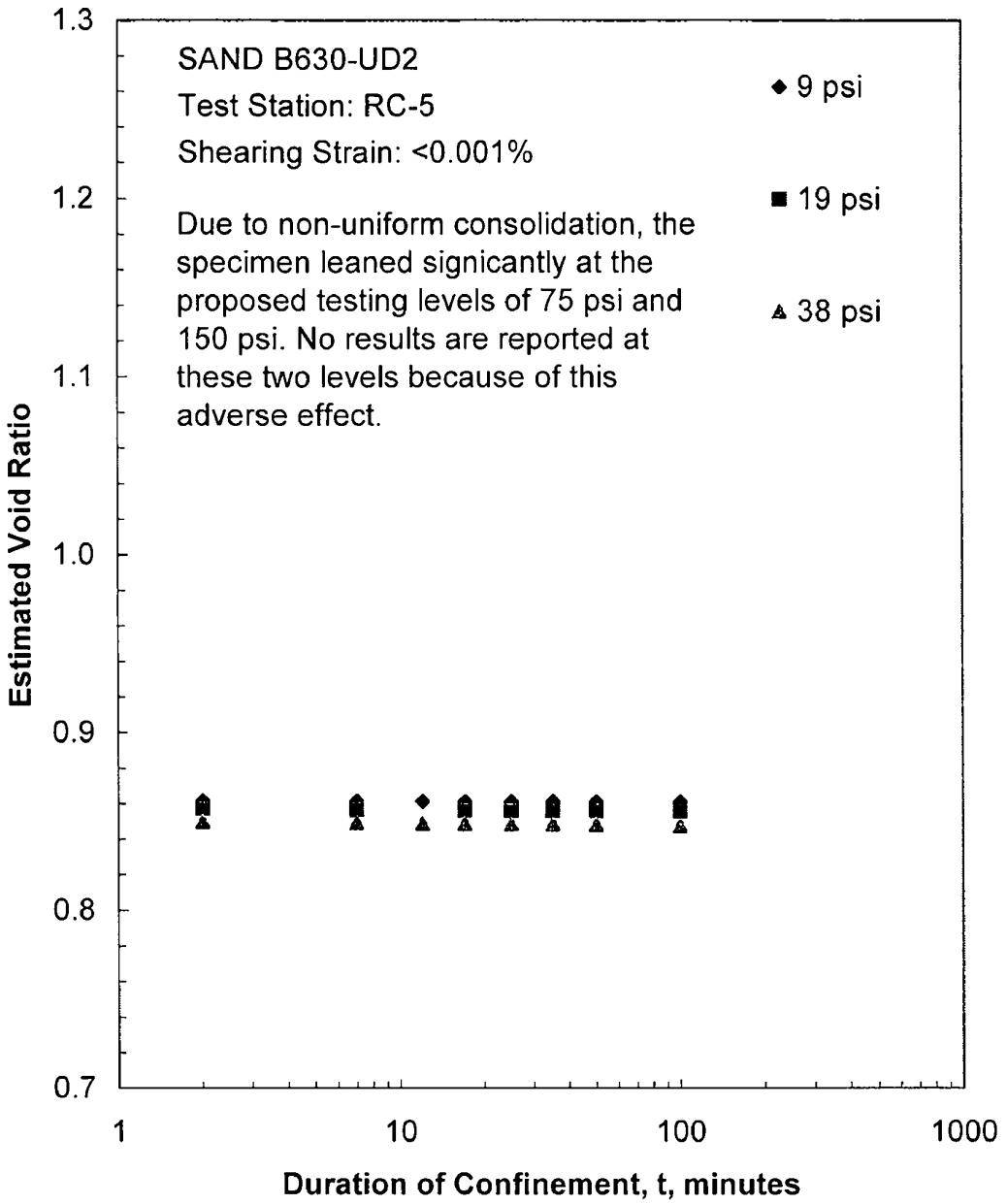


Figure B.3 Variation in Estimated Void Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

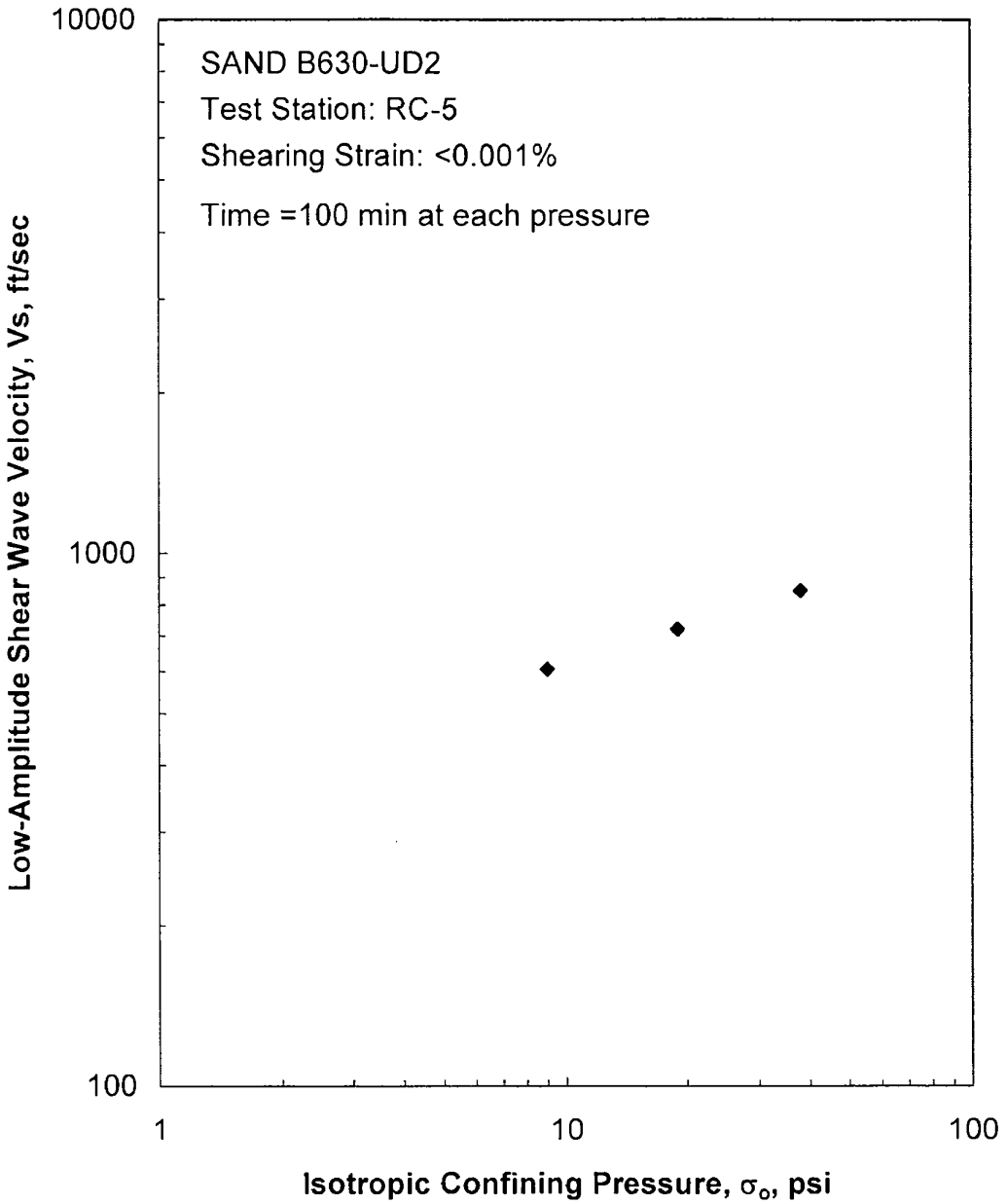


Figure B.4 Variation in Low-Amplitude Shear Wave Velocity with Isotropic Confining Pressure from Resonant Column Tests

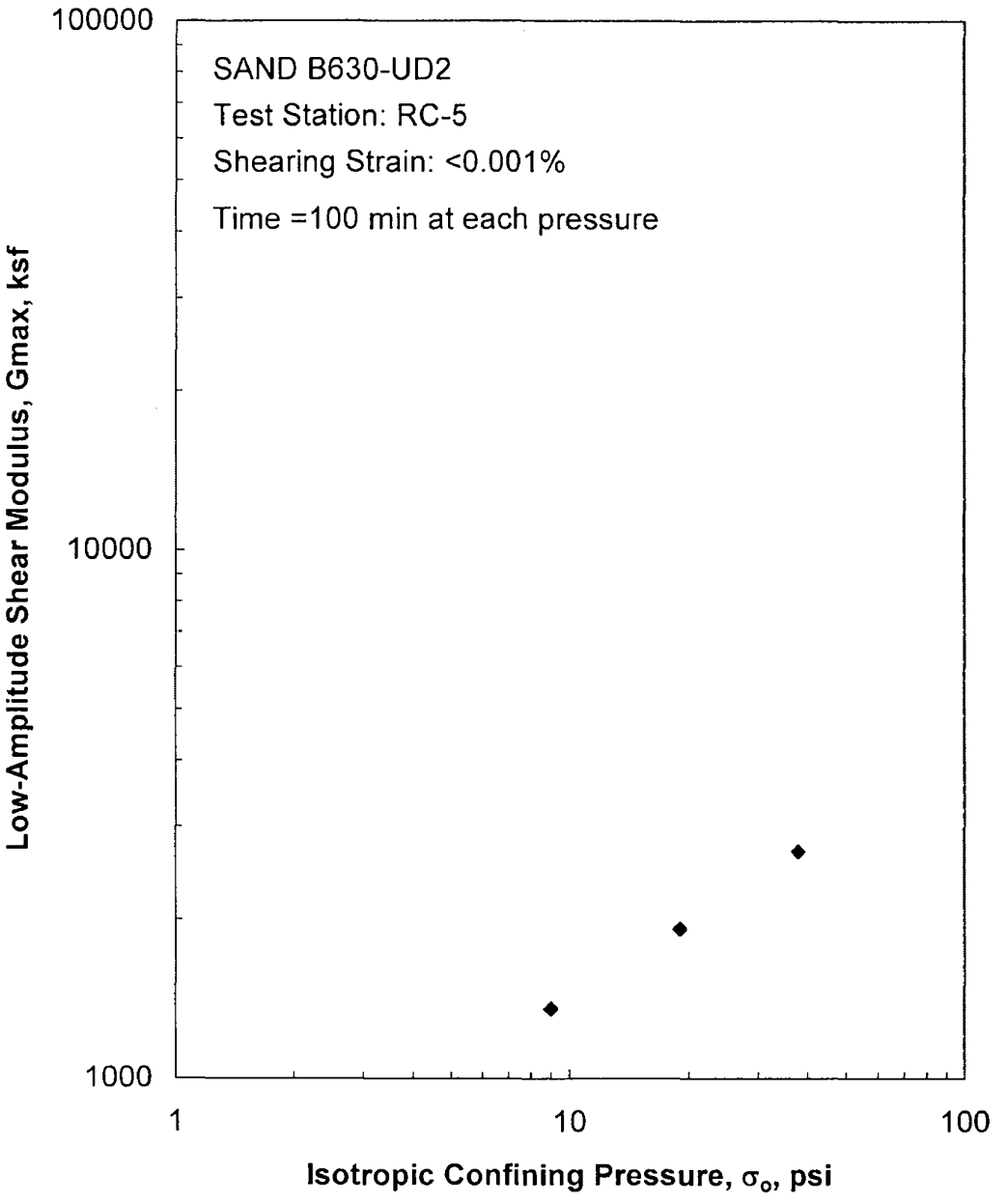


Figure B.5 Variation in Low-Amplitude Shear Modulus with Isotropic Confining Pressure from Resonant Column Tests

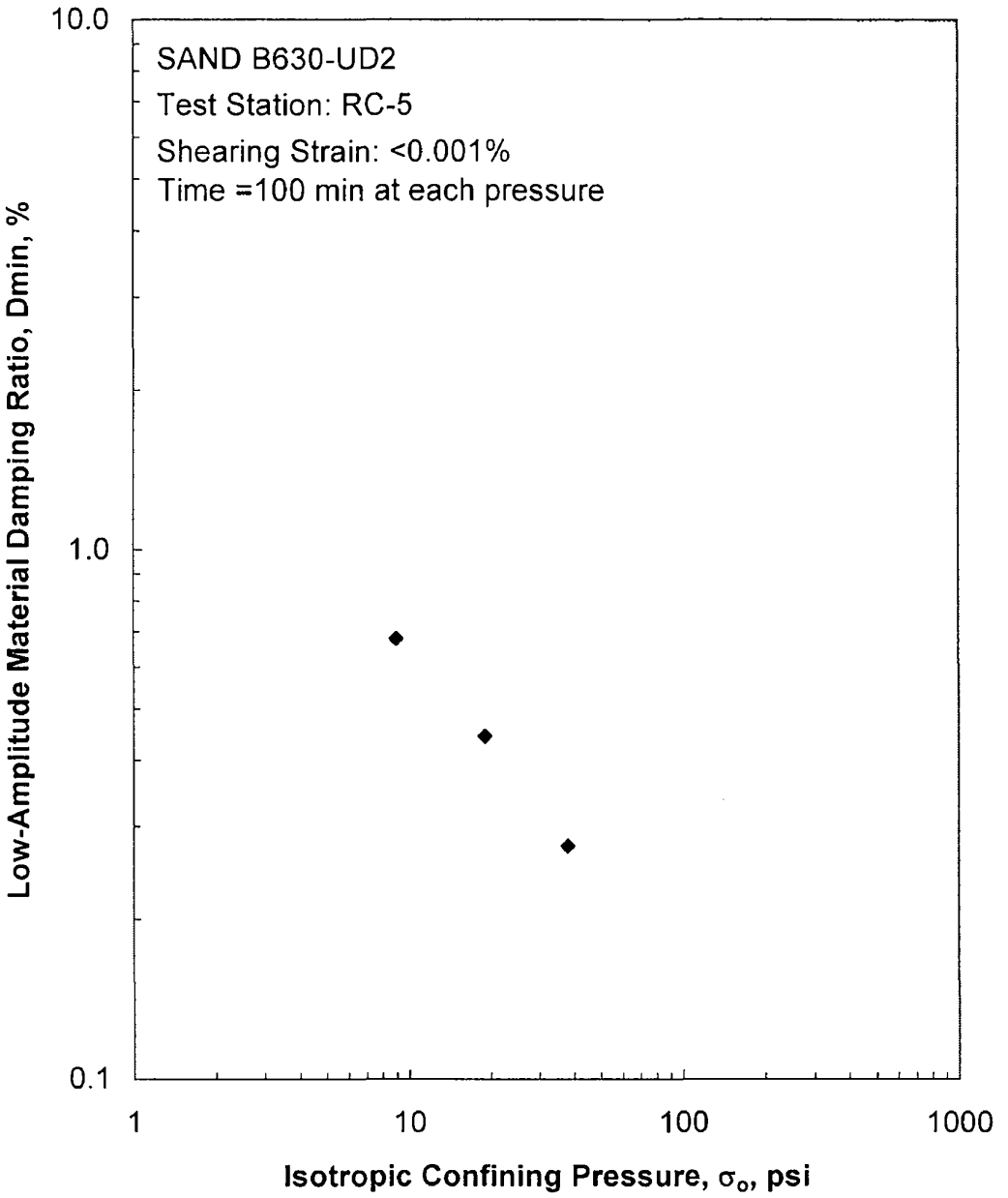


Figure B.6 Variation in Low-Amplitude Material Damping Ratio with Isotropic Confining Pressure from Resonant Column Tests

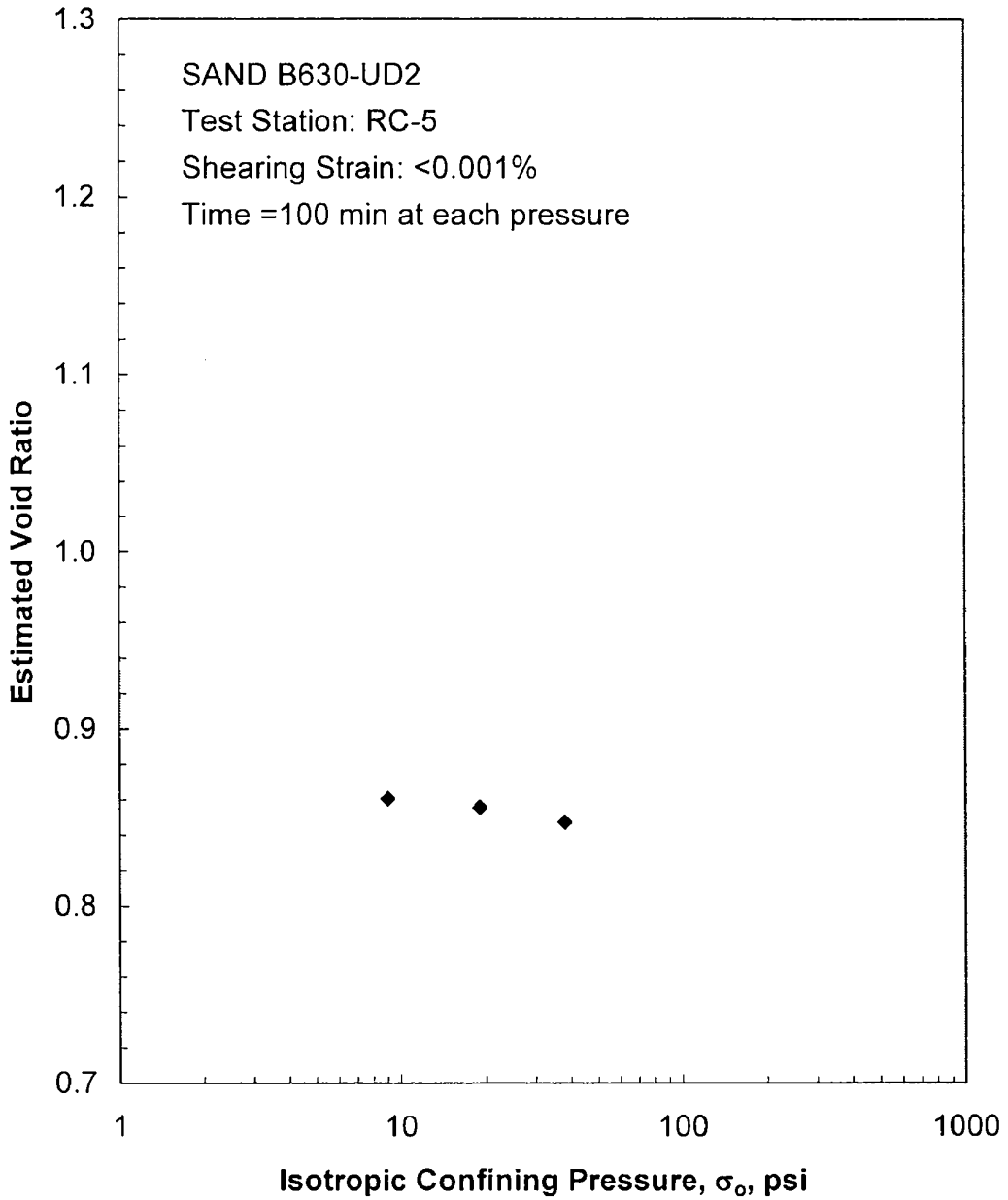


Figure B.7 Variation in Estimated Void Ratio with Isotropic Confining Pressure from Resonant Column Tests

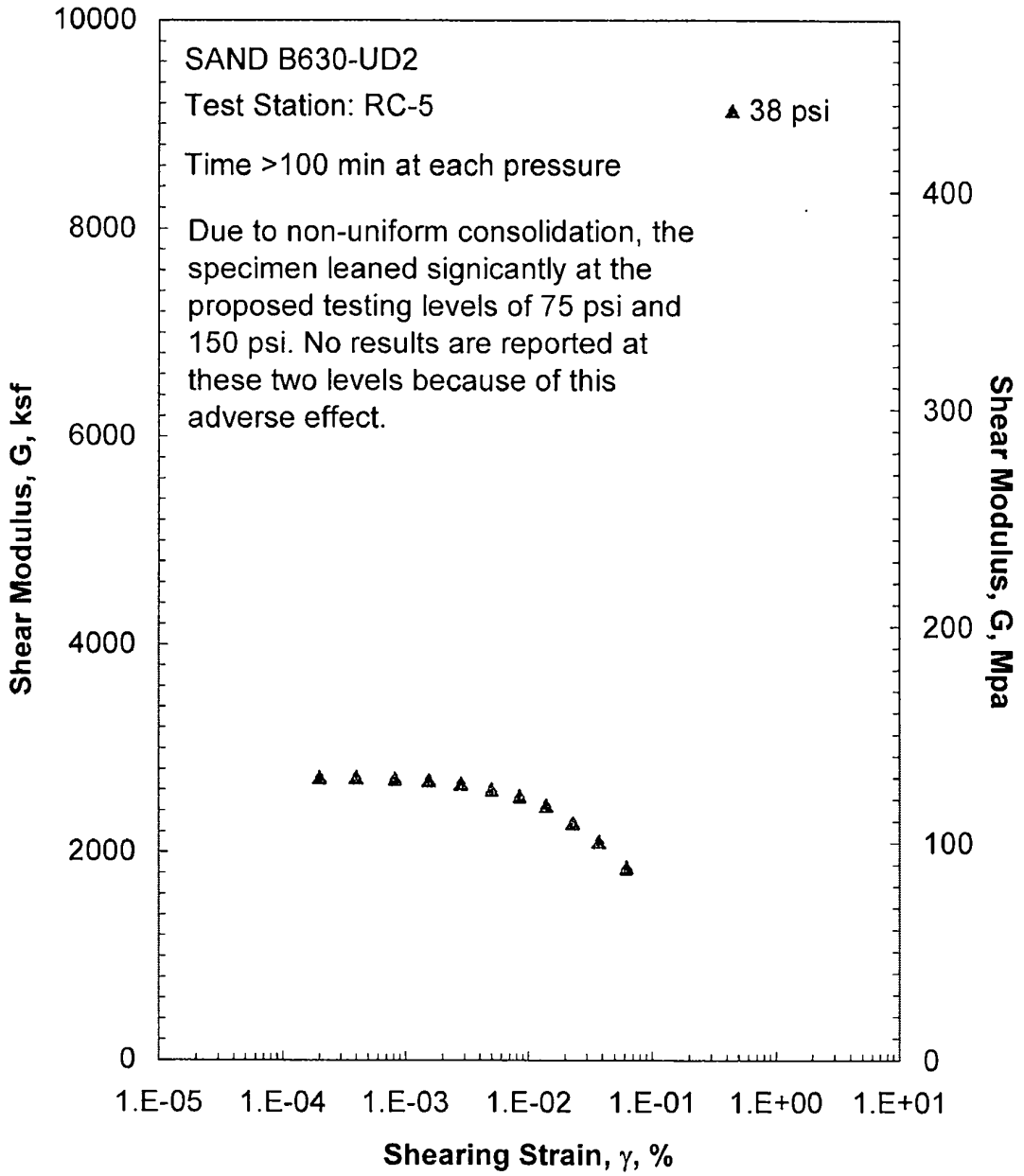


Figure B.8 Comparison of the Variation in Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

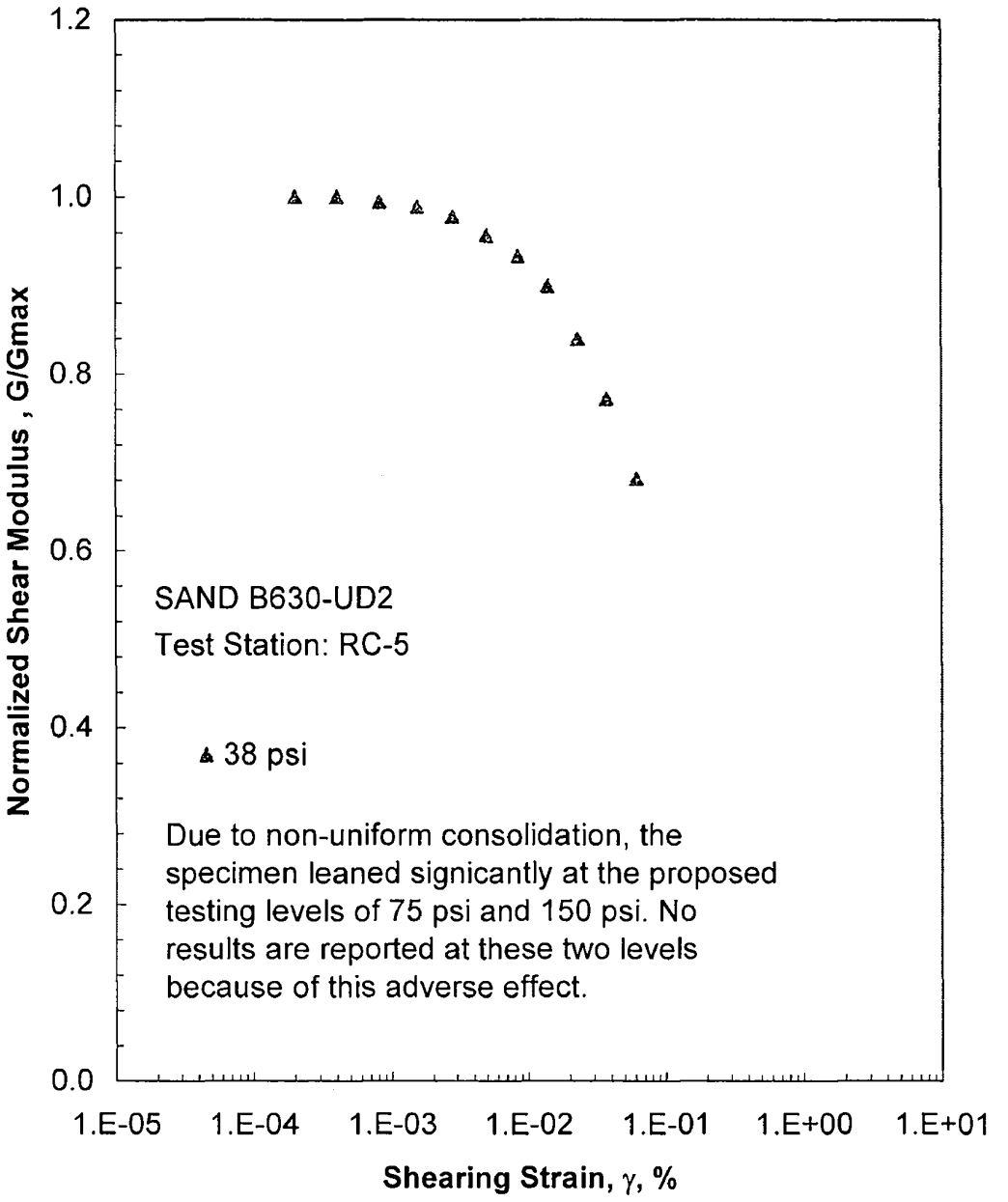


Figure B.9 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

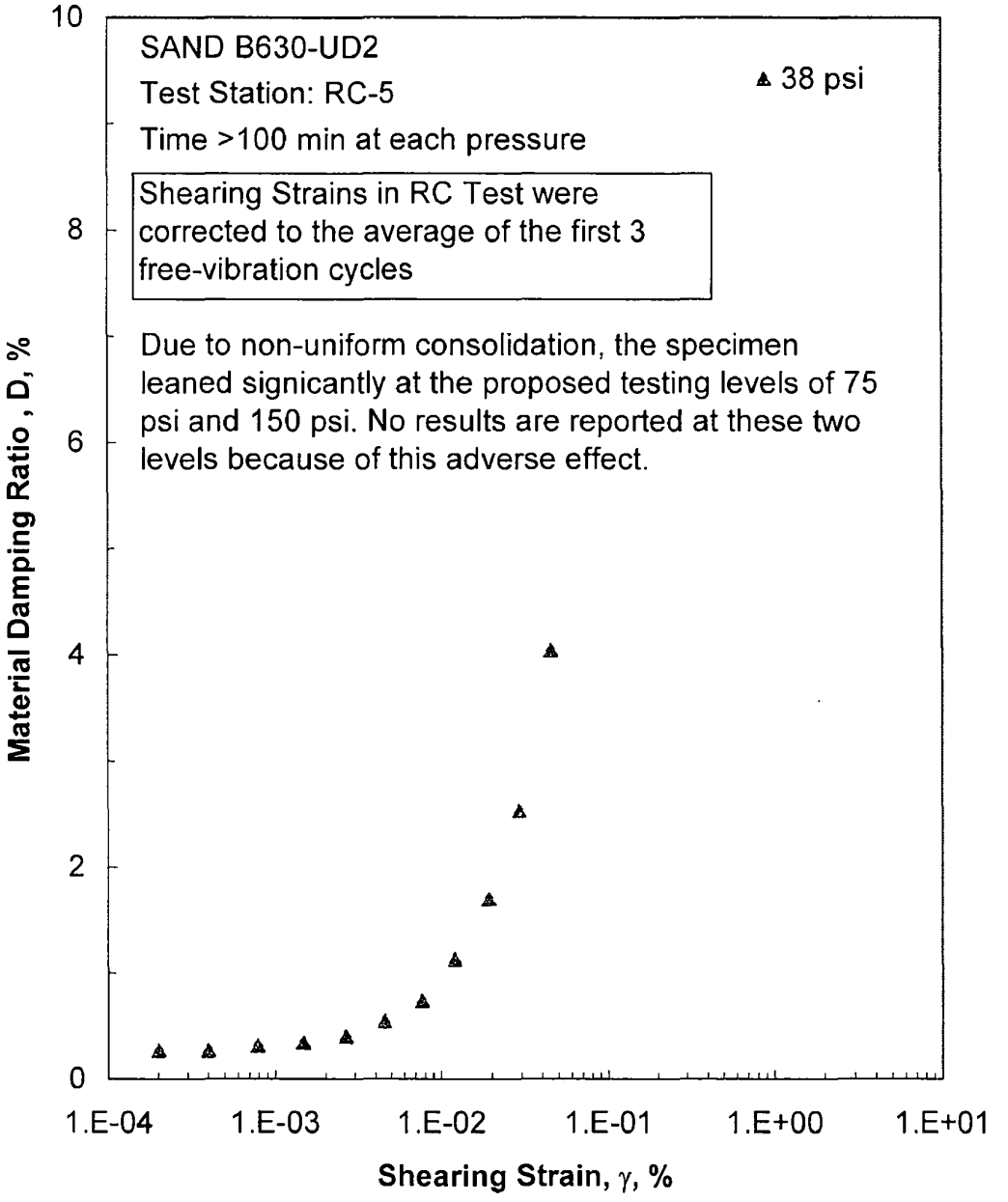


Figure B.10 Comparison of the Variation in Material Damping Ratio with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

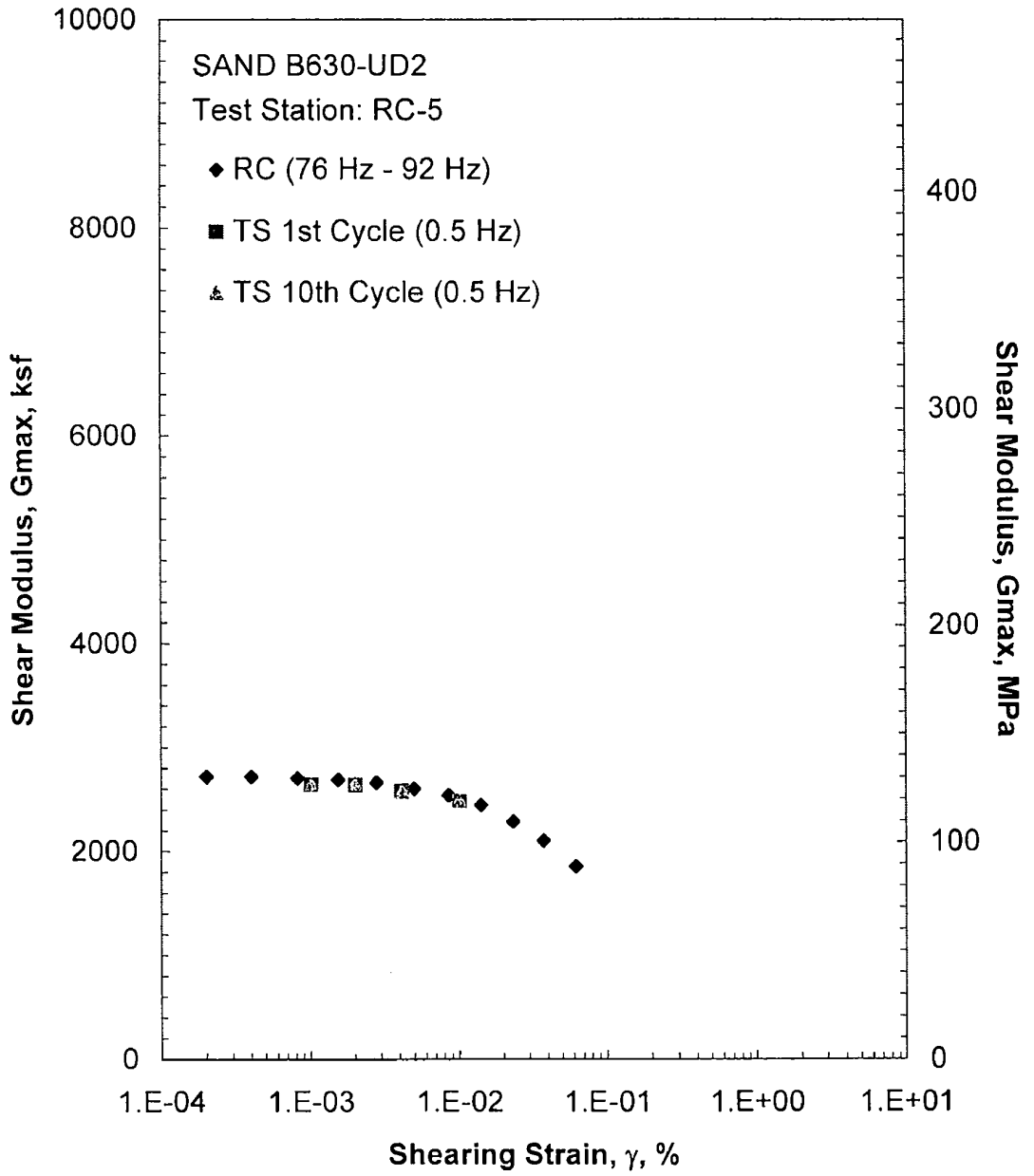


Figure B.11 Comparison of the Variation in Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 38 psi from the Combined RCTS Tests

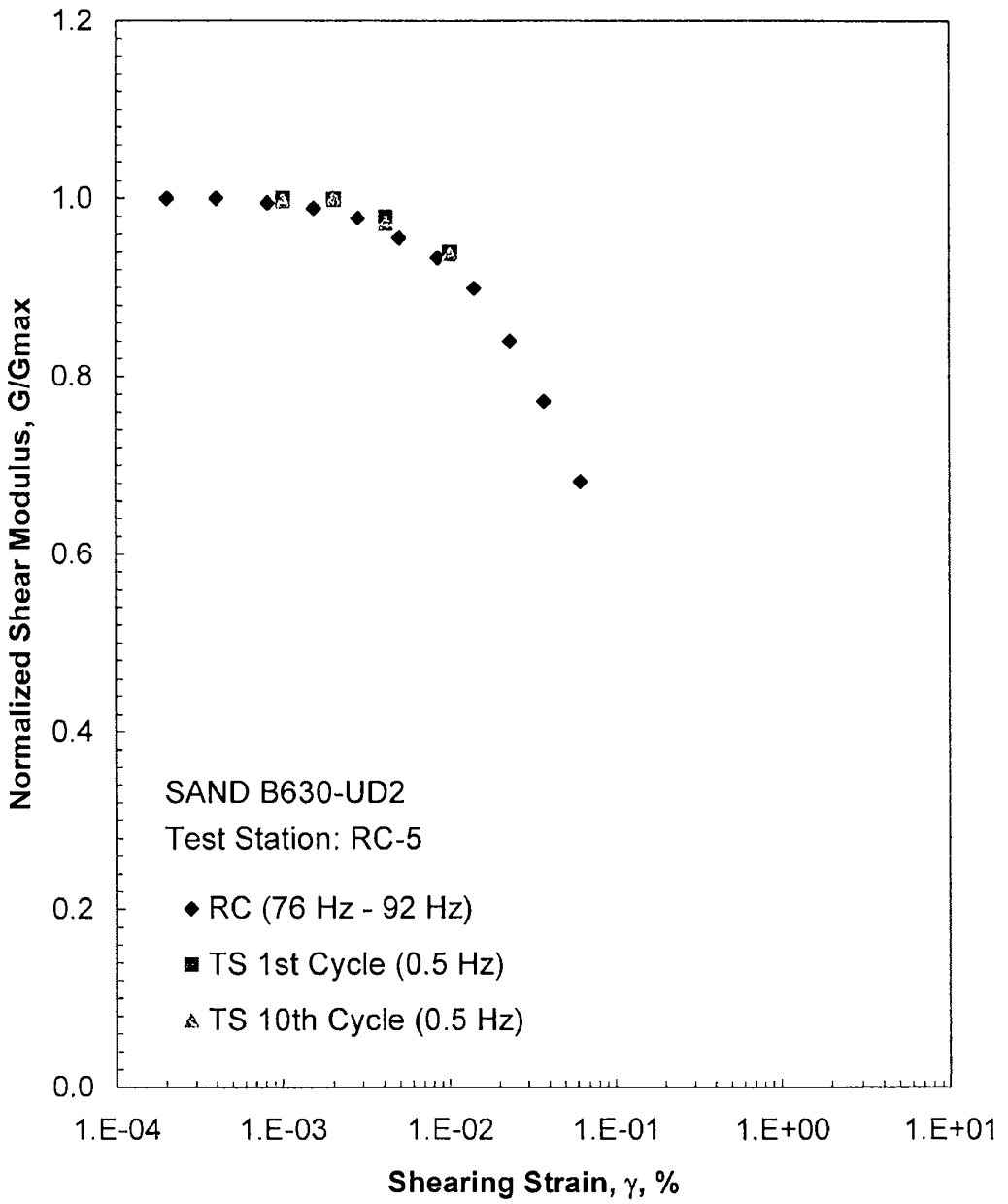


Figure B.12 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 38 psi from the Combined RCTS Tests

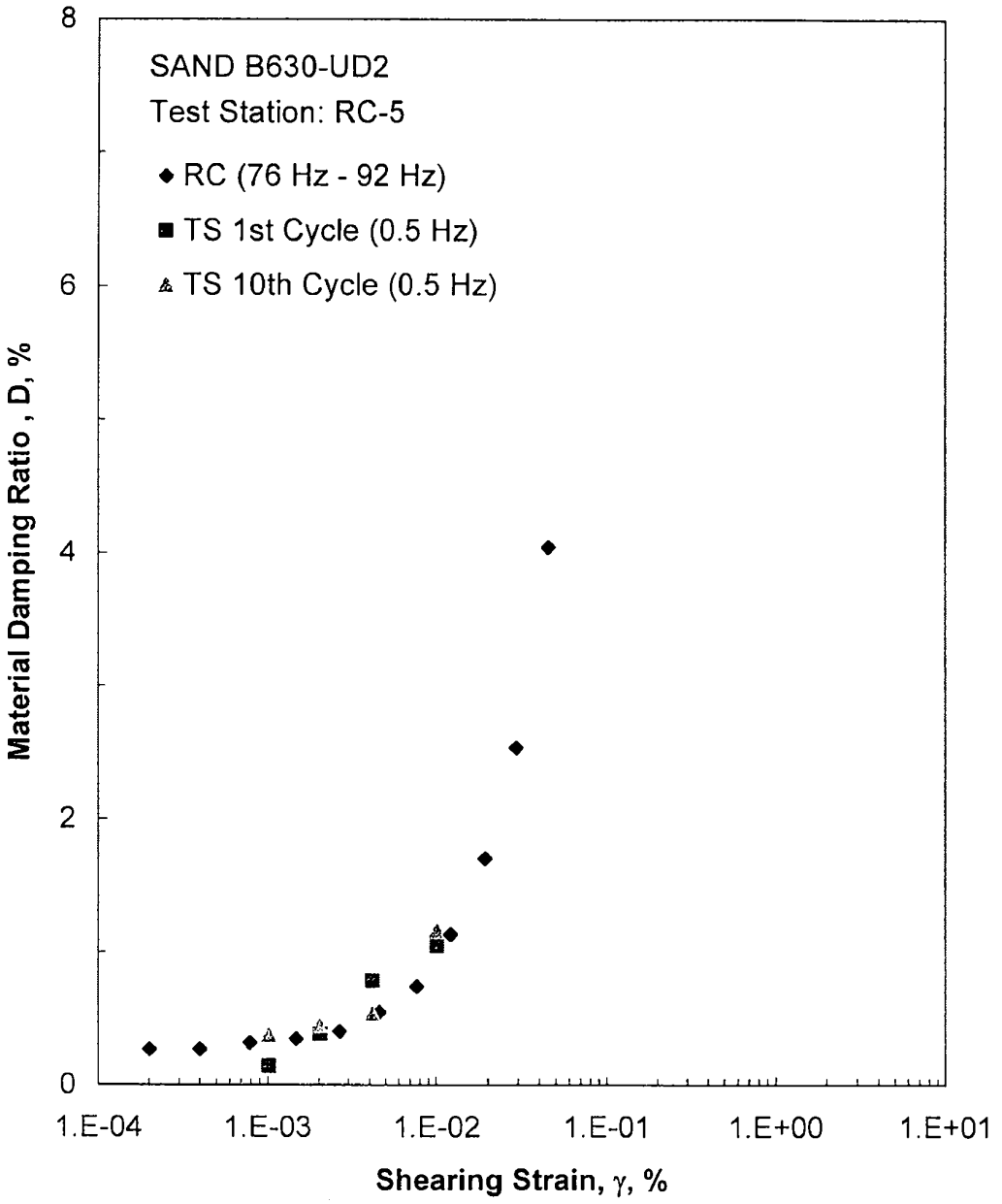


Figure B.13 Comparison of the Variation in Material Damping Ratio with Shearing Strain at an Isotropic Confining Pressure of 38 psi from the Combined RCTS Tests

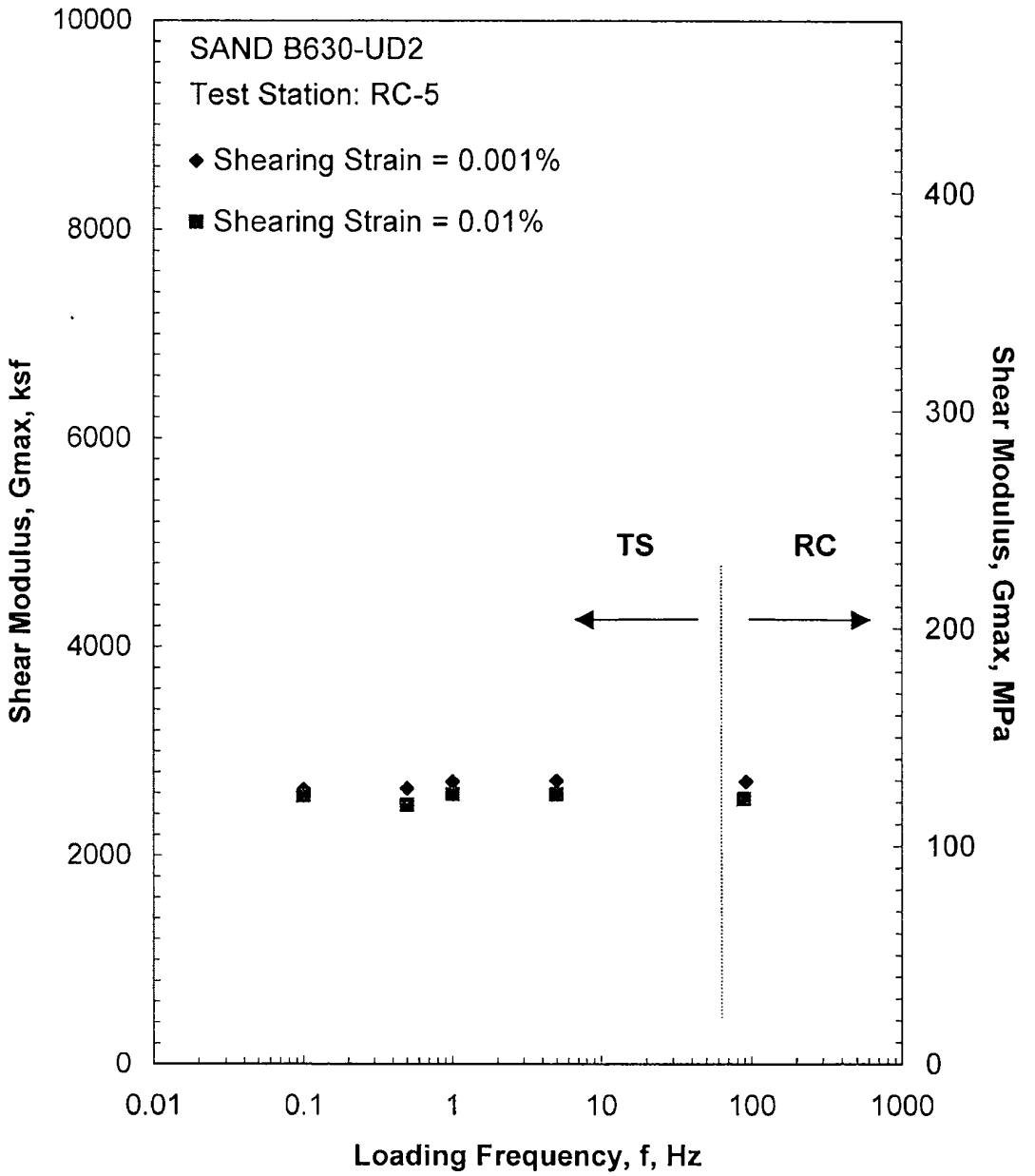


Figure B.14 Comparison of the Variation in Shear Modulus with Loading Frequency at an Isotropic Confining Pressure of 38 psi from the Combined RCTS Tests

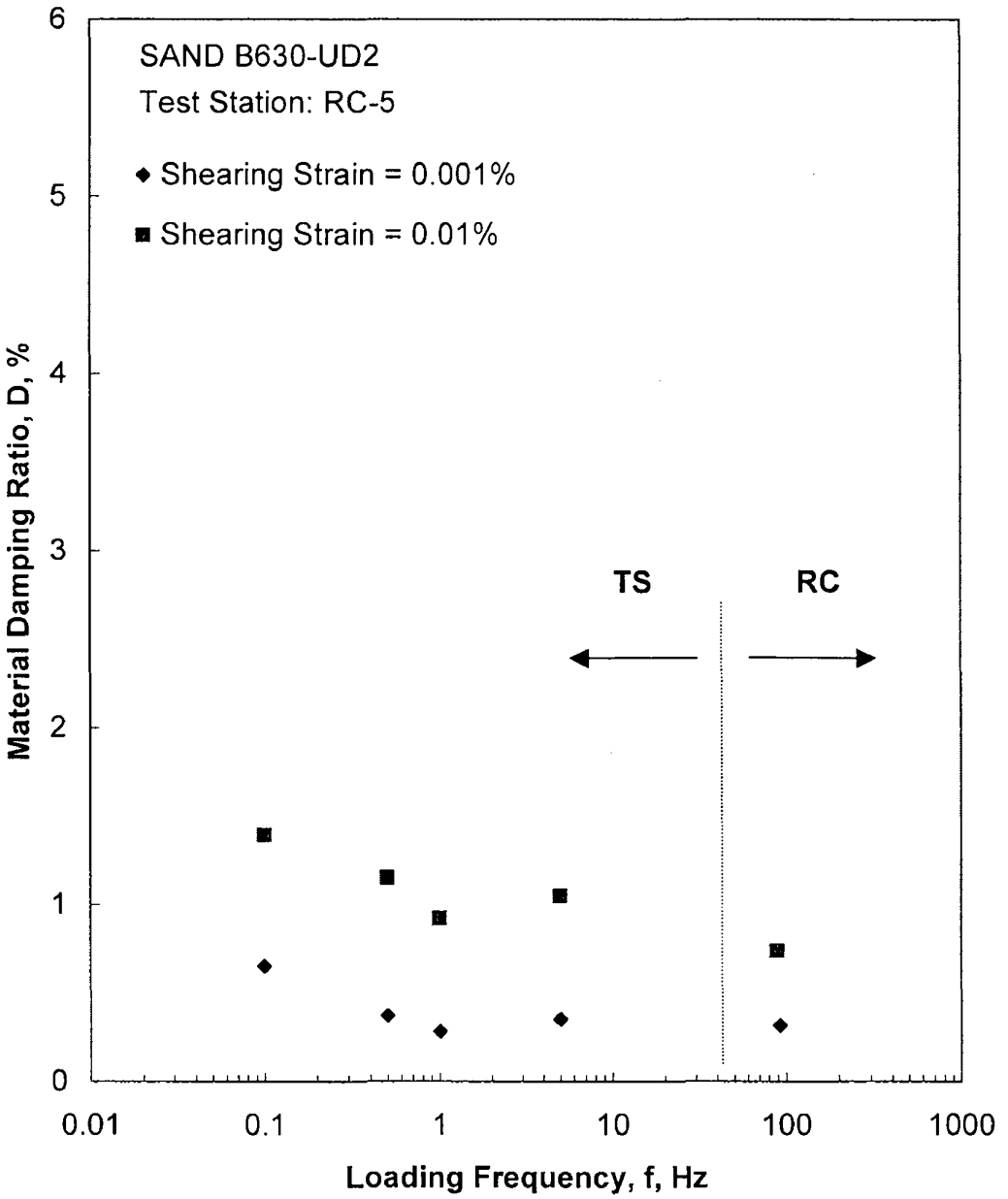


Figure B.15 Comparison of the Variation in Material Damping Ratio with Loading Frequency at an Isotropic Confining Pressure of 38 psi from the Combined RCTS Tests

Table B.1 Variation in Low-Amplitude Shear Wave Velocity, Low-Amplitude Shear Modulus, Low-Amplitude Material Damping Ratio and Estimated Void Ratio with Isotropic Confining Pressure from RC Tests of Specimen B630-UD2

Isotropic Confining Pressure, σ_o			Low-Amplitude Shear Modulus, G_{max}		Low-Amplitude Shear Wave Velocity, Vs	Low-Amplitude Material Damping Ratio, Dmin	Estimated Void Ratio, e
(psi)	(psf)	(kPa)	(ksf)	(MPa)	(fps)	(%)	
9	1296	62	1354	65	605	0.68	0.86
19	2736	131	1918	92	719	0.44	0.86
38	5472	262	2688	129	850	0.28	0.85

Table B.2 Variation in Shear Modulus and Material Damping Ratio with Shearing Strain from RC Tests of Specimen B630-UD2; Isoptropic Confining Pressure, σ_o= 38 psi (5.5 ksf = 262 kPa)

Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Average[+] Shearing Strain, %	Material Damping Ratio[x], D, %
2.01E-04	2719	1.00	2.01E-04	0.27
4.01E-04	2719	1.00	4.01E-04	0.27
8.20E-04	2704	0.99	7.87E-04	0.32
1.55E-03	2689	0.99	1.47E-03	0.34
2.82E-03	2659	0.98	2.65E-03	0.40
5.00E-03	2600	0.96	4.55E-03	0.54
8.52E-03	2538	0.93	7.67E-03	0.74
1.41E-02	2445	0.90	1.21E-02	1.13
2.32E-02	2283	0.84	1.93E-02	1.70
3.74E-02	2099	0.77	2.92E-02	2.53
6.20E-02	1853	0.68	4.53E-02	4.04

[+] Average Shearing Strain from the First Three Cycles of the Free Vibration Decay Curve

[x] Average Damping Ratio from the First Three Cycles of the Free Vibration Decay Curve

Table B.3 Variation in Shear Modulus, Normalized Shear Modulus and Material Damping Ratio with Shearing Strain from TS Tests of Specimen B630-UD2; Isotropic Confining Pressure, σ_o= 38 psi (5.5 ksf =262 kPa)

First Cycle				Tenth Cycle			
Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %	Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %
1.02E-03	2638	1.00	0.14	1.02E-03	2640	1.00	0.37
2.04E-03	2635	1.00	0.38	2.03E-03	2648	1.00	0.44
4.15E-03	2584	0.98	0.78	4.17E-03	2576	0.97	0.53
1.01E-02	2482	0.94	1.04	1.01E-02	2484	0.94	1.15

6100 Hillcroft (77081)
P.O. Box 740010
Houston, Texas 77274
Tel: 713-369-5400
Fax: 713-369-5518

July 10, 2008

Ms. Siesta Williams
MACTEC
3301 Atlantic Avenue
Raleigh, NC 27604

RE: Two (2) Reports For The Turkey Point Project

Dear Ms. Williams:

Fugro has completed two (2) RCTS tests, which are B630-UD13 and B630-UD16 for the Turkey Point project. Fugro has incorporated, as needed, Dr. Kenneth Stokoe's comments into the final reports. The final reports and the associated RCTS Test Approvals by Dr. Kenneth Stokoe have been attached.

Please let us know if you have questions. Thanks.

Very truly yours,

Fugro Consultants, Inc.

Jiewu Meng, PhD, P.E.
Project Engineer

Bill DeGroff, P.E.
Laboratory Department Manager

Enclosures

RCTS TEST APROVAL

PROJECT SITE/NAME	Turkey Point

Test ID	Sample ID	Depth B.S. (Ft)	Approved By (Initials)	Date
RCTS#C	B630-UD13	190	KHS (1)	3 July 08
RCTS#D	B630-UD16	211	KHS (2)	3 July 08

Two RCTS tests for the site referenced above were tested, and two reports were prepared, by Fugro Consultants, Inc.

I have reviewed the data and associated results listed above and found them to be reasonable.

Approved By:

K. H. Stokoe

Dr. Kenneth Stokoe

(1) Carefully consider some of the suggested changes and/or deletions and some comments that could be added to a few figures.

(2) See minor comments on a few figures

APPENDIX C

Specimen B630-UD13

Borehole 630
Sample UD13
Depth = 189.7 ft (57.8 m)
Total Unit Weight = 117.1 lb/ft^3
Water Content = 32.5 %
Estimated In-Situ Ko = 0.5
Estimated In-Situ Mean Effective
Stress = 55 psi

FUGRO JOB #: 0411-08-1701
Testing Station: RC5

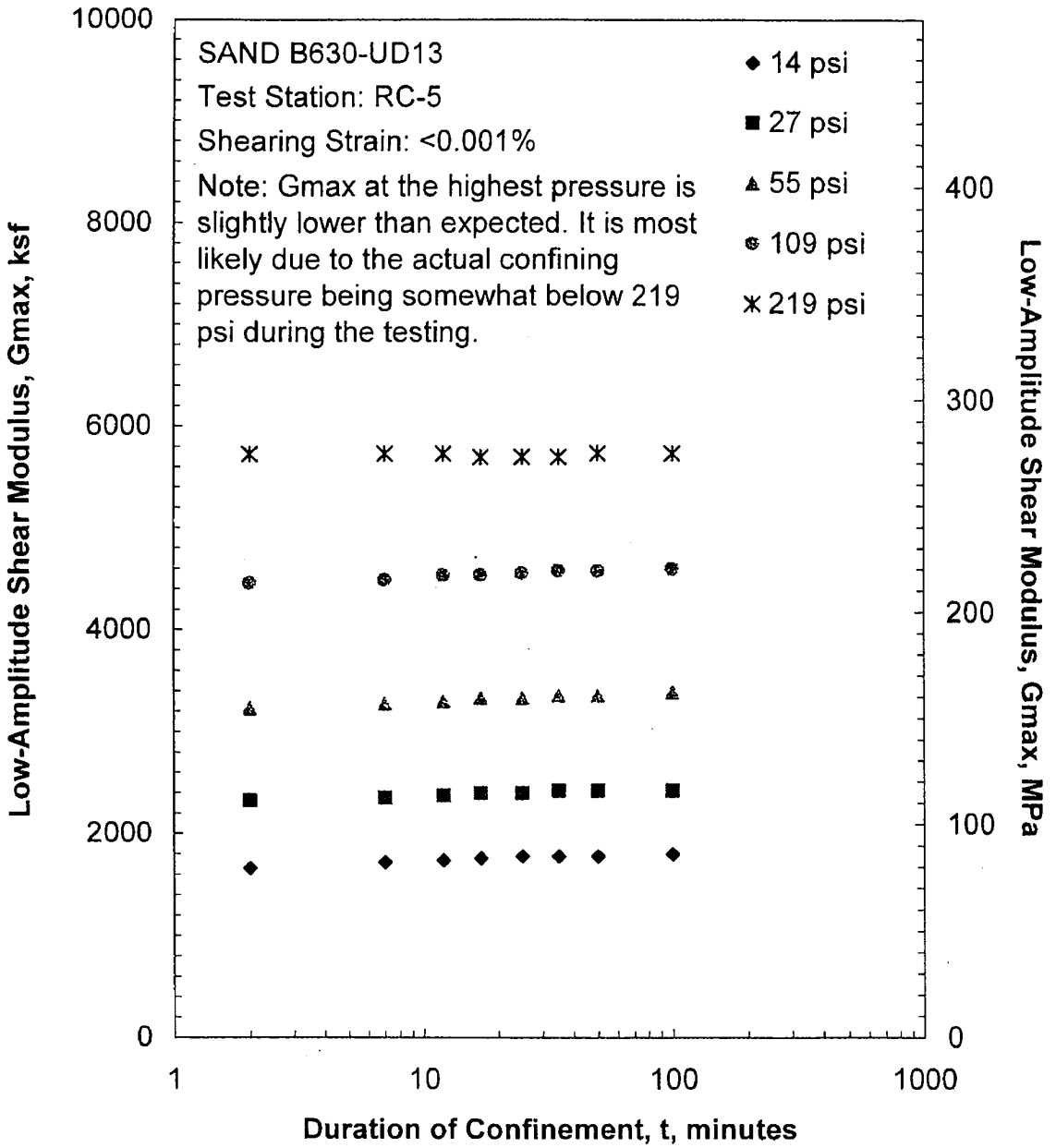


Figure C.1 Variation in Low-Amplitude Shear Modulus with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

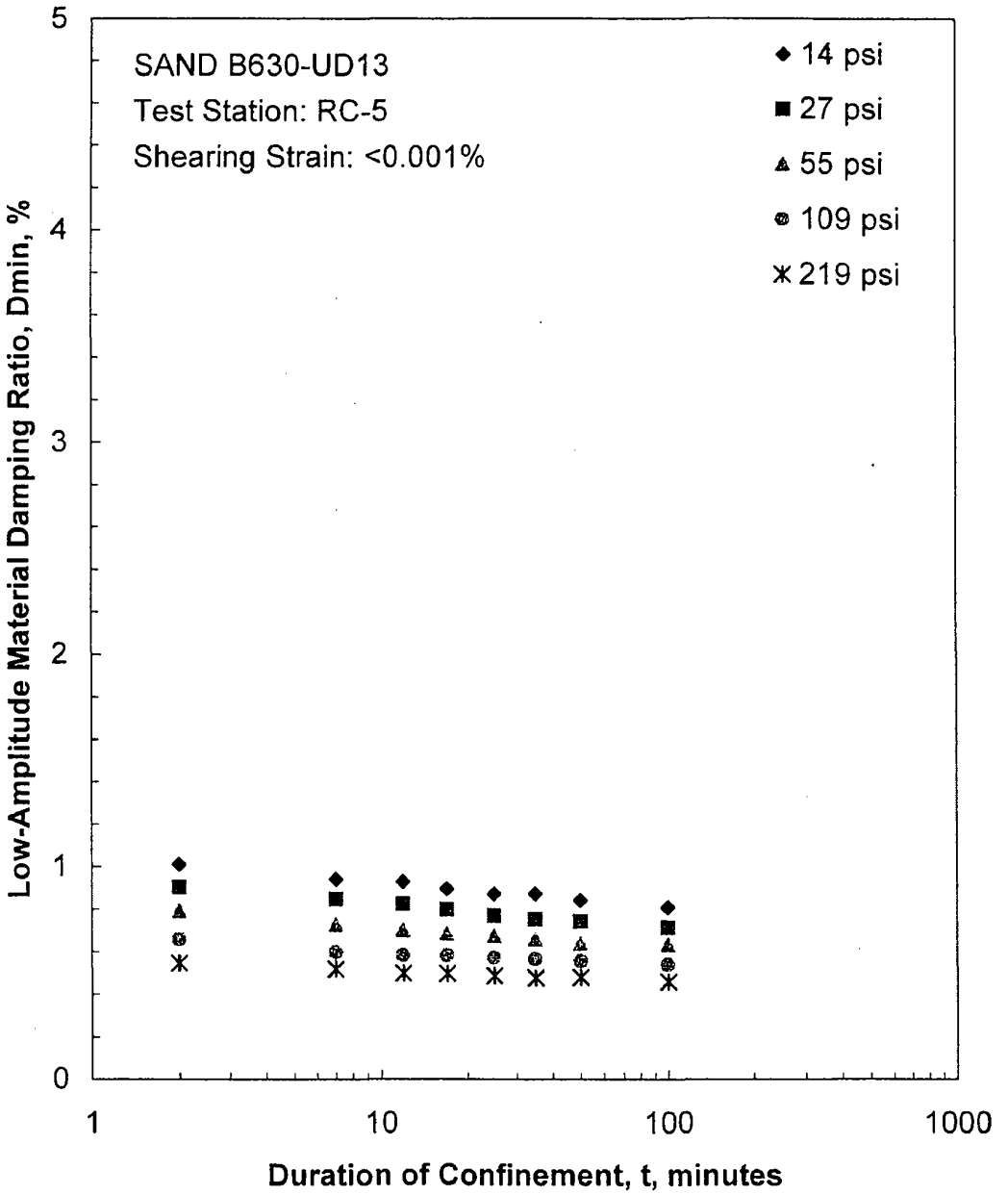


Figure C.2 Variation in Low-Amplitude Material Damping Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

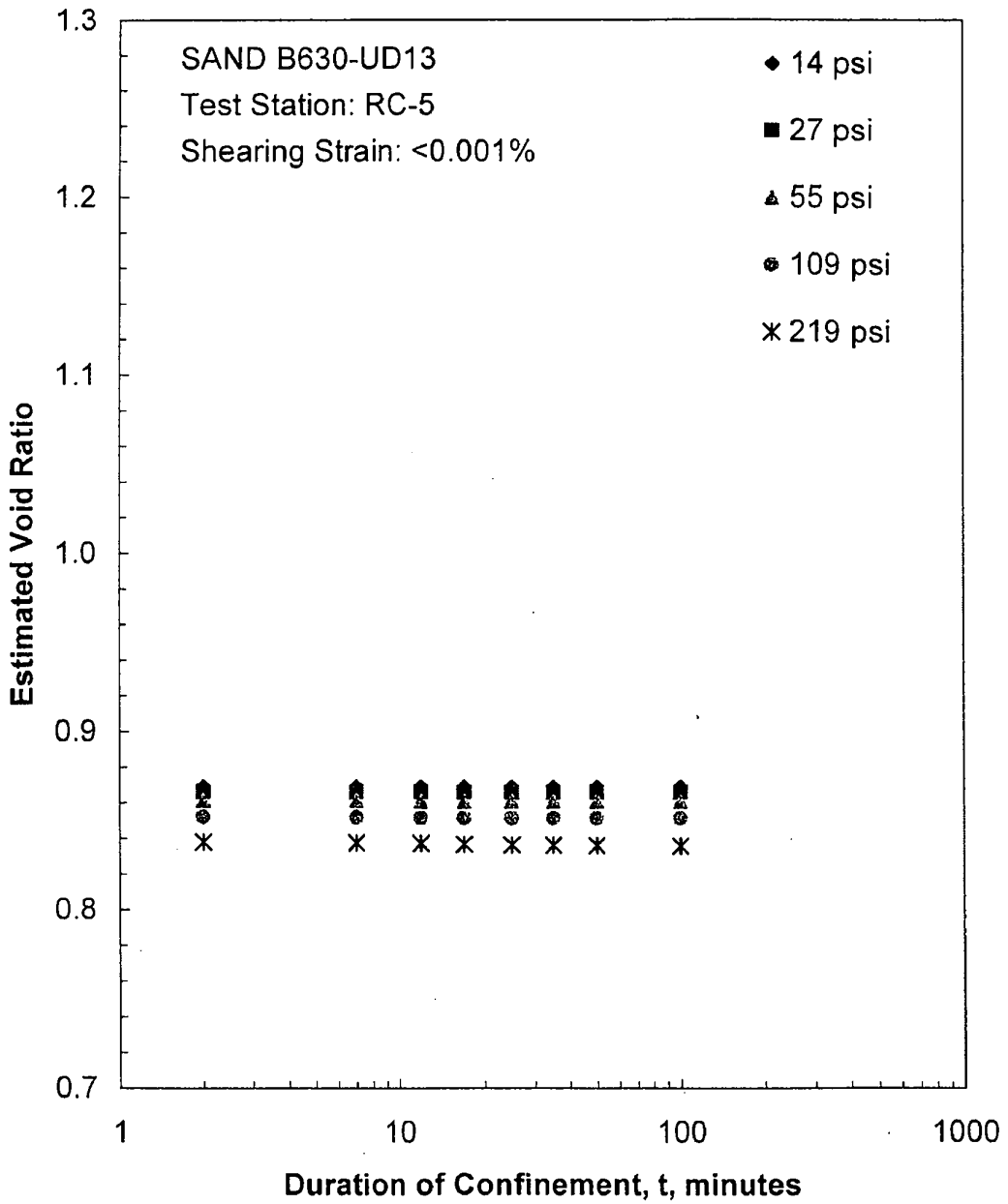


Figure C.3 Variation in Estimated Void Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

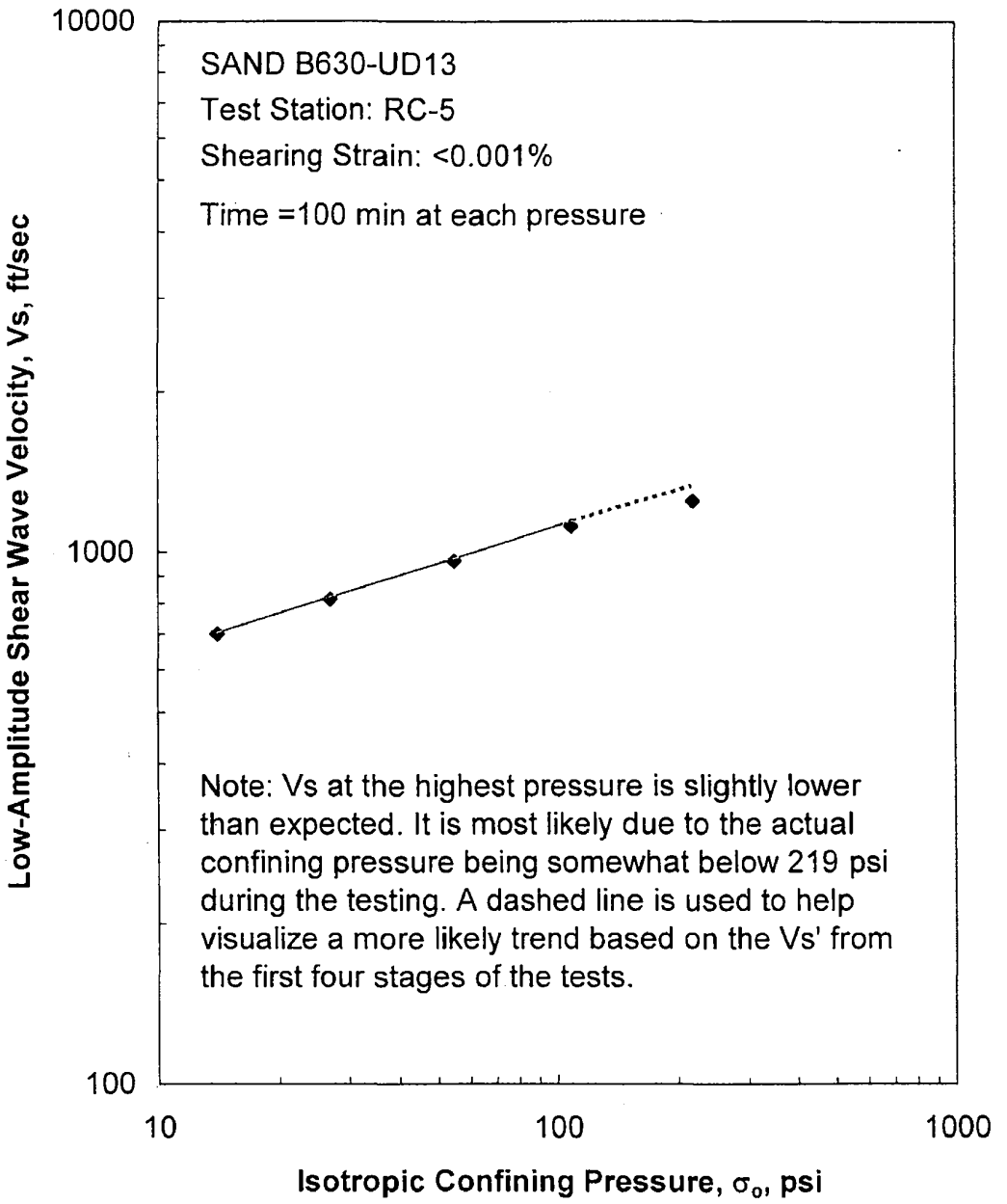


Figure C.4 Variation in Low-Amplitude Shear Wave Velocity with Isotropic Confining Pressure from Resonant Column Tests

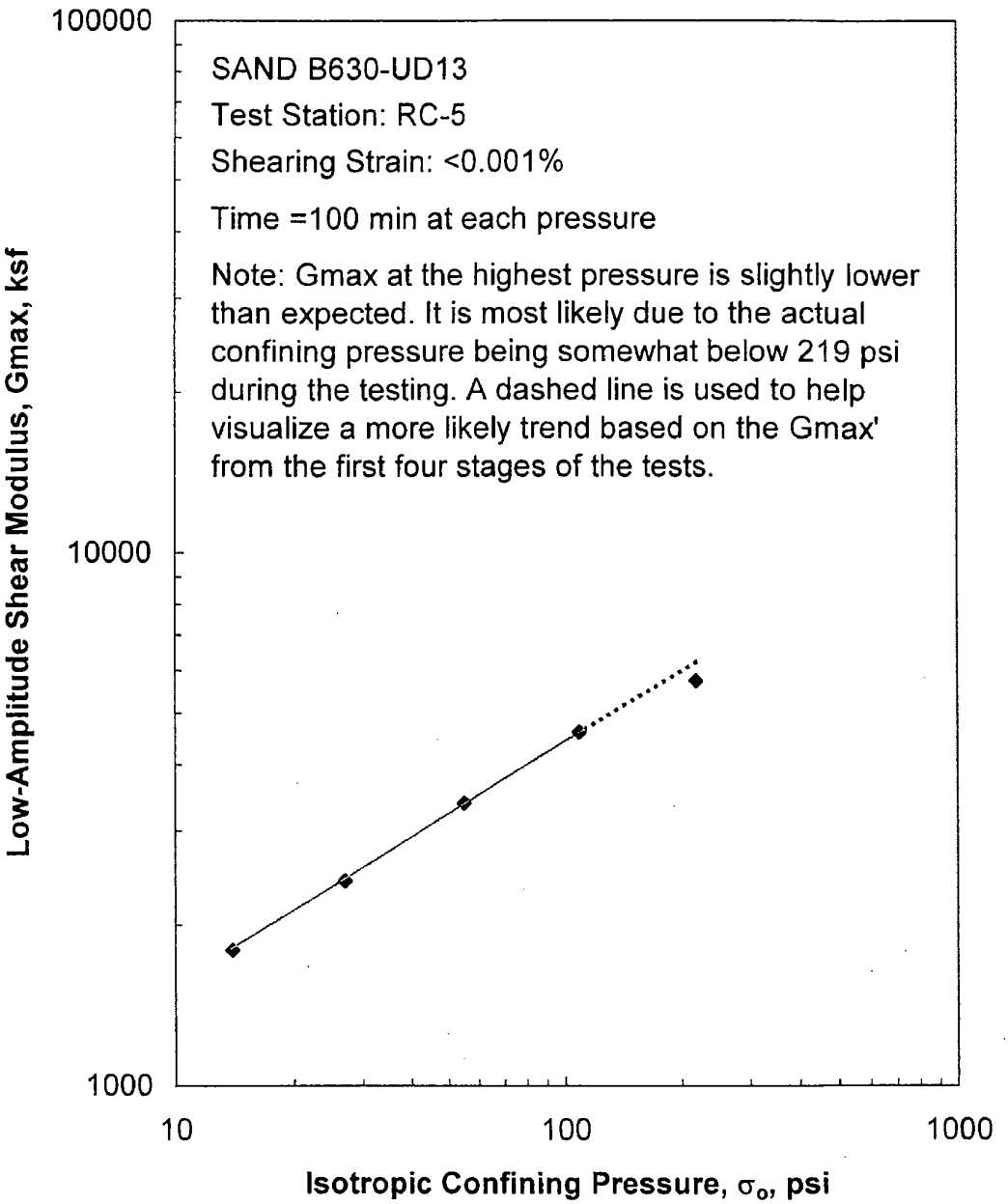


Figure C.5 Variation in Low-Amplitude Shear Modulus with Isotropic Confining Pressure from Resonant Column Tests

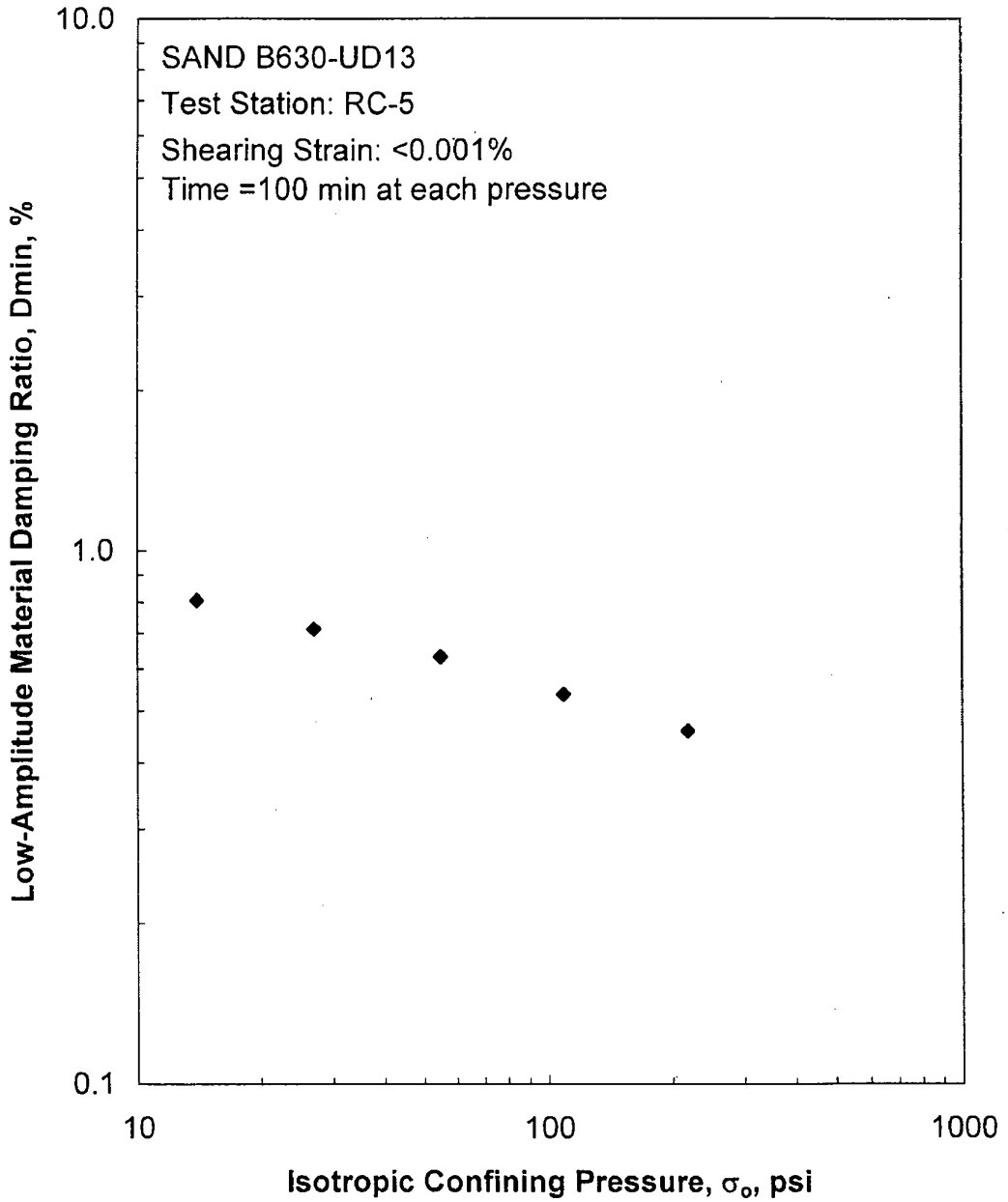


Figure C.6 Variation in Low-Amplitude Material Damping Ratio with Isotropic Confining Pressure from Resonant Column Tests

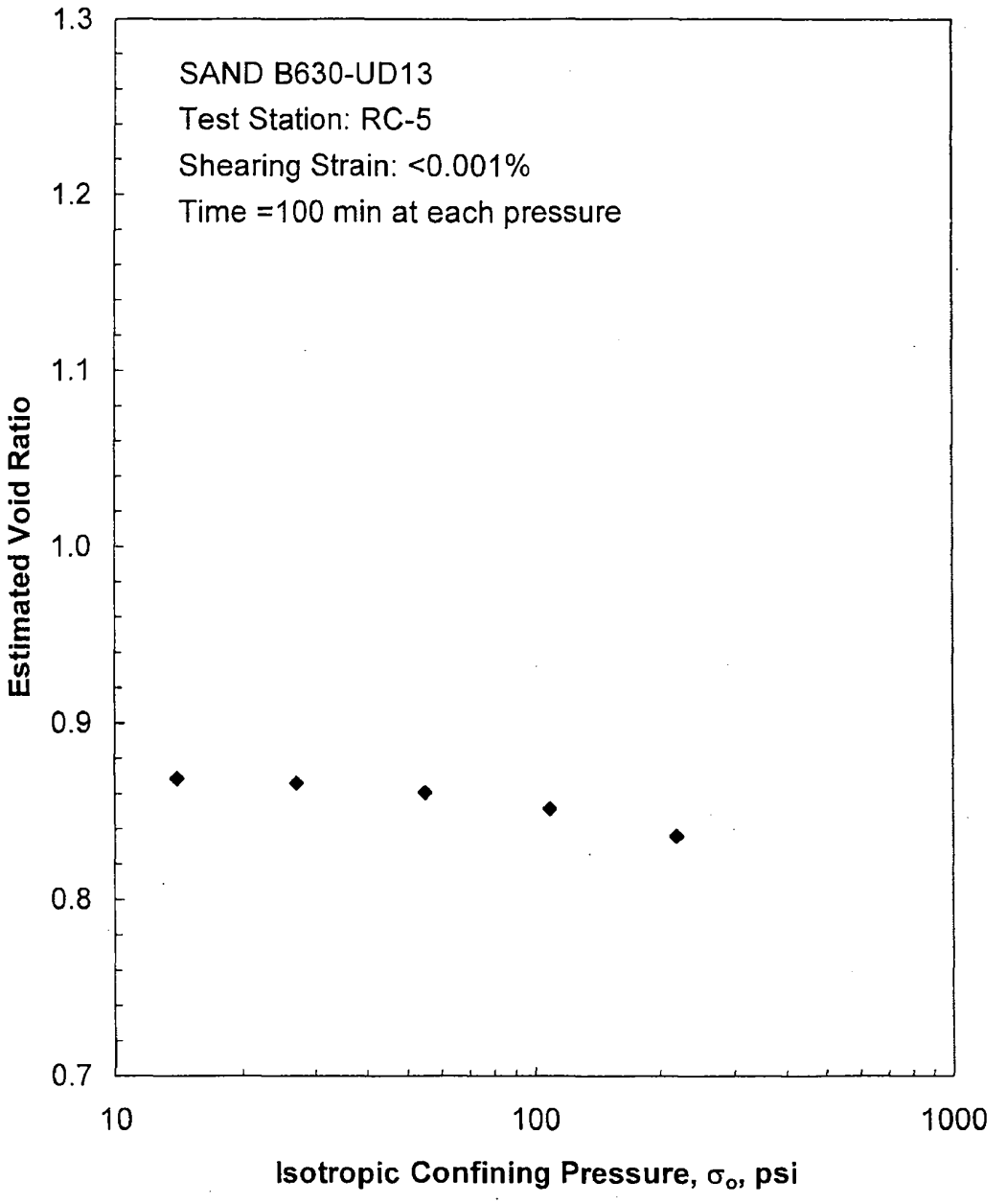


Figure C.7 Variation in Estimated Void Ratio with Isotropic Confining Pressure from Resonant Column Tests

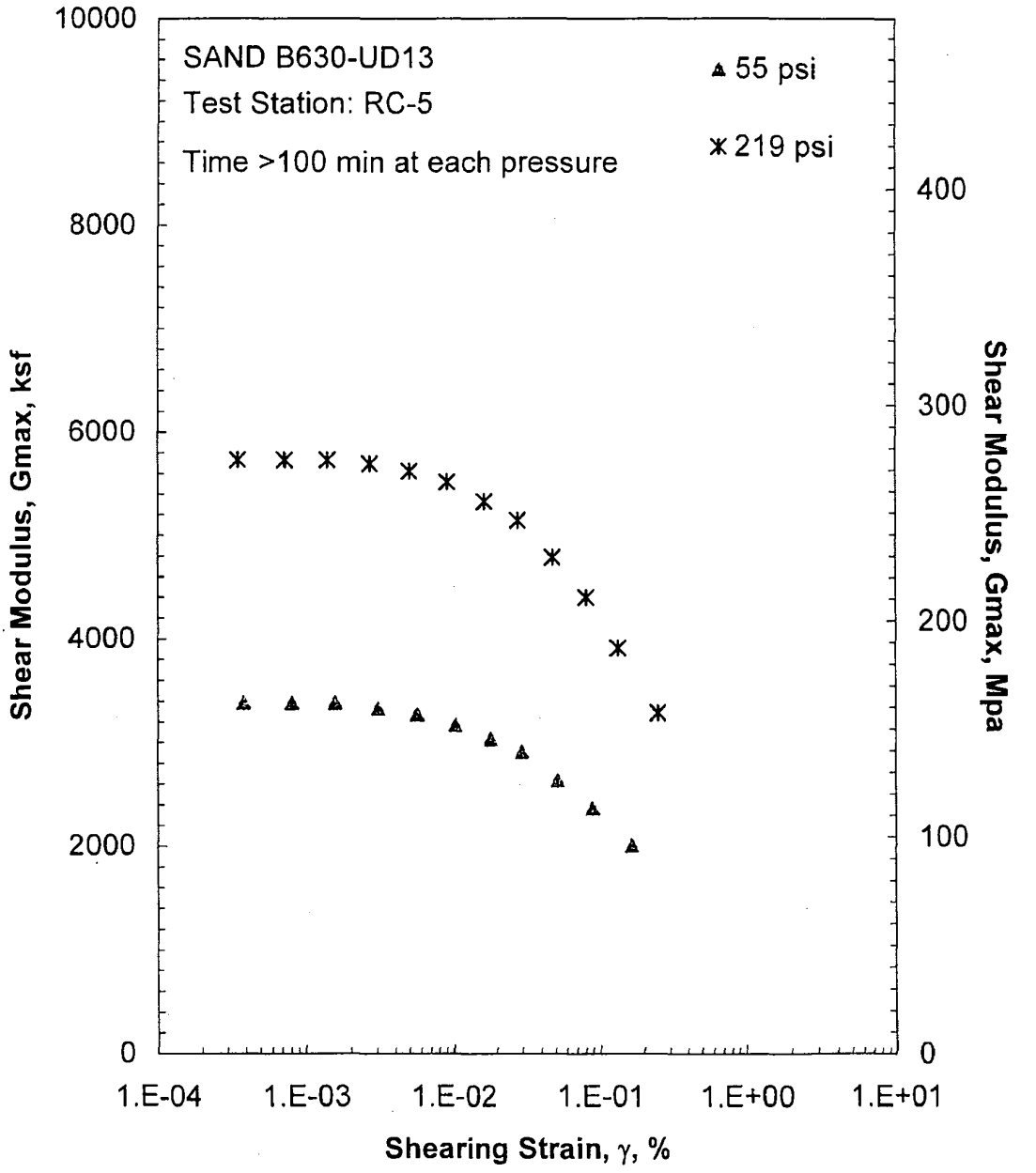


Figure C.8 Comparison of the Variation in Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

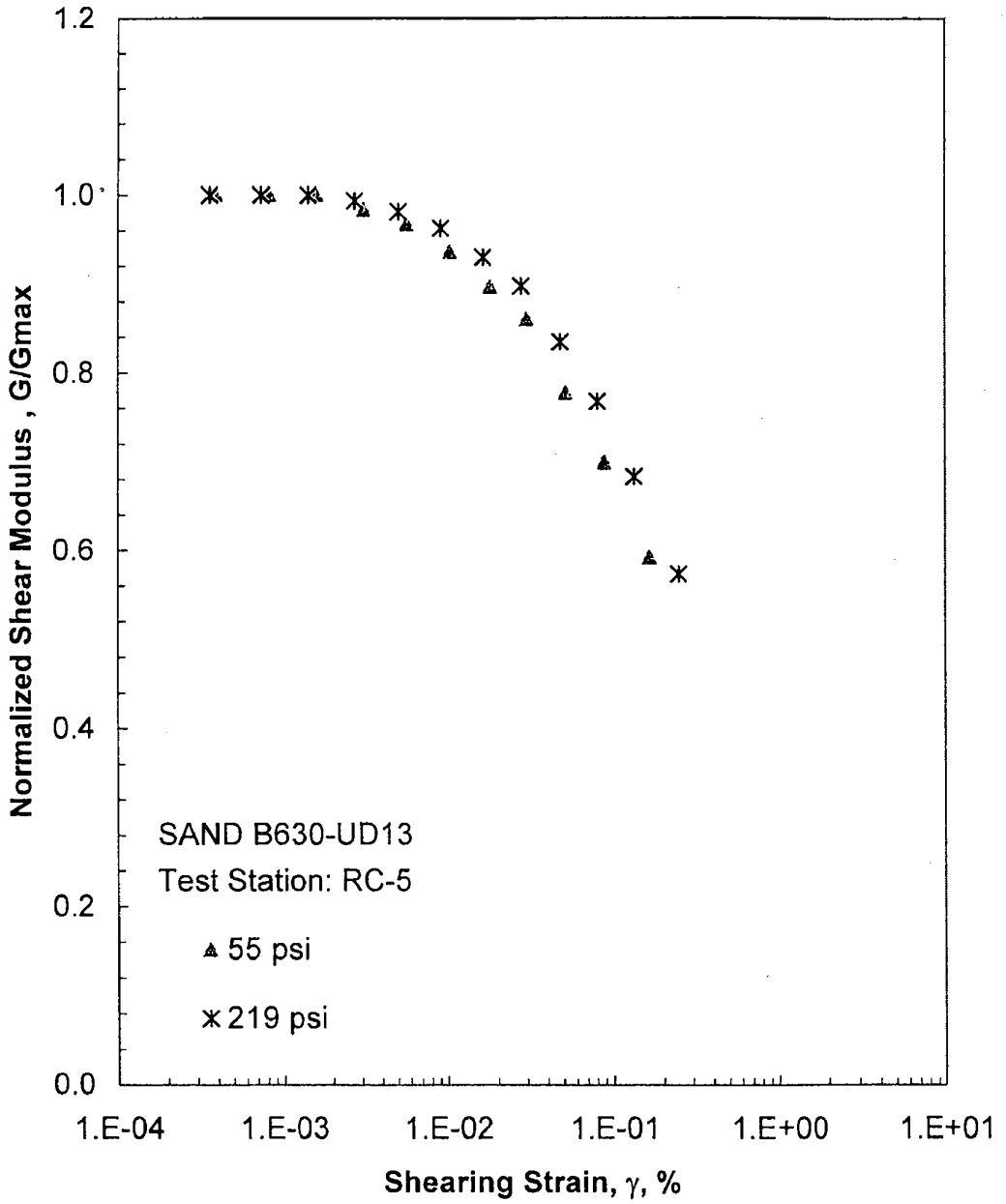


Figure C.9 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

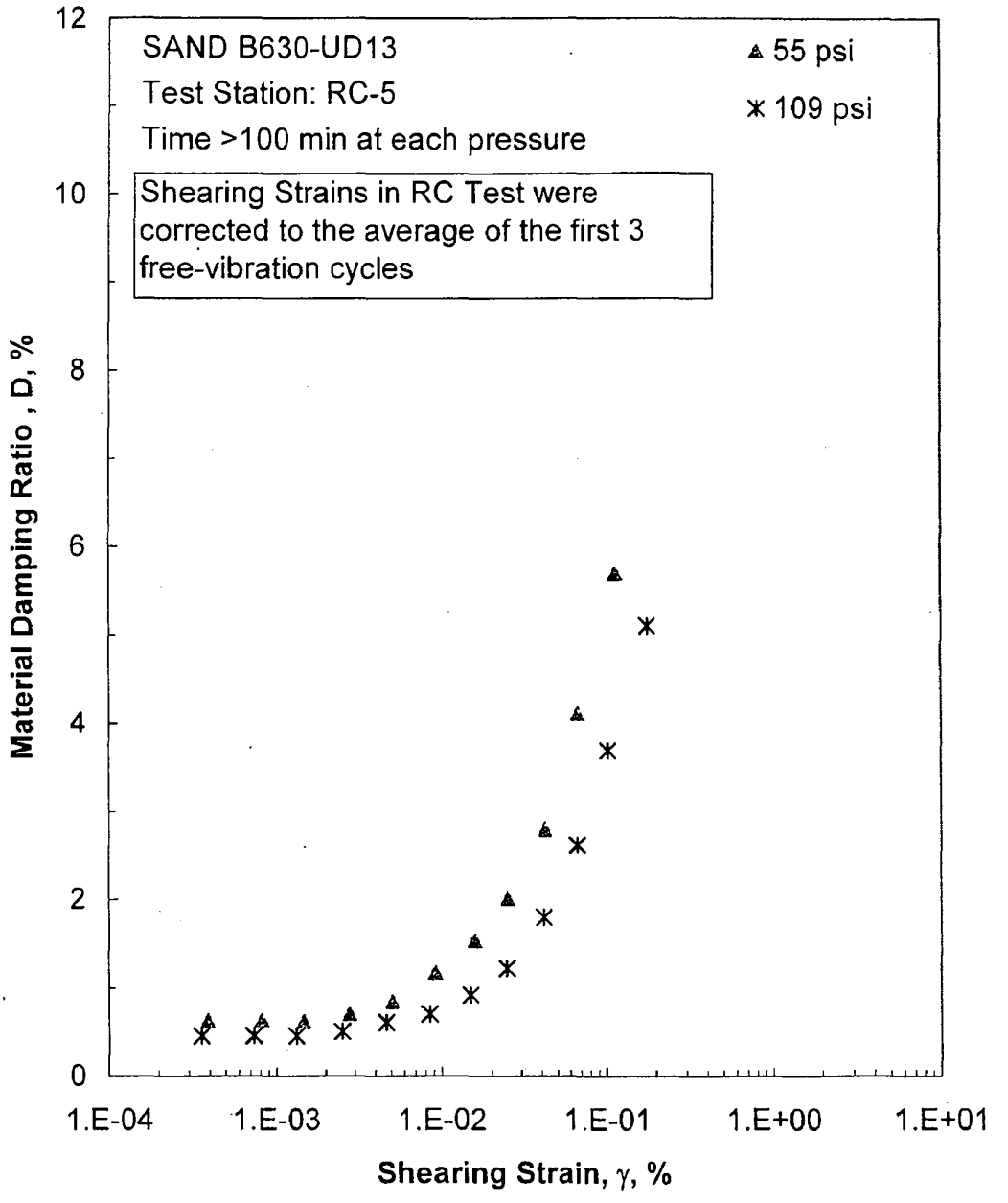


Figure C.10 Comparison of the Variation in Material Damping Ratio with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

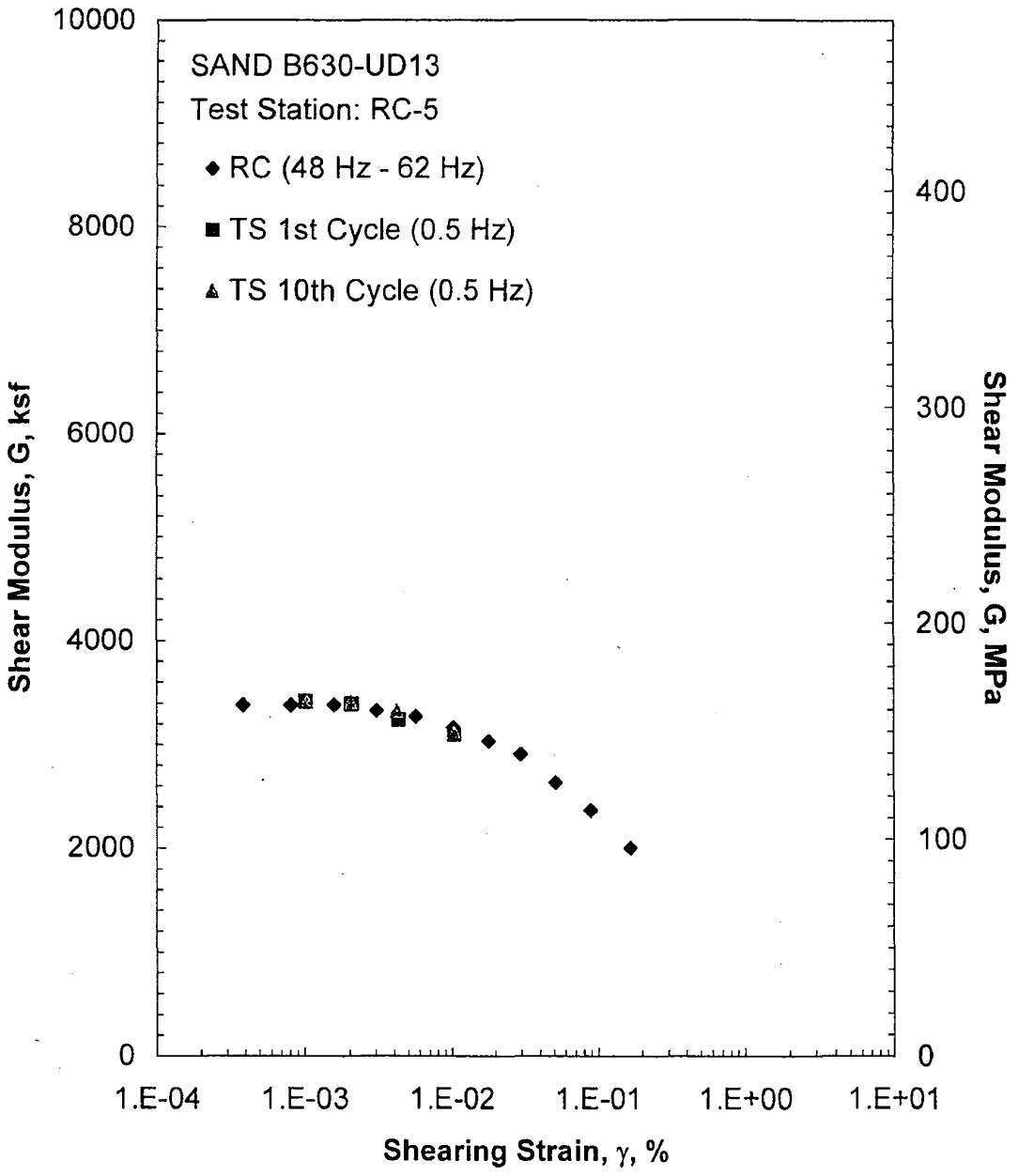


Figure C.11 Comparison of the Variation in Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 55 psi from the Combined RCTS Tests

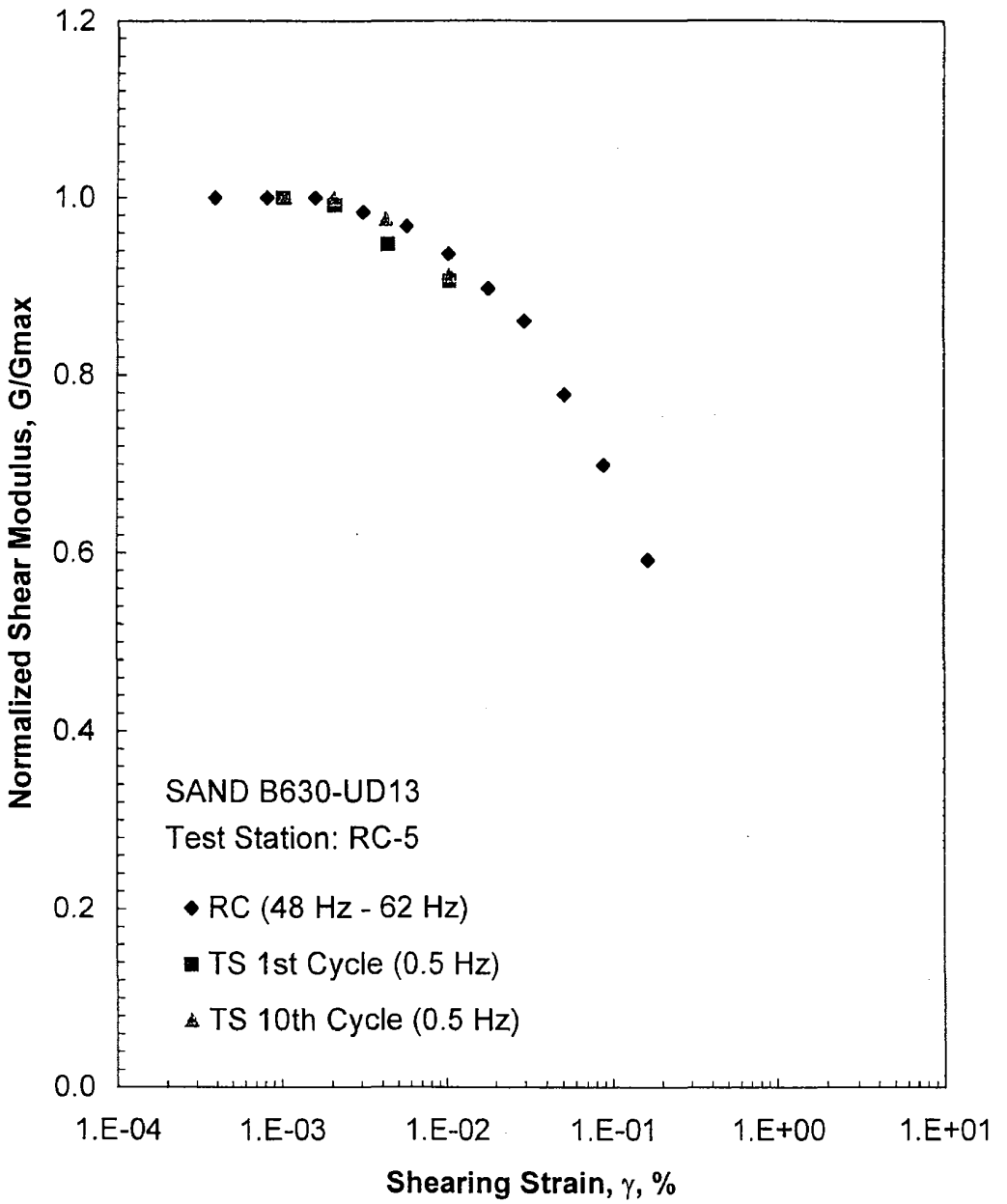


Figure C.12 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 55 psi from the Combined RCTS Tests

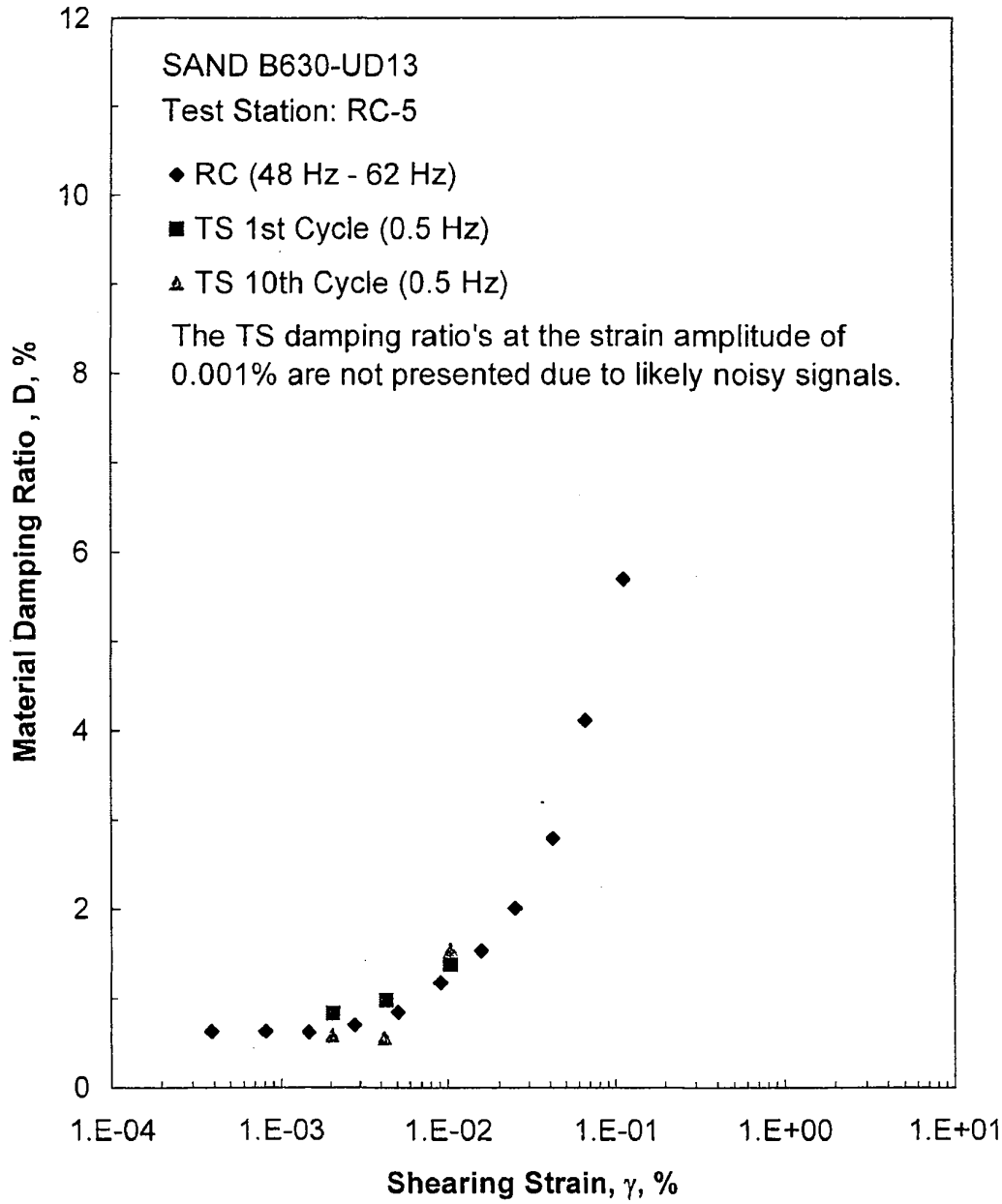


Figure C.13 Comparison of the Variation in Material Damping Ratio with Shearing Strain at an Isotropic Confining Pressure of 55 psi from the Combined RCTS Tests

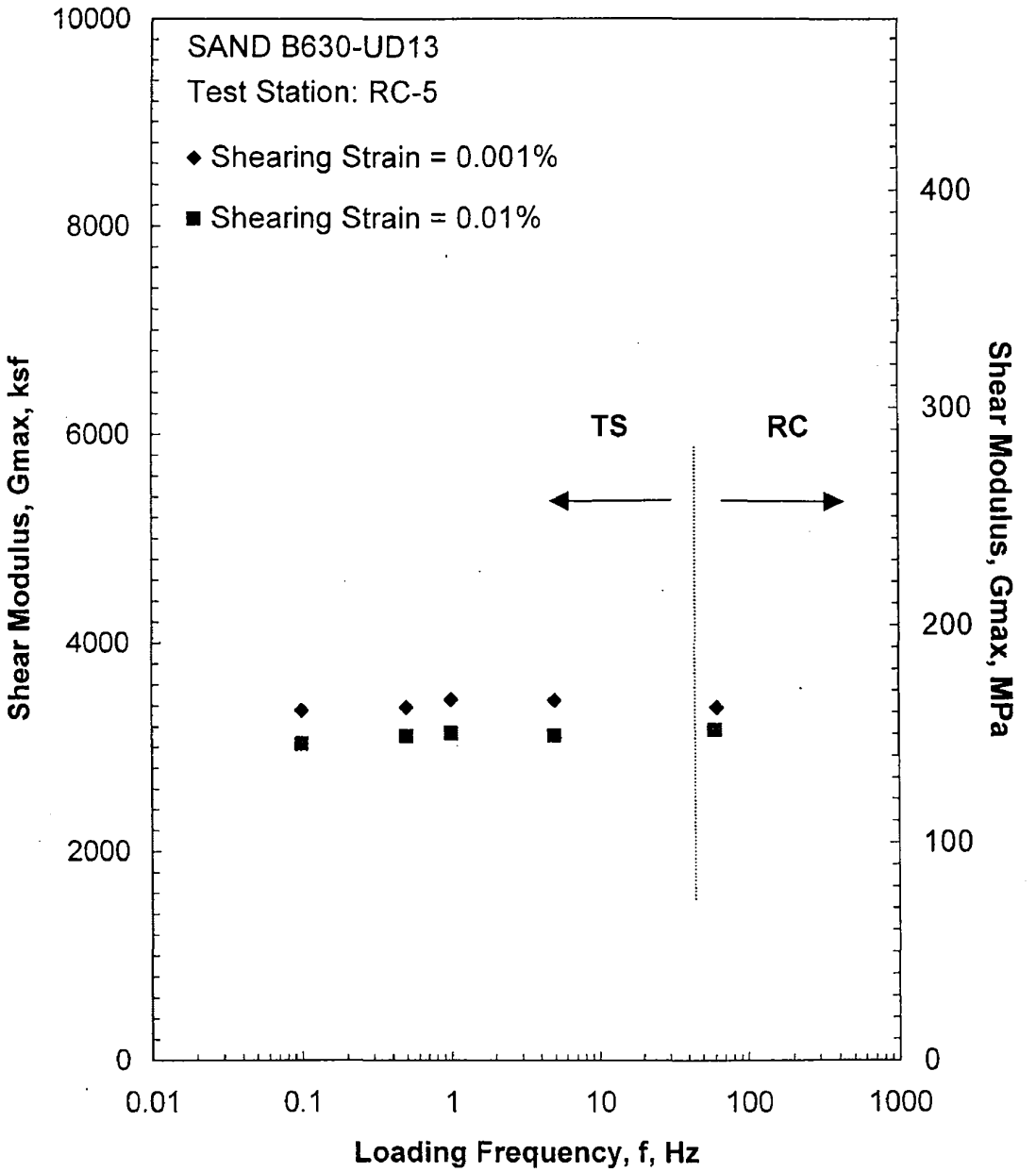


Figure C.14 Comparison of the Variation in Shear Modulus with Loading Frequency at an Isotropic Confining Pressure of 55 psi from the Combined RCTS Tests

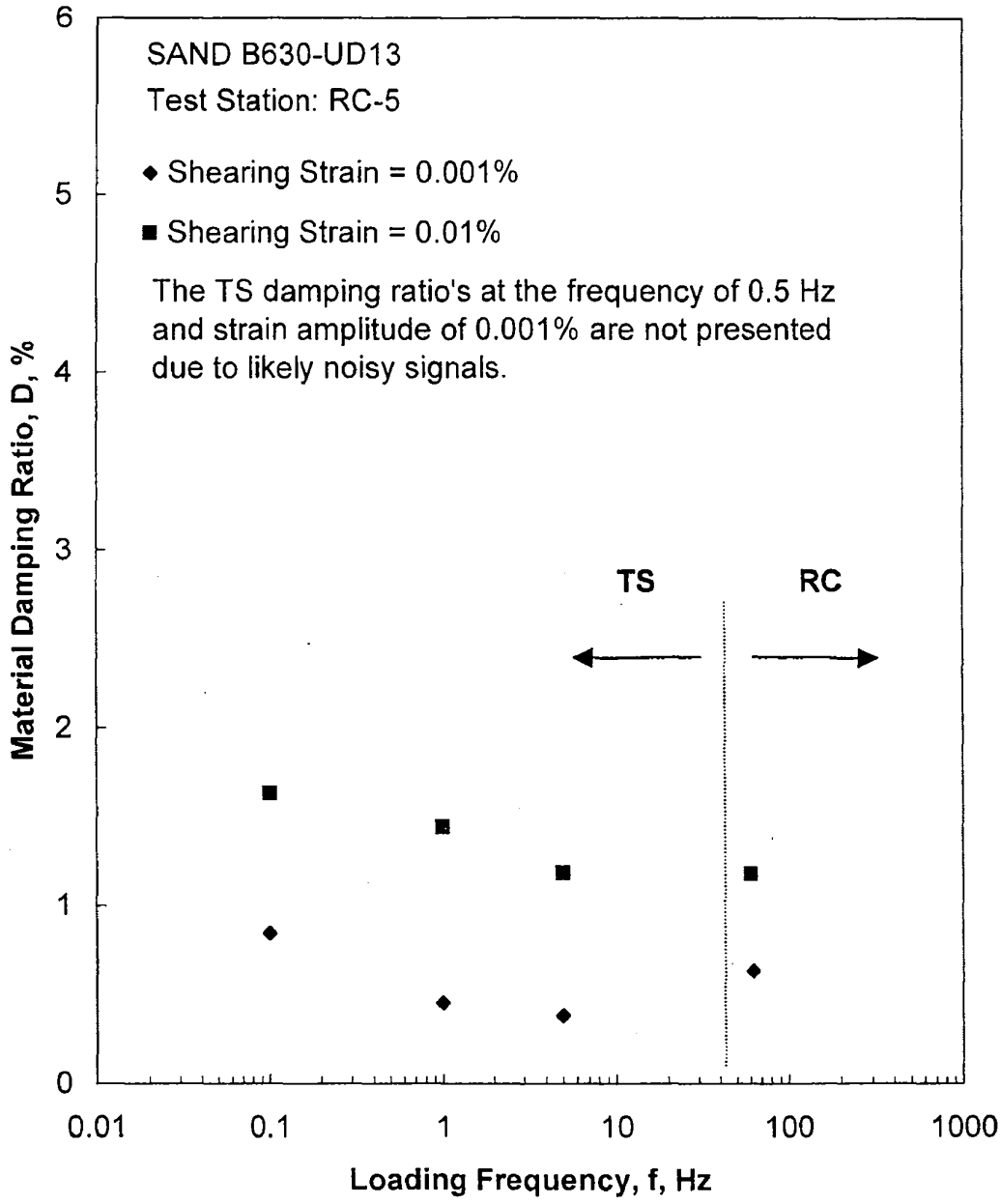


Figure C.15 Comparison of the Variation in Material Damping Ratio with Loading Frequency at an Isotropic Confining Pressure of 55 psi from the Combined RCTS Tests

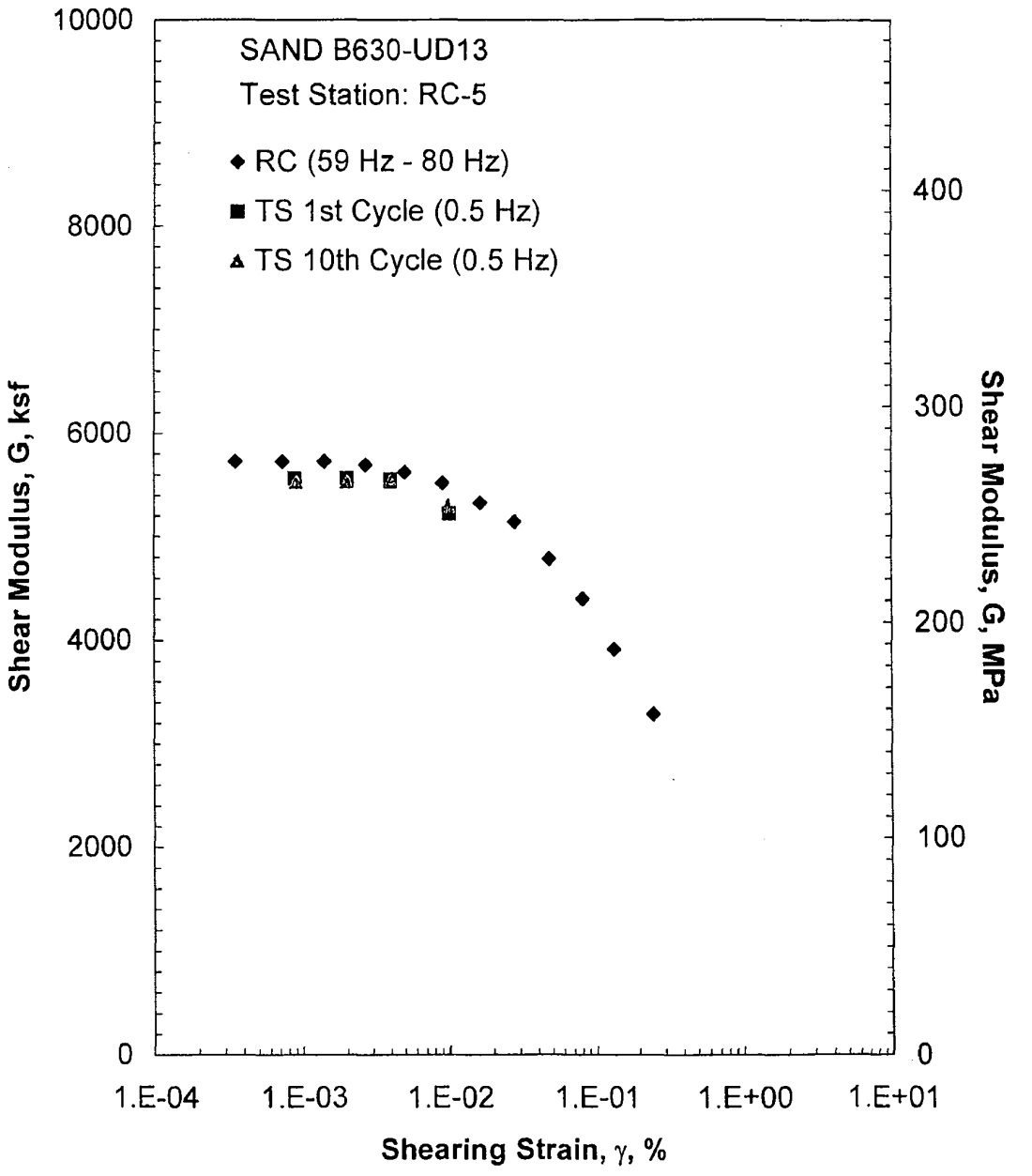


Figure C.16 Comparison of the Variation in Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 219 psi from the Combined RCTS Tests

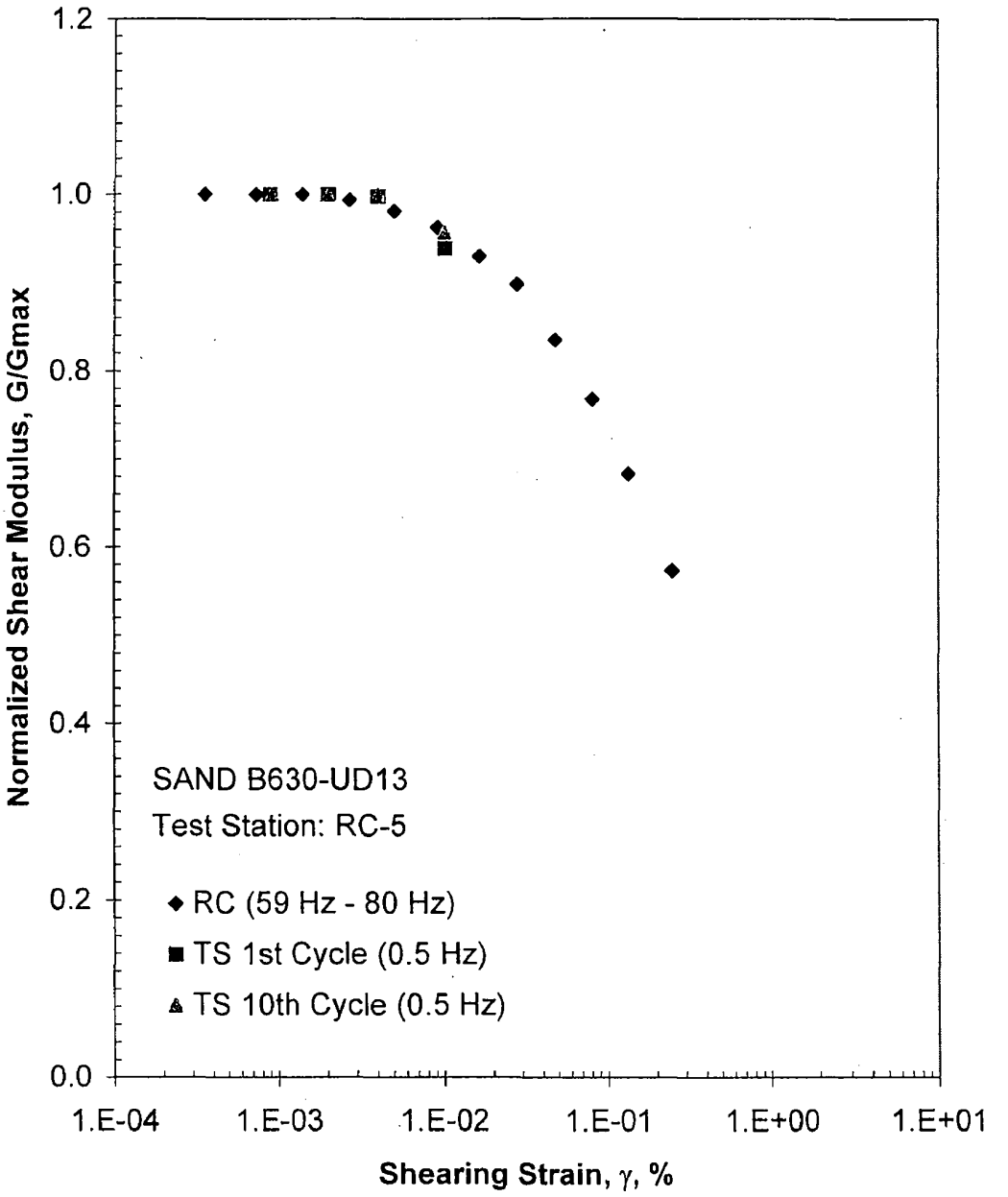


Figure C.17 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 219 psi from the Combined RCTS Tests

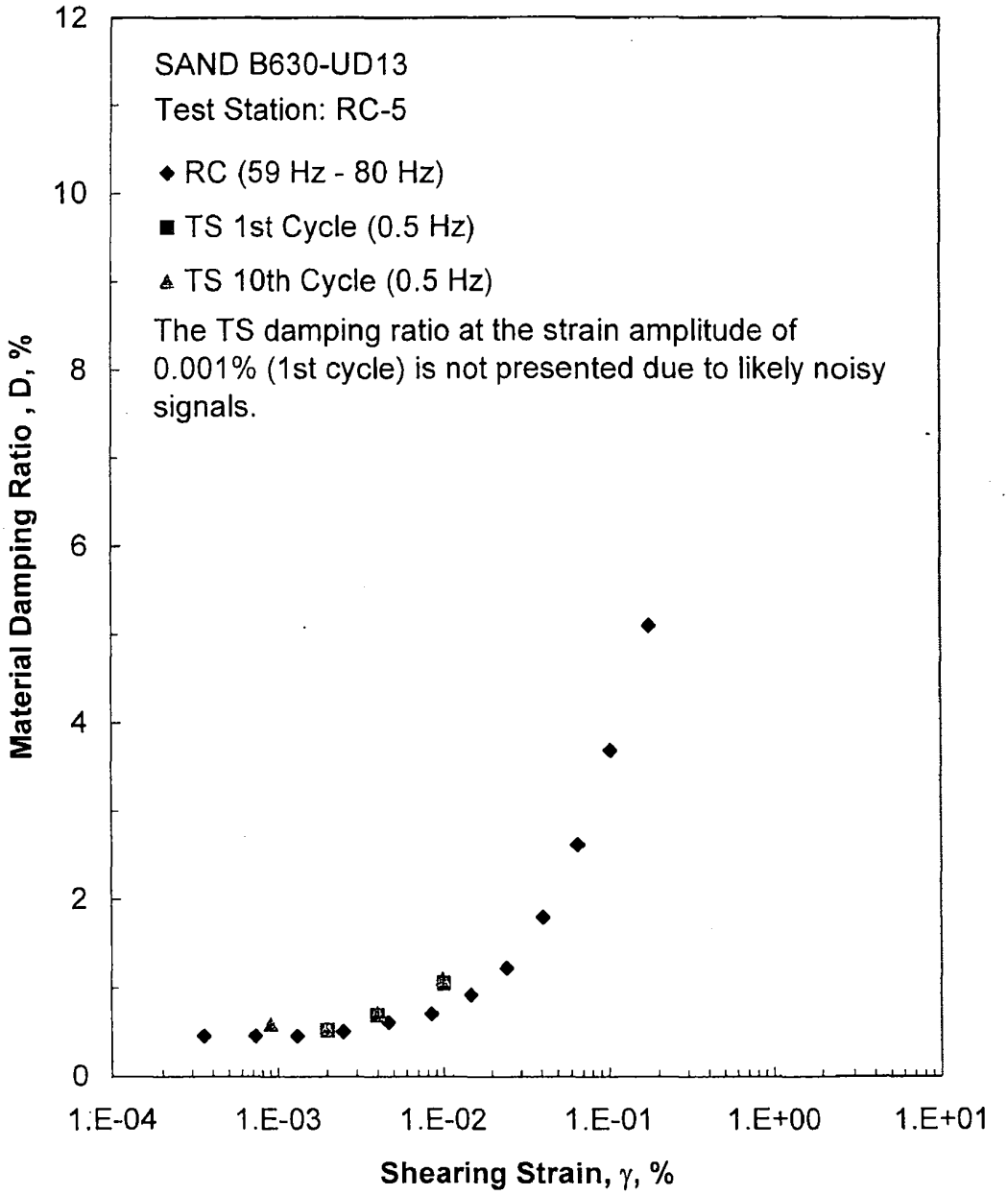


Figure C.18 Comparison of the Variation in Material Damping Ratio with Shearing Strain at an Isotropic Confining Pressure of 219 psi from the Combined RCTS Tests

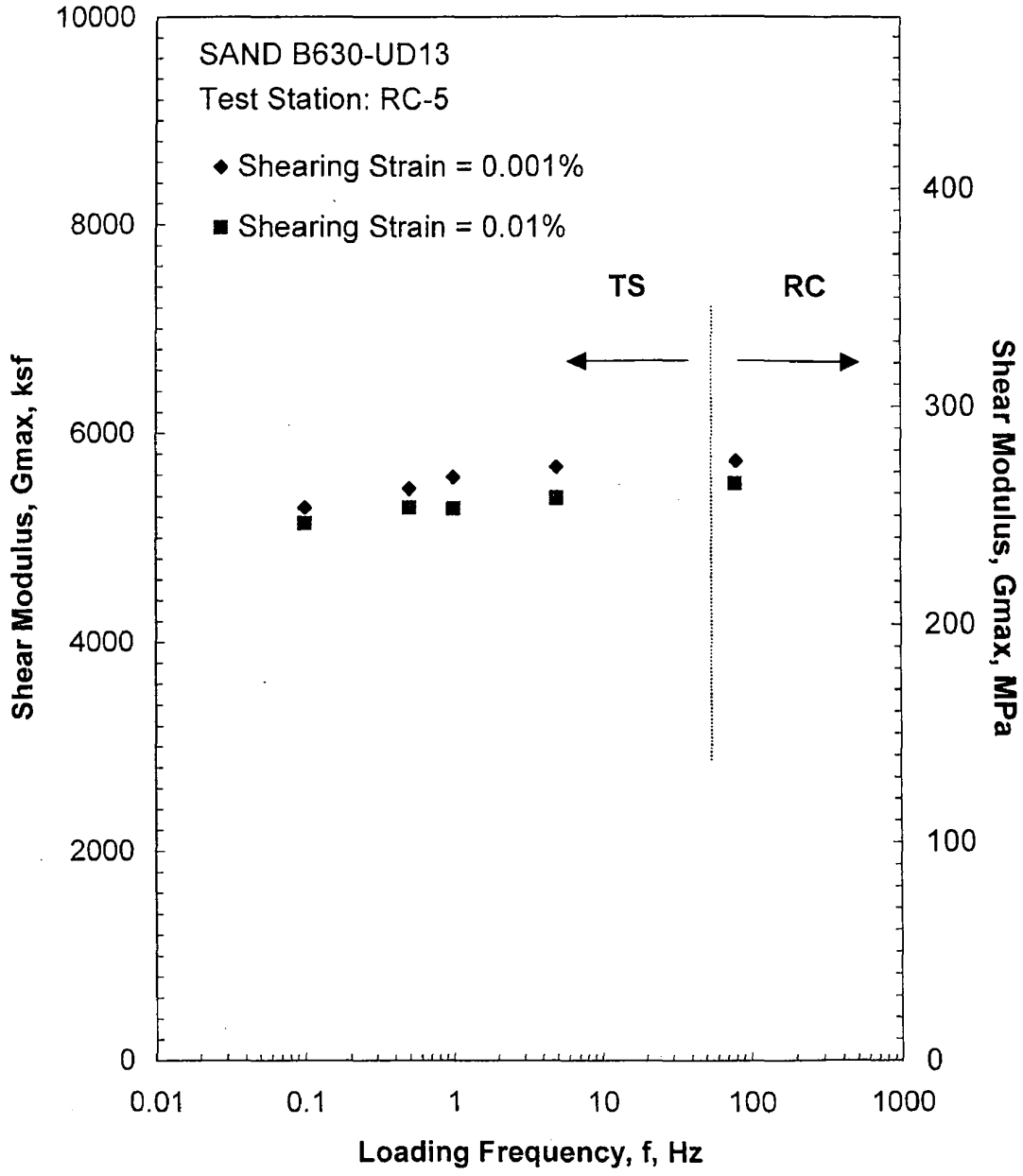


Figure C.19 Comparison of the Variation in Shear Modulus with Loading Frequency at an Isotropic Confining Pressure of 219 psi from the Combined RCTS Tests

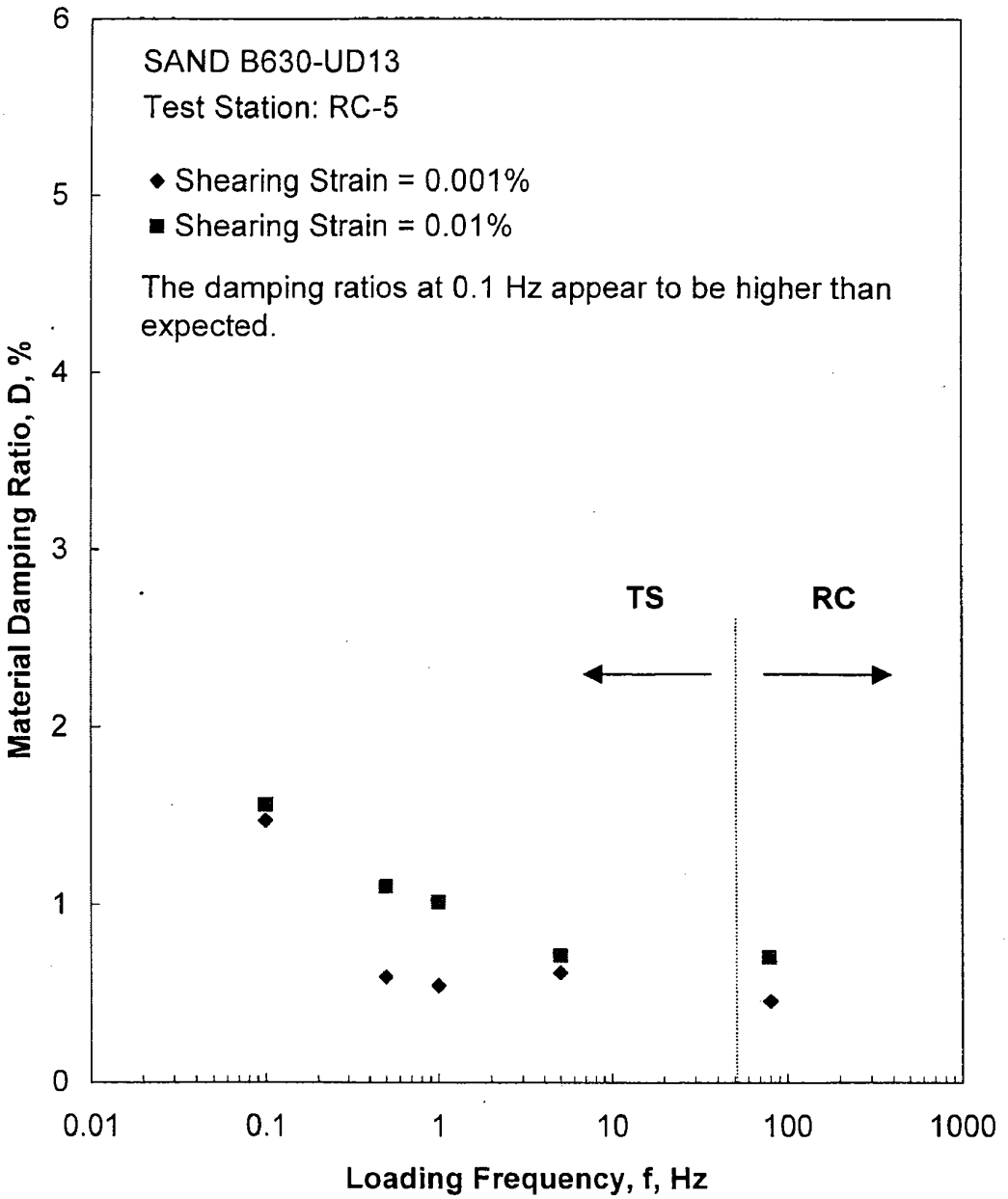


Figure C.20 Comparison of the Variation in Material Damping Ratio with Loading Frequency at an Isotropic Confining Pressure of 219 psi from the Combined RCTS Tests

Table C.1 Variation in Low-Amplitude Shear Wave Velocity, Low-Amplitude Shear Modulus, Low-Amplitude Material Damping Ratio and Estimated Void Ratio with Isotropic Confining Pressure from RC Tests of Specimen B630-UD13

Isotropic Confining Pressure, σ_o			Low-Amplitude Shear Modulus, G_{max}		Low-Amplitude Shear Wave Velocity, Vs	Low-Amplitude Material Damping Ratio, Dmin	Estimated Void Ratio, e
(psi)	(psf)	(kPa)	(ksf)	(MPa)	(fps)	(%)	
14	2016	96	1794	86	701	0.81	0.87
27	3888	186	2417	116	814	0.71	0.87
55	7920	379	3381	162	961	0.63	0.86
109	15696	751	4596	221	1118	0.54	0.85
219	31536	1509	5732	275	1243	0.46	0.84

Table C.2 Variation in Shear Modulus and Material Damping Ratio with Shearing Strain from RC Tests of Specimen B630-UD13; Isoptropic Confining Pressure, σ_o= 55 psi (7.9 ksf = 379 kPa)

Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Average[+] Shearing Strain, %	Material Damping Ratio[x], D, %
3.88E-04	3381	1.00	3.88E-04	0.63
8.14E-04	3381	1.00	8.14E-04	0.63
1.58E-03	3381	1.00	1.47E-03	0.62
3.06E-03	3326	0.98	2.79E-03	0.70
5.66E-03	3272	0.97	5.09E-03	0.85
1.03E-02	3164	0.94	9.17E-03	1.17
1.81E-02	3033	0.90	1.57E-02	1.54
2.98E-02	2908	0.86	2.50E-02	2.01
5.17E-02	2629	0.78	4.19E-02	2.79
8.86E-02	2362	0.70	6.65E-02	4.11
1.65E-01	2002	0.59	1.14E-01	5.69

[+] Average Shearing Strain from the First Three Cycles of the Free Vibration Decay Curve

[x] Average Damping Ratio from the First Three Cycles of the Free Vibration Decay Curve

Table C.3 Variation in Shear Modulus, Normalized Shear Modulus and Material Damping Ratio with Shearing Strain from TS Tests of Specimen B630-UD13; Isotropic Confining Pressure, σ_o= 55 psi (7.9 ksf = 379 kPa)

First Cycle				Tenth Cycle			
Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %	Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %
1.02E-03	3420	1.00	---	1.04E-03	3407	1.00	---
2.07E-03	3390	0.99	0.83	2.05E-03	3407	1.00	0.58
4.33E-03	3239	0.95	0.98	4.22E-03	3325	0.98	0.56
1.04E-02	3097	0.91	1.38	1.04E-02	3108	0.91	1.54

Table C.4 Variation in Shear Modulus and Material Damping Ratio with Shearing Strain from RC Tests of Specimen B630-UD13; Isoptropic Confining Pressure, σ_o= 219 psi (31.5 ksf = 1509 kPa)

Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Average[+] Shearing Strain, %	Material Damping Ratio[x], D, %
3.55E-04	5727	1.00	3.55E-04	0.46
7.29E-04	5727	1.00	7.29E-04	0.46
1.41E-03	5727	1.00	1.32E-03	0.46
2.69E-03	5691	0.99	2.50E-03	0.51
5.02E-03	5619	0.98	4.67E-03	0.61
9.09E-03	5513	0.96	8.45E-03	0.70
1.63E-02	5325	0.93	1.49E-02	0.92
2.77E-02	5141	0.90	2.47E-02	1.22
4.79E-02	4782	0.83	4.12E-02	1.80
8.05E-02	4398	0.77	6.60E-02	2.62
1.33E-01	3910	0.68	1.03E-01	3.68
2.49E-01	3283	0.57	1.76E-01	5.10

[+] Average Shearing Strain from the First Three Cycles of the Free Vibration Decay Curve

[x] Average Damping Ratio from the First Three Cycles of the Free Vibration Decay Curve

Table C.5 Variation in Shear Modulus, Normalized Shear Modulus and Material Damping Ratio with Shearing Strain from TS Tests of Specimen B630-UD13; Isotropic Confining Pressure, σ_o= 219 psi (31.5 ksf = 1509 kPa)

First Cycle				Tenth Cycle			
Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %	Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %
8.84E-04	5560	1.00	---	9.05E-04	5528	1.00	0.59
2.02E-03	5560	1.00	0.52	2.01E-03	5528	1.00	0.53
4.01E-03	5550	1.00	0.69	4.00E-03	5528	1.00	0.71
1.01E-02	5218	0.94	1.05	9.93E-03	5293	0.96	1.10

APPENDIX D

Specimen B630-UD16

Borehole 630
Sample UD16
Depth = 211.0 ft (64.3 m)
Total Unit Weight = 116.3 lb/ft^3
Water Content = 31.1 %
Estimated In-Situ Ko = 0.5
Estimated In-Situ Mean Effective
Stress = 60 psi

FUGRO JOB #: 0411-08-1701
Testing Station: RC9

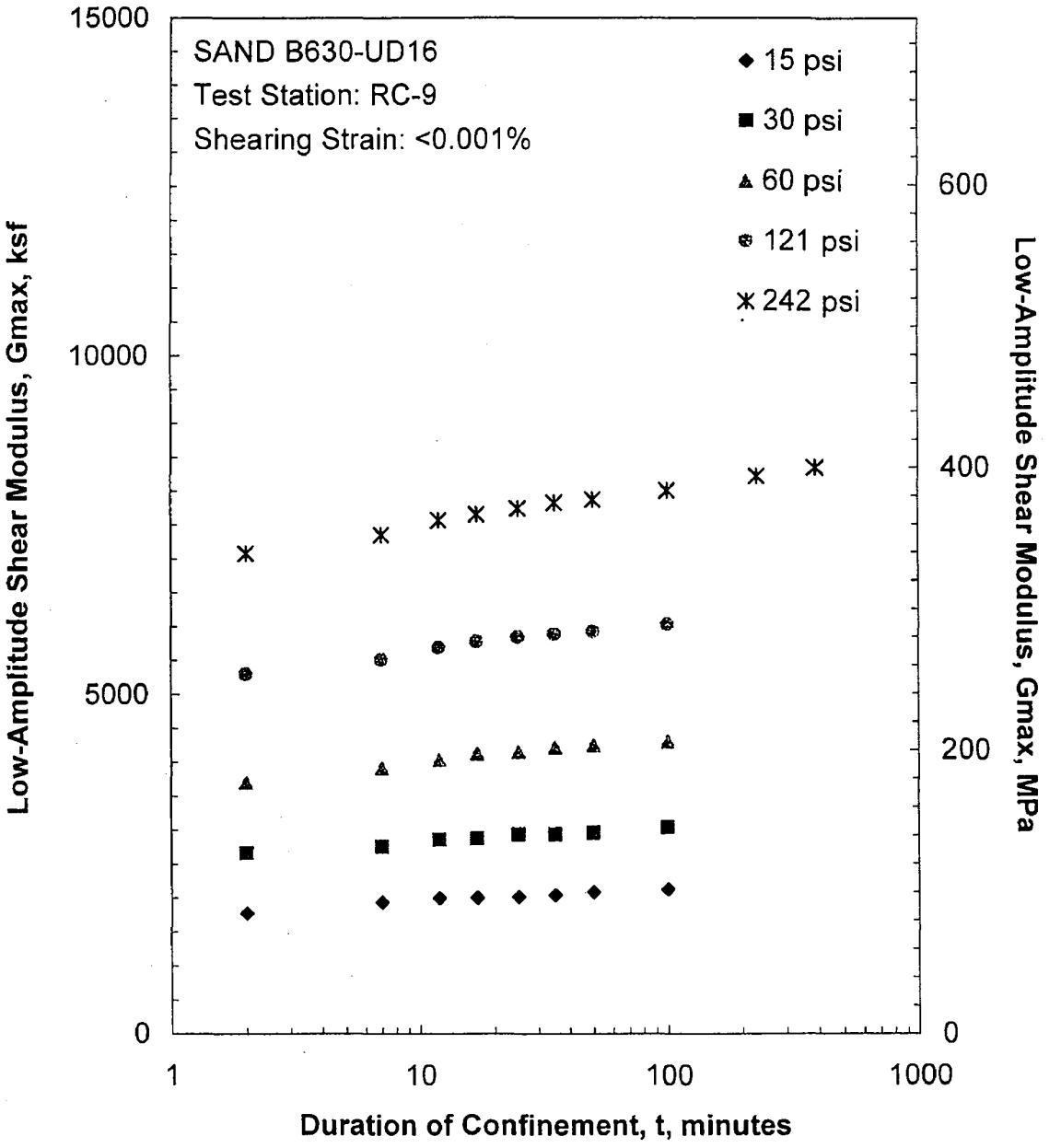


Figure D.1 Variation in Low-Amplitude Shear Modulus with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

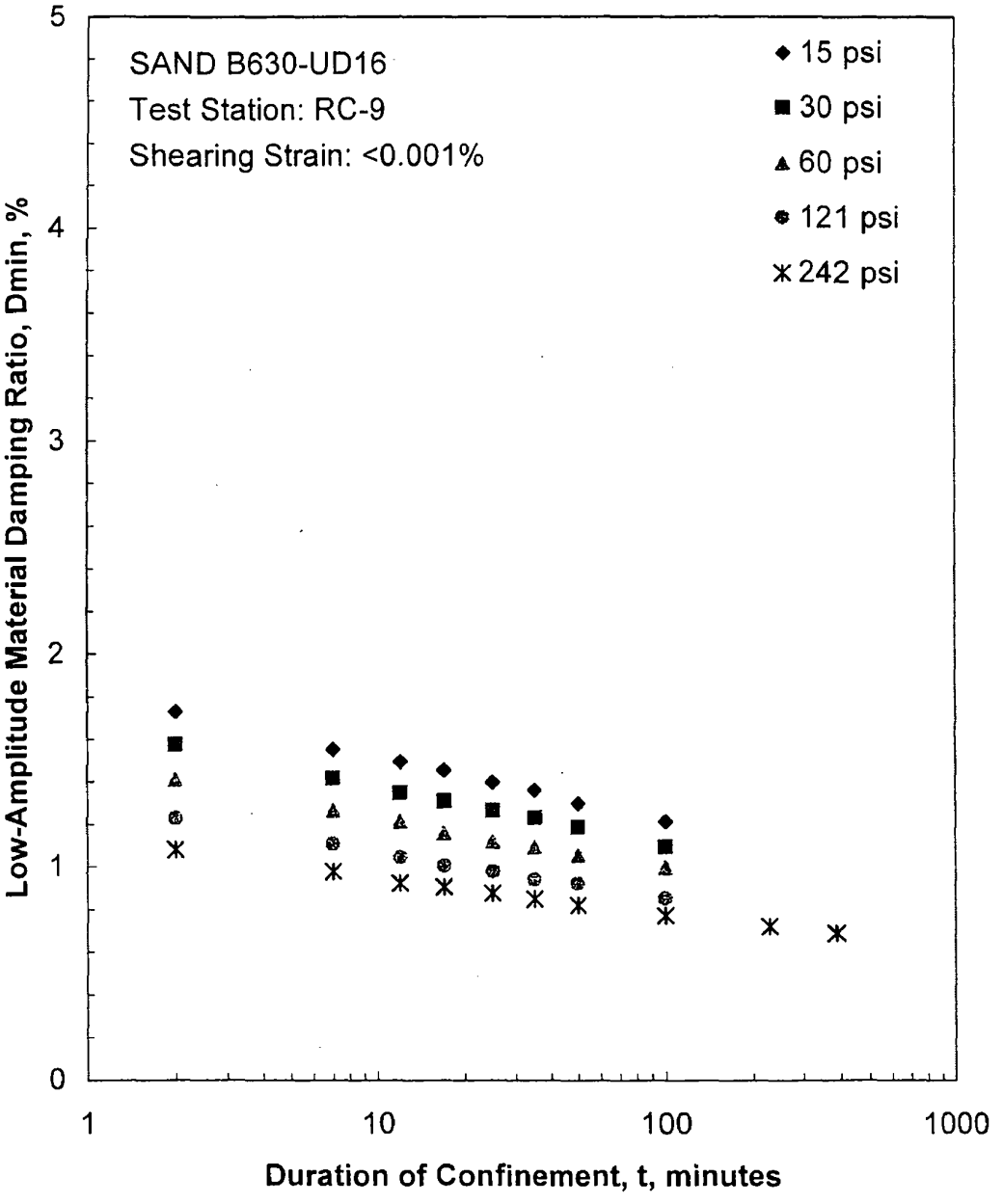


Figure D.2 Variation in Low-Amplitude Material Damping Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

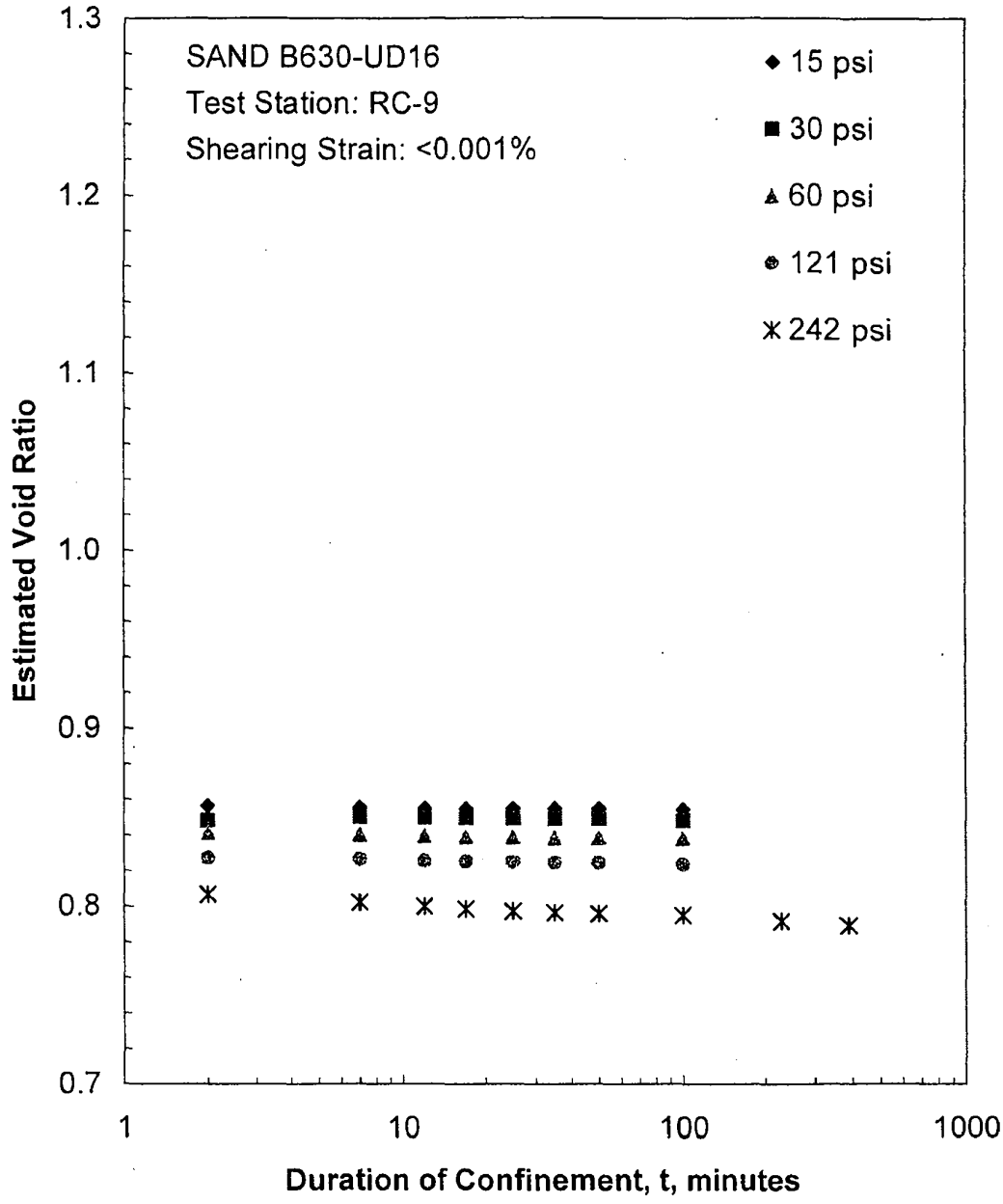


Figure D.3 Variation in Estimated Void Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

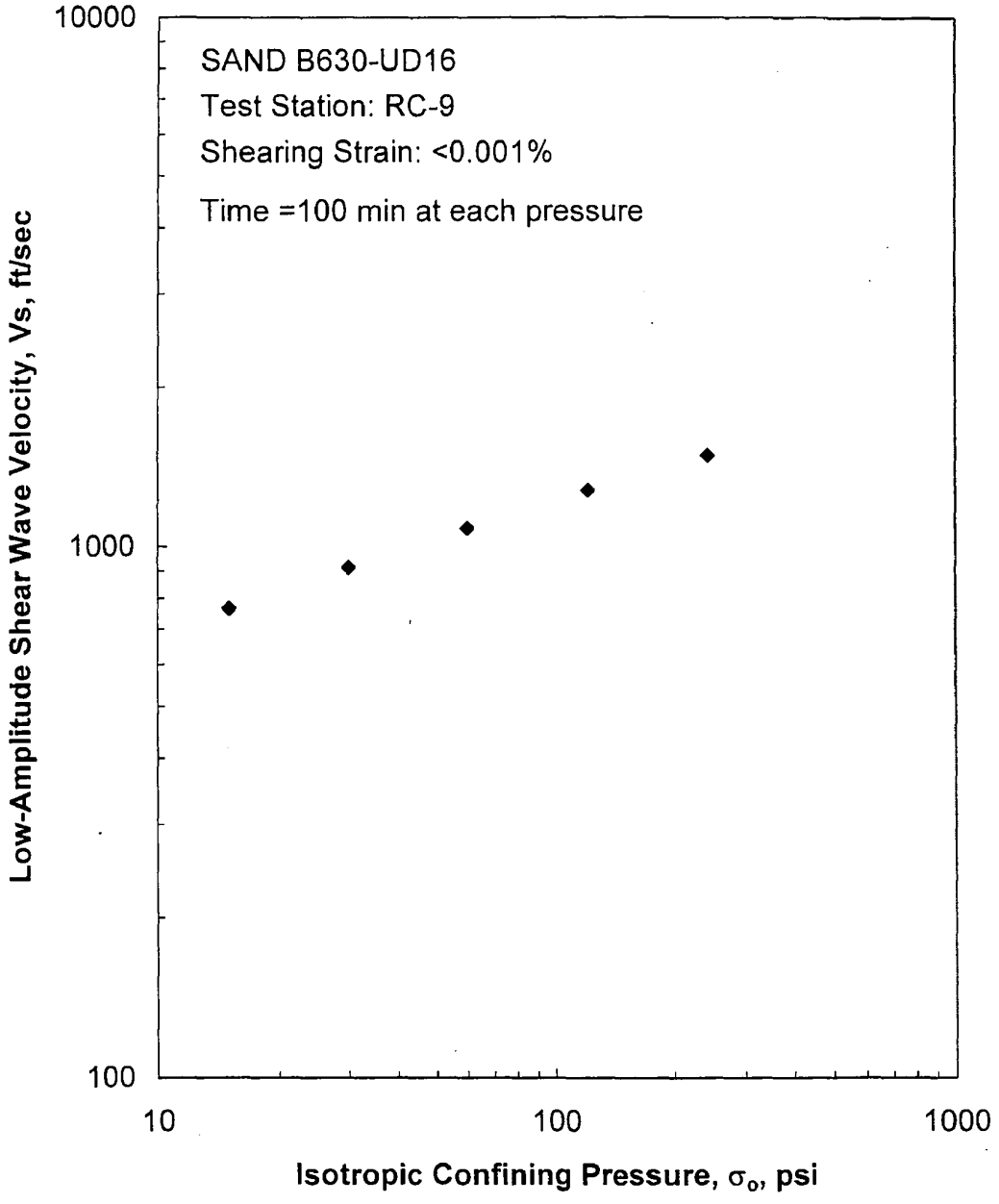


Figure D.4 Variation in Low-Amplitude Shear Wave Velocity with Isotropic Confining Pressure from Resonant Column Tests

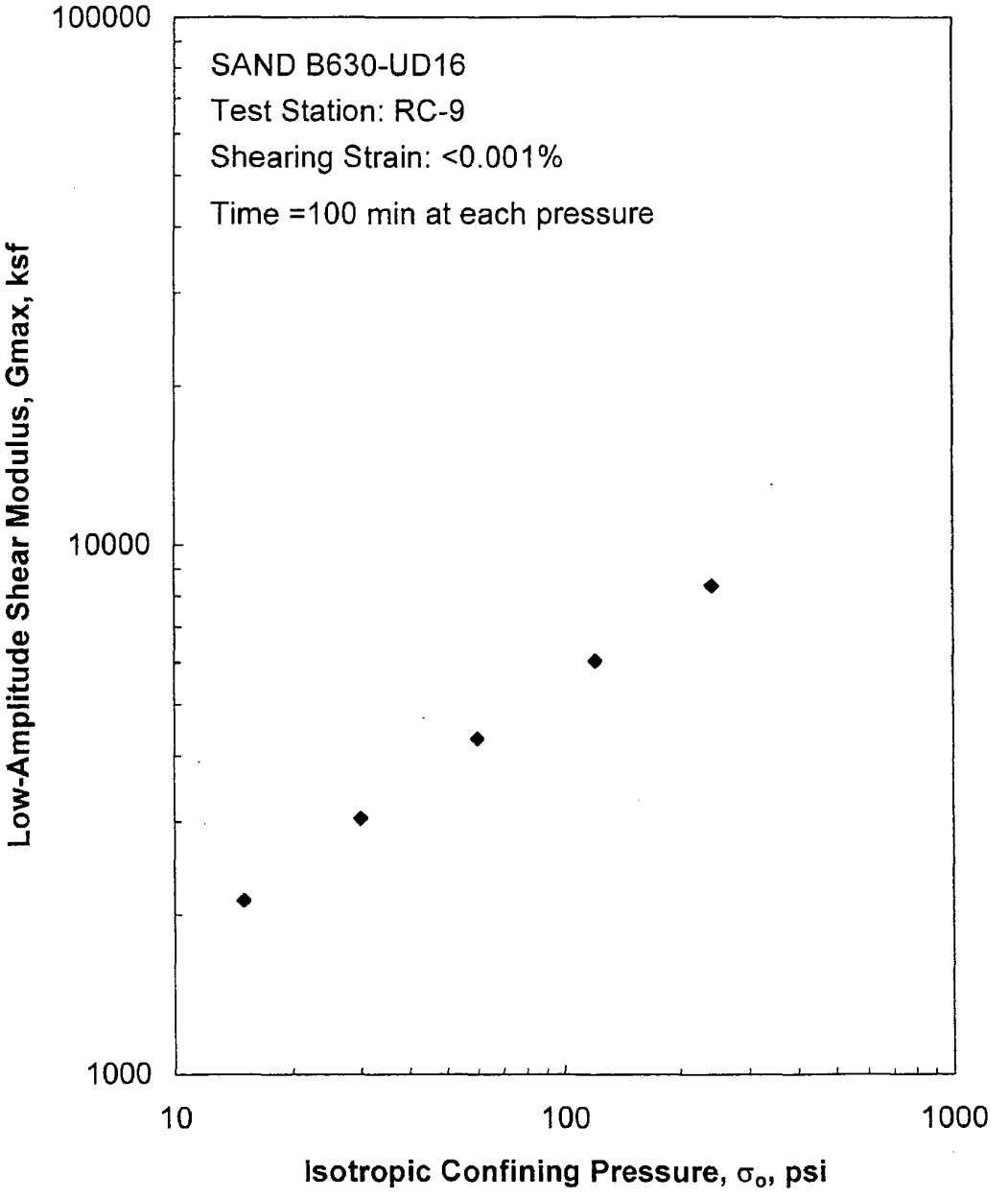


Figure D.5 Variation in Low-Amplitude Shear Modulus with Isotropic Confining Pressure from Resonant Column Tests

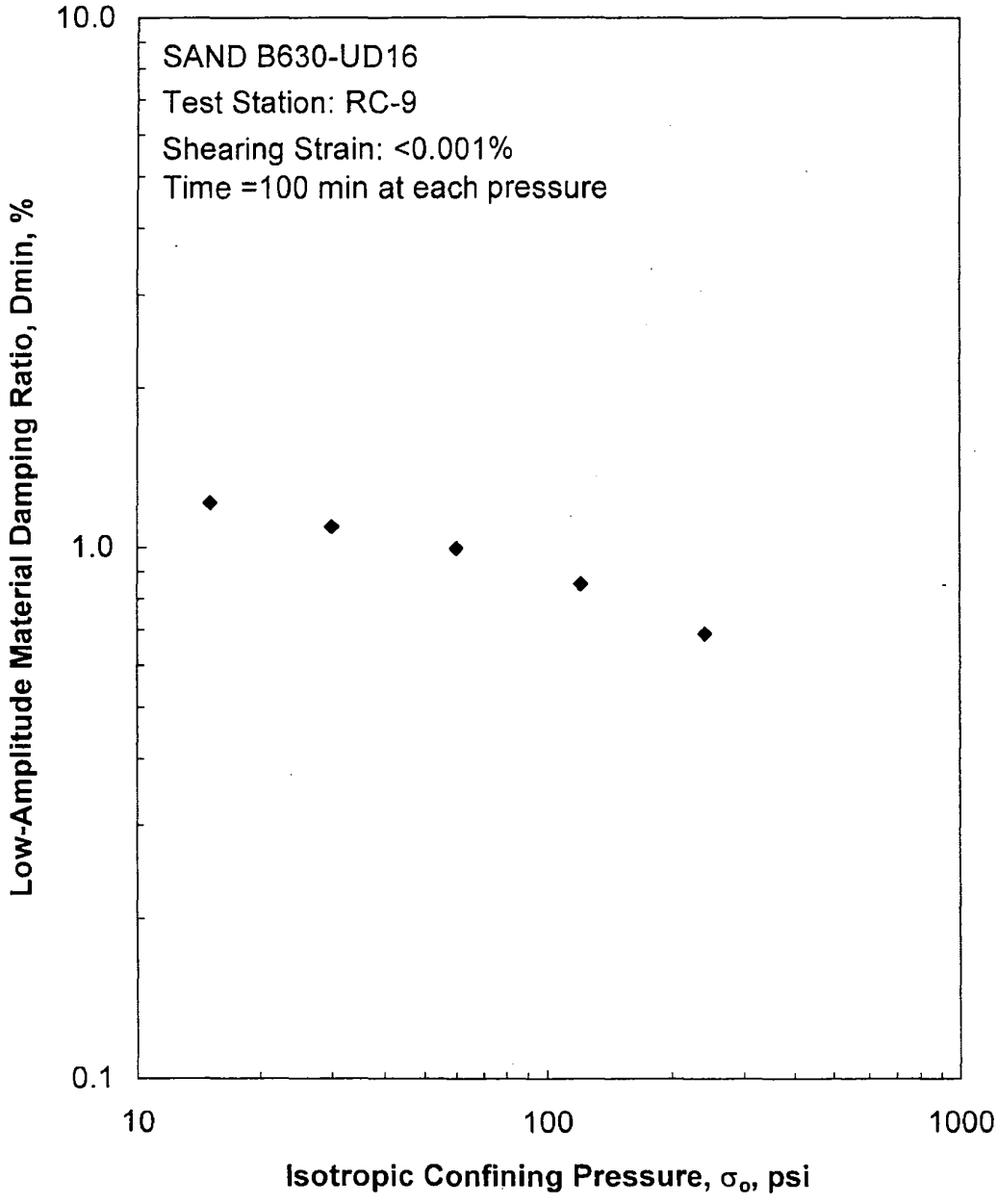


Figure D.6 Variation in Low-Amplitude Material Damping Ratio with Isotropic Confining Pressure from Resonant Column Tests

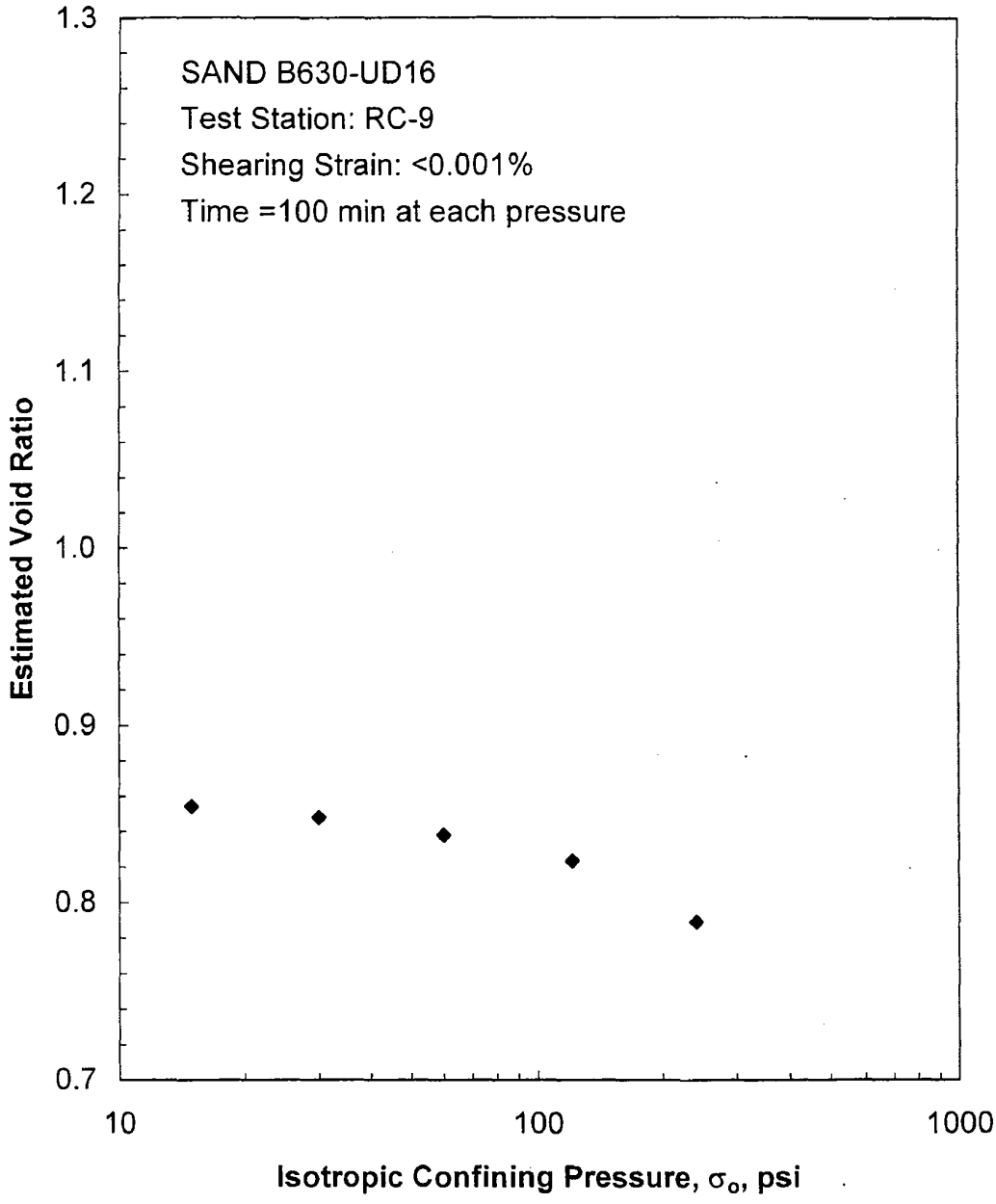


Figure D.7 Variation in Estimated Void Ratio with Isotropic Confining Pressure from Resonant Column Tests

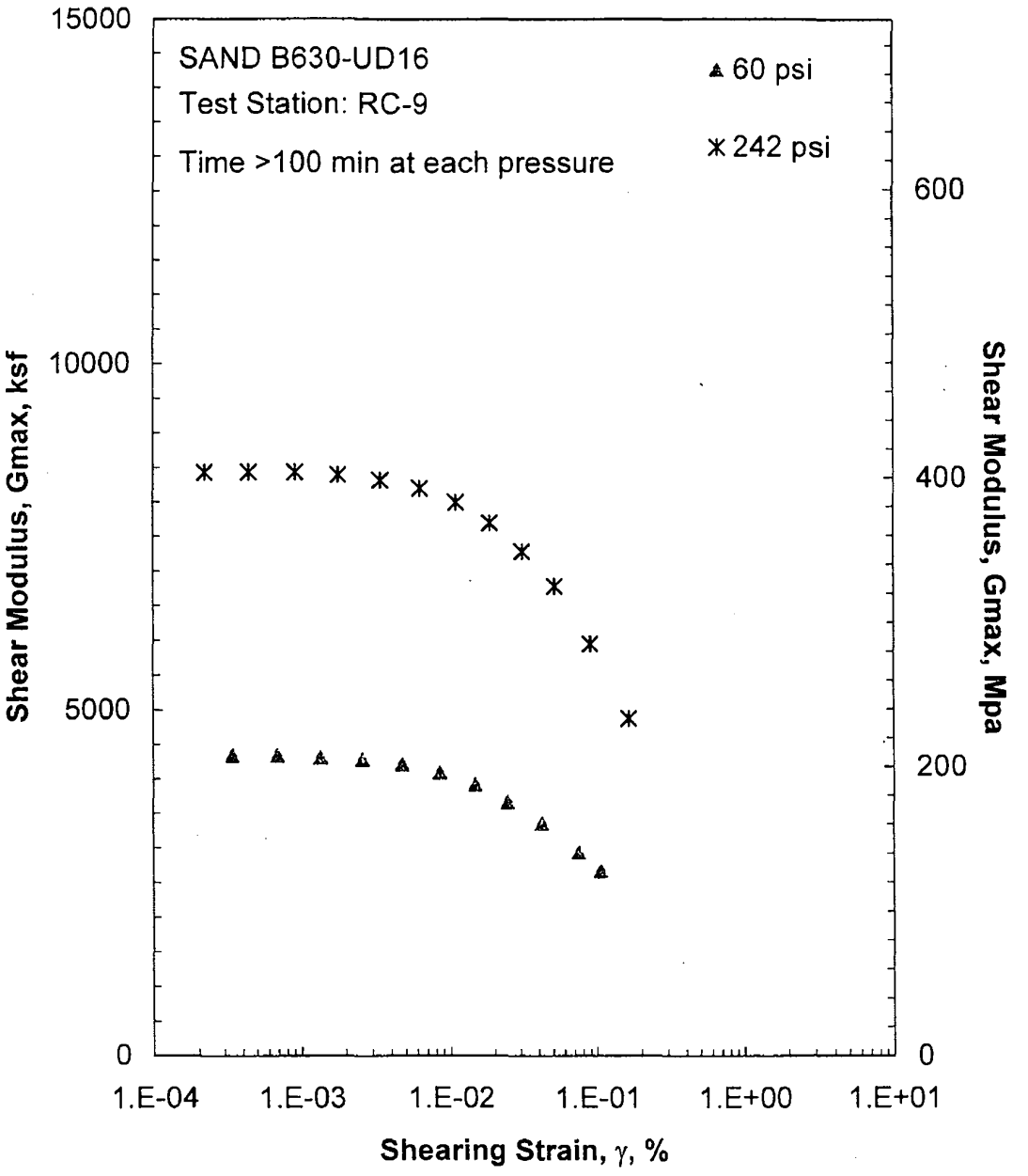


Figure D.8 Comparison of the Variation in Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

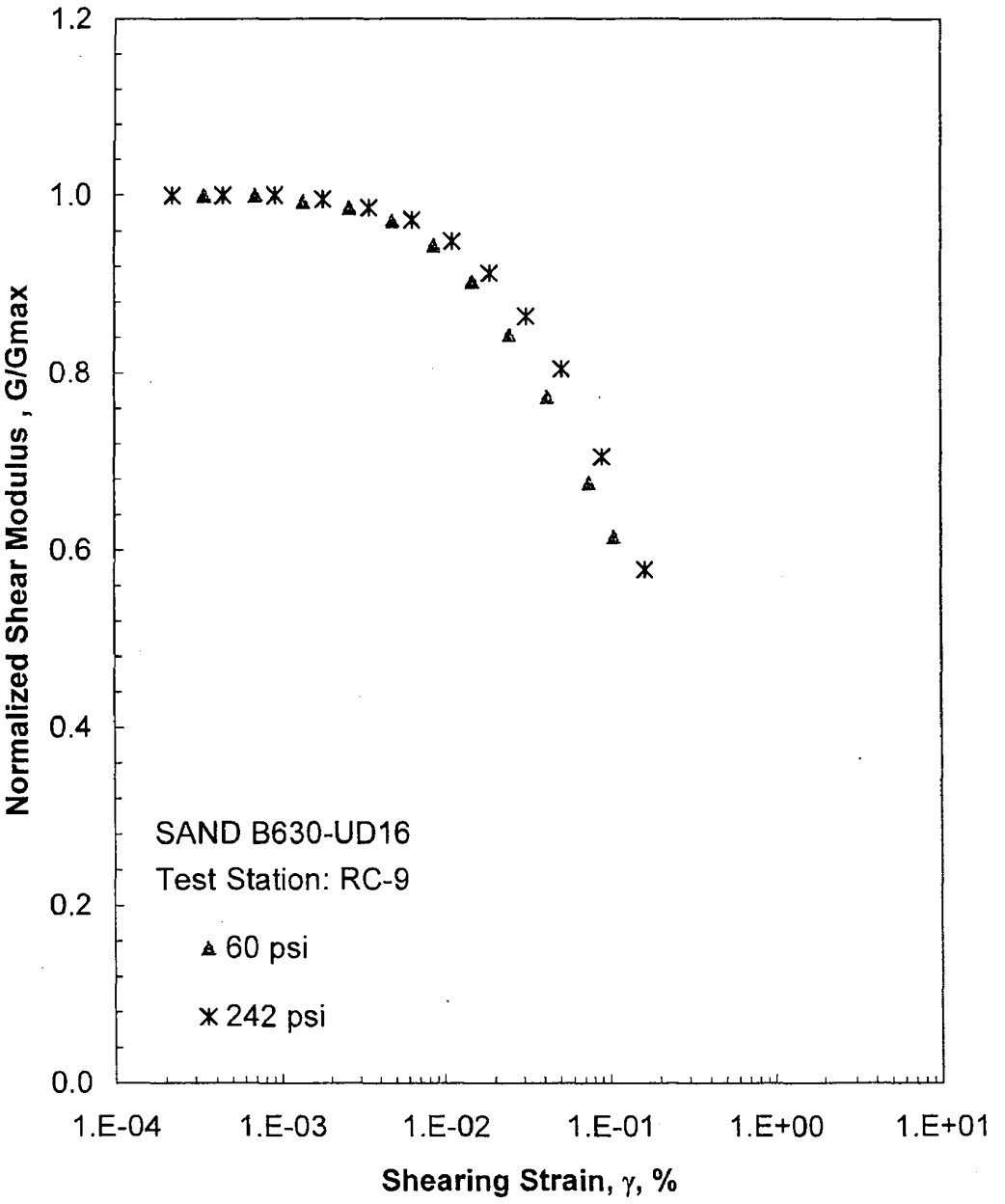


Figure D.9 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

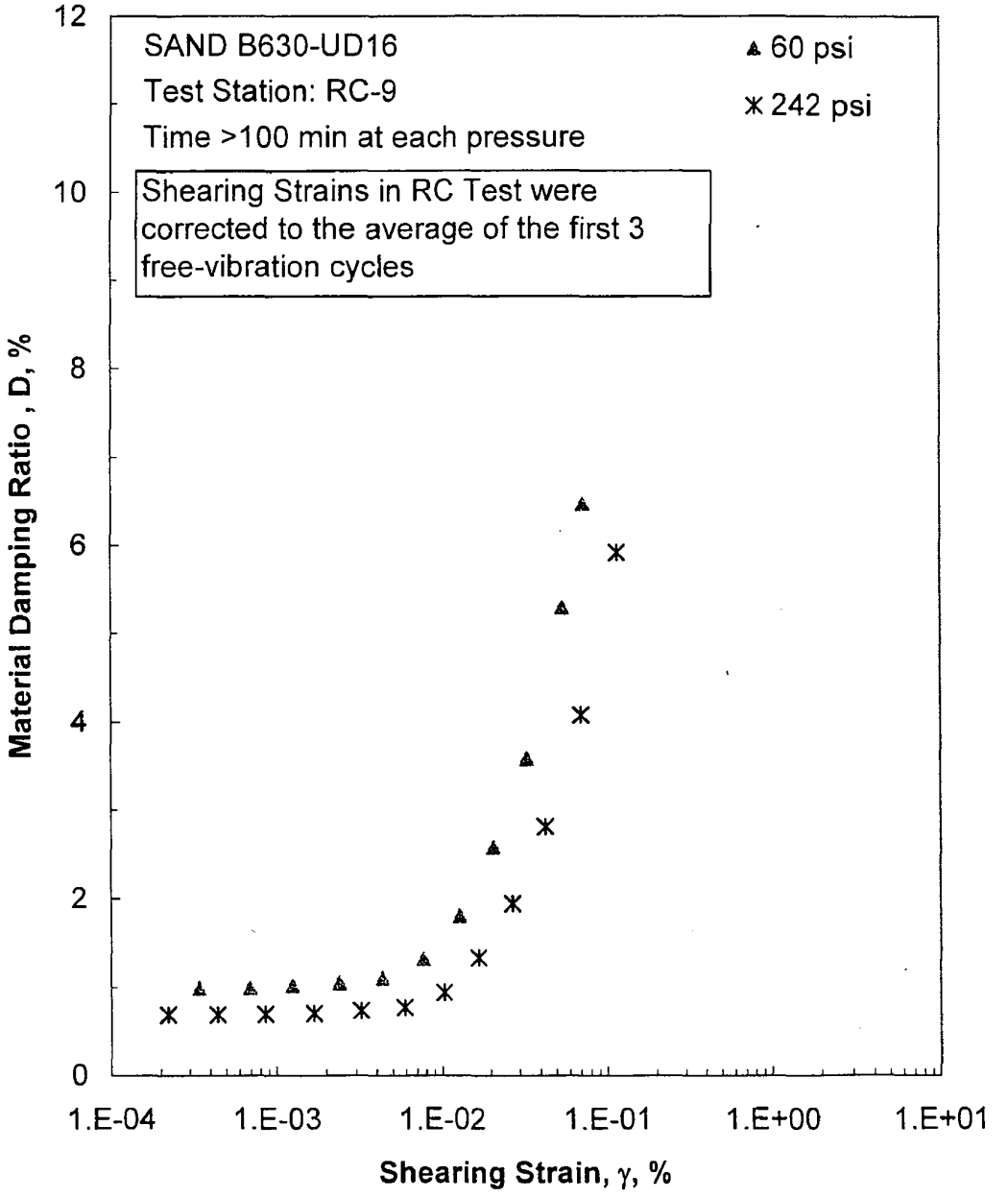


Figure D.10 Comparison of the Variation in Material Damping Ratio with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

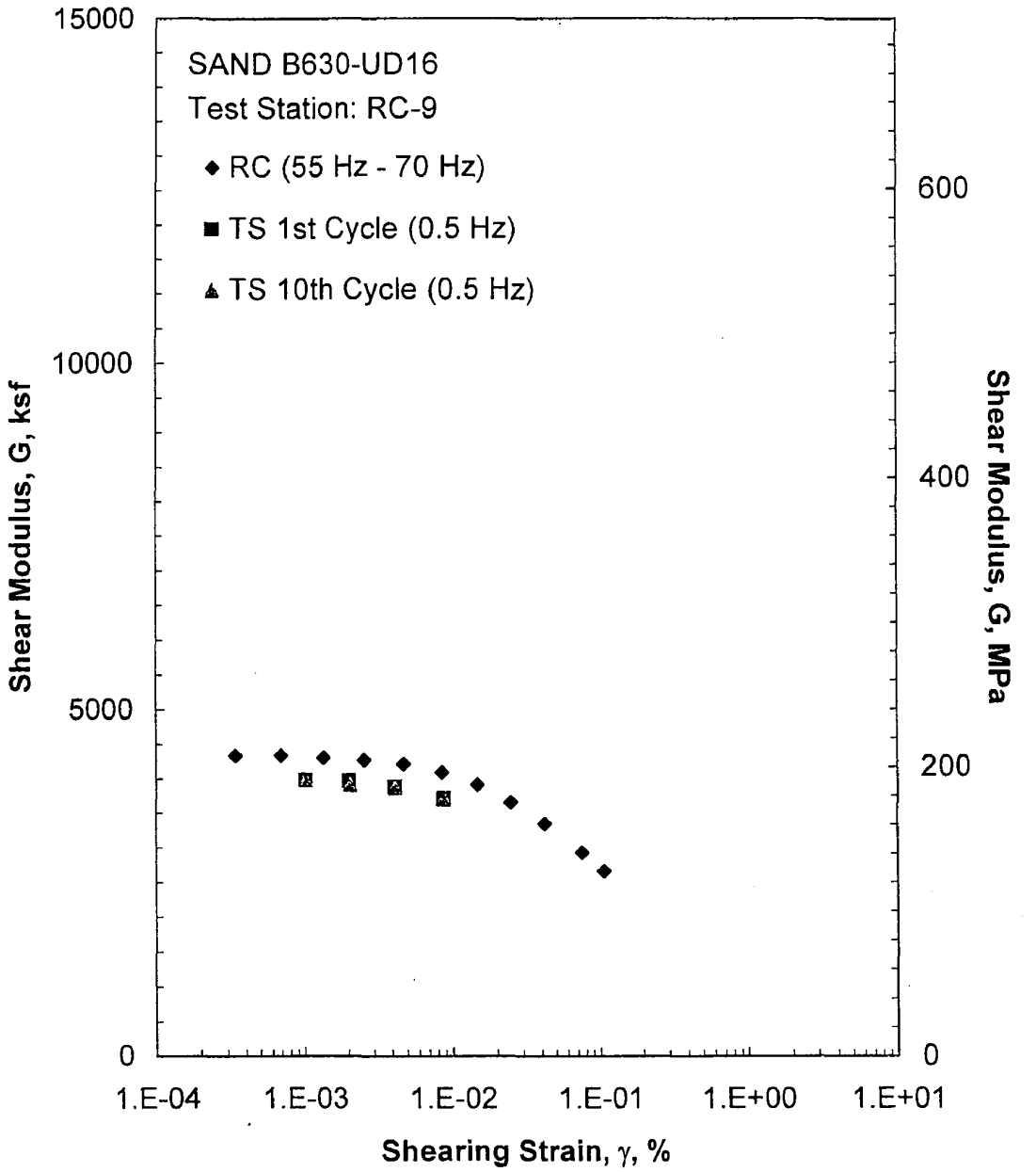


Figure D.11 Comparison of the Variation in Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 60 psi from the Combined RCTS Tests

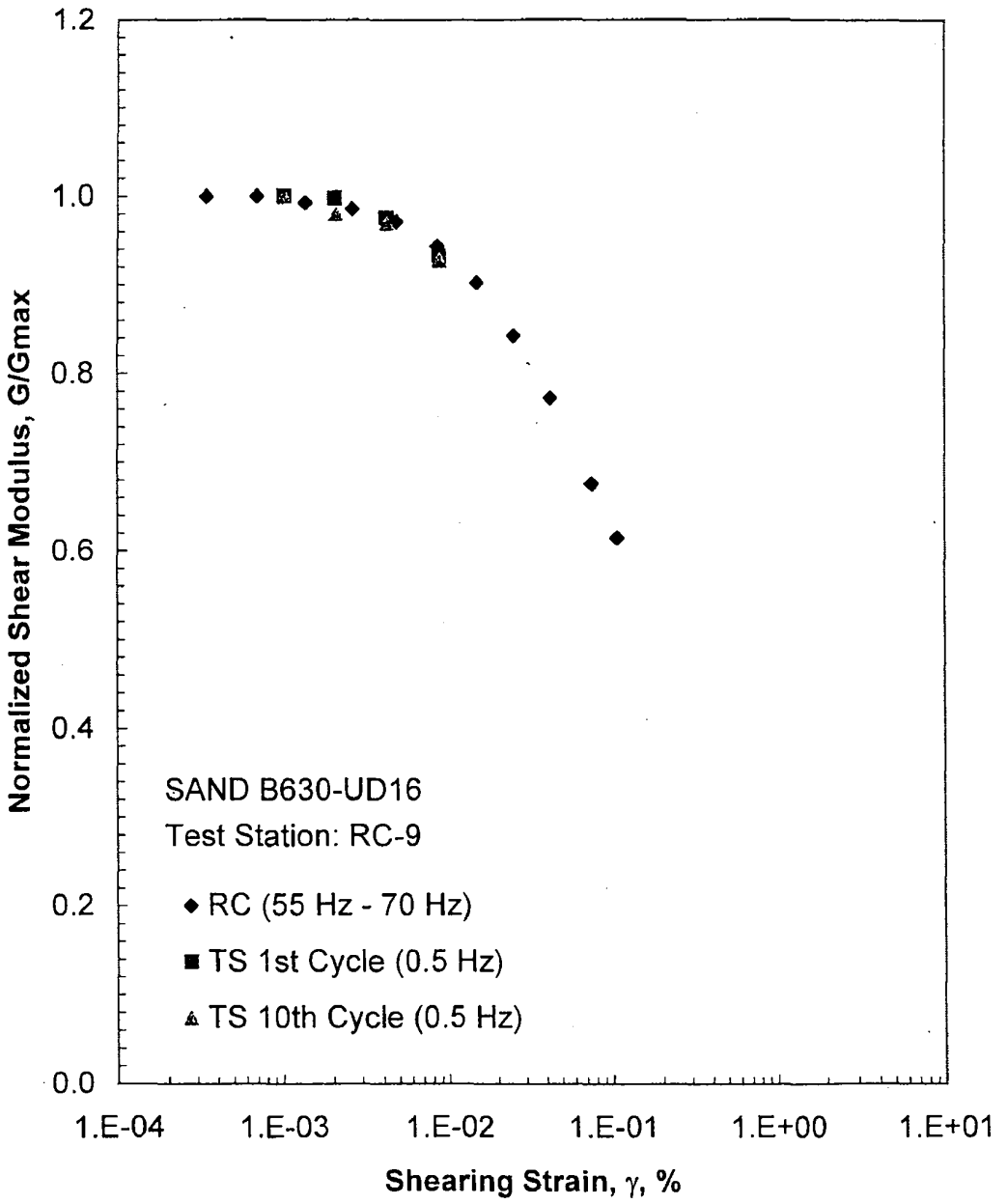


Figure D.12 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 60 psi from the Combined RCTS Tests

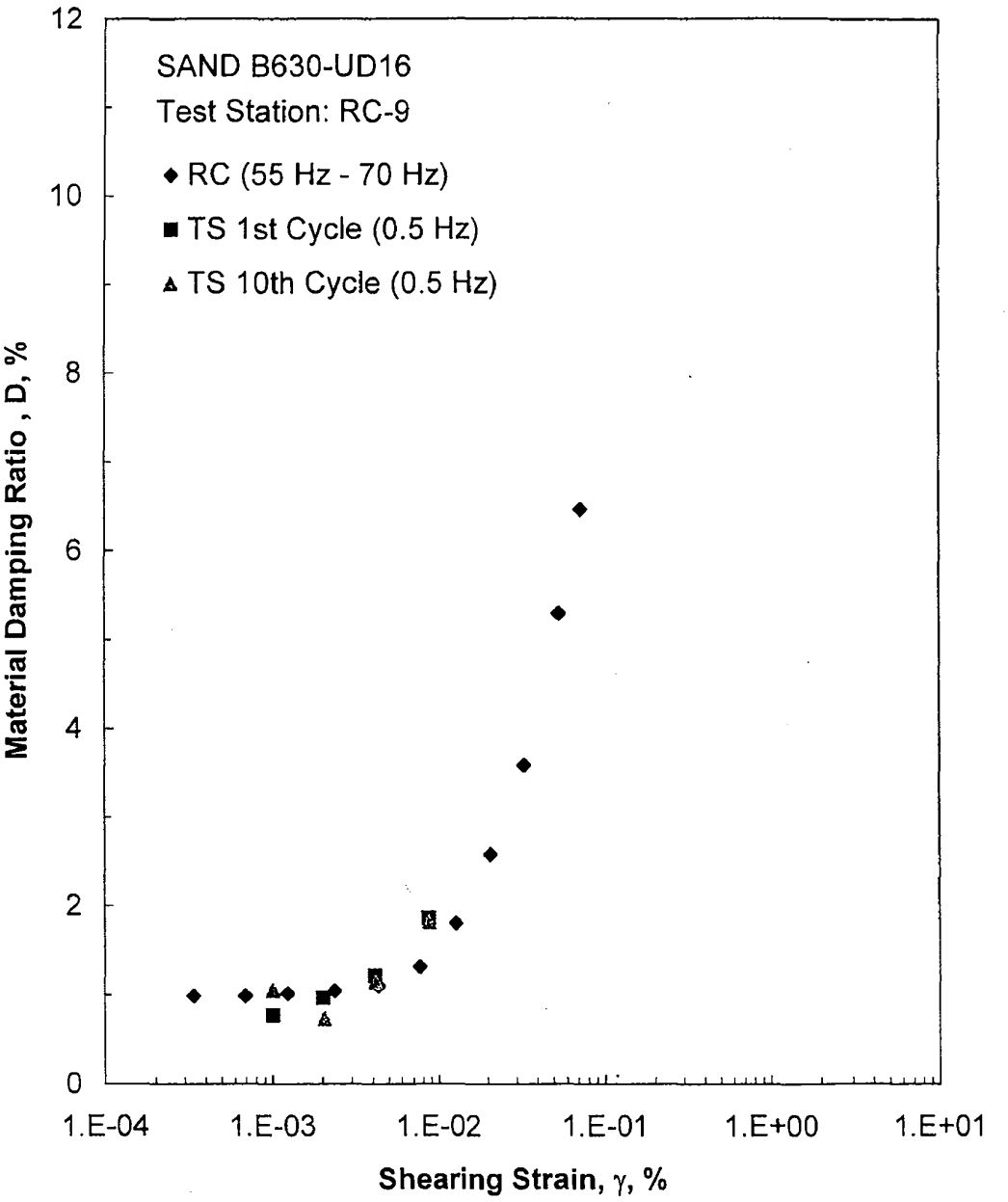


Figure D.13 Comparison of the Variation in Material Damping Ratio with Shearing Strain at an Isotropic Confining Pressure of 60 psi from the Combined RCTS Tests

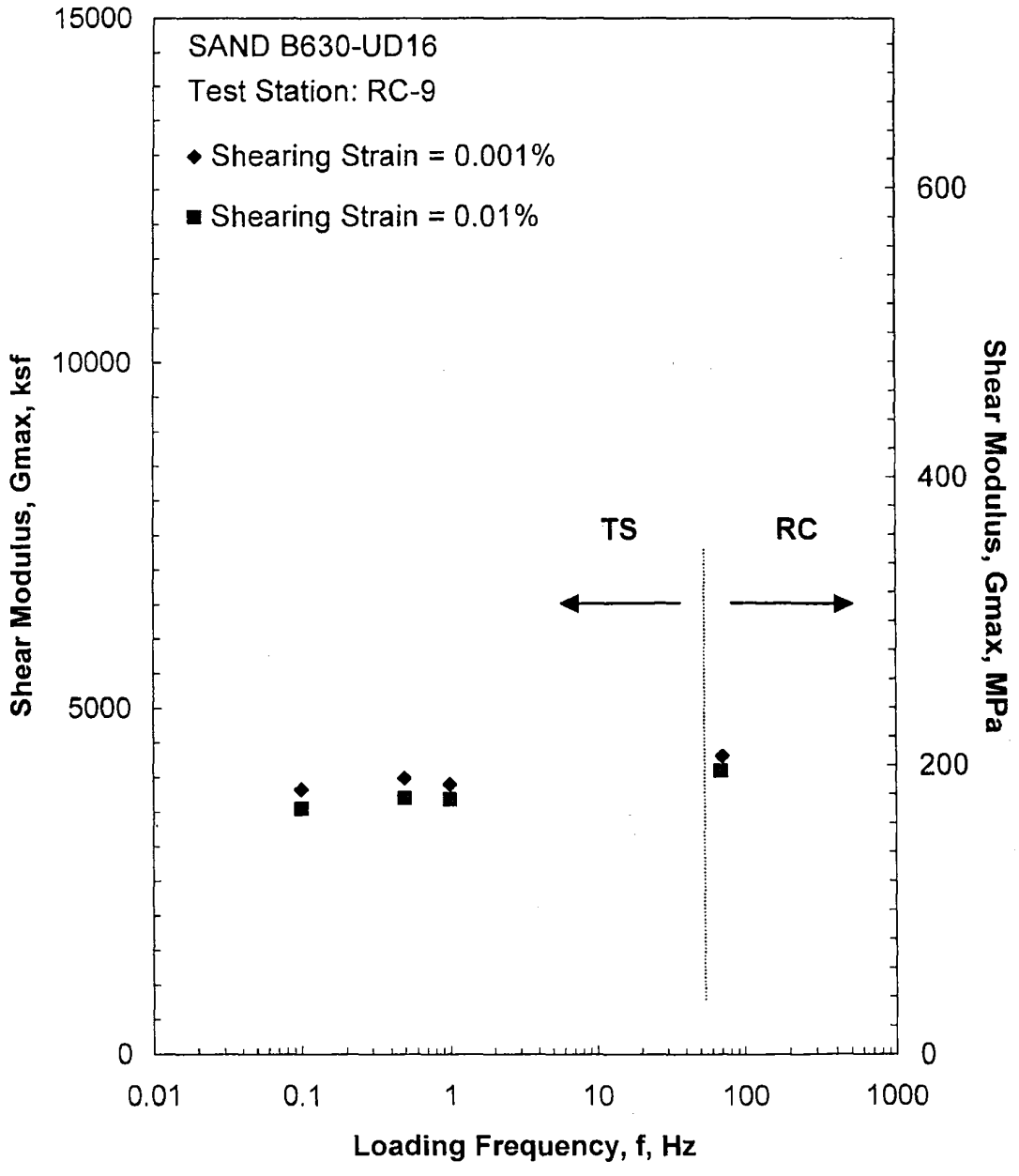


Figure D.14 Comparison of the Variation in Shear Modulus with Loading Frequency at an Isotropic Confining Pressure of 60 psi from the Combined RCTS Tests

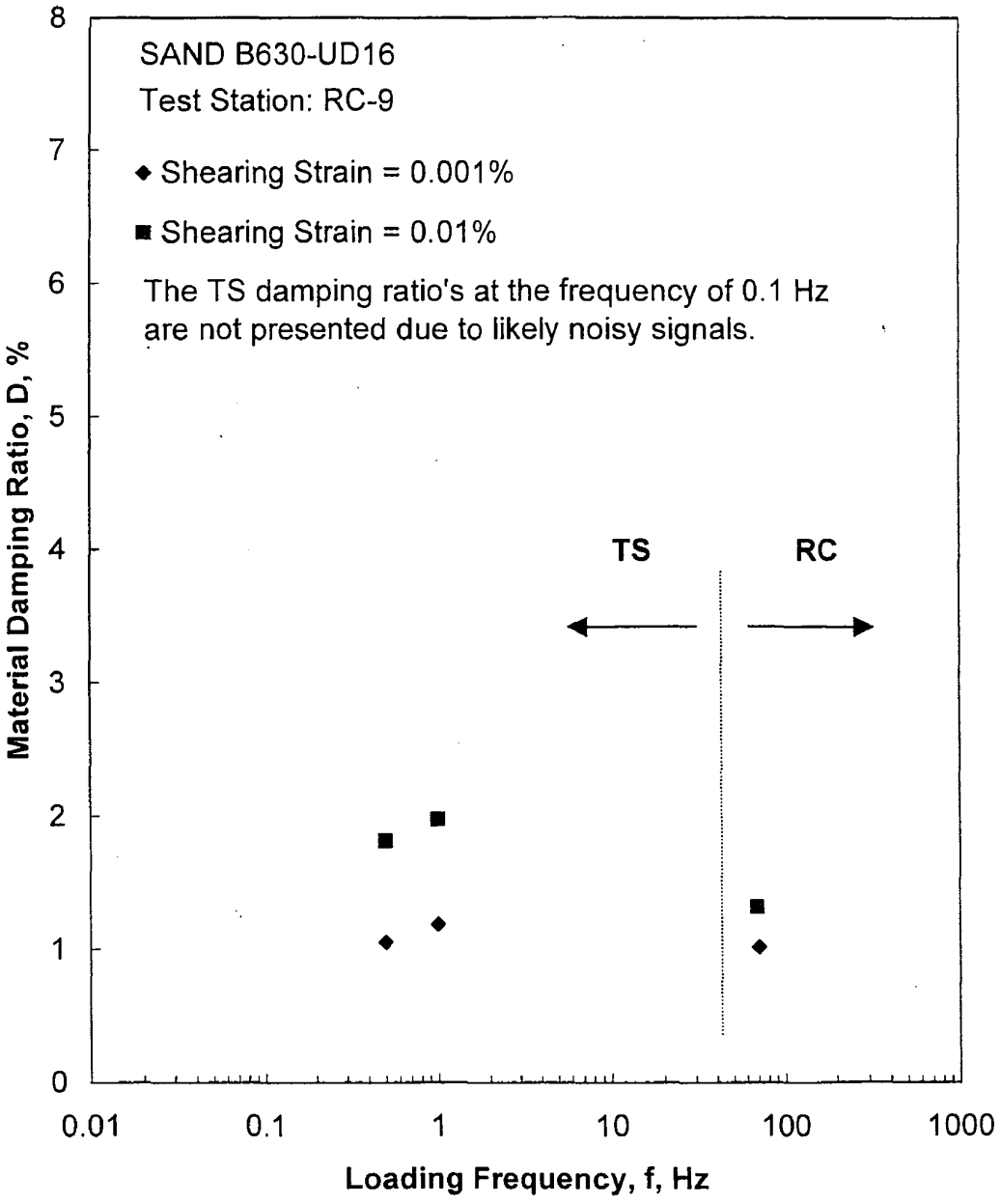


Figure D.15 Comparison of the Variation in Material Damping Ratio with Loading Frequency at an Isotropic Confining Pressure of 60 psi from the Combined RCTS Tests

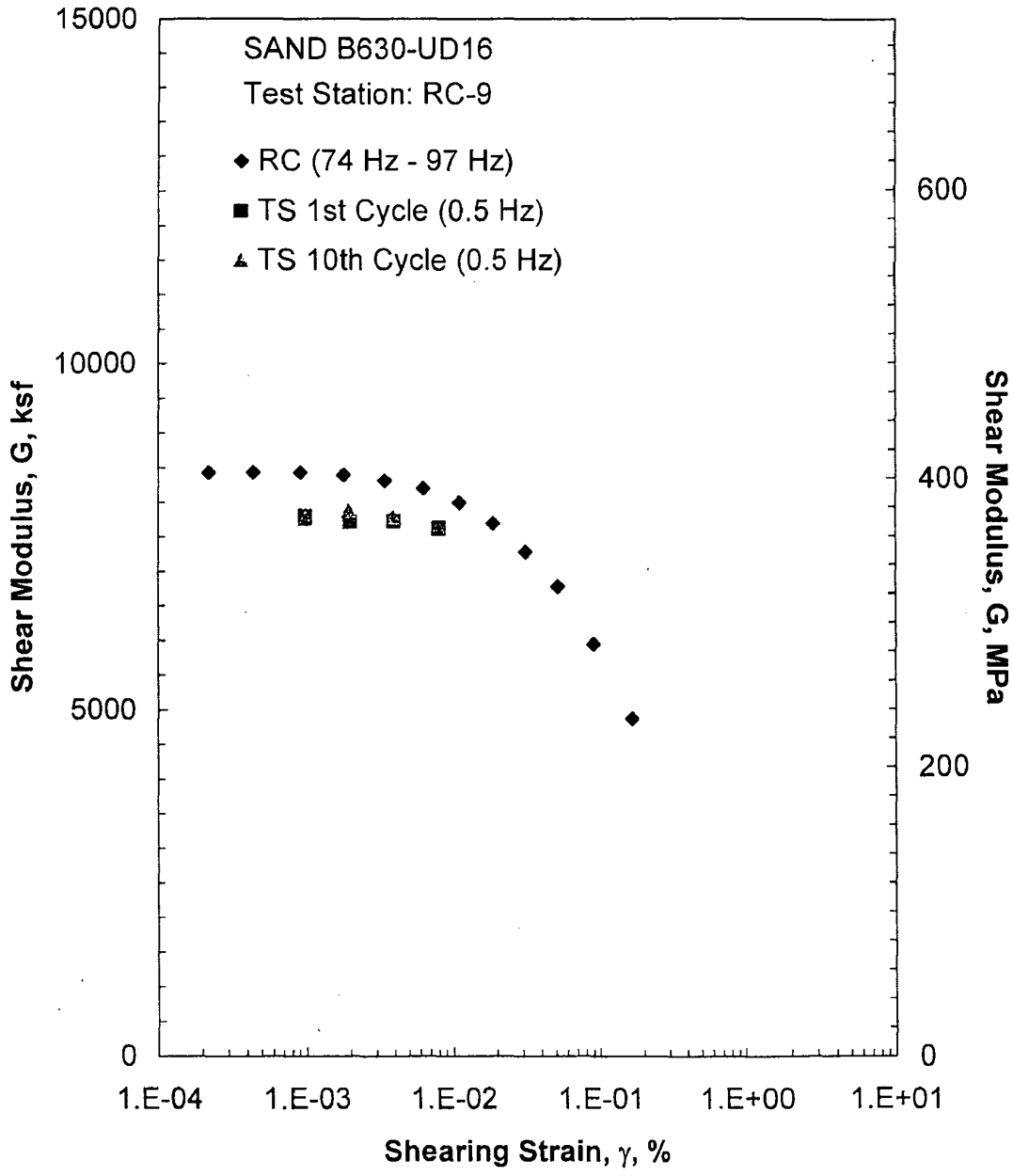


Figure D.16 Comparison of the Variation in Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 242 psi from the Combined RCTS Tests

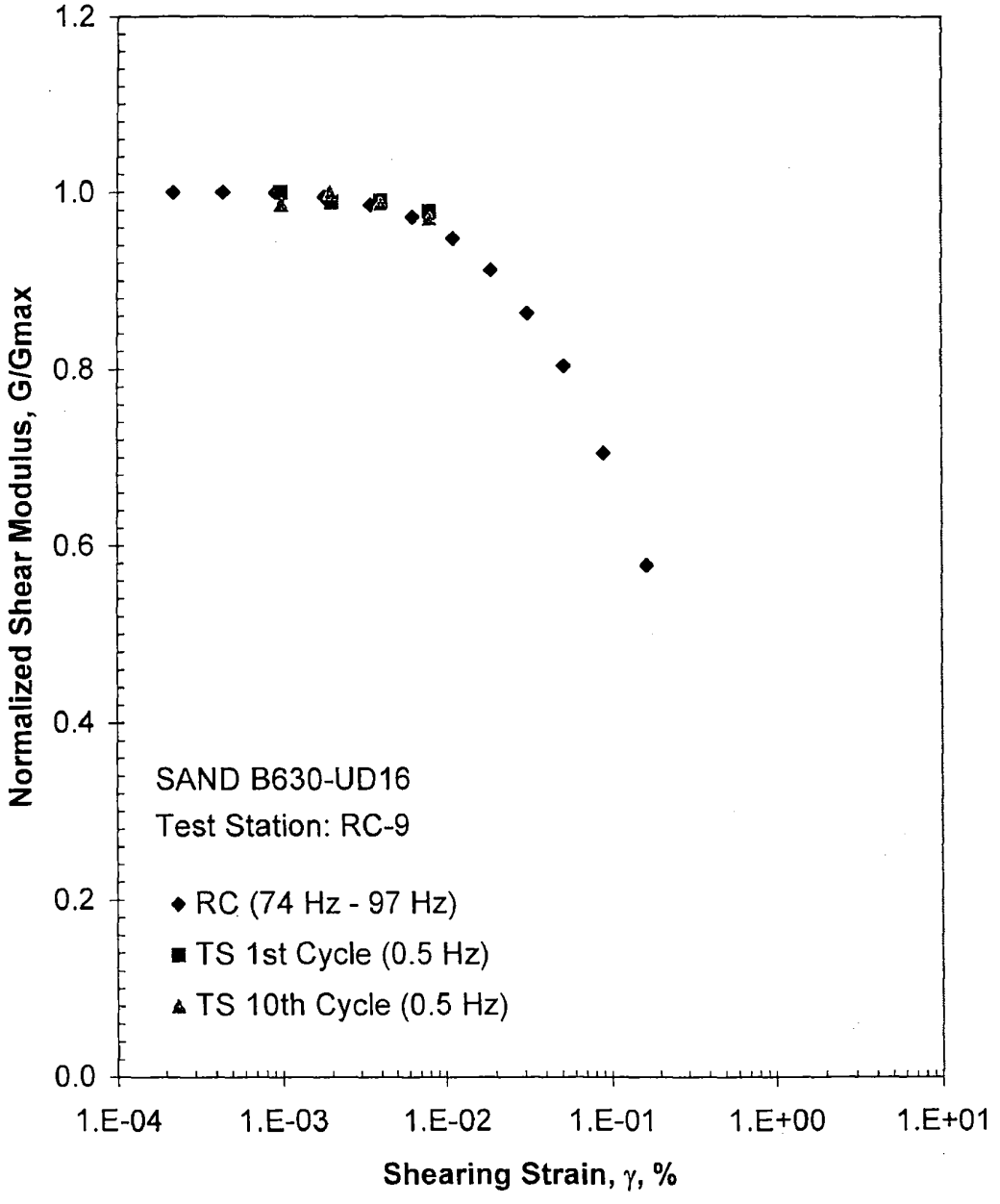


Figure D.17 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 242 psi from the Combined RCTS Tests

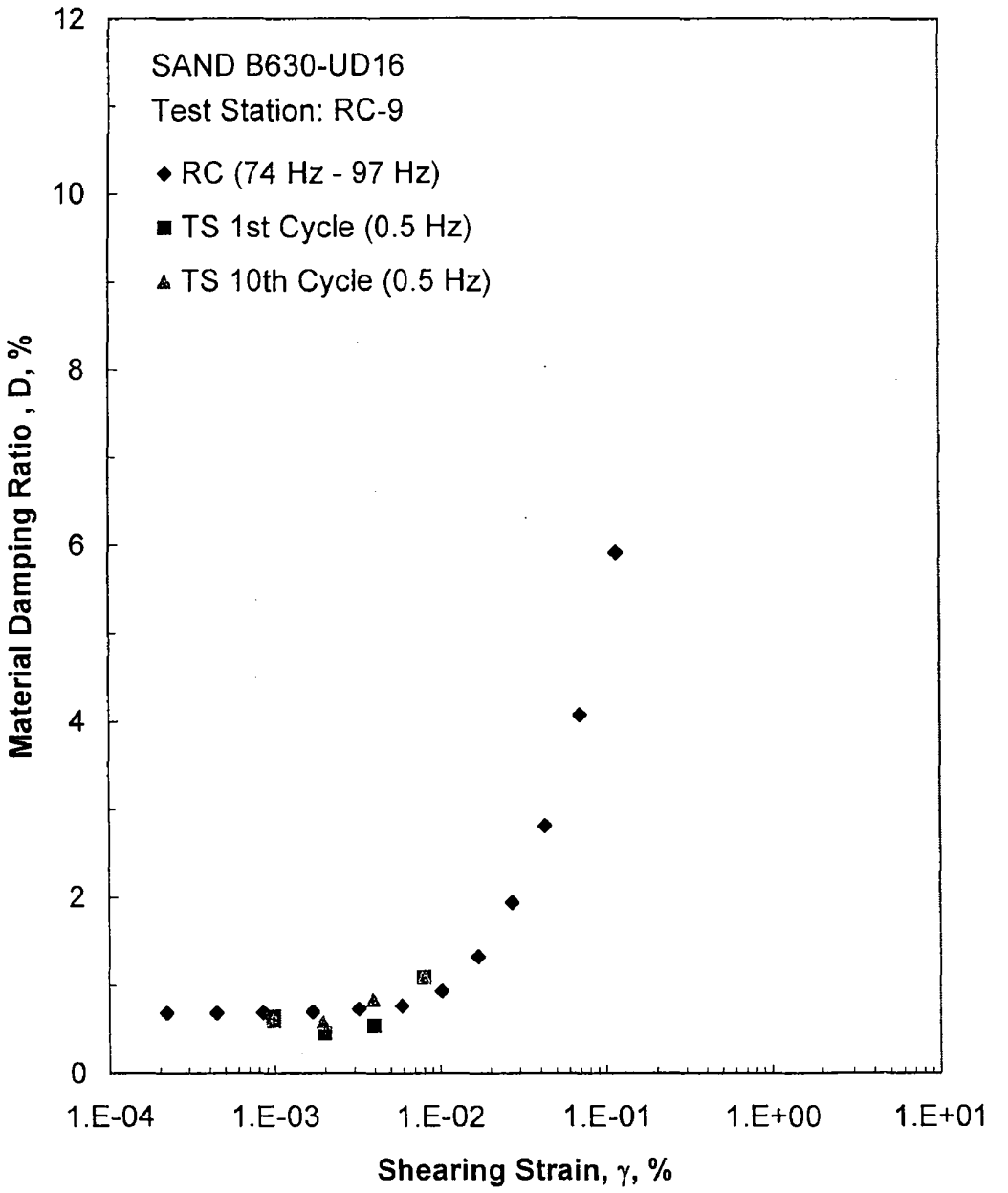


Figure D.18 Comparison of the Variation in Material Damping Ratio with Shearing Strain at an Isotropic Confining Pressure of 242 psi from the Combined RCTS Tests

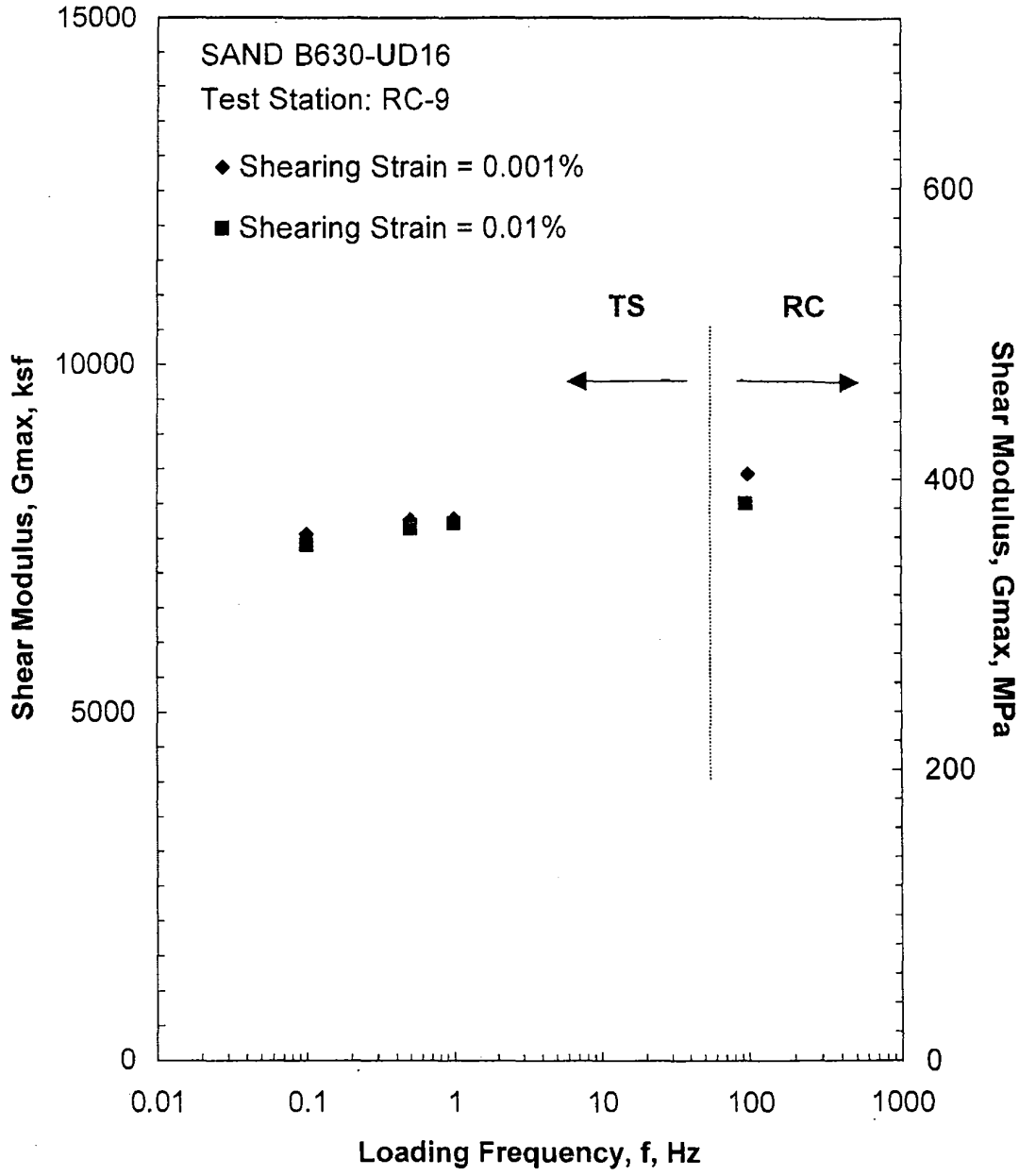


Figure D.19 Comparison of the Variation in Shear Modulus with Loading Frequency at an Isotropic Confining Pressure of 242 psi from the Combined RCTS Tests

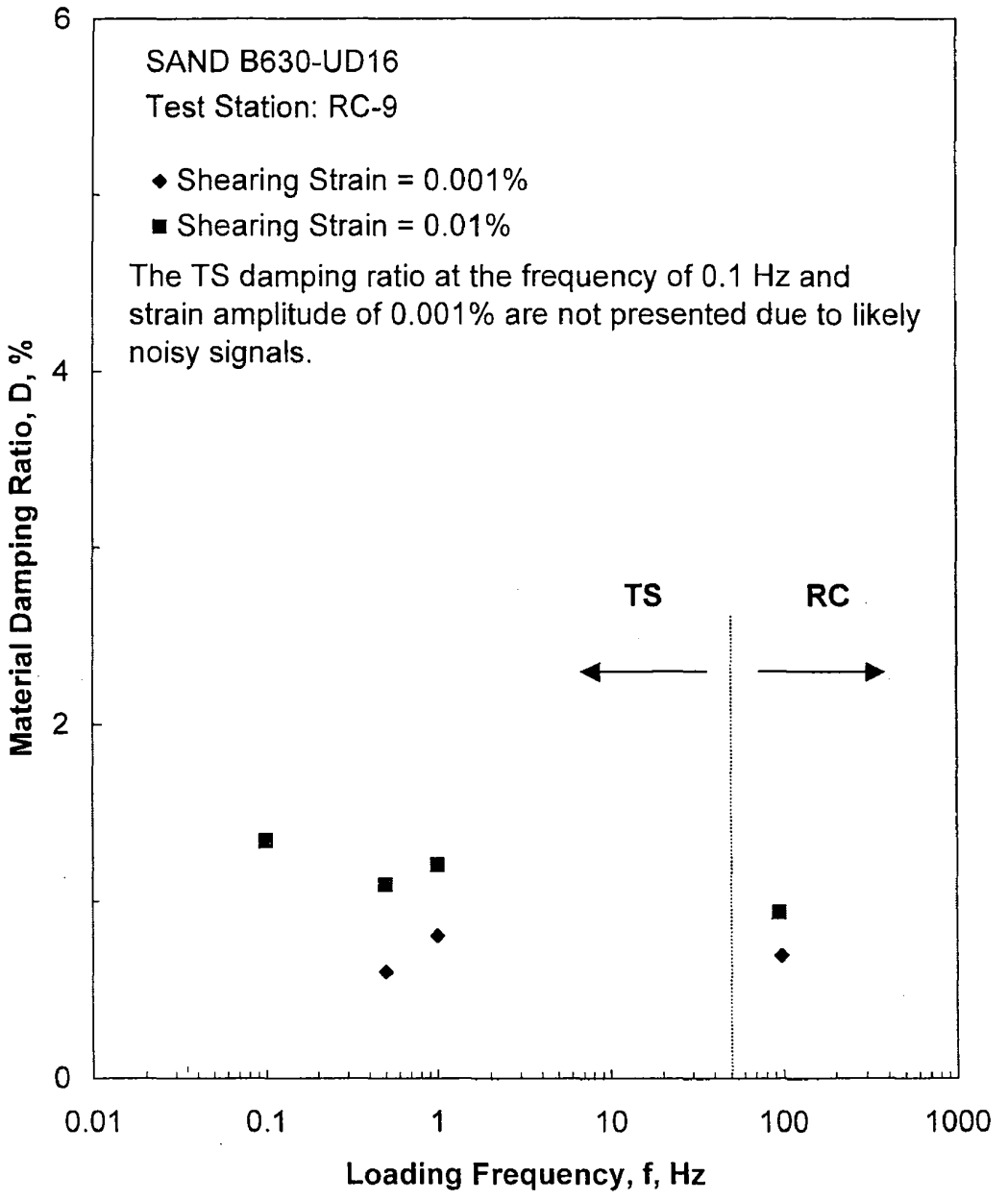


Figure D.20 Comparison of the Variation in Material Damping Ratio with Loading Frequency at an Isotropic Confining Pressure of 242 psi from the Combined RCTS Tests

Table D.1 Variation in Low-Amplitude Shear Wave Velocity, Low-Amplitude Shear Modulus, Low-Amplitude Material Damping Ratio and Estimated Void Ratio with Isotropic Confining Pressure from RC Tests of Specimen B630-UD16

Isotropic Confining Pressure, σ_o			Low-Amplitude Shear Modulus, G_{max}		Low-Amplitude Shear Wave Velocity, Vs	Low-Amplitude Material Damping Ratio, Dmin	Estimated Void Ratio, e
(psi)	(psf)	(kPa)	(ksf)	(MPa)	(fps)	(%)	
15	2160	103	2127	102	765	1.21	0.85
30	4320	207	3042	146	913	1.09	0.85
60	8640	413	4303	207	1083	1.00	0.84
121	17424	834	6033	290	1277	0.85	0.82
242	34848	1667	8347	401	1488	0.69	0.79

Table D.2 Variation in Shear Modulus and Material Damping Ratio with Shearing Strain from RC Tests of Specimen B630-UD16; Isoptropic Confining Pressure, σ_o= 60 psi (8.6 ksf = 413 kPa)

Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Average[+] Shearing Strain, %	Material Damping Ratio[x], D, %
3.41E-04	4335	1.00	3.41E-04	0.99
6.93E-04	4335	1.00	6.93E-04	0.99
1.36E-03	4304	0.99	1.25E-03	1.01
2.60E-03	4273	0.99	2.39E-03	1.04
4.78E-03	4212	0.97	4.35E-03	1.10
8.53E-03	4091	0.94	7.68E-03	1.31
1.47E-02	3912	0.90	1.28E-02	1.80
2.48E-02	3652	0.84	2.08E-02	2.58
4.23E-02	3347	0.77	3.34E-02	3.58
7.52E-02	2929	0.68	5.42E-02	5.29
1.06E-01	2662	0.61	7.23E-02	6.47

[+] Average Shearing Strain from the First Three Cycles of the Free Vibration Decay Curve

[x] Average Damping Ratio from the First Three Cycles of the Free Vibration Decay Curve

Table D.3 Variation in Shear Modulus, Normalized Shear Modulus and Material Damping Ratio with Shearing Strain from TS Tests of Specimen B630-UD16; Isotropic Confining Pressure, σ_o= 60 psi (8.6 ksf = 413 kPa)

First Cycle				Tenth Cycle			
Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %	Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %
1.01E-03	3981	1.00	0.77	1.01E-03	3988	1.00	1.05
2.04E-03	3972	1.00	0.96	2.07E-03	3910	0.98	0.73
4.17E-03	3885	0.98	1.21	4.19E-03	3868	0.97	1.14
8.72E-03	3713	0.93	1.86	8.75E-03	3701	0.93	1.81

Table D.4 Variation in Shear Modulus and Material Damping Ratio with Shearing Strain from RC Tests of Specimen B630-UD16; Isoptropic Confining Pressure, σ_o= 242 psi (34.8 ksf = 1667 kPa)

Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Average[+] Shearing Strain, %	Material Damping Ratio[x], D, %
2.21E-04	8430	1.00	2.21E-04	0.69
4.43E-04	8430	1.00	4.43E-04	0.69
9.09E-04	8430	1.00	8.54E-04	0.69
1.79E-03	8390	1.00	1.68E-03	0.70
3.42E-03	8312	0.99	3.21E-03	0.73
6.28E-03	8195	0.97	5.90E-03	0.77
1.11E-02	7993	0.95	1.03E-02	0.94
1.88E-02	7689	0.91	1.69E-02	1.33
3.12E-02	7279	0.86	2.72E-02	1.94
5.17E-02	6777	0.80	4.29E-02	2.81
9.00E-02	5945	0.71	7.02E-02	4.07
1.65E-01	4867	0.58	1.16E-01	5.91

[+] Average Shearing Strain from the First Three Cycles of the Free Vibration Decay Curve

[x] Average Damping Ratio from the First Three Cycles of the Free Vibration Decay Curve

Table D.5 Variation in Shear Modulus, Normalized Shear Modulus and Material Damping Ratio with Shearing Strain from TS Tests of Specimen B630-UD16; Isotropic Confining Pressure, σ_o= 242 psi (34.8 ksf = 1667 kPa)

First Cycle				Tenth Cycle			
Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %	Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %
9.81E-04	7797	1.00	0.64	9.85E-04	7764	0.99	0.60
1.98E-03	7713	0.99	0.46	1.94E-03	7872	1.00	0.58
3.96E-03	7720	0.99	0.54	3.94E-03	7779	0.99	0.83
8.03E-03	7625	0.98	1.09	8.02E-03	7638	0.97	1.09

FUGRO CONSULTANTS, INC.

6100 Hillcroft (77081)
P.O. Box 740010
Houston, Texas 77274
Tel: 713-369-5400
Fax: 713-369-5518

July 12, 2008

Ms. Siesta Williams
MACTEC
3301 Atlantic Avenue
Raleigh, NC 27604

RE: Three (3) Reports For The Turkey Point Project

Dear Ms. Williams:

Fugro has completed three (3) RCTS tests, which are B630-UD19, B630-UD23, and B630-UD27 for the Turkey Point project. Fugro has incorporated, as needed, Dr. Kenneth Stokoe's comments into the final reports. The final reports and the associated RCTS Test Approvals by Dr. Kenneth Stokoe have been attached.

Please let us know if you have questions. Thanks.

Very truly yours,

Fugro Consultants, Inc.

Jiewu Meng, PhD, P.E.
Project Engineer

Bill DeGroff, P.E.
Laboratory Department Manager

Enclosures

RCTS TEST APROVAL

PROJECT SITE/NAME	Turkey Point

Test ID	Sample ID	Depth B.S. (Ft)	Approved By (Initials)	Date
RCTS#E	B630-UD19	231.0	K.H.S (+)	5 July '08
RCTS#F	B630-UD23	260.5	K.H.S (+)(A)	5 July '08
RCTS#G	B630-UD27	294.0	K.H.S (+)	5 July '08

Three RCTS tests for the site referenced above were tested, and three reports were prepared, by Fugro Consultants, Inc.

I have reviewed the data and associated results listed above and found them to be reasonable.

Approved By:

K. H. Stokoe

Dr. Kenneth Stokoe

(+) See minor comments and suggestions on a few figures

(A) In Appendix F the reported γ_t of 150.1 lb/ft^3 on the cover page can not be correct. Please correct to ~ 121 lb/ft^3.

APPENDIX E

Specimen B630-UD19

Borehole 630
Sample UD19
Depth = 231.0 ft (70.6 m)
Total Unit Weight = 121.9 lb/ft^3
Water Content = 26.6 %
Estimated In-Situ Ko = 0.5
Estimated In-Situ Mean Effective Stress = 66 psi

FUGRO JOB #: 0411-08-1701
Testing Station: RC9

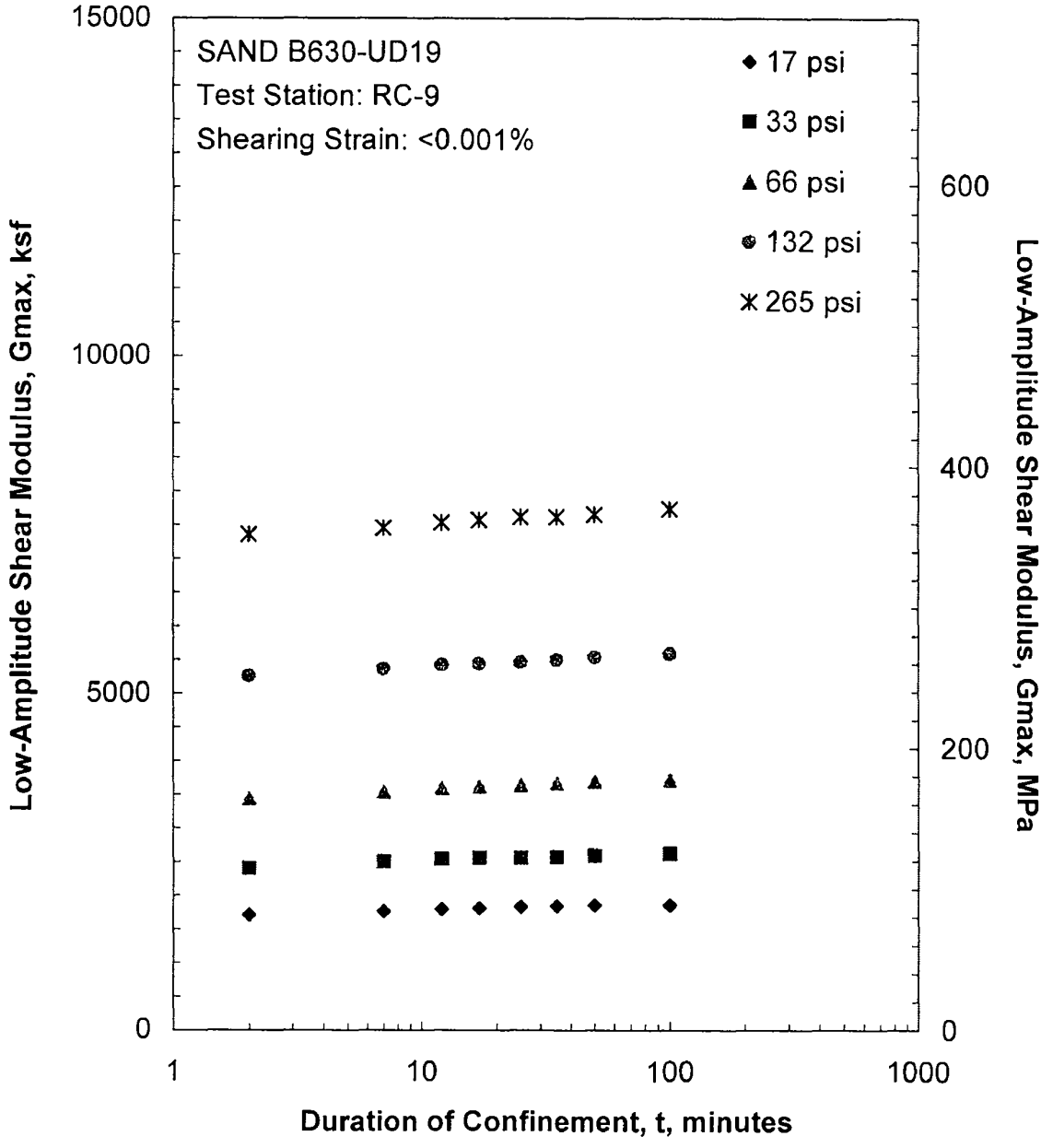


Figure E.1 Variation in Low-Amplitude Shear Modulus with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

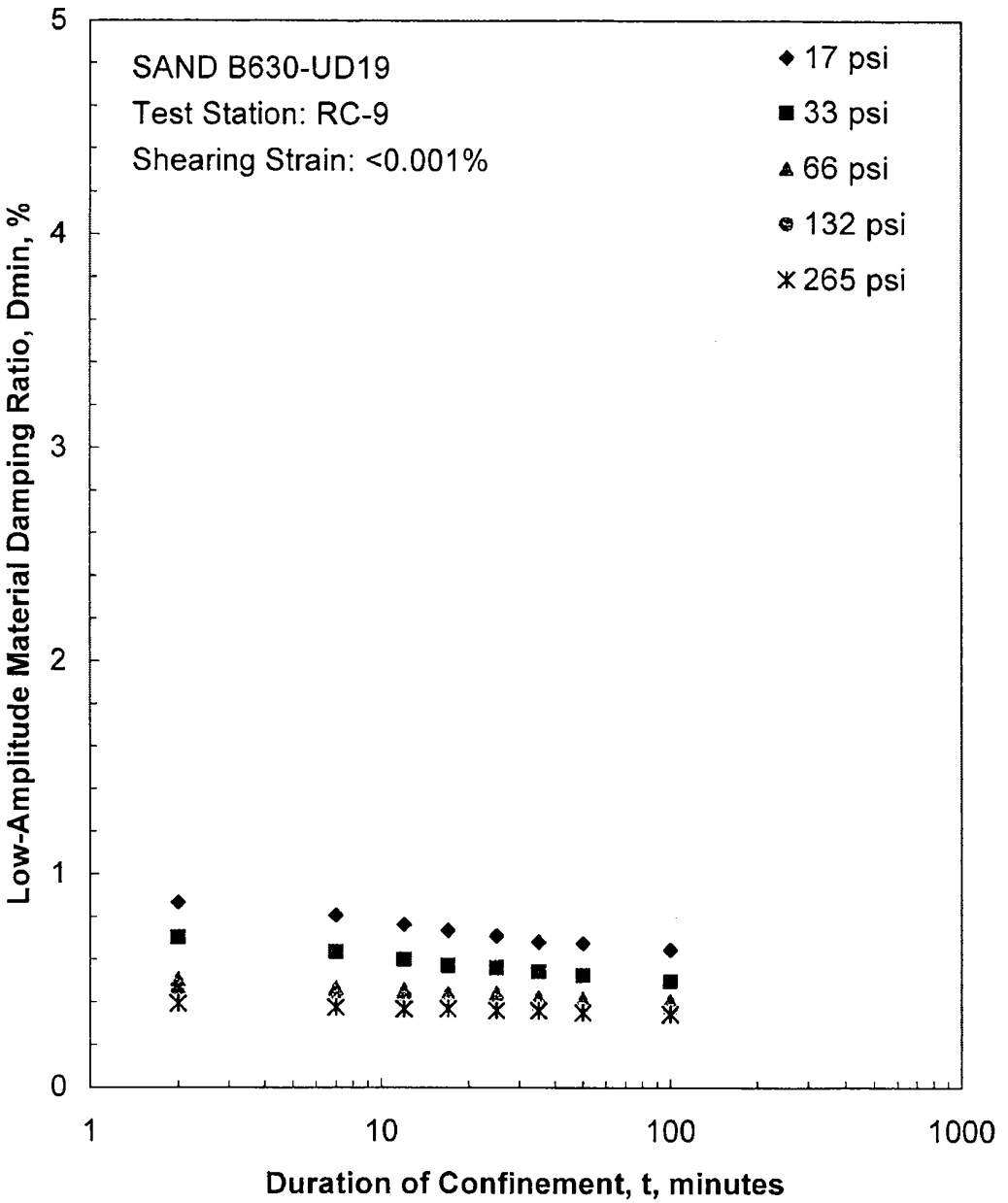


Figure E.2 Variation in Low-Amplitude Material Damping Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

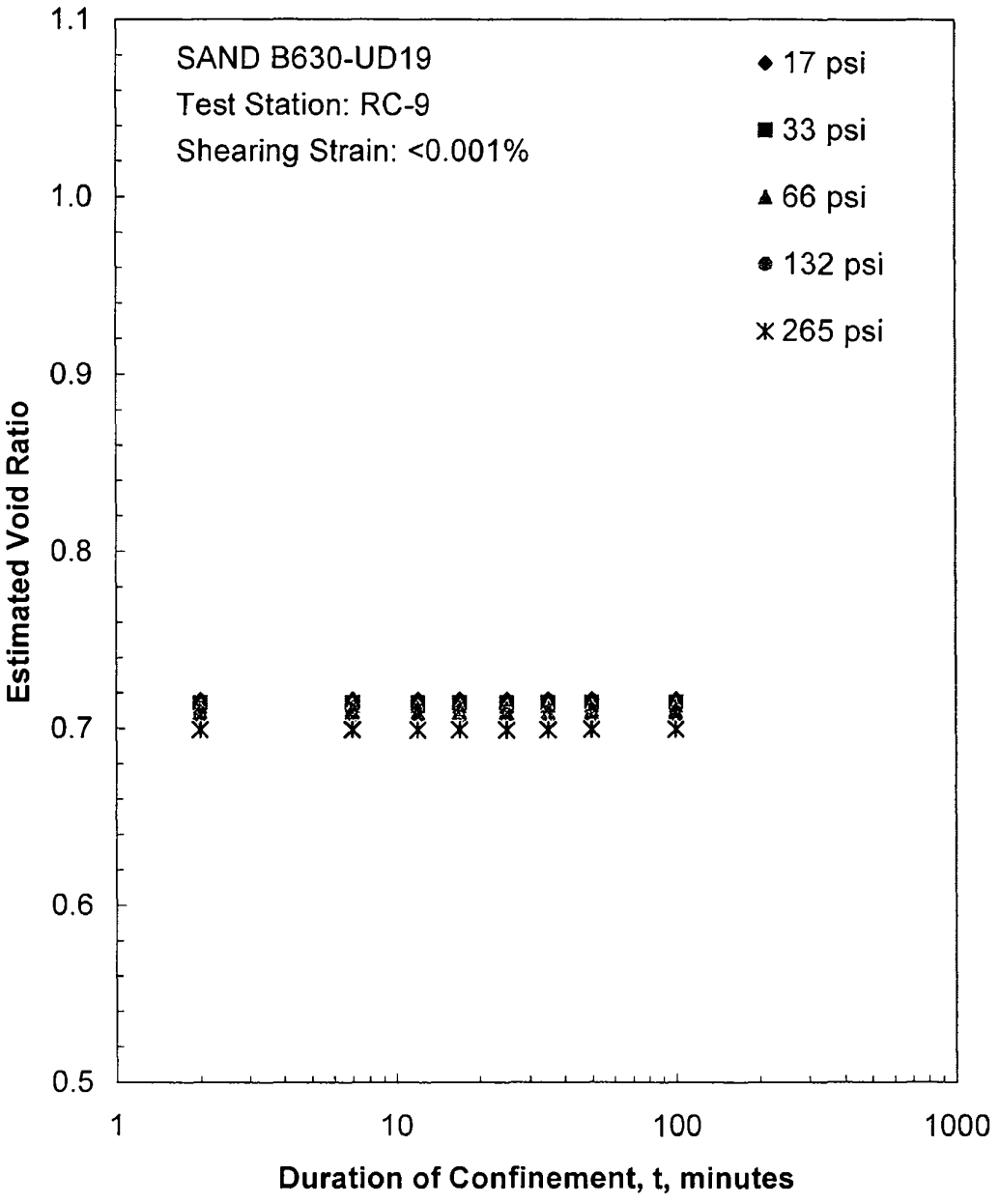


Figure E.3 Variation in Estimated Void Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

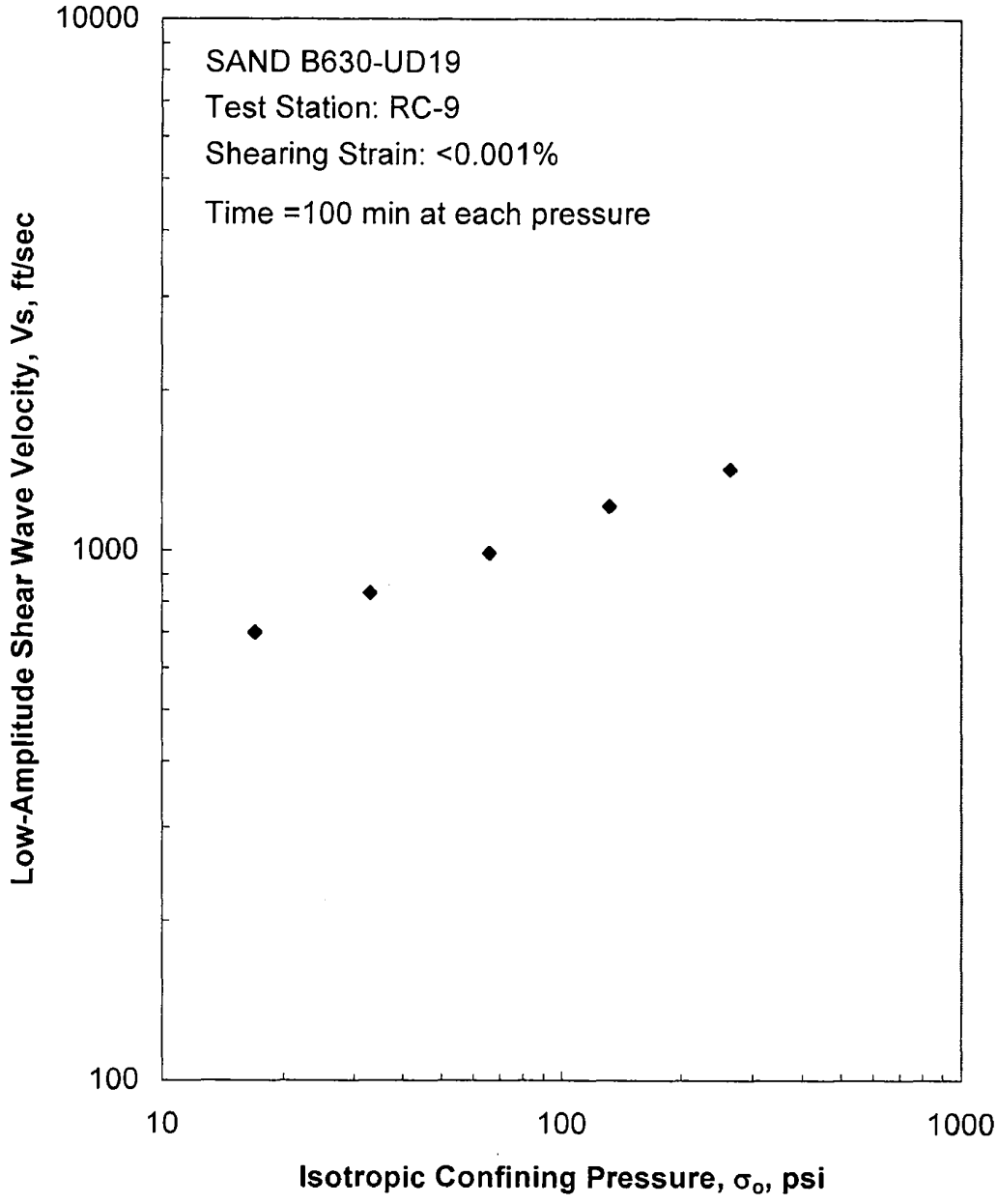


Figure E.4 Variation in Low-Amplitude Shear Wave Velocity with Isotropic Confining Pressure from Resonant Column Tests

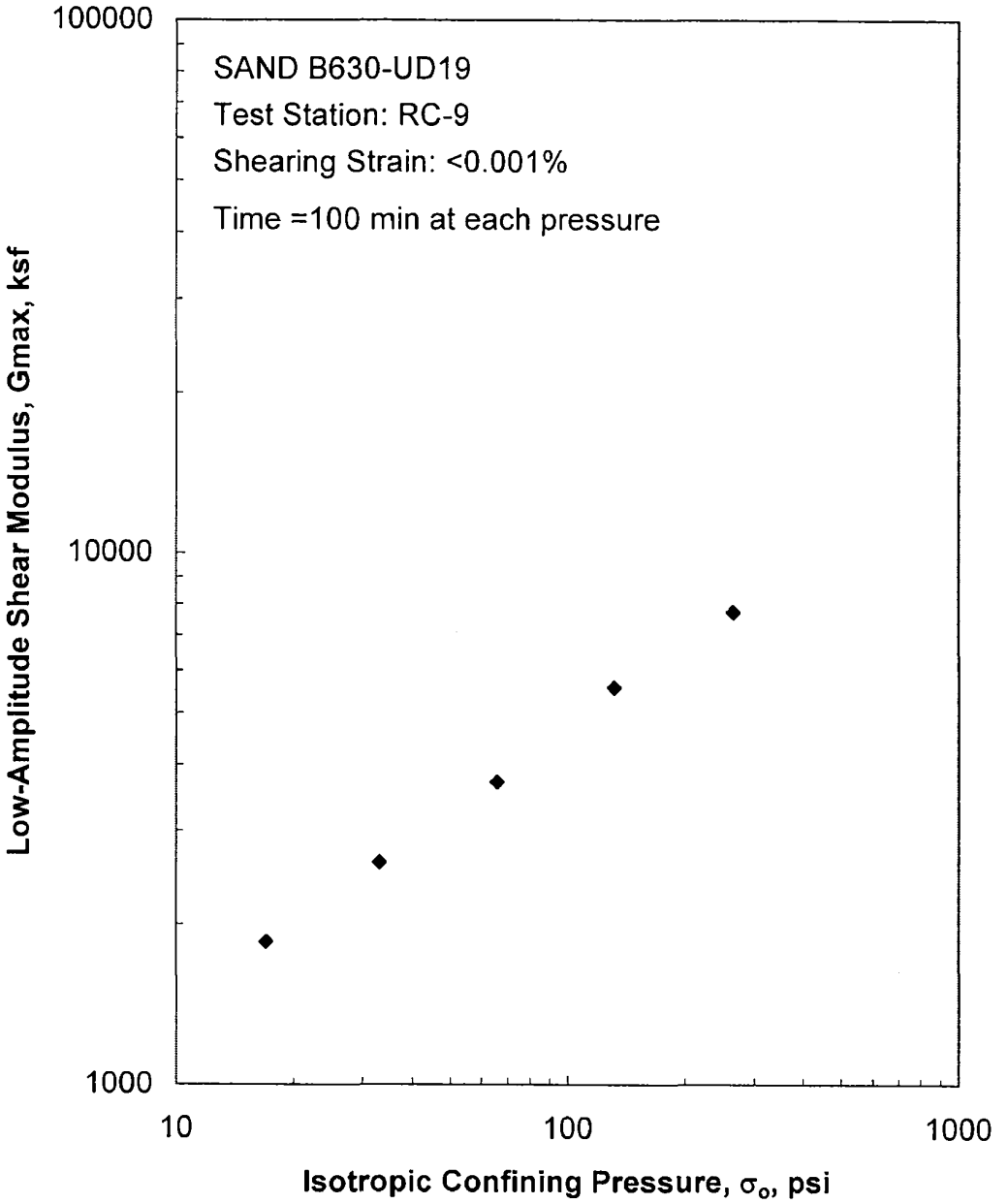


Figure E.5 Variation in Low-Amplitude Shear Modulus with Isotropic Confining Pressure from Resonant Column Tests

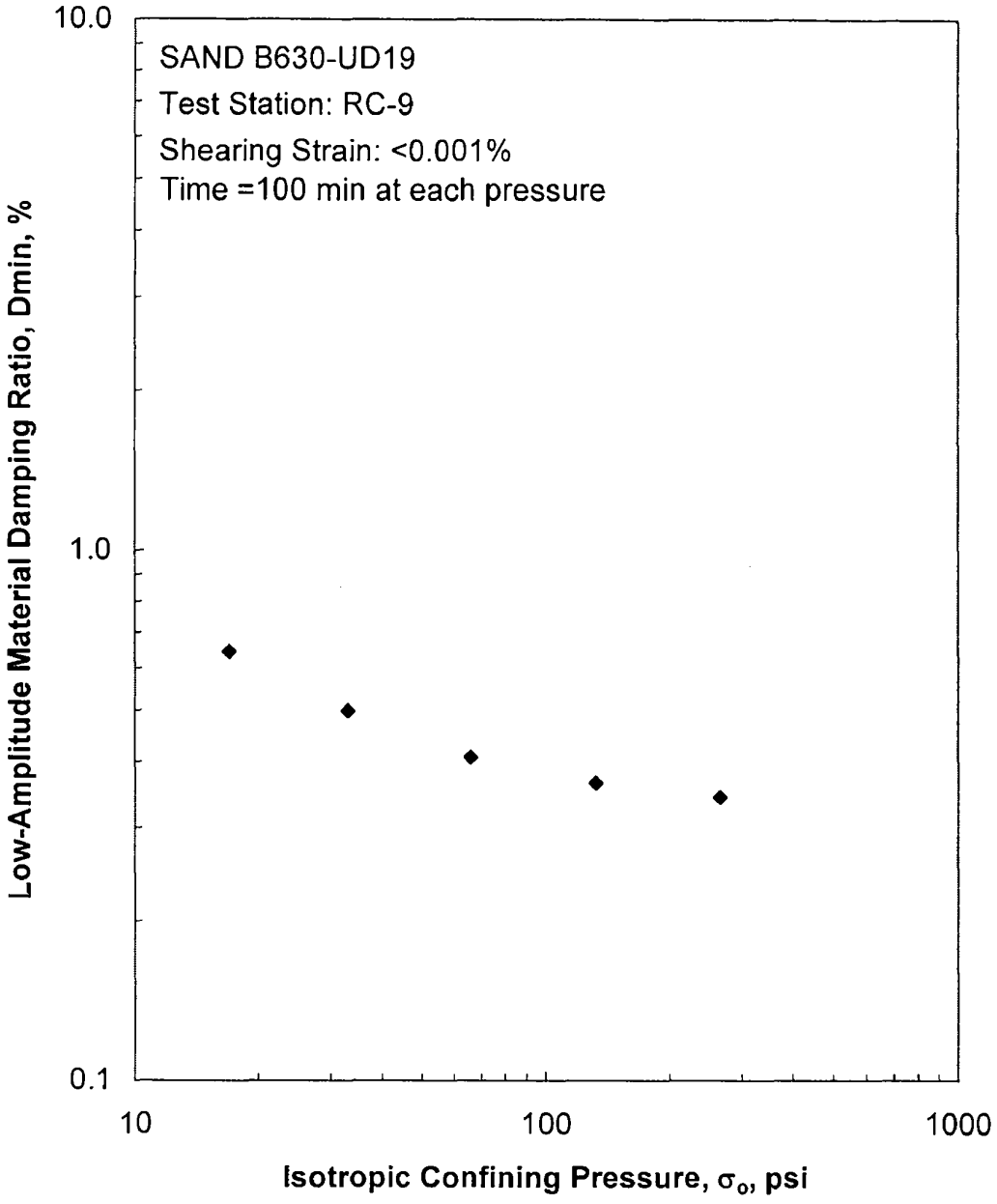


Figure E.6 Variation in Low-Amplitude Material Damping Ratio with Isotropic Confining Pressure from Resonant Column Tests

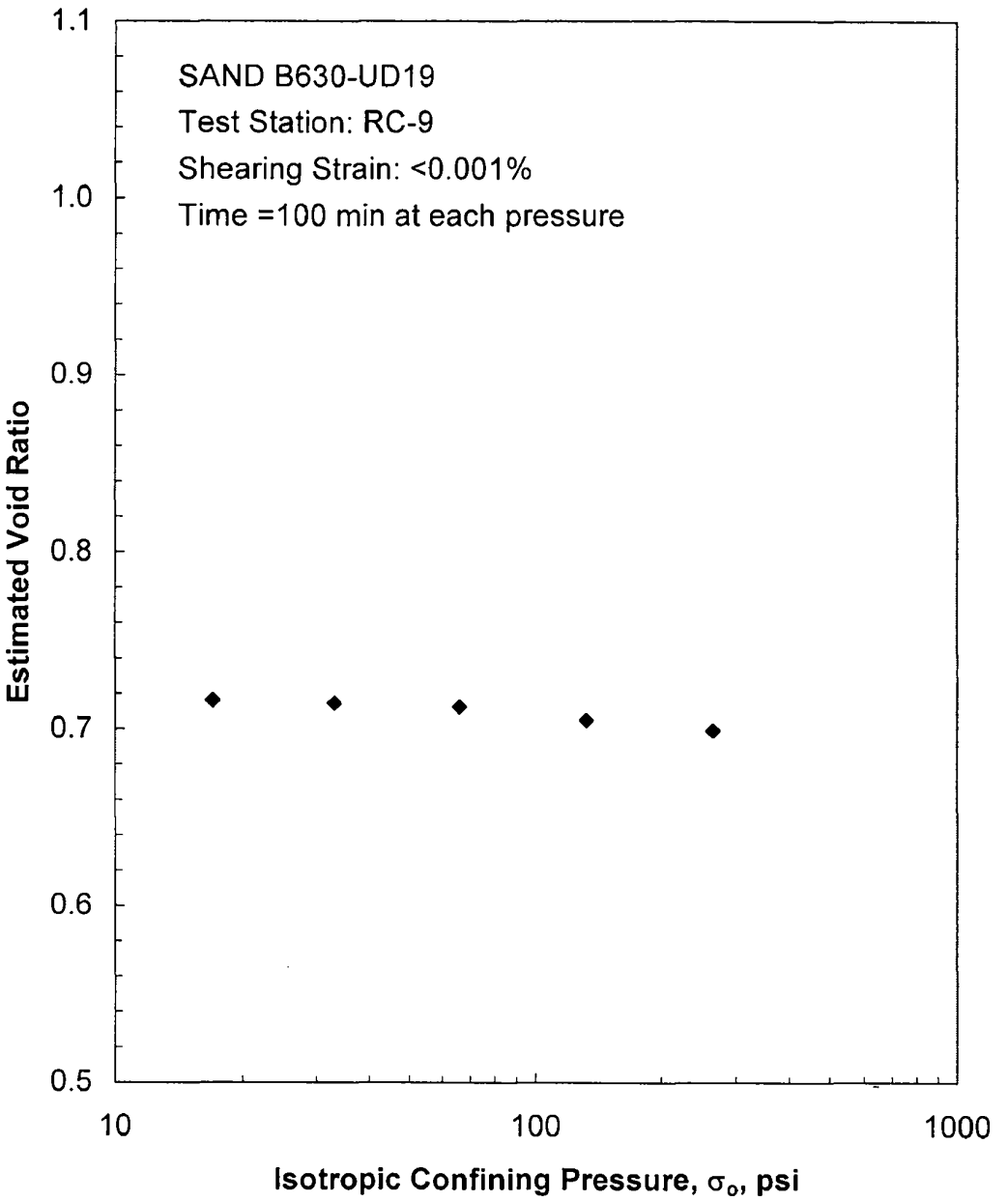


Figure E.7 Variation in Estimated Void Ratio with Isotropic Confining Pressure from Resonant Column Tests

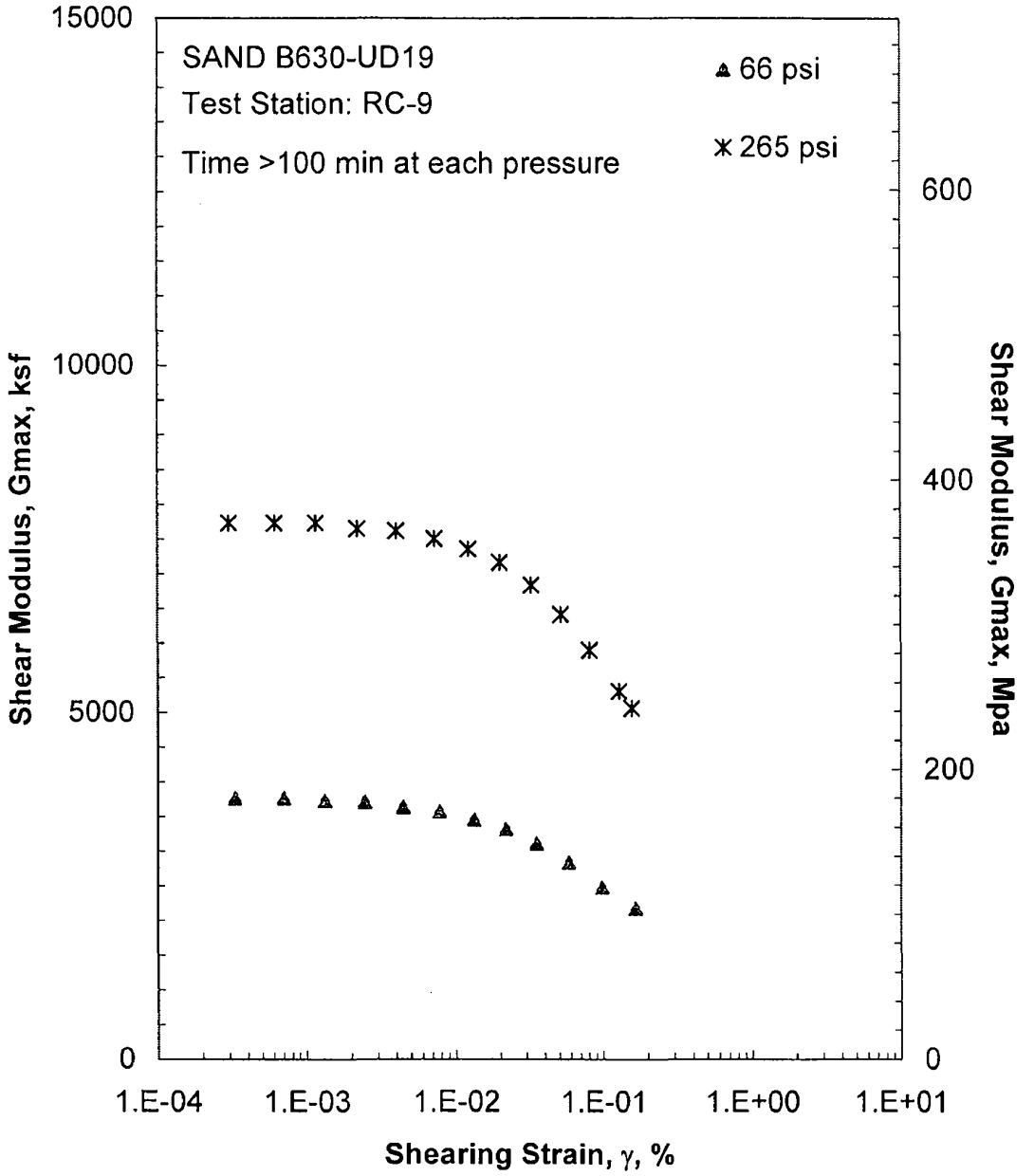


Figure E.8 Comparison of the Variation in Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

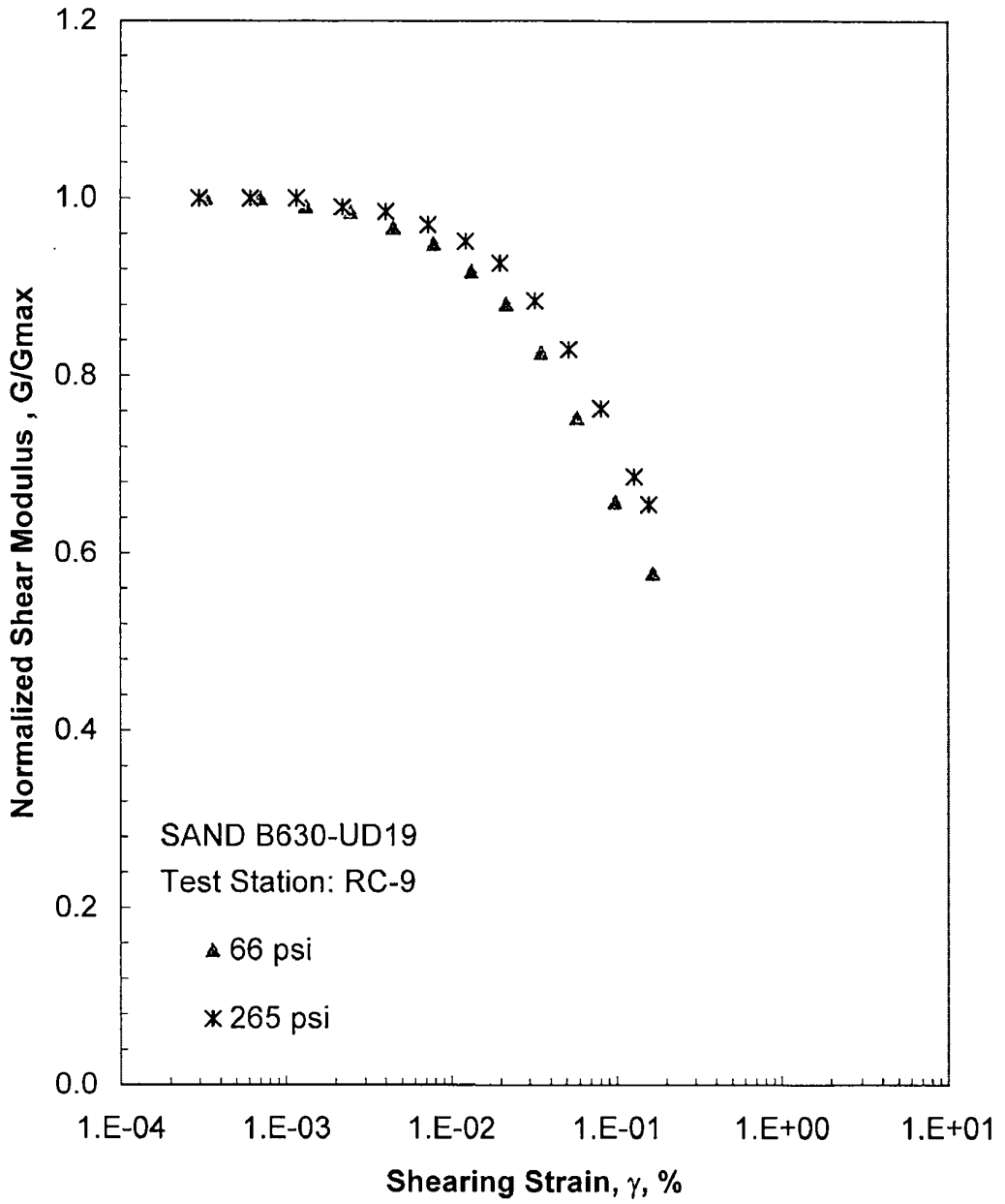


Figure E.9 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

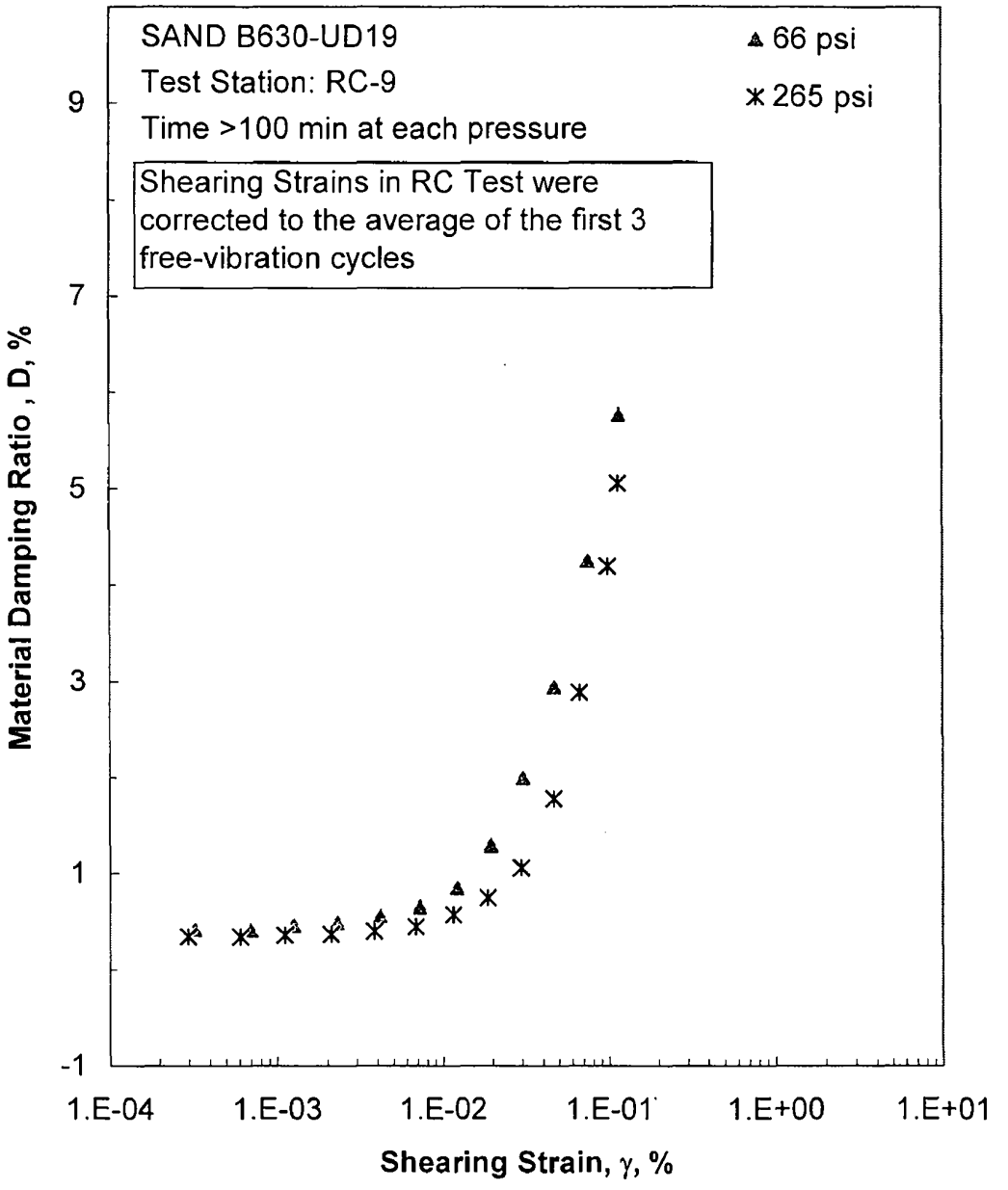


Figure E.10 Comparison of the Variation in Material Damping Ratio with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

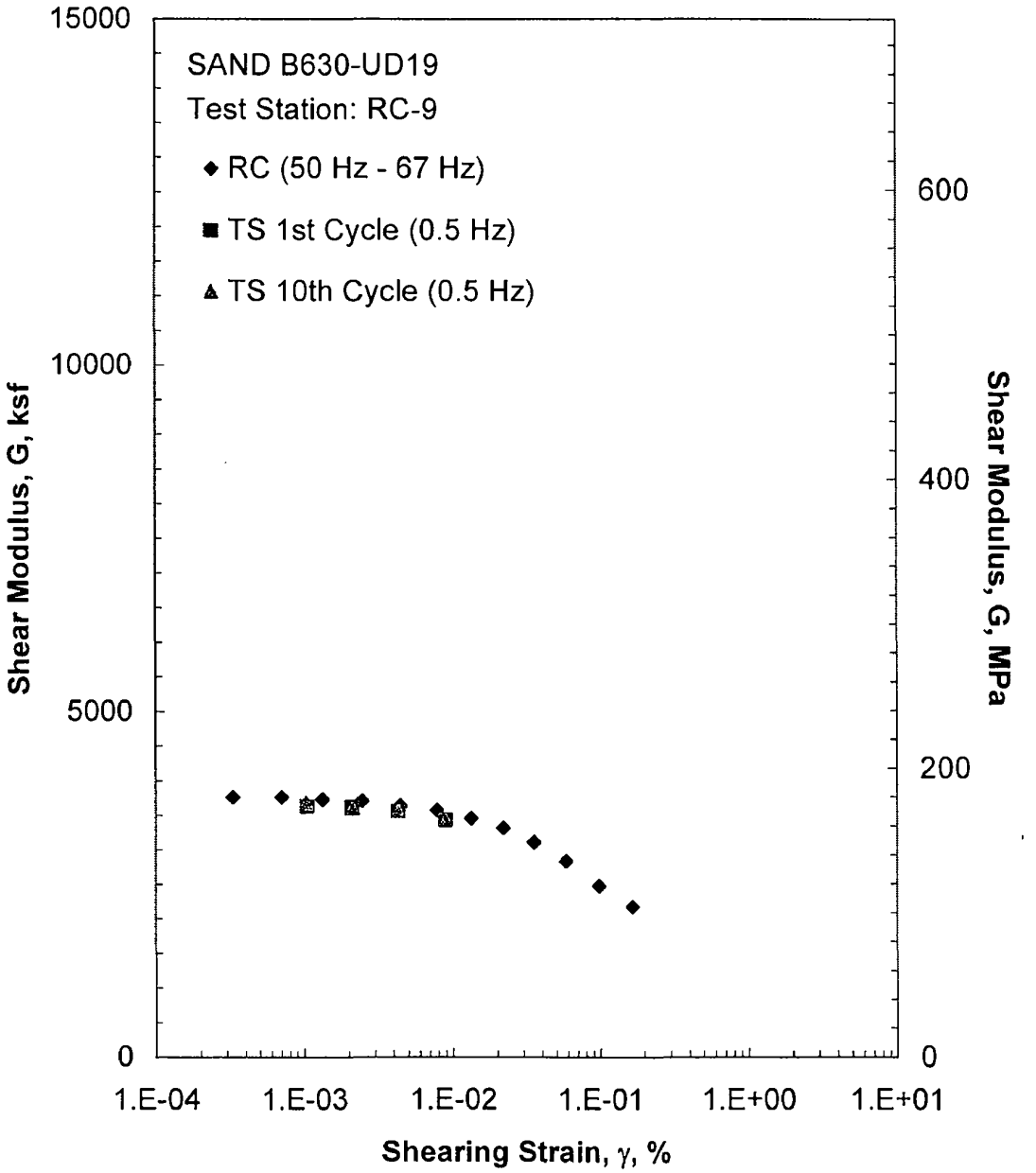


Figure E.11 Comparison of the Variation in Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 66 psi from the Combined RCTS Tests

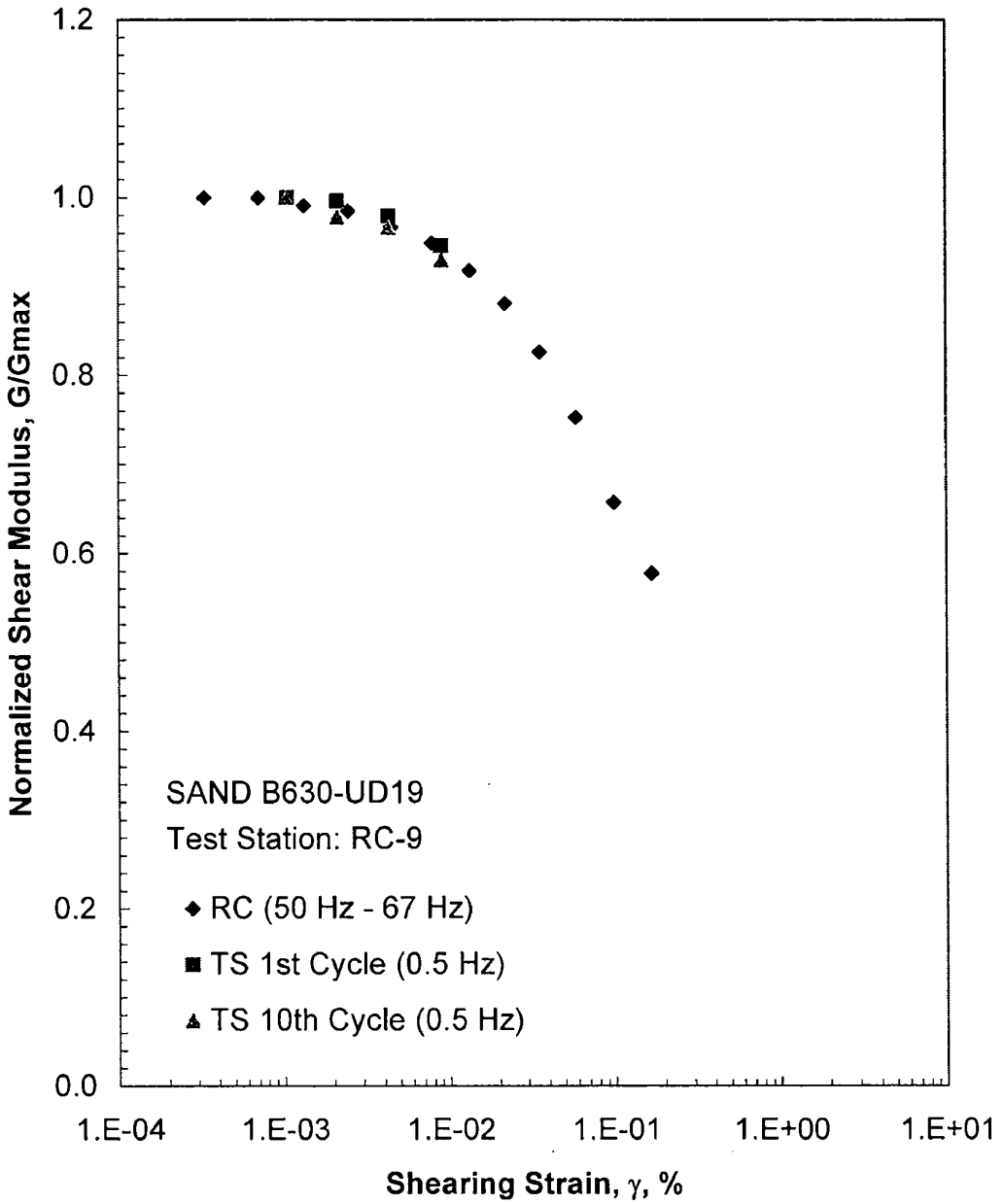


Figure E.12 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 66 psi from the Combined RCTS Tests

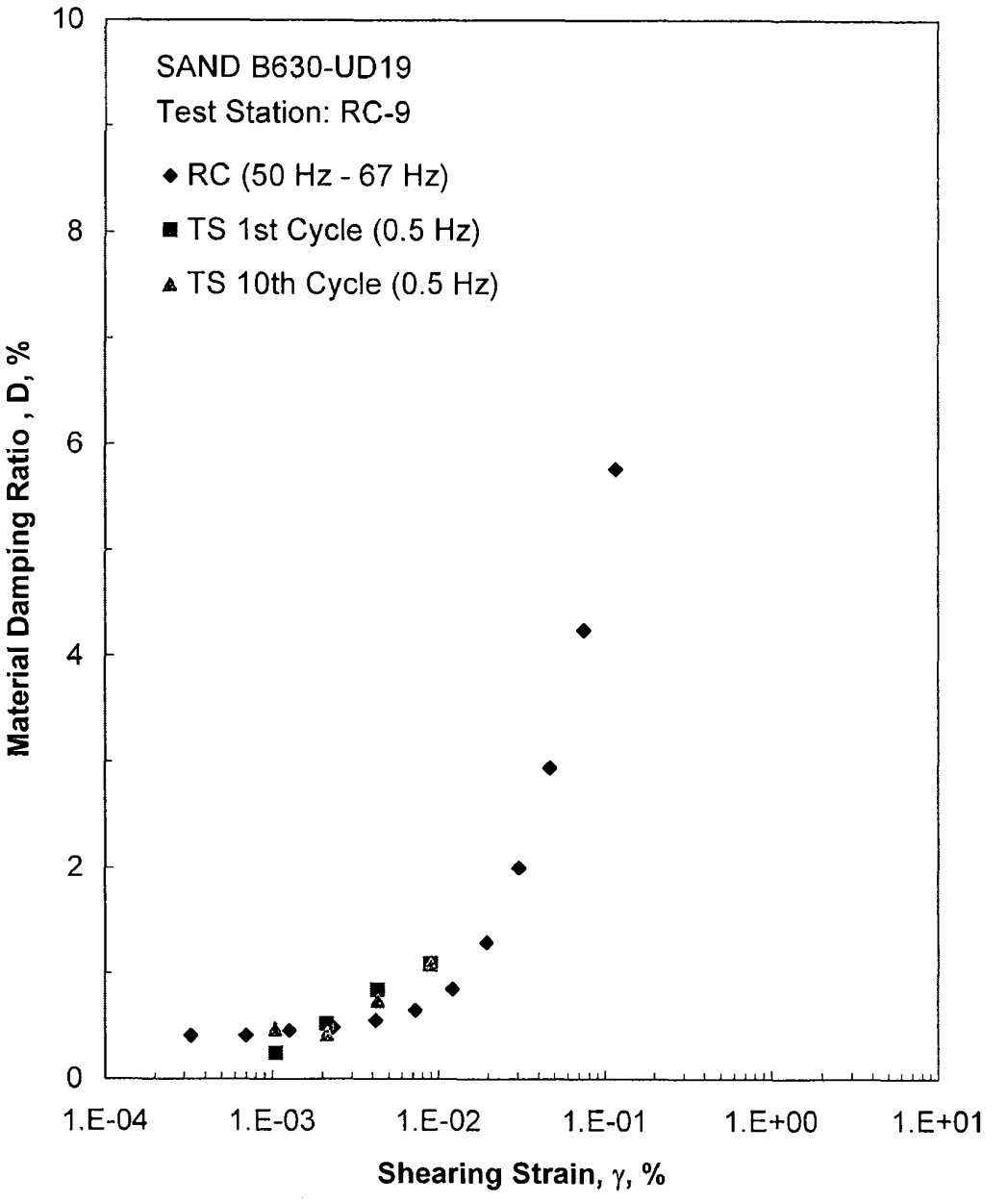


Figure E.13 Comparison of the Variation in Material Damping Ratio with Shearing Strain at an Isotropic Confining Pressure of 66 psi from the Combined RCTS Tests

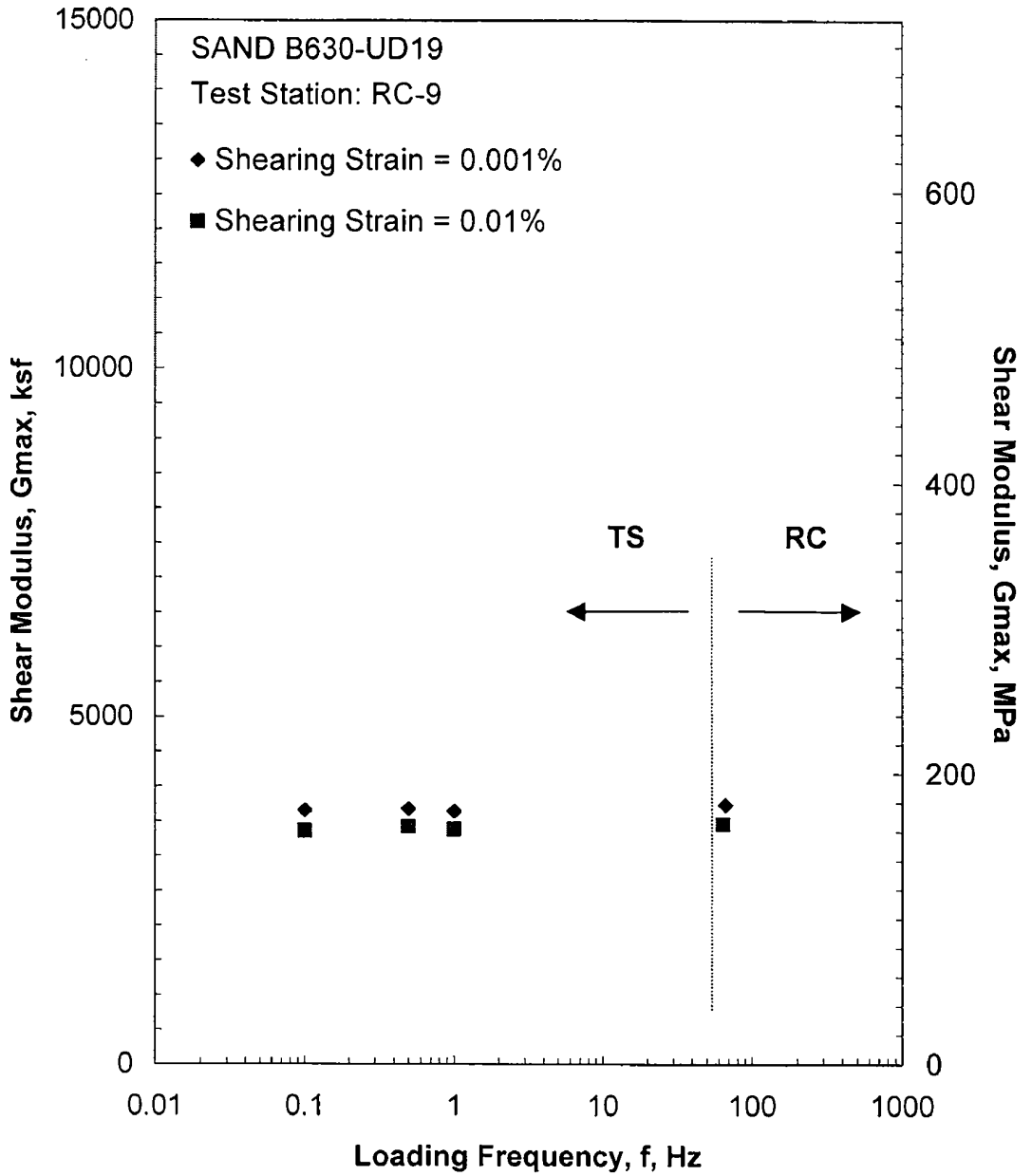


Figure E.14 Comparison of the Variation in Shear Modulus with Loading Frequency at an Isotropic Confining Pressure of 66 psi from the Combined RCTS Tests

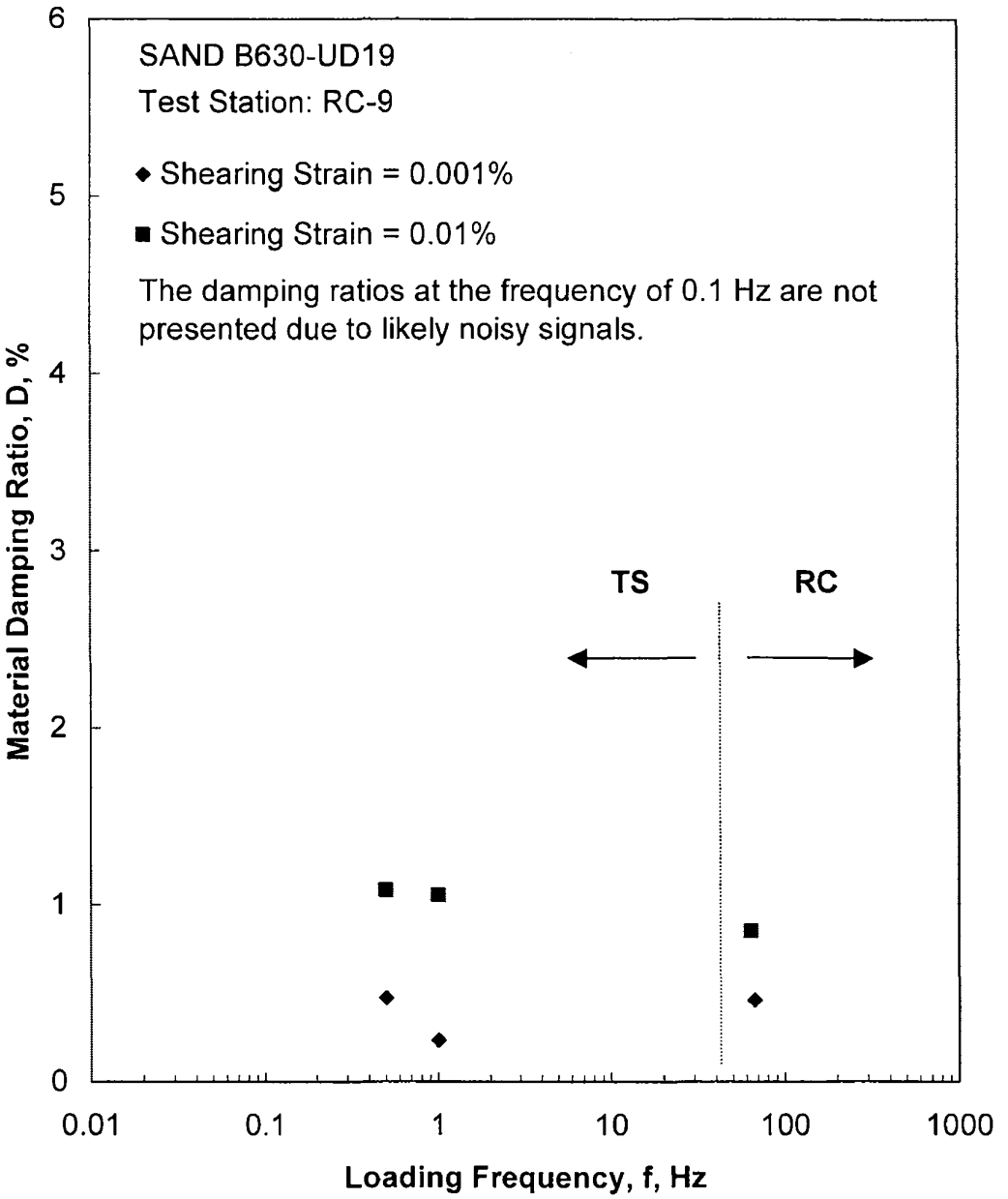


Figure E.15 Comparison of the Variation in Material Damping Ratio with Loading Frequency at an Isotropic Confining Pressure of 66 psi from the Combined RCTS Tests

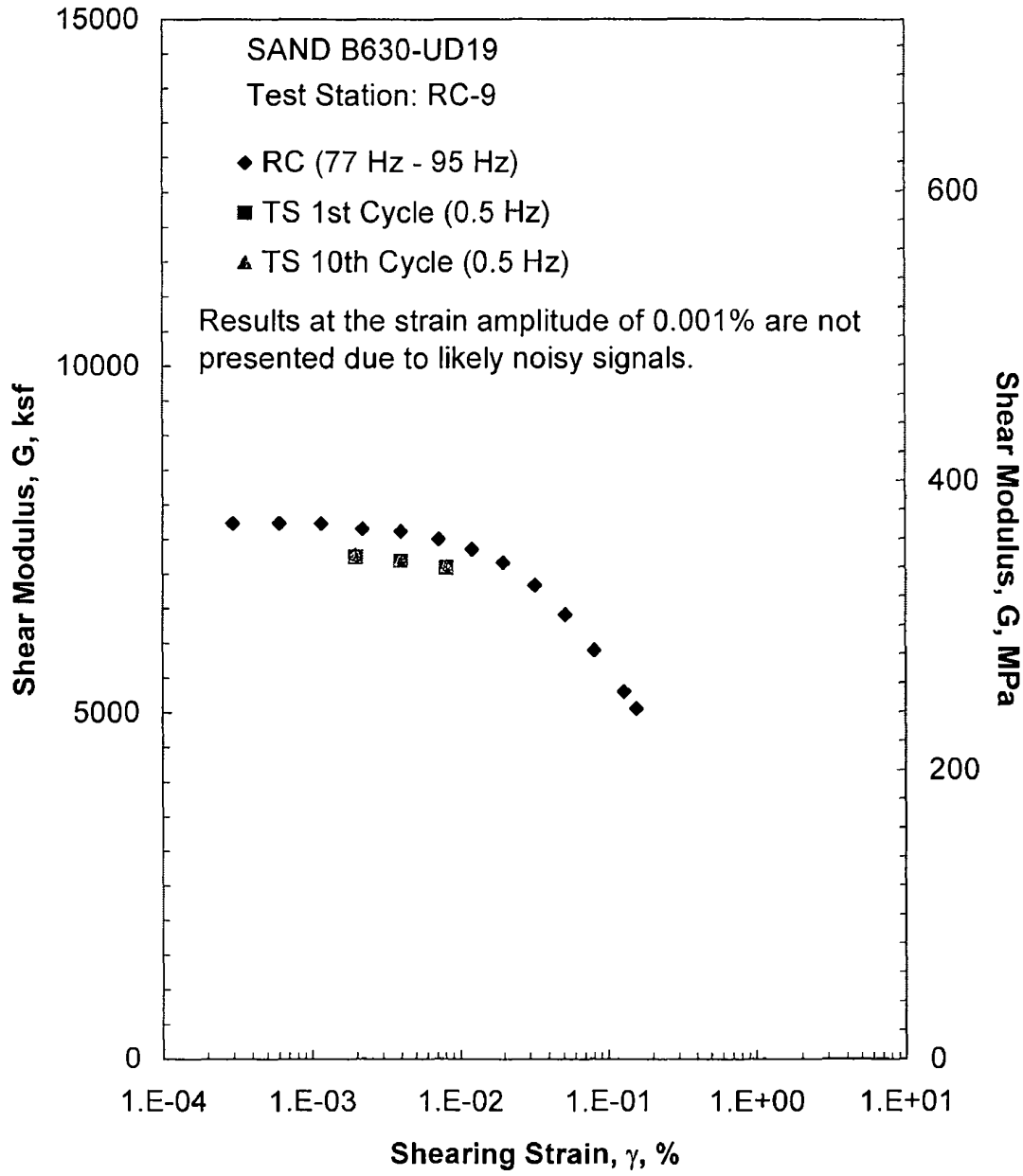


Figure E.16 Comparison of the Variation in Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 265 psi from the Combined RCTS Tests

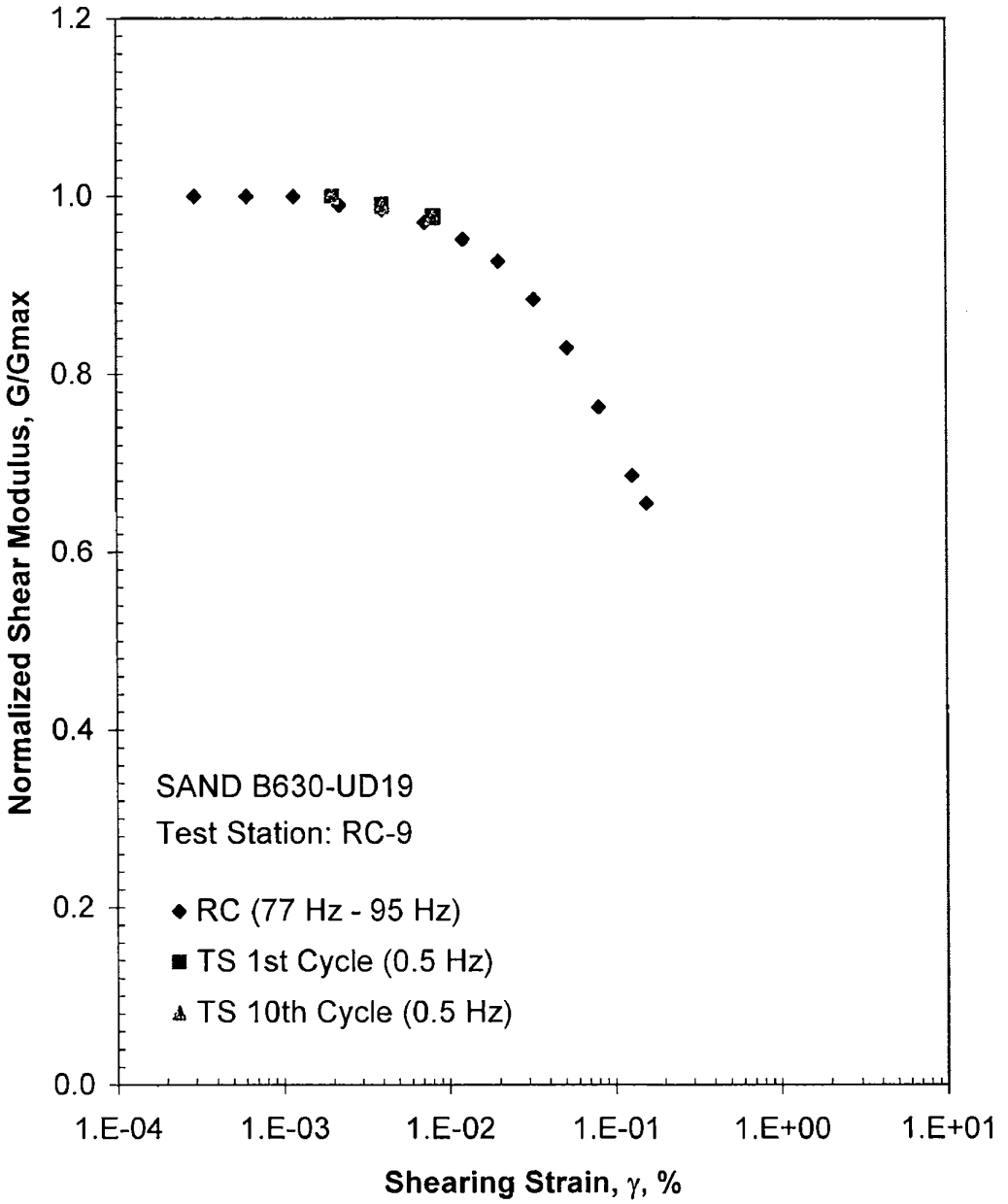


Figure E.17 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 265 psi from the Combined RCTS Tests

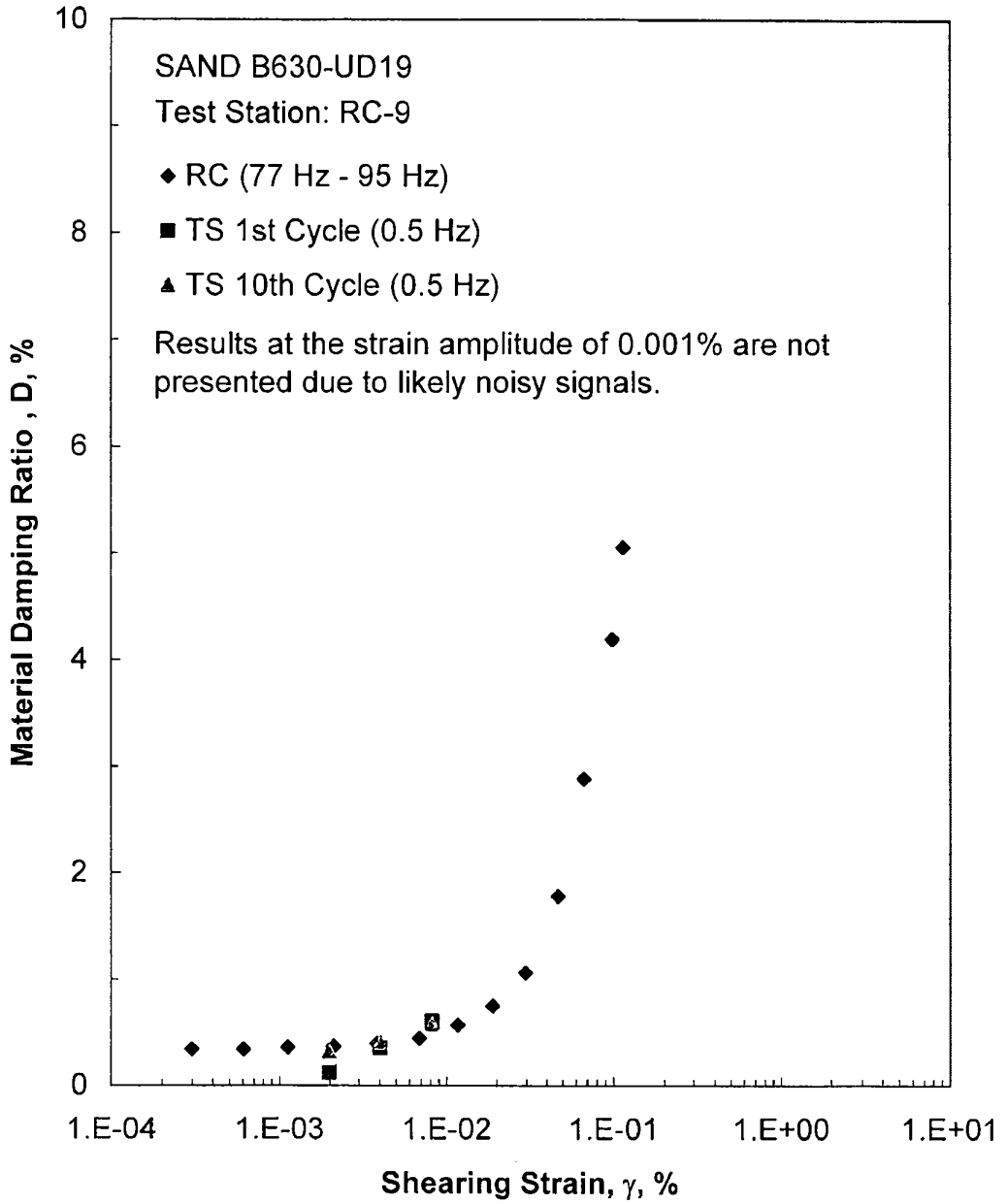


Figure E.18 Comparison of the Variation in Material Damping Ratio with Shearing Strain at an Isotropic Confining Pressure of 265 psi from the Combined RCTS Tests

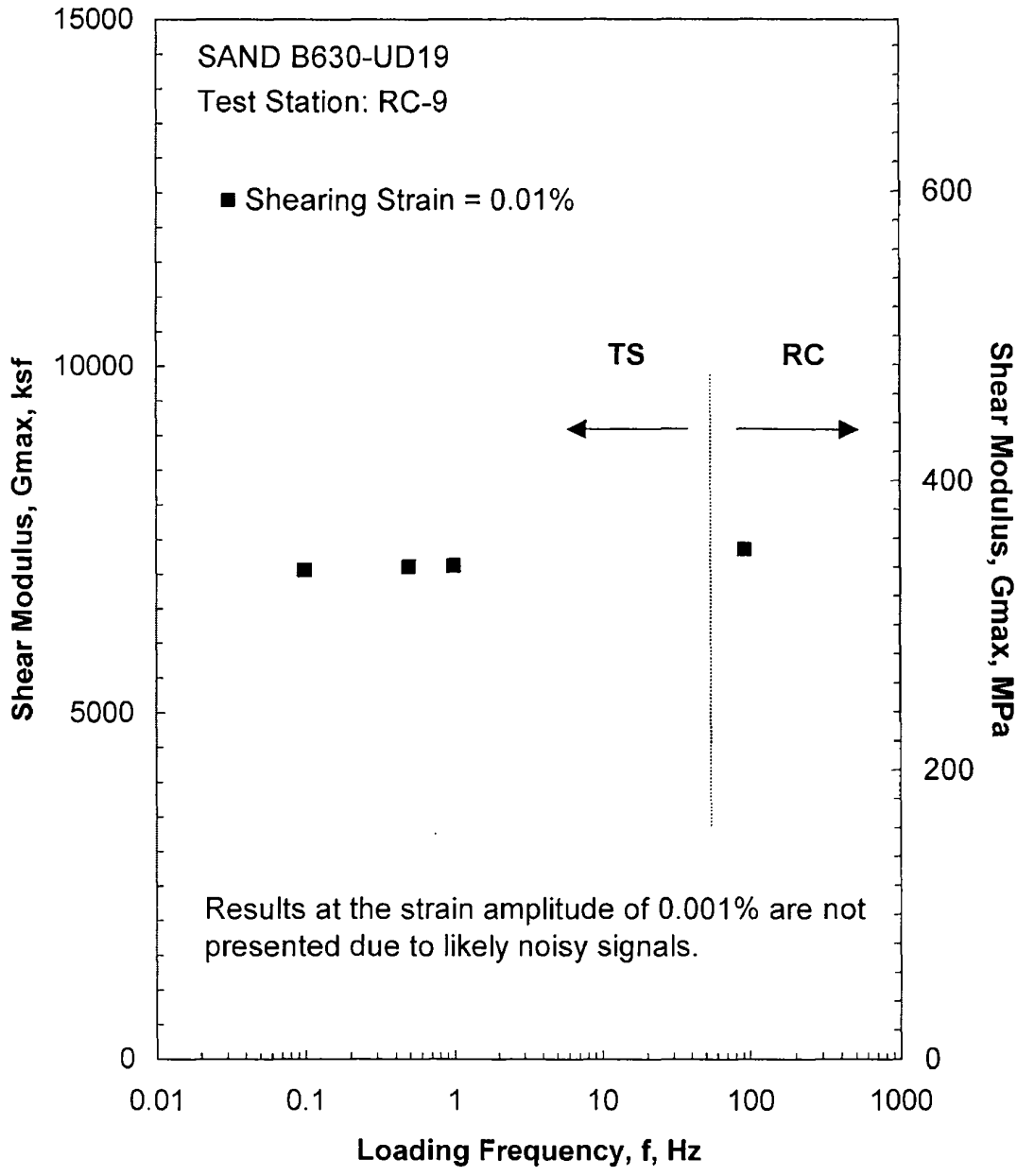


Figure E.19 Comparison of the Variation in Shear Modulus with Loading Frequency at an Isotropic Confining Pressure of 242 psi from the Combined RCTS Tests

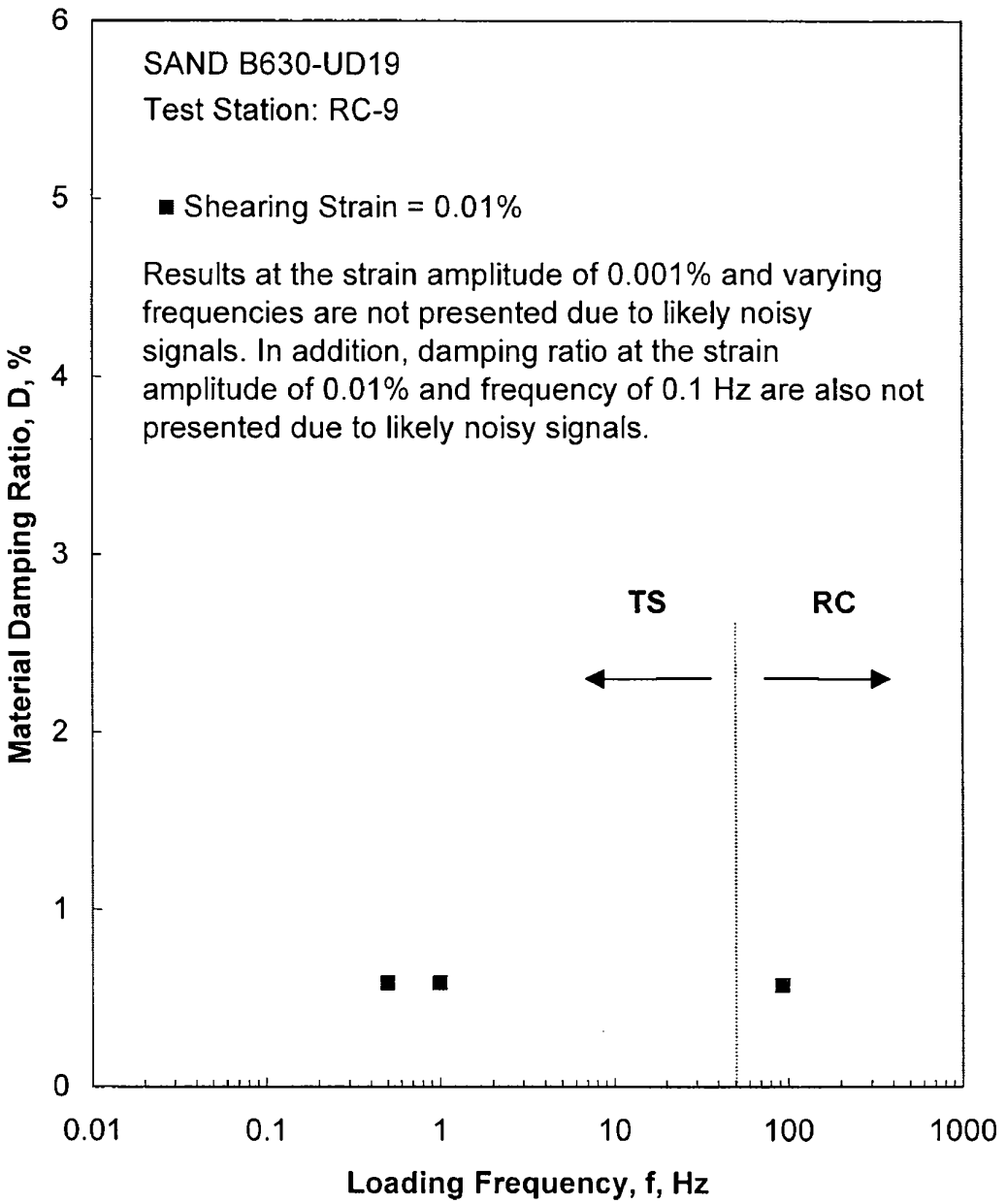


Figure E.20 Comparison of the Variation in Material Damping Ratio with Loading Frequency at an Isotropic Confining Pressure of 242 psi from the Combined RCTS Tests

Table E.1 Variation in Low-Amplitude Shear Wave Velocity, Low-Amplitude Shear Modulus, Low-Amplitude Material Damping Ratio and Estimated Void Ratio with Isotropic Confining Pressure from RC Tests of Specimen B630-UD19

Isotropic Confining Pressure, σ_o			Low-Amplitude Shear Modulus, G_{max}		Low-Amplitude Shear Wave Velocity, Vs	Low-Amplitude Material Damping Ratio, Dmin	Estimated Void Ratio, e
(psi)	(psf)	(kPa)	(ksf)	(MPa)	(fps)	(%)	
17	2448	117	1854	89	699	0.64	0.72
33	4752	227	2617	126	830	0.50	0.71
66	9504	455	3705	178	987	0.41	0.71
132	19008	909	5579	268	1209	0.36	0.71
265	38160	1826	7729	371	1420	0.34	0.70

Table E.2 Variation in Shear Modulus and Material Damping Ratio with Shearing Strain from RC Tests of Specimen B630-UD19; Isoptropic Confining Pressure, σ_o= 66 psi (9.5ksf = 455 kPa)

Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Average[+] Shearing Strain, %	Material Damping Ratio[x], D, %
3.29E-04	3762	1.00	3.29E-04	0.41
7.01E-04	3762	1.00	7.01E-04	0.41
1.33E-03	3728	0.99	1.27E-03	0.46
2.47E-03	3705	0.98	2.32E-03	0.49
4.45E-03	3637	0.97	4.18E-03	0.55
7.81E-03	3570	0.95	7.27E-03	0.65
1.33E-02	3452	0.92	1.22E-02	0.85
2.18E-02	3312	0.88	1.96E-02	1.29
3.54E-02	3107	0.83	3.04E-02	1.99
5.82E-02	2831	0.75	4.71E-02	2.94
9.82E-02	2473	0.66	7.46E-02	4.24
1.66E-01	2172	0.58	1.16E-01	5.77

[+] Average Shearing Strain from the First Three Cycles of the Free Vibration Decay Curve

[x] Average Damping Ratio from the First Three Cycles of the Free Vibration Decay Curve

Table E.3 Variation in Shear Modulus, Normalized Shear Modulus and Material Damping Ratio with Shearing Strain from TS Tests of Specimen B630-UD19; Isotropic Confining Pressure, σ_o= 66 psi (9.5 ksf = 455 kPa)

First Cycle				Tenth Cycle			
Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %	Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %
1.05E-03	3628	1.00	0.24	1.04E-03	3679	1.00	0.47
2.12E-03	3615	1.00	0.52	2.13E-03	3597	0.98	0.42
4.31E-03	3554	0.98	0.84	4.31E-03	3555	0.97	0.74
8.93E-03	3431	0.95	1.09	8.96E-03	3420	0.93	1.08

Table E.4 Variation in Shear Modulus and Material Damping Ratio with Shearing Strain from RC Tests of Specimen B630-UD19; Isoptropic Confining Pressure, σ_o= 265 psi (38.2 ksf = 1826 kPa)

Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Average[+] Shearing Strain, %	Material Damping Ratio[x], D, %
2.99E-04	7729	1.00	2.99E-04	0.34
6.09E-04	7729	1.00	6.09E-04	0.34
1.16E-03	7729	1.00	1.12E-03	0.36
2.20E-03	7652	0.99	2.11E-03	0.37
4.02E-03	7614	0.99	3.86E-03	0.39
7.23E-03	7500	0.97	6.87E-03	0.44
1.22E-02	7354	0.95	1.16E-02	0.57
1.99E-02	7163	0.93	1.88E-02	0.74
3.26E-02	6834	0.88	2.96E-02	1.06
5.19E-02	6412	0.83	4.67E-02	1.78
8.07E-02	5896	0.76	6.70E-02	2.88
1.28E-01	5301	0.69	9.85E-02	4.19
1.57E-01	5057	0.65	1.14E-01	5.05

[+] Average Shearing Strain from the First Three Cycles of the Free Vibration Decay Curve

[x] Average Damping Ratio from the First Three Cycles of the Free Vibration Decay Curve

Table E.5 Variation in Shear Modulus, Normalized Shear Modulus and Material Damping Ratio with Shearing Strain from TS Tests of Specimen B630-UD19; Isotropic Confining Pressure, σ_o= 265 psi (38.2 ksf = 1826 kPa)

First Cycle				Tenth Cycle			
Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %	Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %
2.00E-03	7251	1.00	0.12	1.99E-03	7279	1.00	0.32
4.03E-03	7186	0.99	0.35	4.03E-03	7192	0.99	0.40
8.17E-03	7091	0.98	0.60	8.16E-03	7103	0.98	0.58

APPENDIX F

Specimen B630-UD23

Borehole 630
Sample UD23
Depth = 260.5 ft (79.4 m)
Total Unit Weight = 121.3 lb/ft^3
Water Content = 27.1 %
Estimated In-Situ Ko = 0.5
Estimated In-Situ Mean Effective
Stress = 75 psi

FUGRO JOB #: 0411-08-1701
Testing Station: RC8

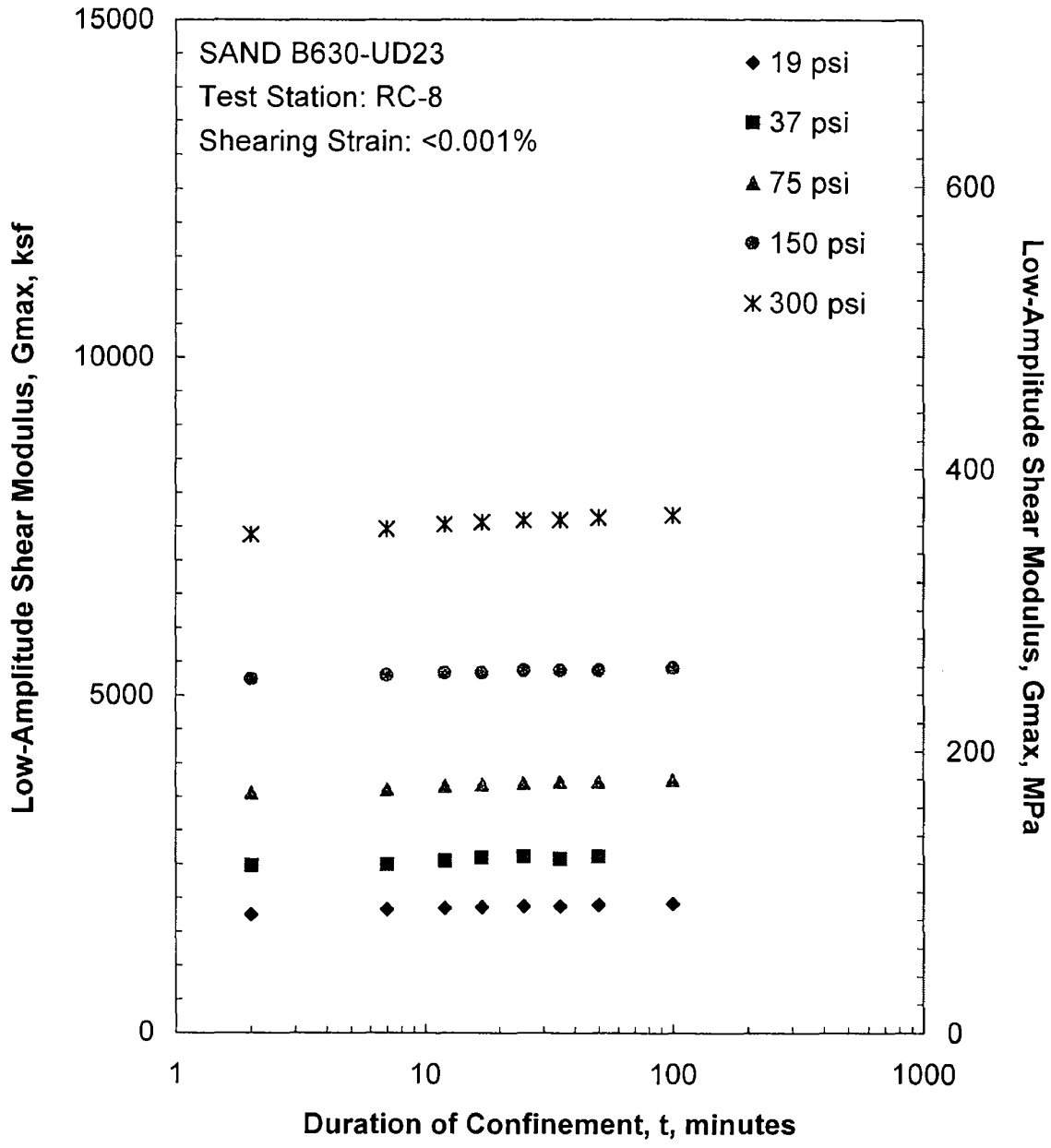


Figure F.1 Variation in Low-Amplitude Shear Modulus with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

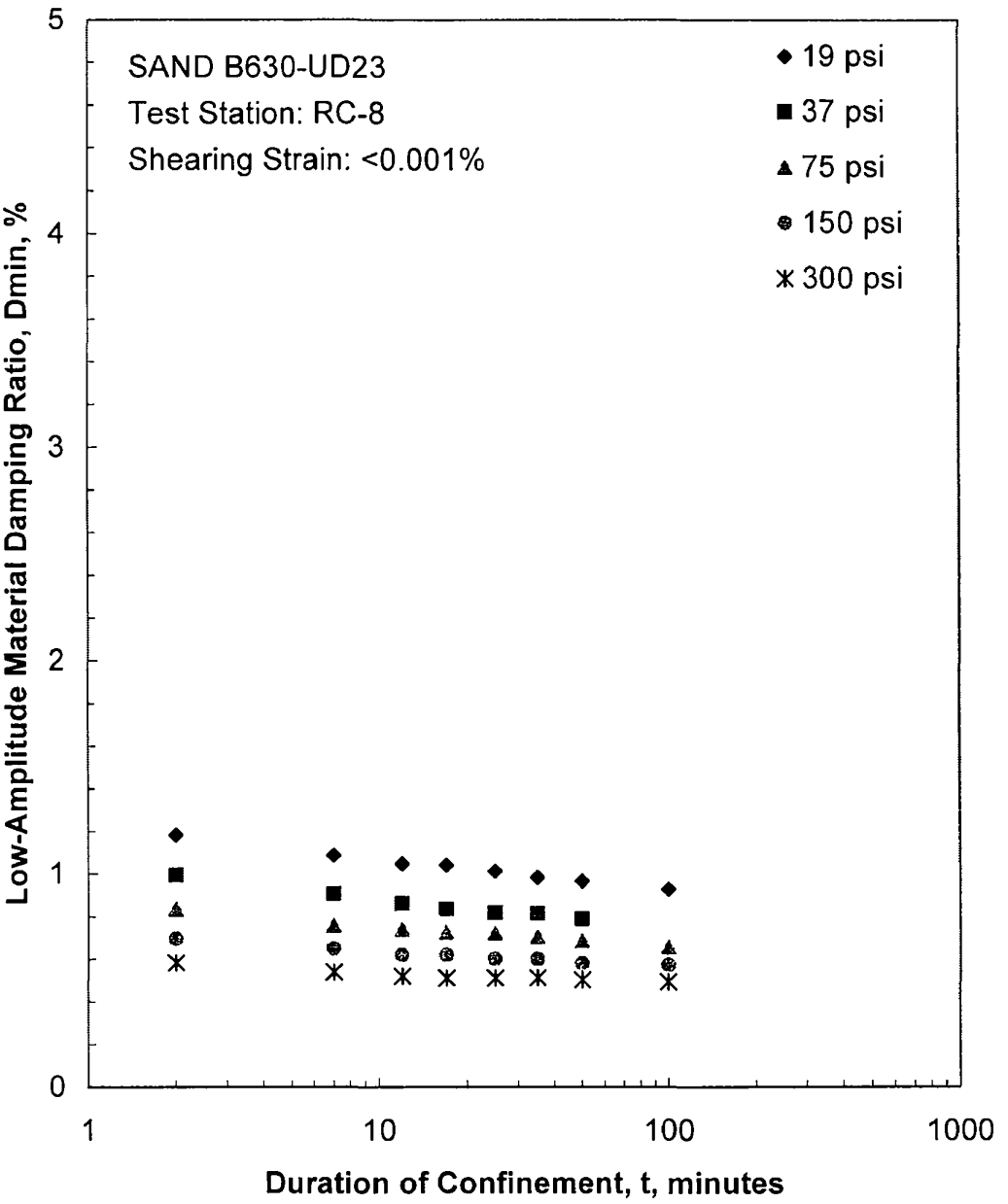


Figure F.2 Variation in Low-Amplitude Material Damping Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

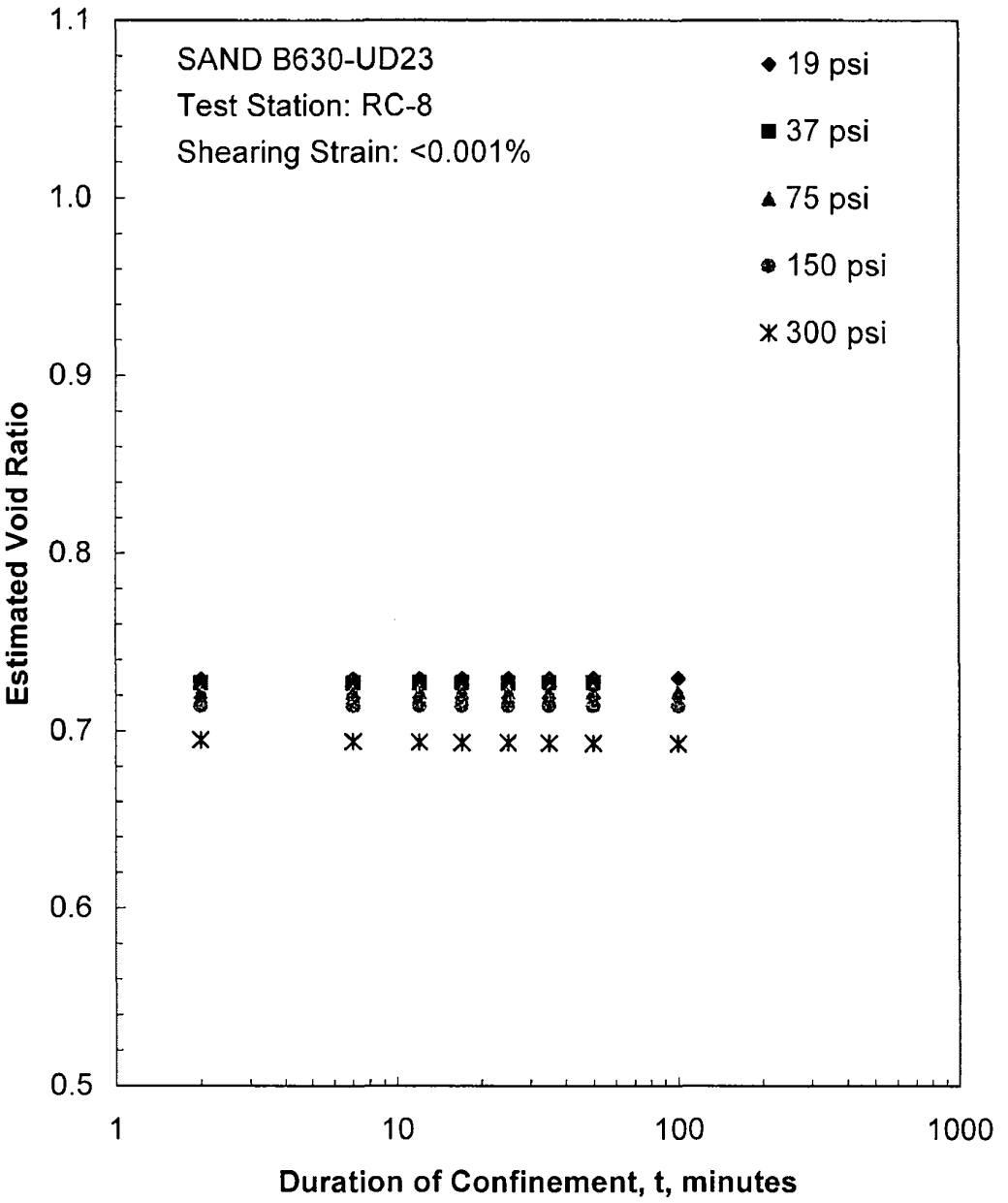


Figure F.3 Variation in Estimated Void Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

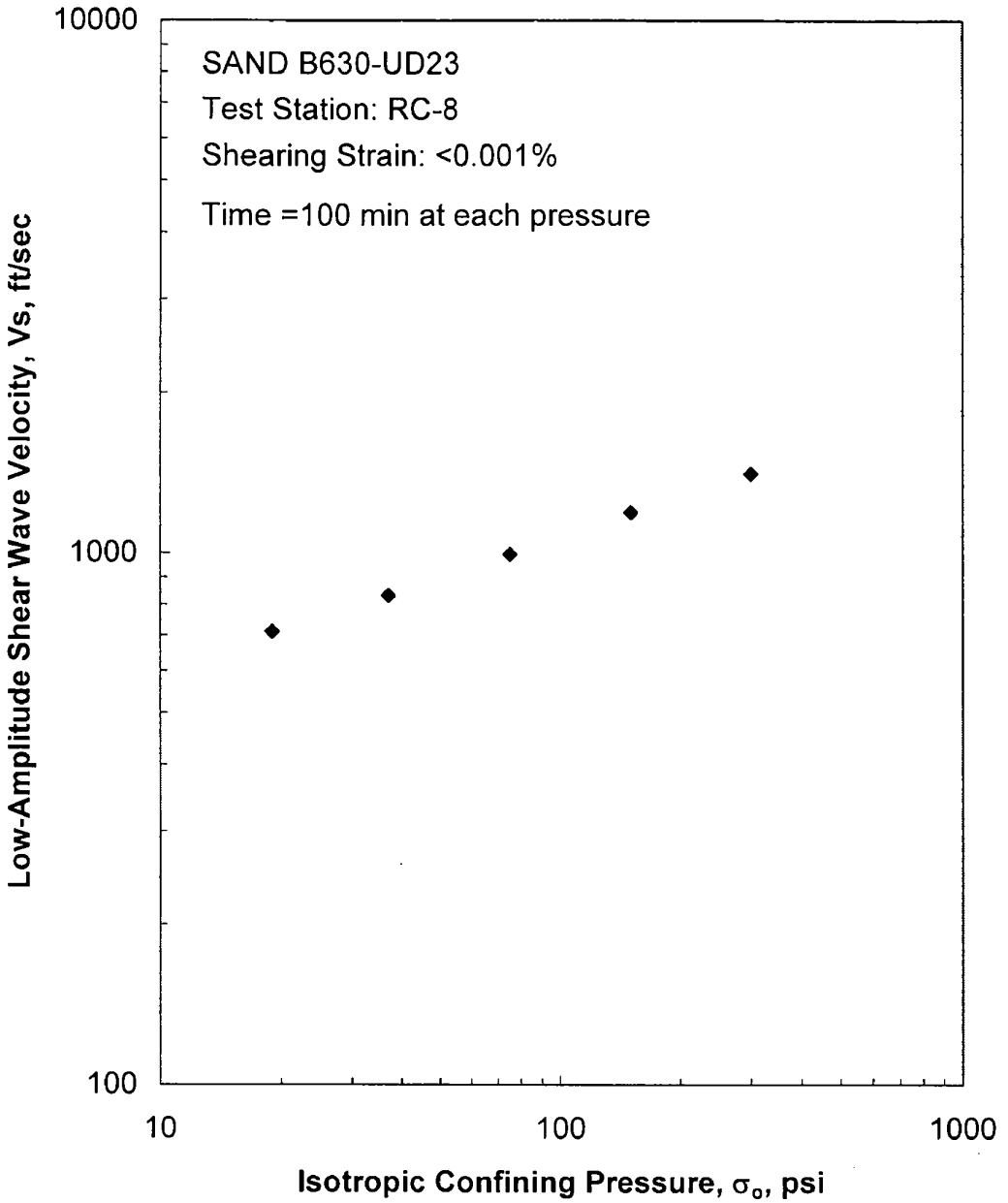


Figure F.4 Variation in Low-Amplitude Shear Wave Velocity with Isotropic Confining Pressure from Resonant Column Tests

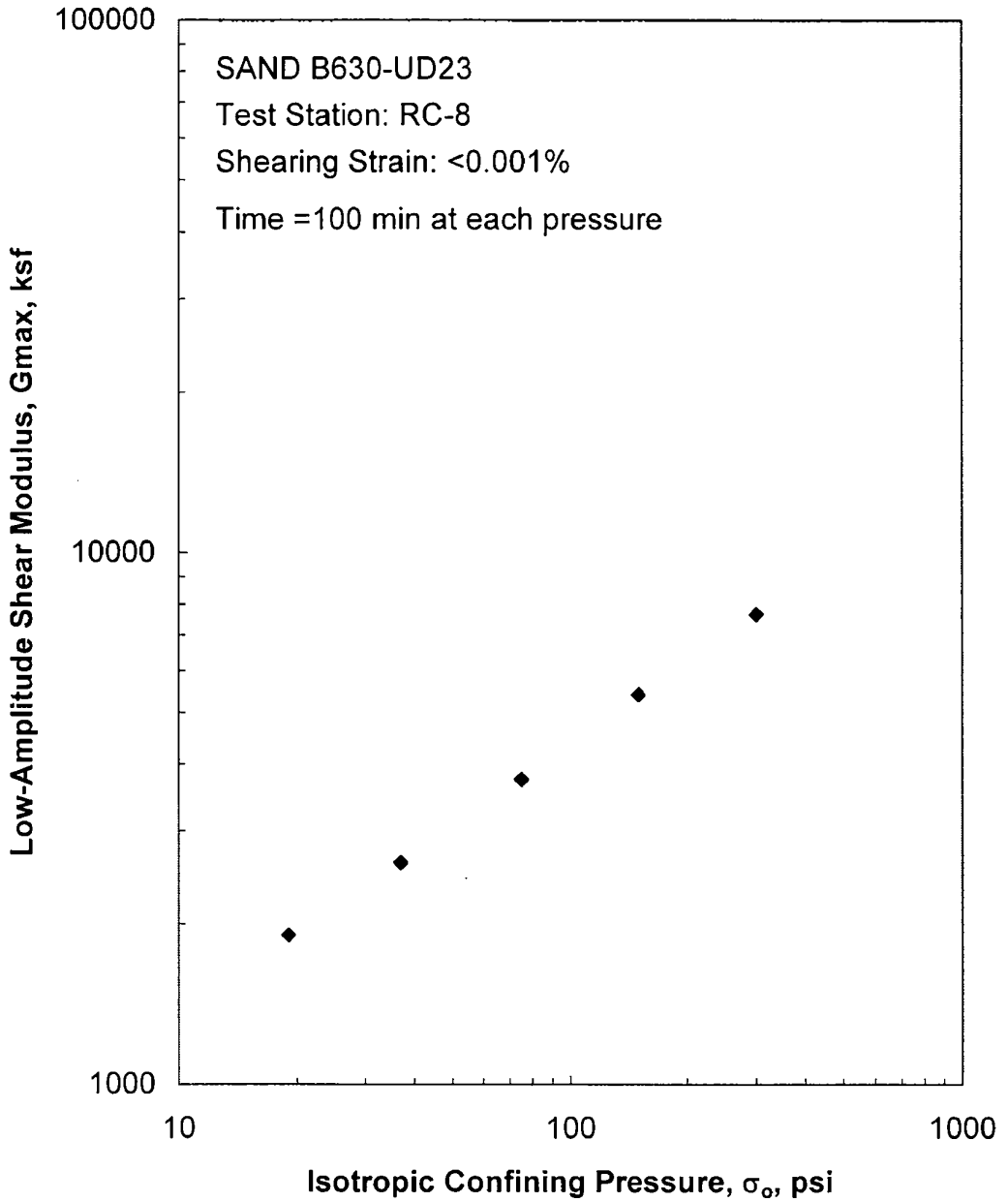


Figure F.5 Variation in Low-Amplitude Shear Modulus with Isotropic Confining Pressure from Resonant Column Tests

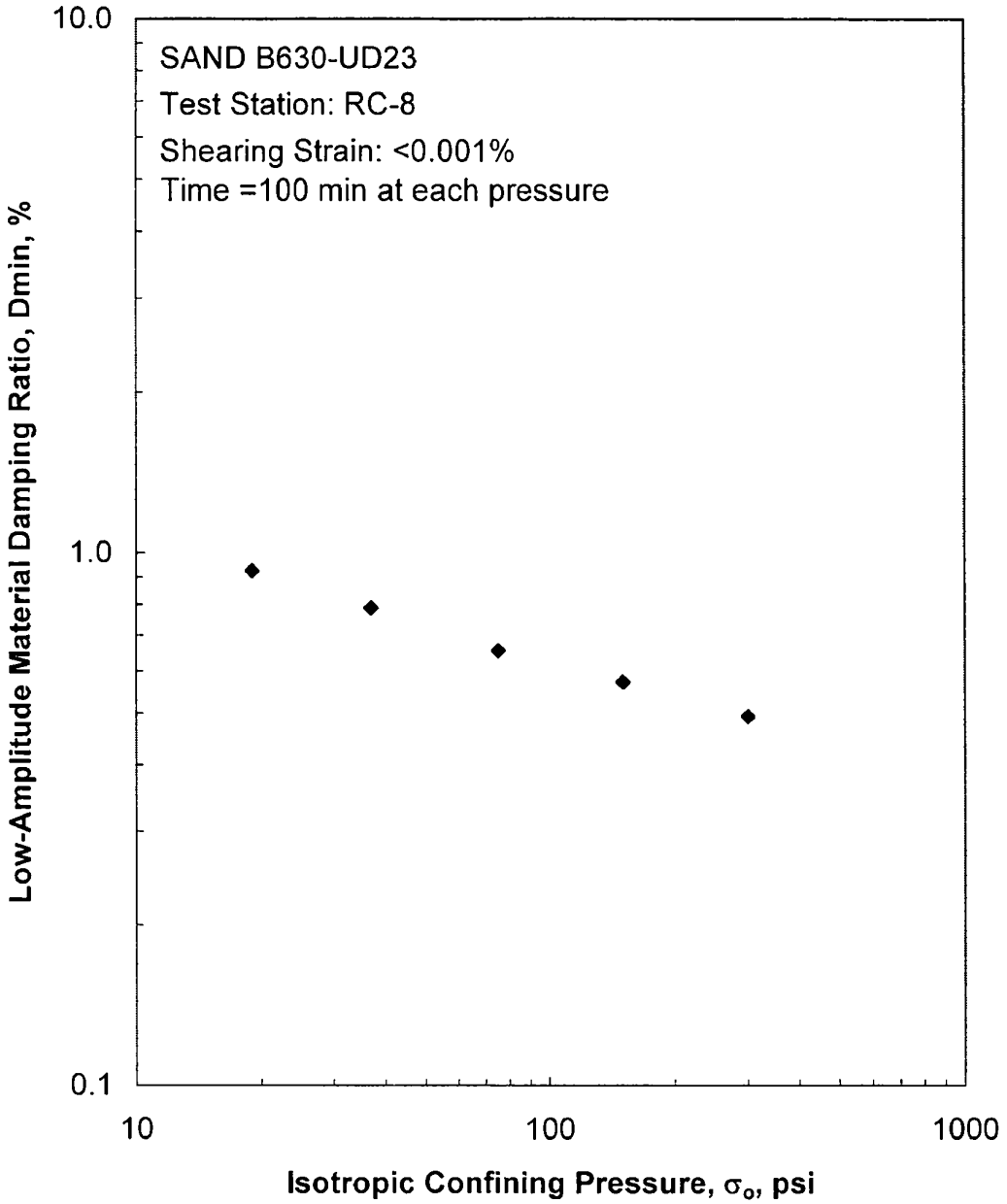


Figure F.6 Variation in Low-Amplitude Material Damping Ratio with Isotropic Confining Pressure from Resonant Column Tests

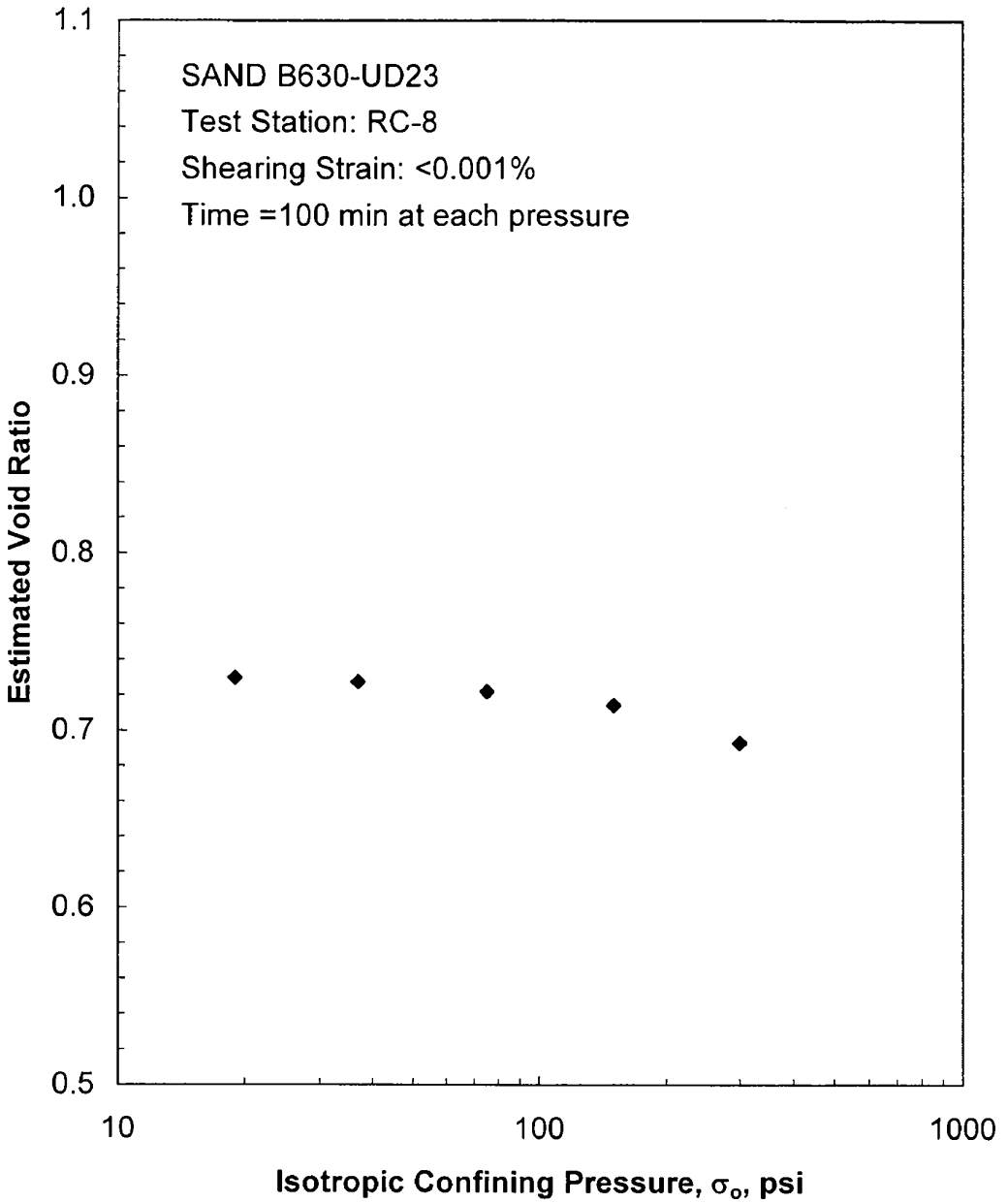


Figure F.7 Variation in Estimated Void Ratio with Isotropic Confining Pressure from Resonant Column Tests

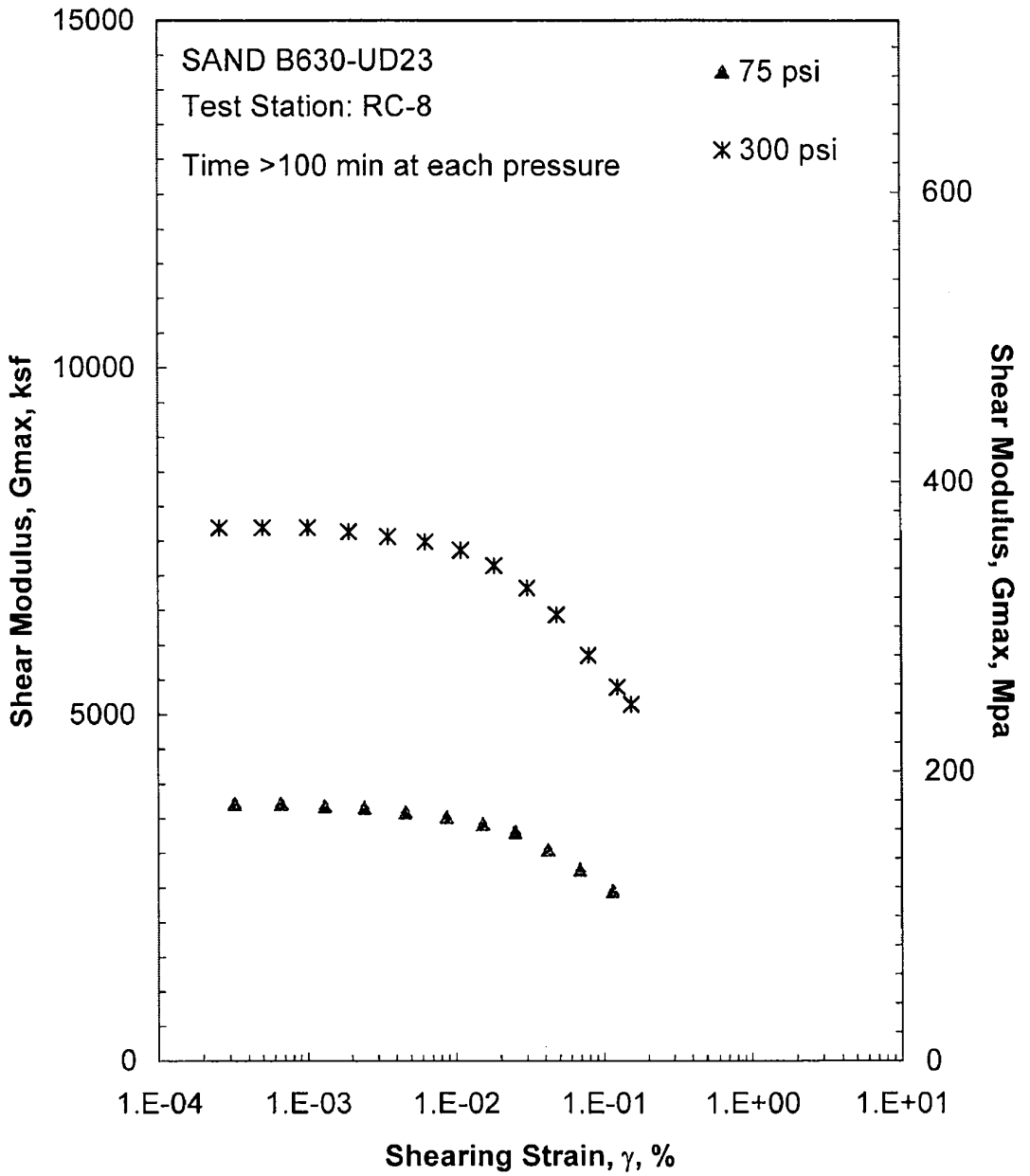


Figure F.8 Comparison of the Variation in Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

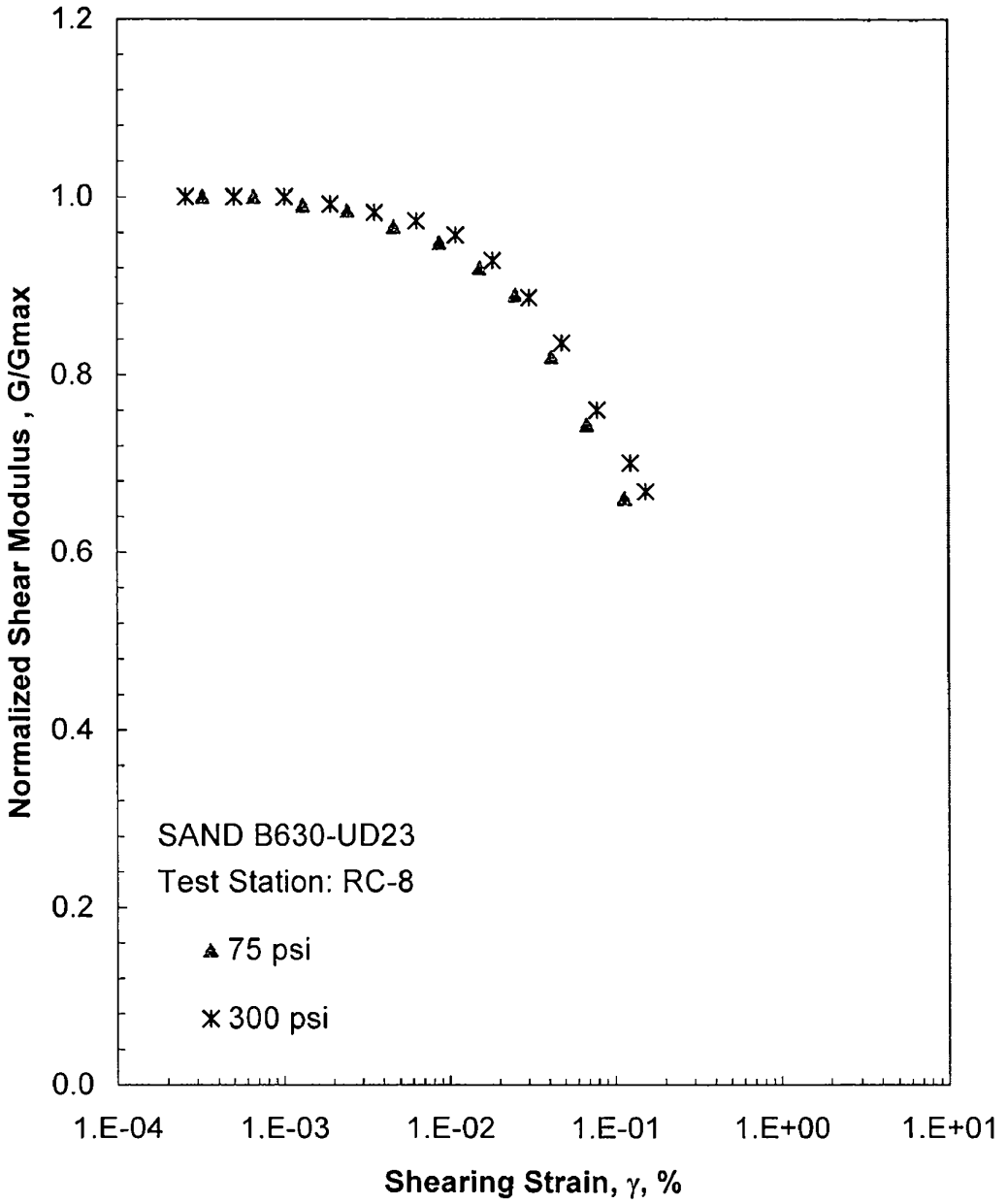


Figure F.9 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

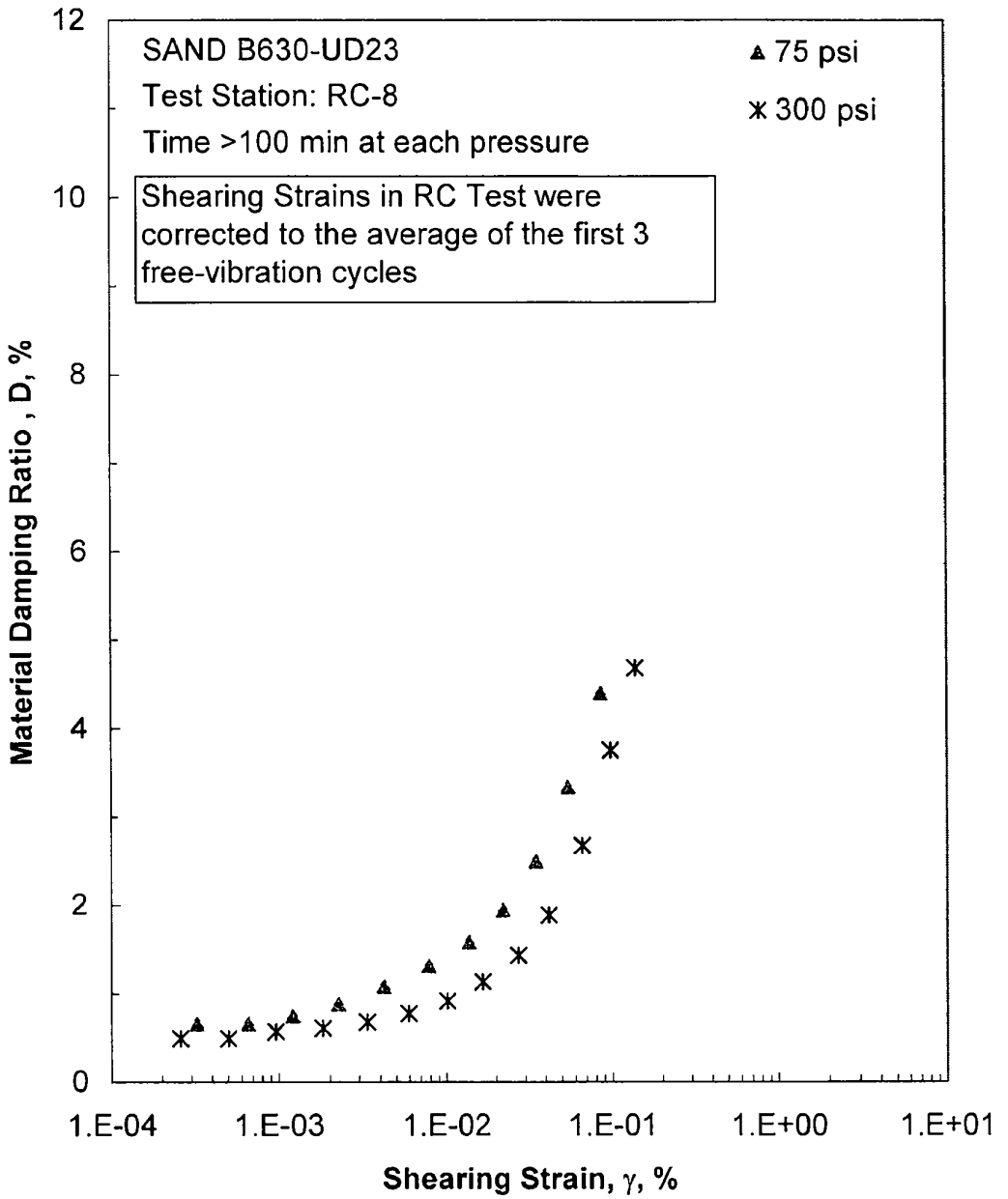


Figure F.10 Comparison of the Variation in Material Damping Ratio with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

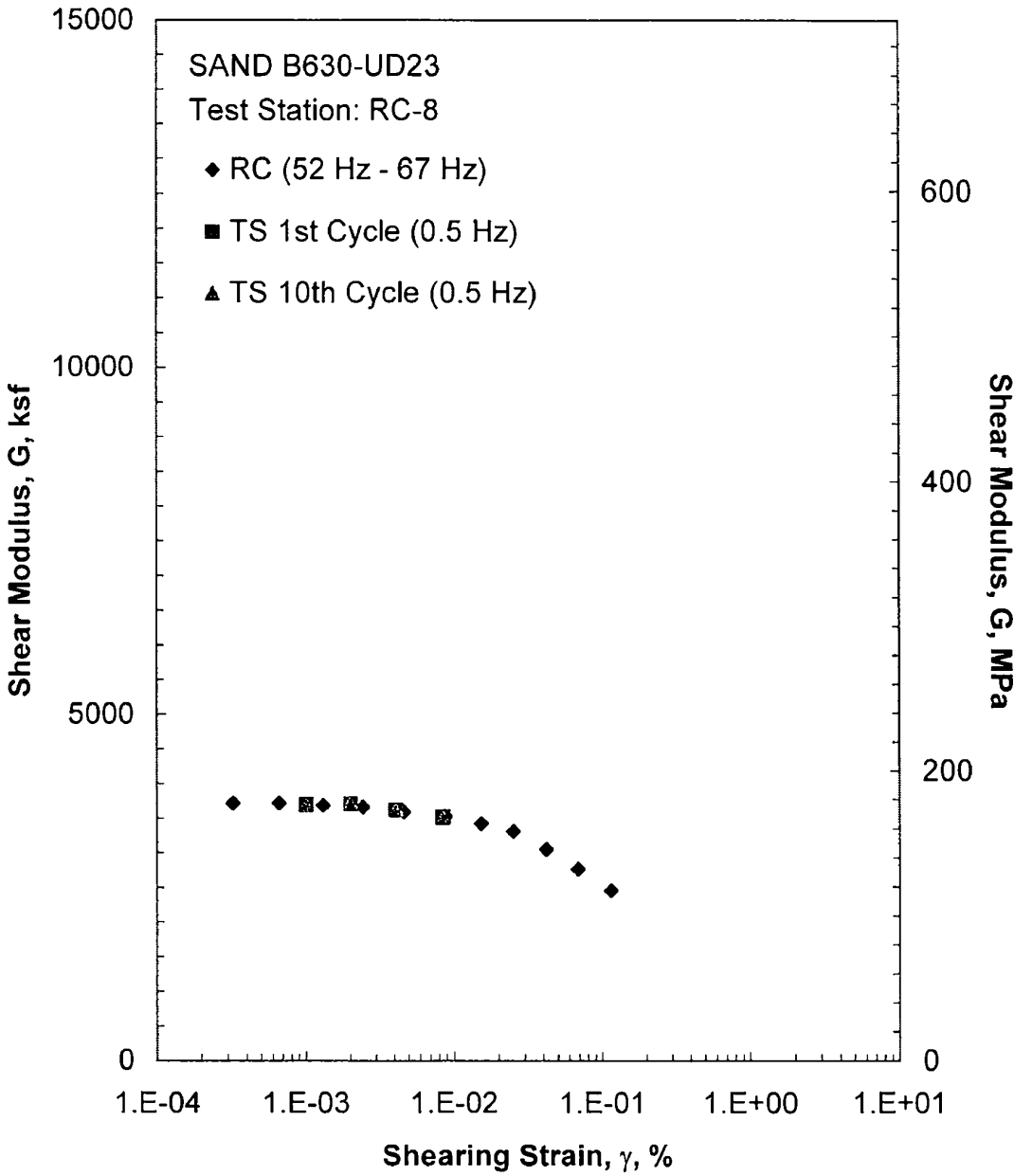


Figure F.11 Comparison of the Variation in Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 75 psi from the Combined RCTS Tests

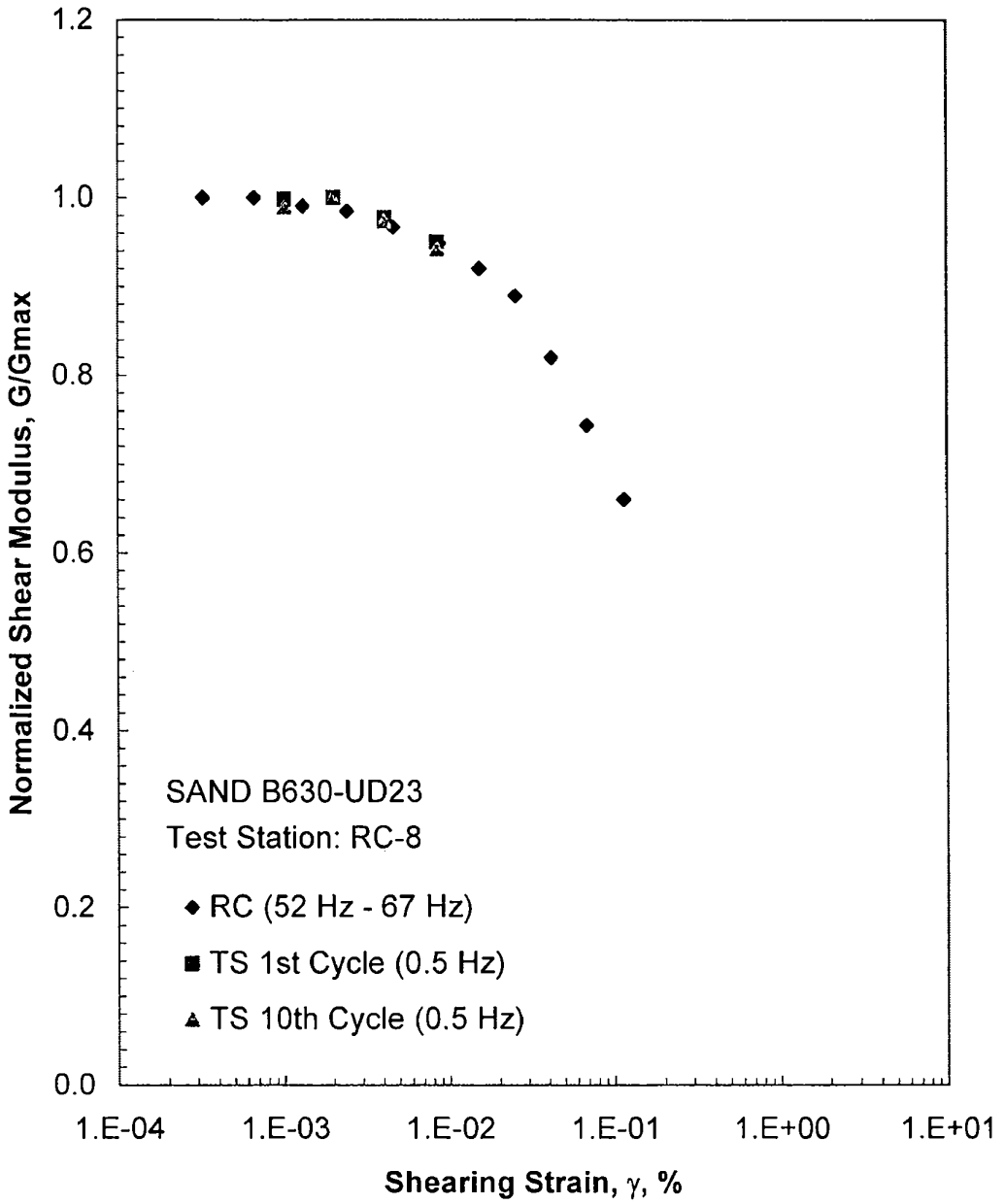


Figure F.12 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 75 psi from the Combined RCTS Tests

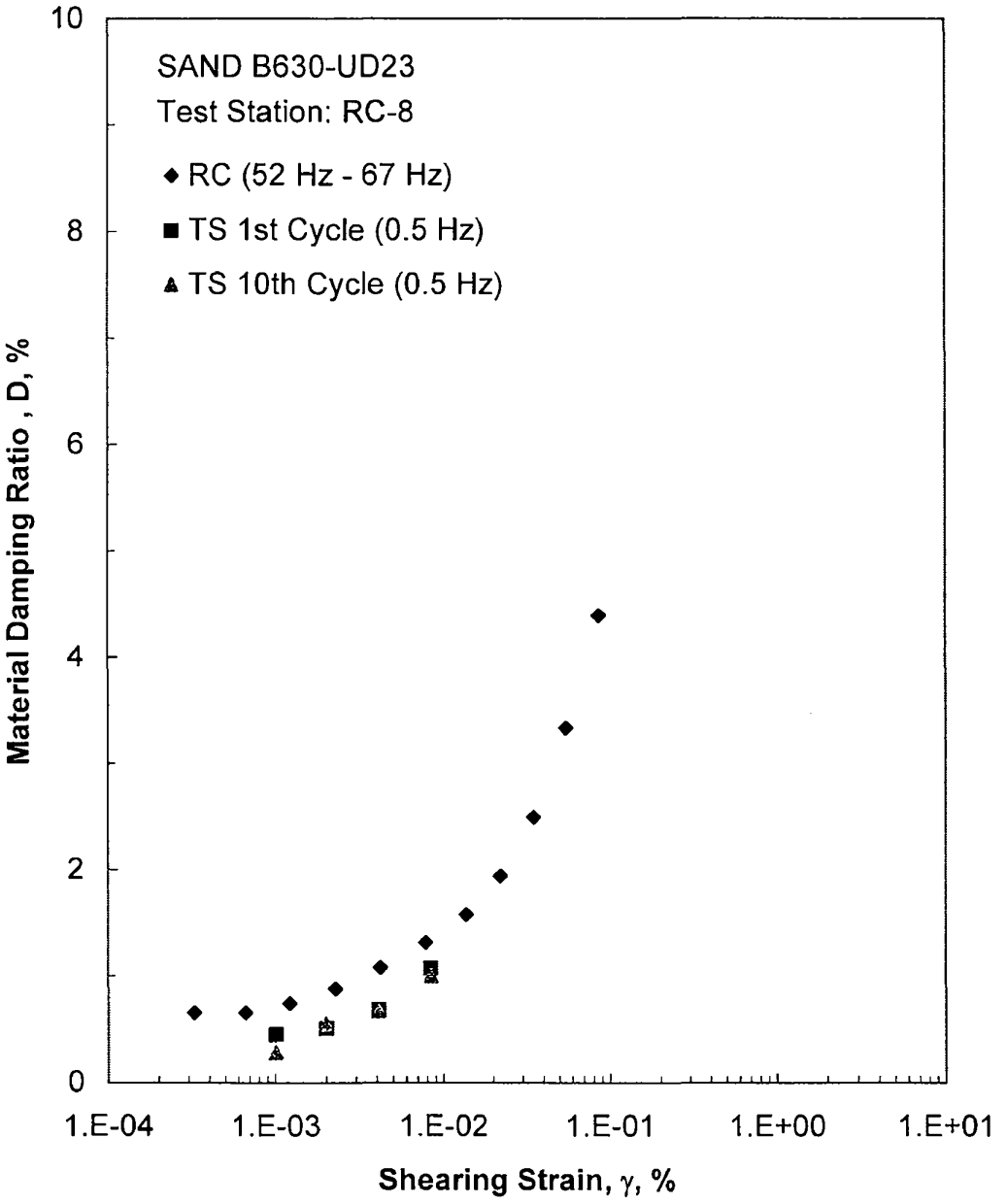


Figure F.13 Comparison of the Variation in Material Damping Ratio with Shearing Strain at an Isotropic Confining Pressure of 75 psi from the Combined RCTS Tests

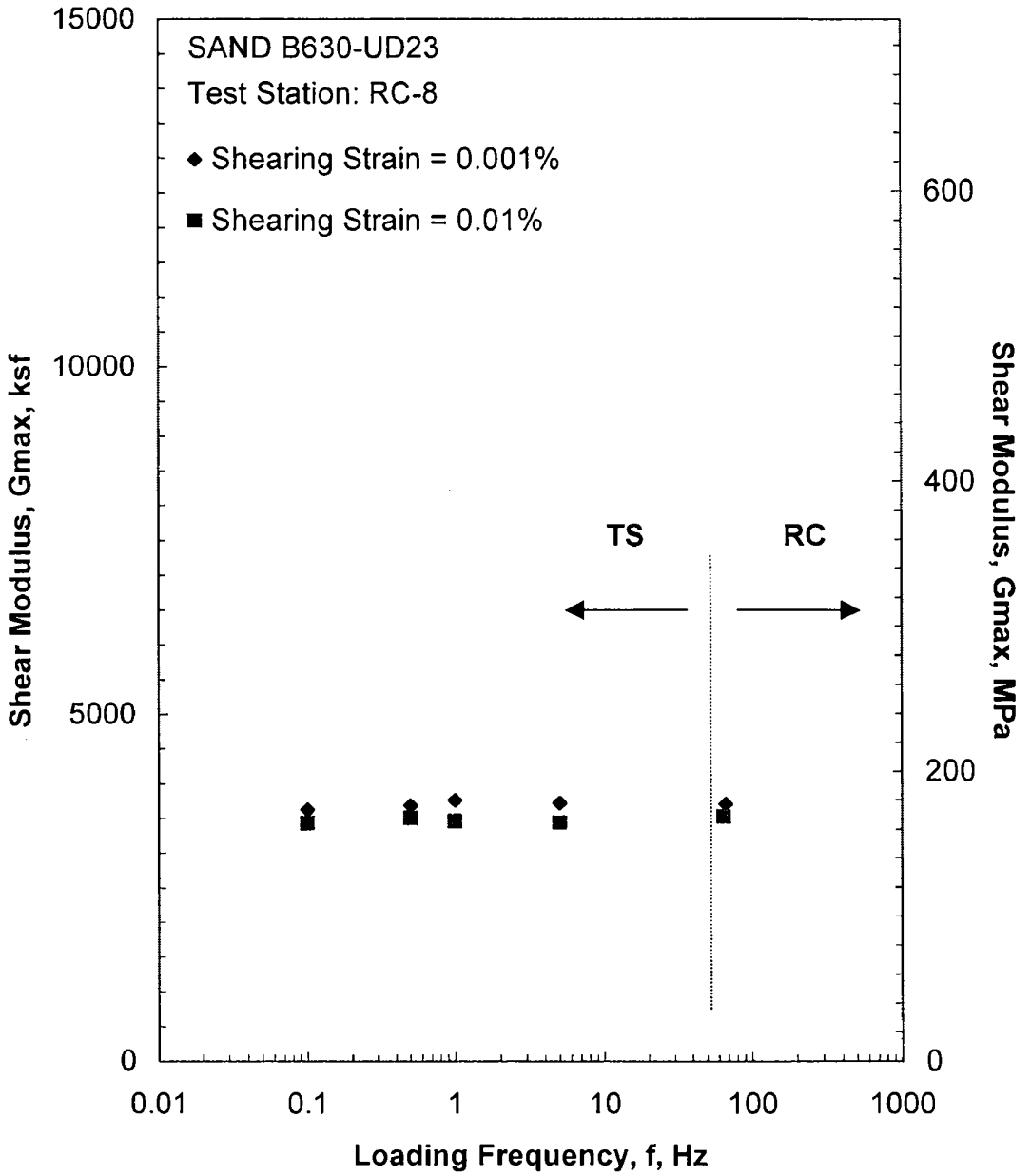


Figure F.14 Comparison of the Variation in Shear Modulus with Loading Frequency at an Isotropic Confining Pressure of 75 psi from the Combined RCTS Tests

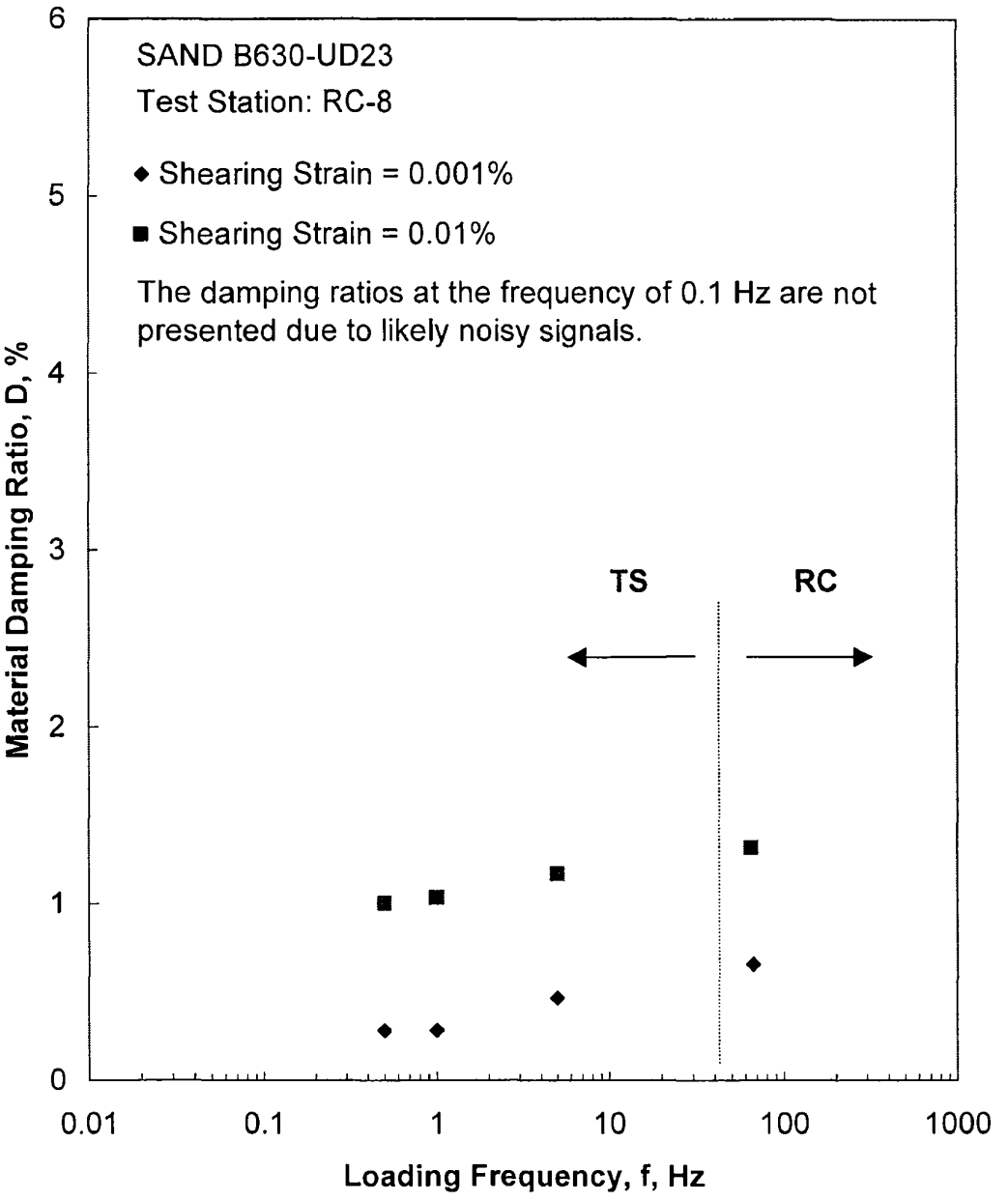


Figure F.15 Comparison of the Variation in Material Damping Ratio with Loading Frequency at an Isotropic Confining Pressure of 75 psi from the Combined RCTS Tests

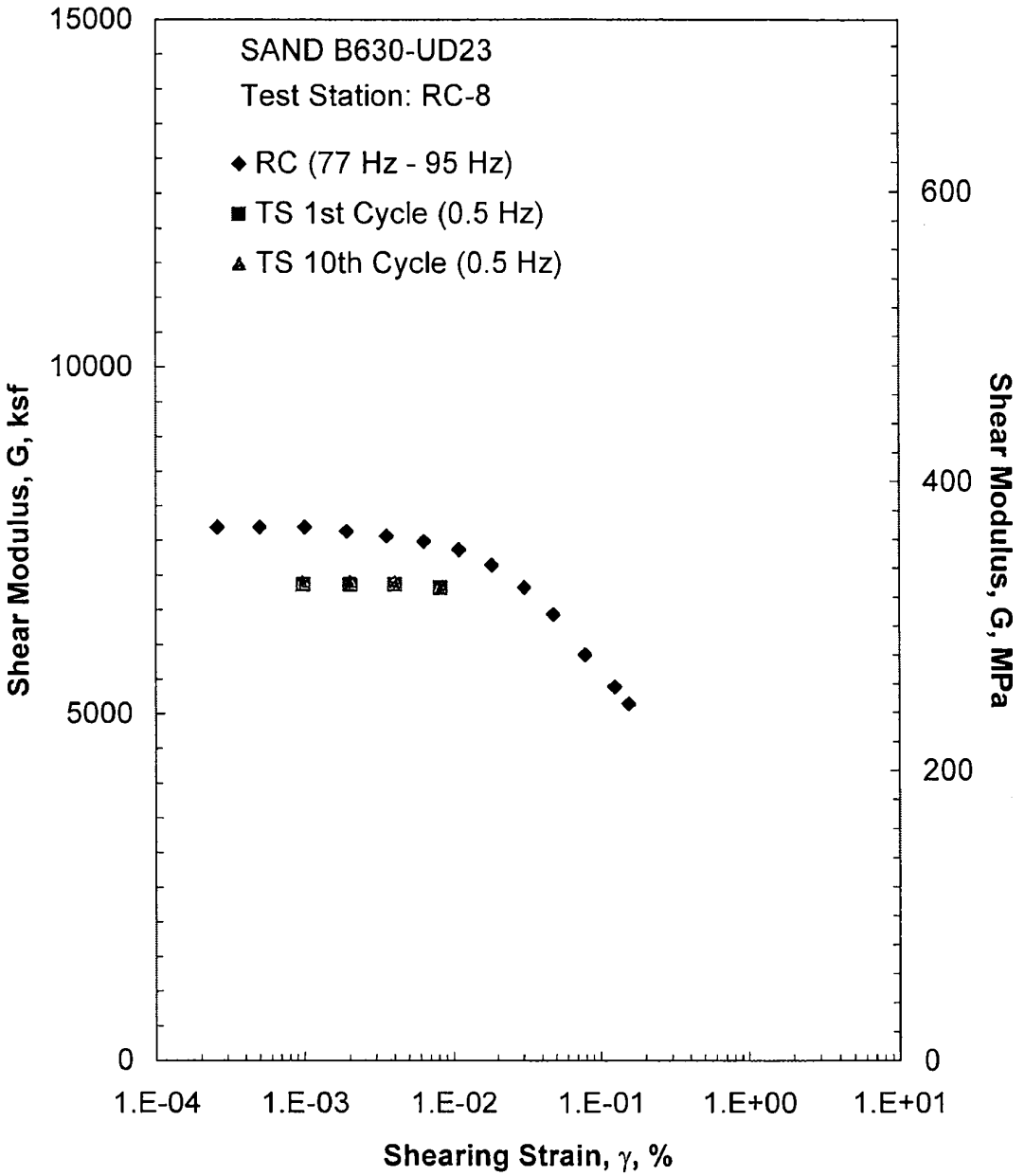


Figure F.16 Comparison of the Variation in Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 300 psi from the Combined RCTS Tests

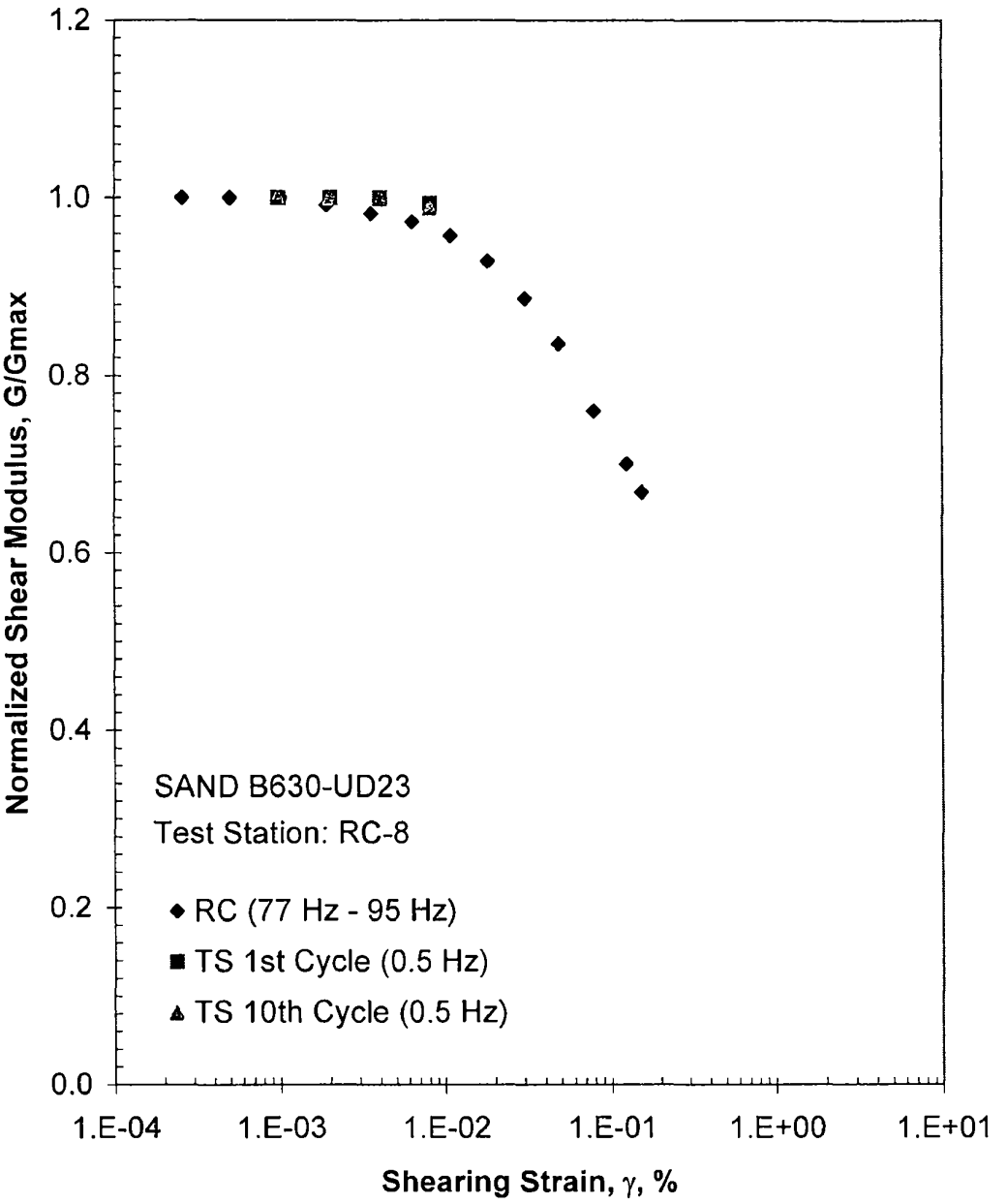


Figure F.17 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 300 psi from the Combined RCTS Tests

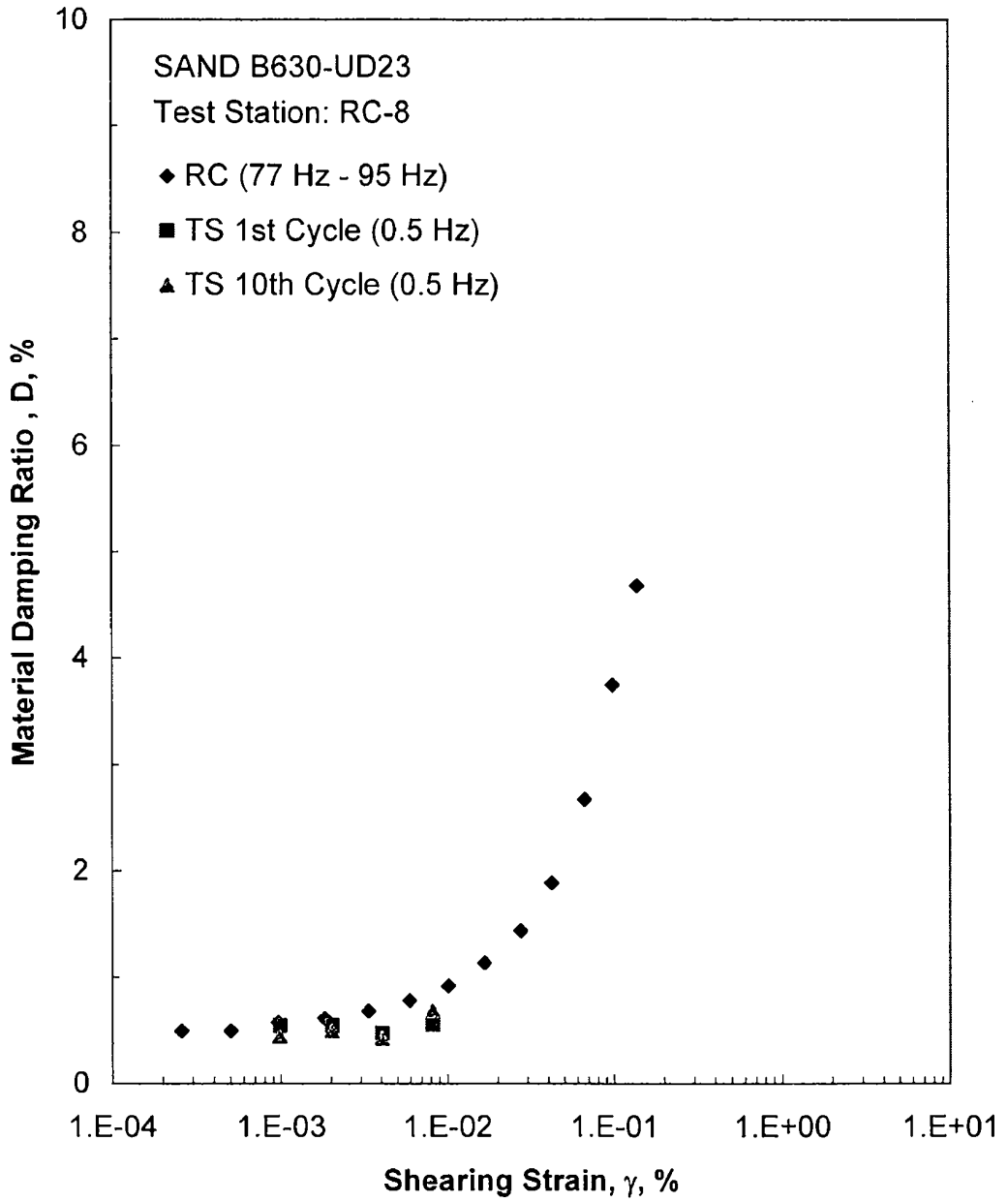


Figure F.18 Comparison of the Variation in Material Damping Ratio with Shearing Strain at an Isotropic Confining Pressure of 300 psi from the Combined RCTS Tests

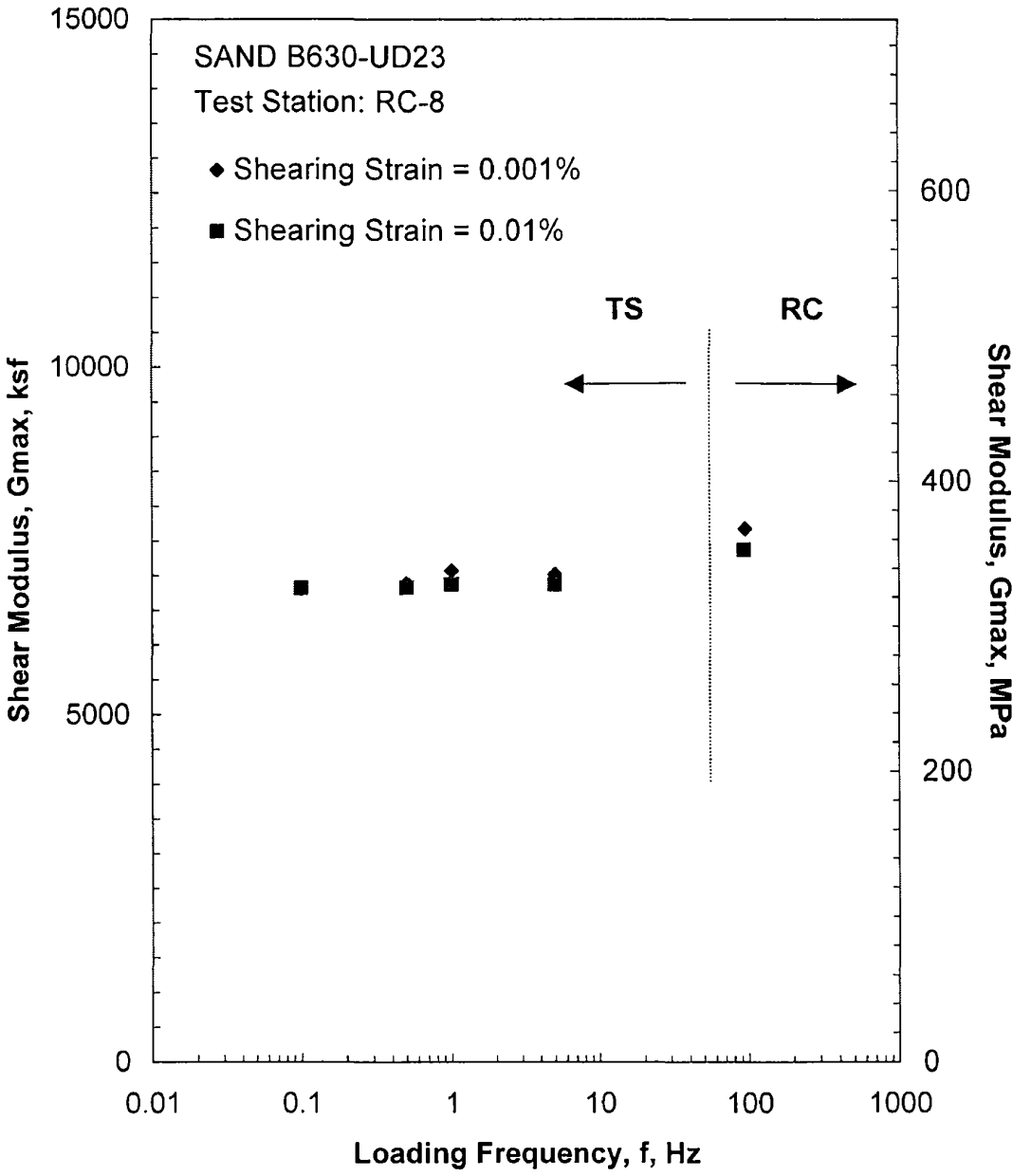


Figure F.19 Comparison of the Variation in Shear Modulus with Loading Frequency at an Isotropic Confining Pressure of 300 psi from the Combined RCTS Tests

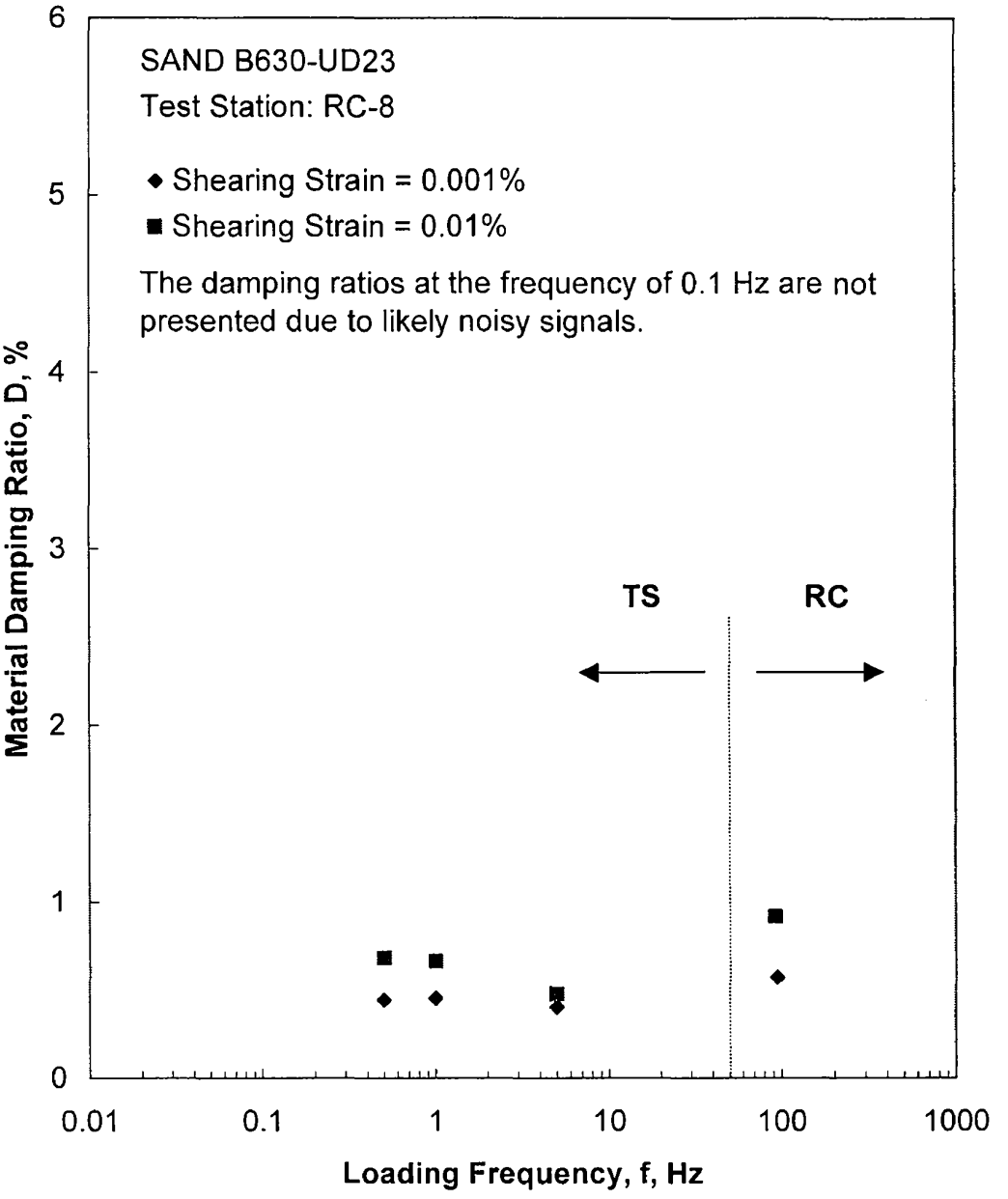


Figure F.20 Comparison of the Variation in Material Damping Ratio with Loading Frequency at an Isotropic Confining Pressure of 300 psi from the Combined RCTS Tests

Table F.1 Variation in Low-Amplitude Shear Wave Velocity, Low-Amplitude Shear Modulus, Low-Amplitude Material Damping Ratio and Estimated Void Ratio with Isotropic Confining Pressure from RC Tests of Specimen B630-UD23

Isotropic Confining Pressure, σ_o			Low-Amplitude Shear Modulus, G_{max}		Low-Amplitude Shear Wave Velocity, Vs	Low-Amplitude Material Damping Ratio, Dmin	Estimated Void Ratio, e
(psi)	(psf)	(kPa)	(ksf)	(MPa)	(fps)	(%)	
19	2736	131	1908	92	711	0.92	0.73
37	5328	255	2612	125	831	0.79	0.73
75	10800	517	3742	180	993	0.66	0.72
150	21600	1034	5405	259	1191	0.57	0.71
300	43200	2067	7663	368	1409	0.49	0.69

Table F.2 Variation in Shear Modulus and Material Damping Ratio with Shearing Strain from RC Tests of Specimen B630-UD23; Isoptropic Confining Pressure, σ_o= 75 psi (10.8 ksf = 517 kPa)

Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Average[+] Shearing Strain, %	Material Damping Ratio[x], D, %
3.24E-04	3713	1.00	3.24E-04	0.66
6.60E-04	3713	1.00	6.60E-04	0.66
1.30E-03	3679	0.99	1.21E-03	0.74
2.43E-03	3656	0.98	2.26E-03	0.88
4.62E-03	3589	0.97	4.21E-03	1.08
8.71E-03	3523	0.95	7.83E-03	1.31
1.52E-02	3417	0.92	1.37E-02	1.58
2.50E-02	3302	0.89	2.20E-02	1.94
4.17E-02	3043	0.82	3.50E-02	2.49
6.85E-02	2760	0.74	5.48E-02	3.33
1.14E-01	2451	0.66	8.59E-02	4.39

[+] Average Shearing Strain from the First Three Cycles of the Free Vibration Decay Curve

[x] Average Damping Ratio from the First Three Cycles of the Free Vibration Decay Curve

Table F.3 Variation in Shear Modulus, Normalized Shear Modulus and Material Damping Ratio with Shearing Strain from TS Tests of Specimen B630-UD23; Isotropic Confining Pressure, σ_o= 75 psi (10.8 ksf = 517 kPa)

First Cycle				Tenth Cycle			
Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %	Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %
1.00E-03	3694	1.00	0.45	1.01E-03	3677	0.99	0.28
2.00E-03	3700	1.00	0.51	2.00E-03	3715	1.00	0.55
4.09E-03	3616	0.98	0.68	4.10E-03	3617	0.97	0.67
8.43E-03	3515	0.95	1.07	8.47E-03	3500	0.94	1.00

Table F.4 Variation in Shear Modulus and Material Damping Ratio with Shearing Strain from RC Tests of Specimen B630-UD23; Isoptropic Confining Pressure, σ_o= 300 psi (43.2 ksf = 2067 kPa)

Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Average[+] Shearing Strain, %	Material Damping Ratio[x], D, %
2.58E-04	7696	1.00	2.58E-04	0.49
5.02E-04	7696	1.00	5.02E-04	0.49
1.01E-03	7696	1.00	9.61E-04	0.57
1.92E-03	7635	0.99	1.82E-03	0.61
3.55E-03	7562	0.98	3.34E-03	0.68
6.32E-03	7489	0.97	5.94E-03	0.78
1.09E-02	7365	0.96	1.01E-02	0.91
1.82E-02	7146	0.93	1.66E-02	1.13
3.04E-02	6822	0.89	2.73E-02	1.43
4.81E-02	6430	0.84	4.19E-02	1.88
7.89E-02	5847	0.76	6.63E-02	2.67
1.24E-01	5386	0.70	9.81E-02	3.75
1.54E-01	5138	0.67	1.38E-01	4.68

[+] Average Shearing Strain from the First Three Cycles of the Free Vibration Decay Curve

[x] Average Damping Ratio from the First Three Cycles of the Free Vibration Decay Curve

Table F.5 Variation in Shear Modulus, Normalized Shear Modulus and Material Damping Ratio with Shearing Strain from TS Tests of Specimen B630-UD23; Isotropic Confining Pressure, σ_o= 168 psi (43.2 ksf = 2067 kPa)

First Cycle				Tenth Cycle			
Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %	Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %
9.87E-04	6865	1.00	0.54	9.81E-04	6898	1.00	0.44
2.02E-03	6865	1.00	0.54	2.01E-03	6898	1.00	0.49
4.05E-03	6865	1.00	0.47	4.04E-03	6893	1.00	0.42
8.17E-03	6817	0.99	0.55	8.17E-03	6820	0.99	0.68

APPENDIX G

Specimen B630-UD27

Borehole 630
Sample UD27
Depth = 294.0 ft (89.6m)
Total Unit Weight = 121.3 lb/ft^3
Water Content = 25.5 %
Estimated In-Situ Ko = 0.5
Estimated In-Situ Mean Effective Stress = 84 psi

FUGRO JOB #: 0411-08-1701
Testing Station: RC8

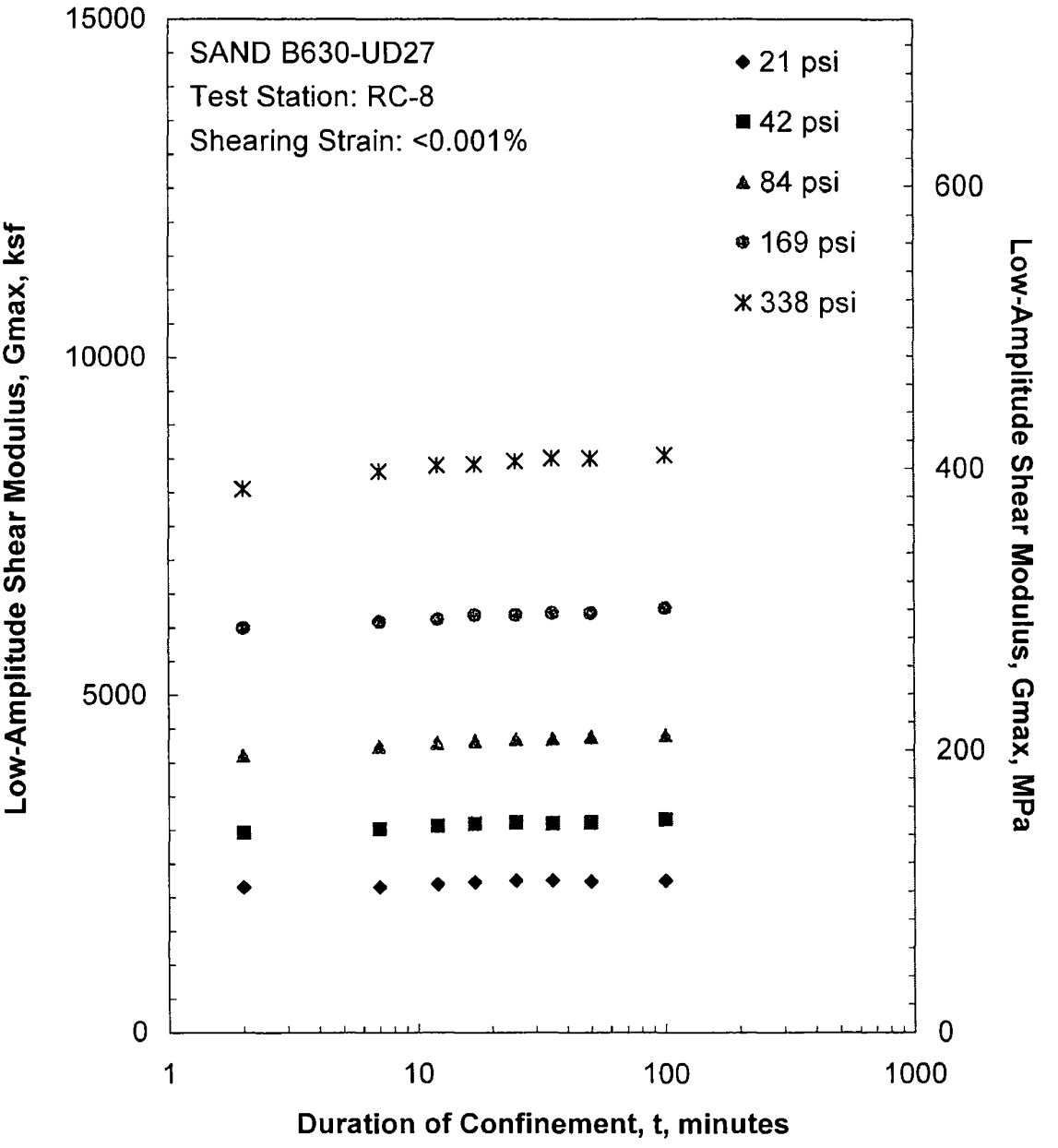


Figure G.1 Variation in Low-Amplitude Shear Modulus with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

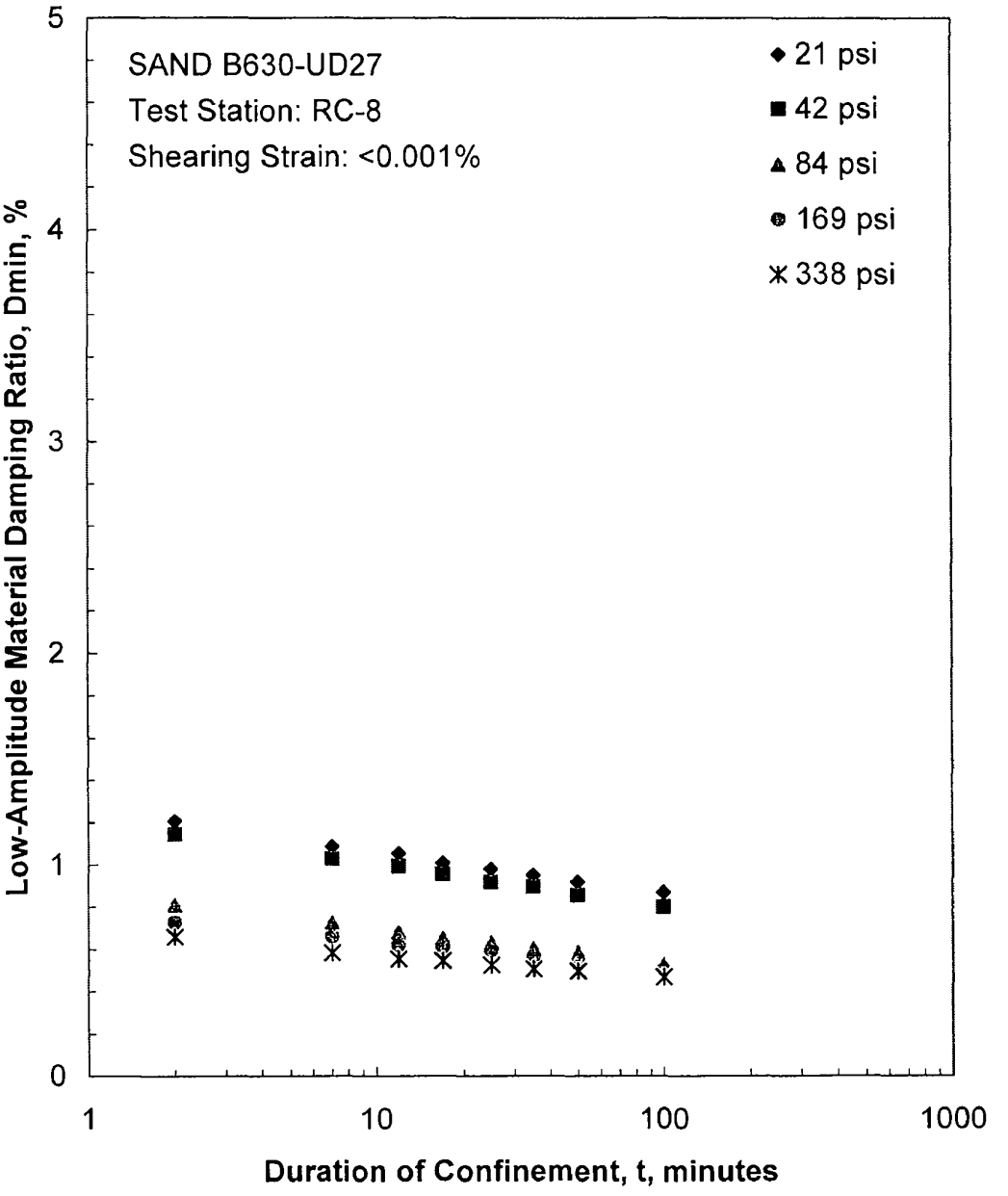


Figure G.2 Variation in Low-Amplitude Material Damping Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

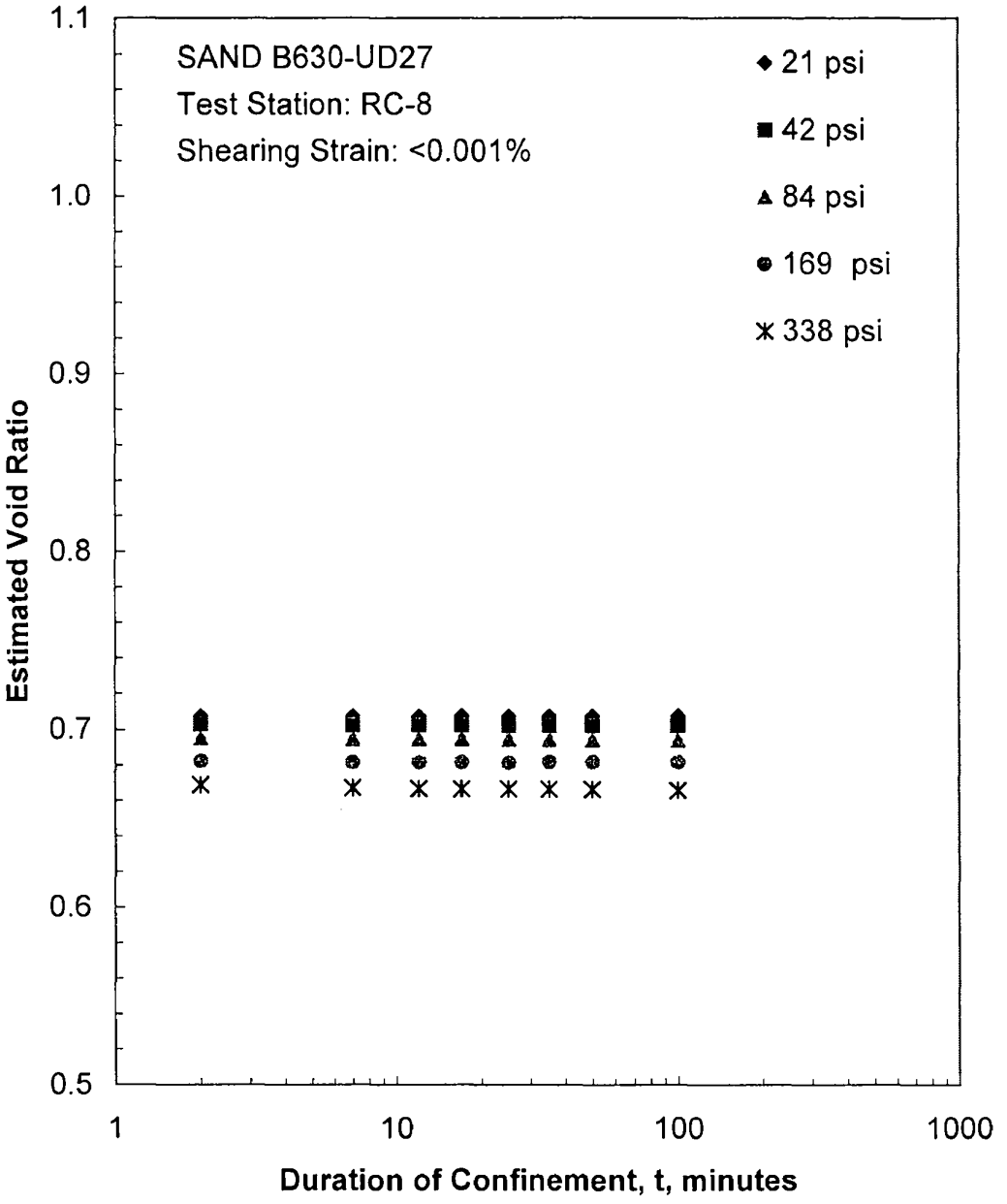


Figure G.3 Variation in Estimated Void Ratio with Magnitude and Duration of Isotropic Confining Pressure from Resonant Column Tests

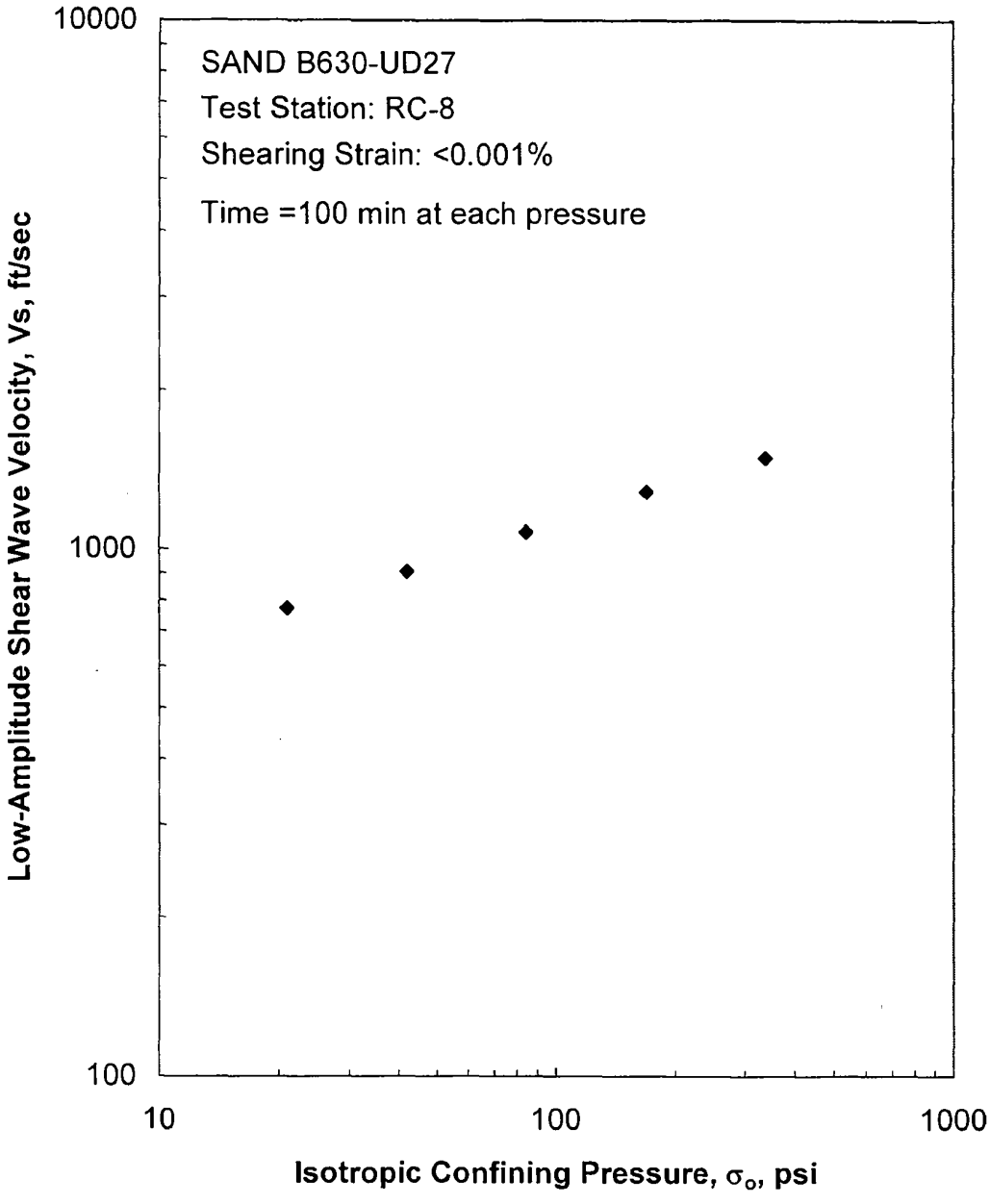


Figure G.4 Variation in Low-Amplitude Shear Wave Velocity with Isotropic Confining Pressure from Resonant Column Tests

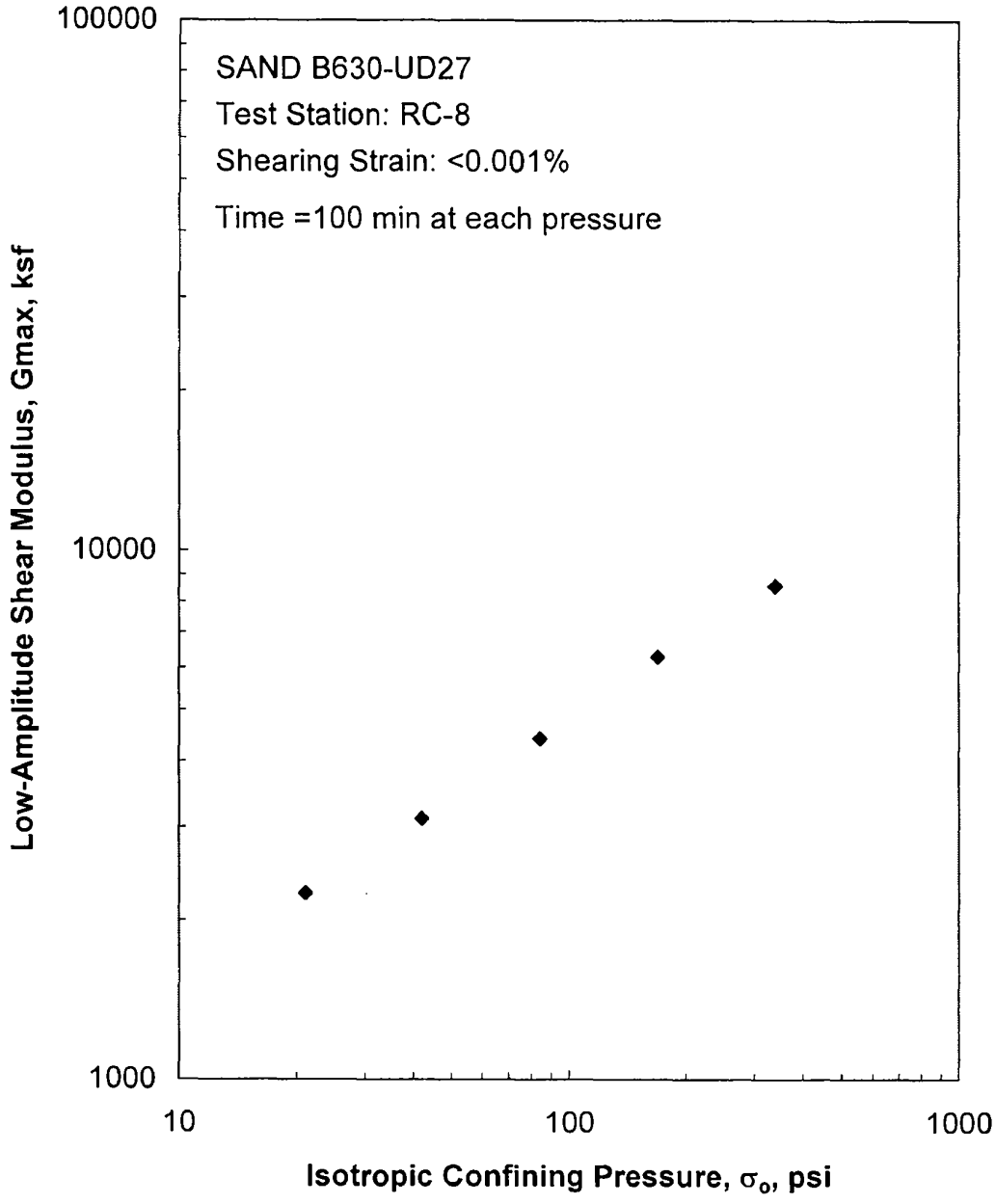


Figure G.5 Variation in Low-Amplitude Shear Modulus with Isotropic Confining Pressure from Resonant Column Tests

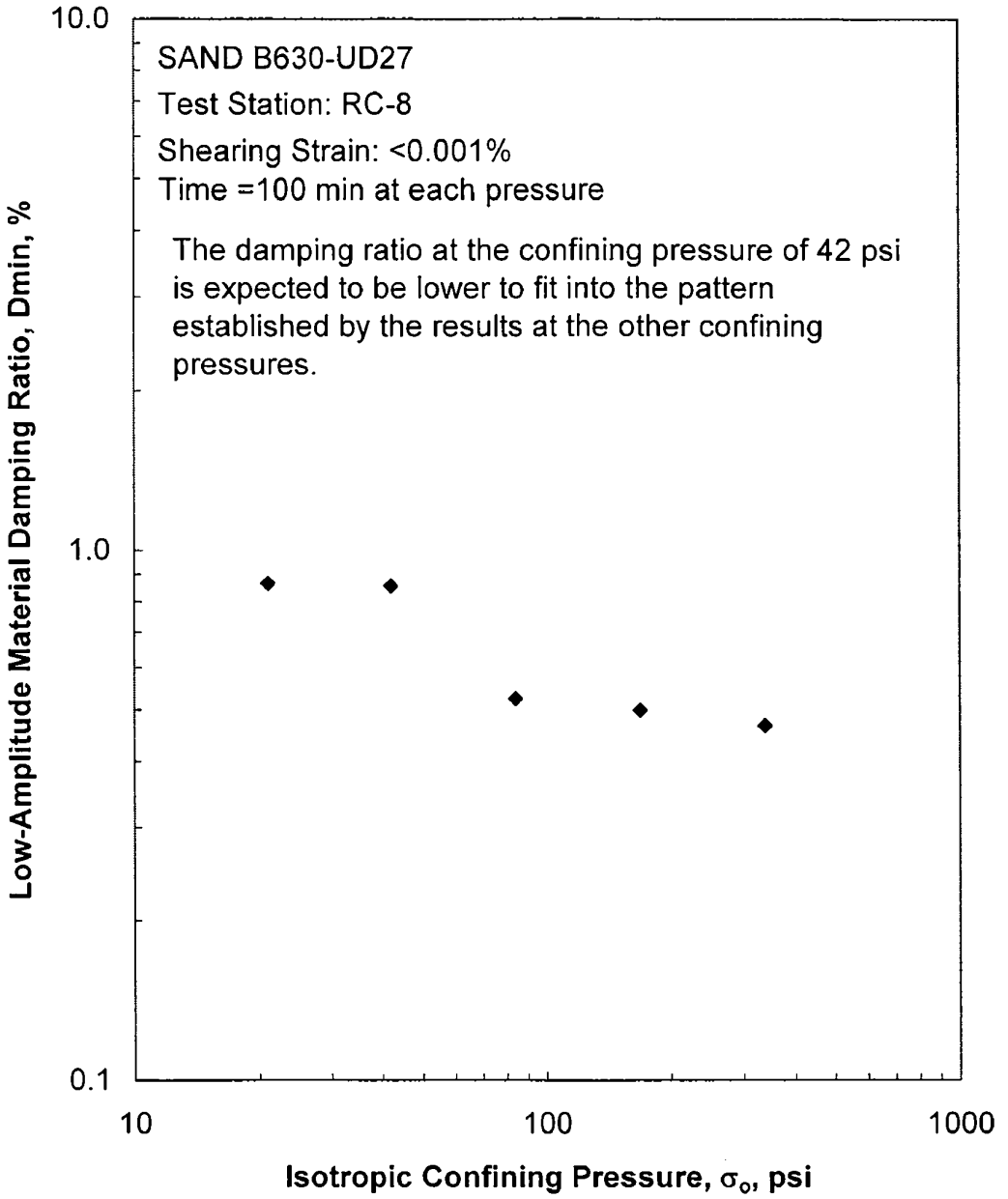


Figure G.6 Variation in Low-Amplitude Material Damping Ratio with Isotropic Confining Pressure from Resonant Column Tests

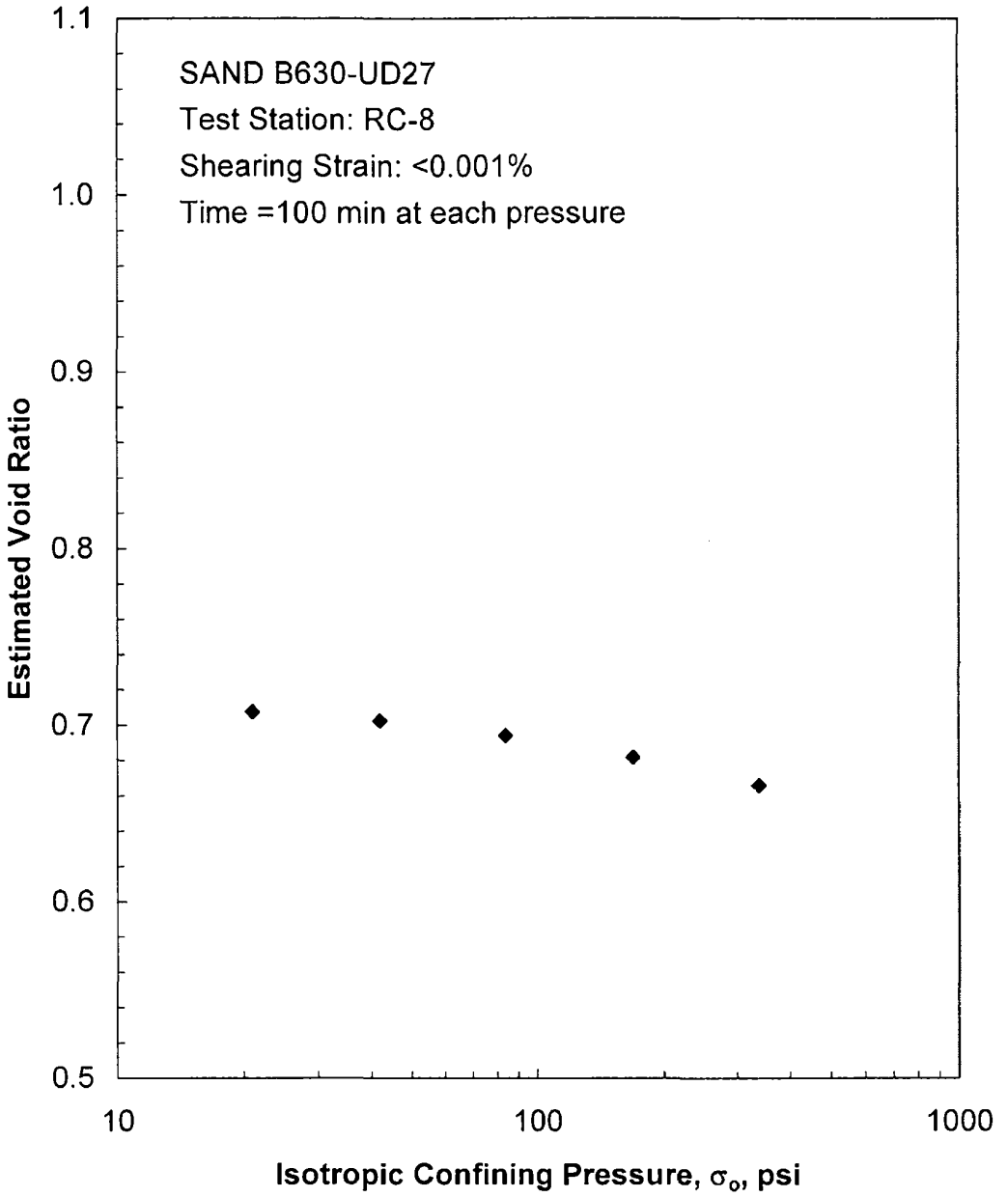


Figure G.7 Variation in Estimated Void Ratio with Isotropic Confining Pressure from Resonant Column Tests

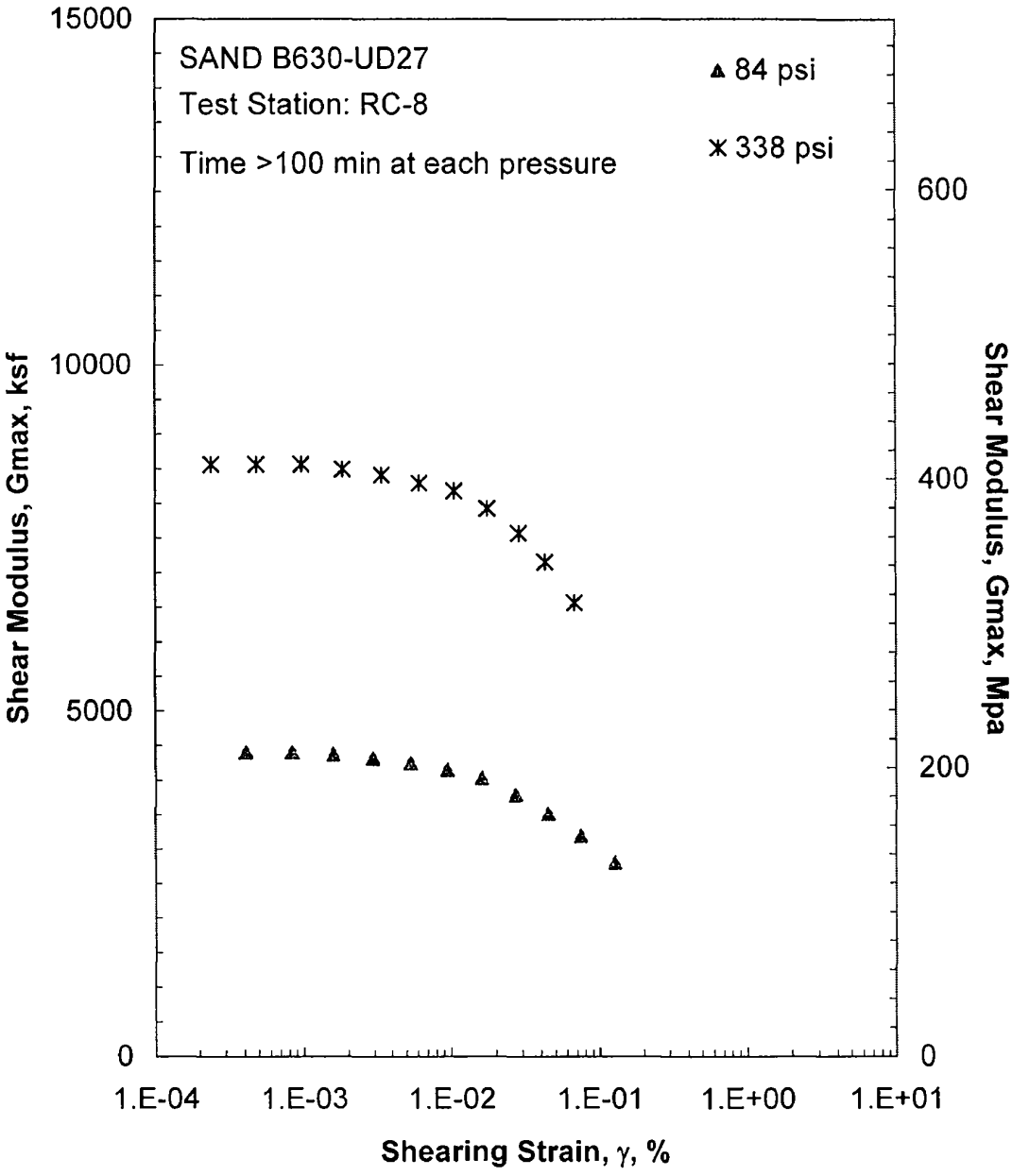


Figure G.8 Comparison of the Variation in Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

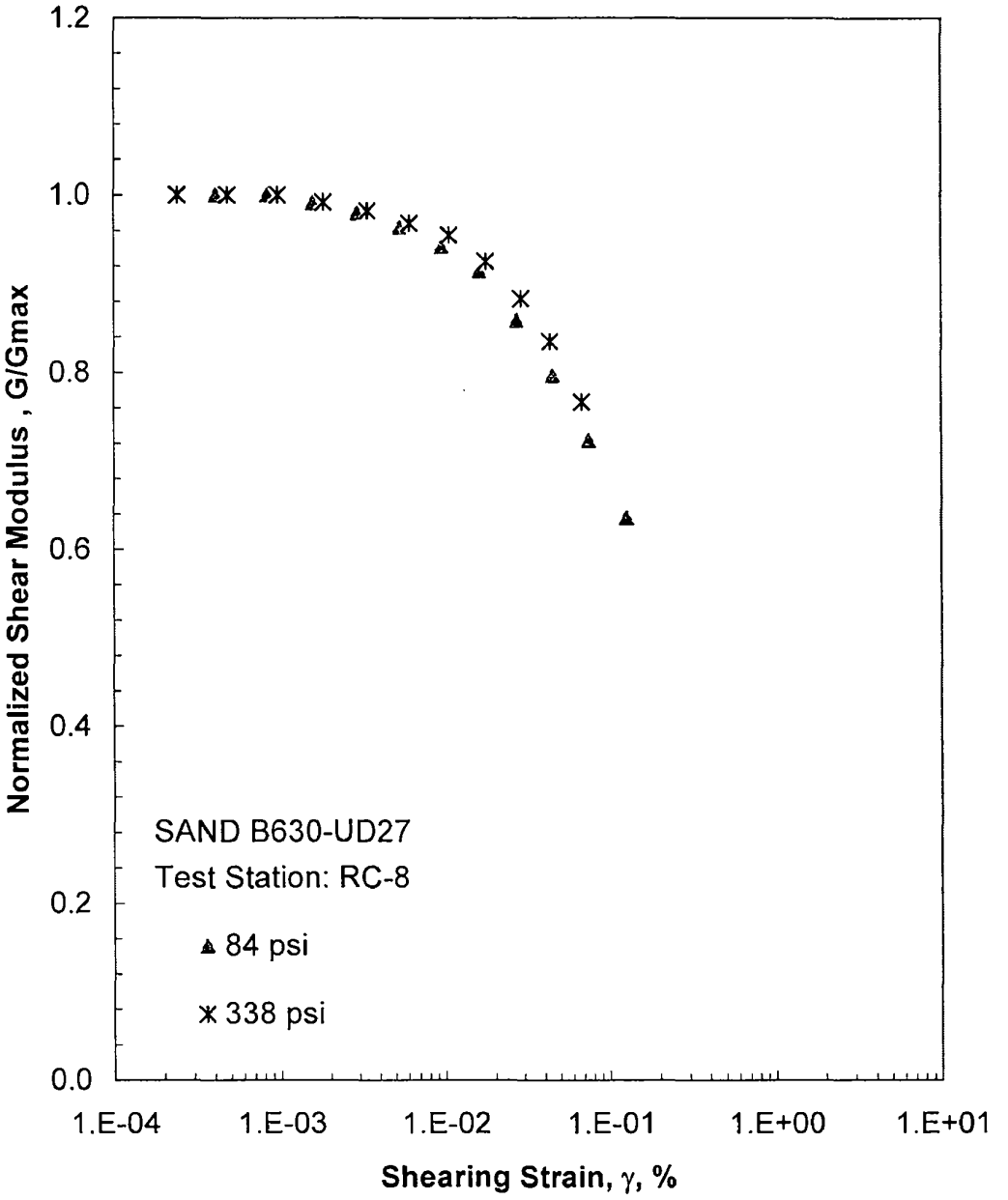


Figure G.9 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

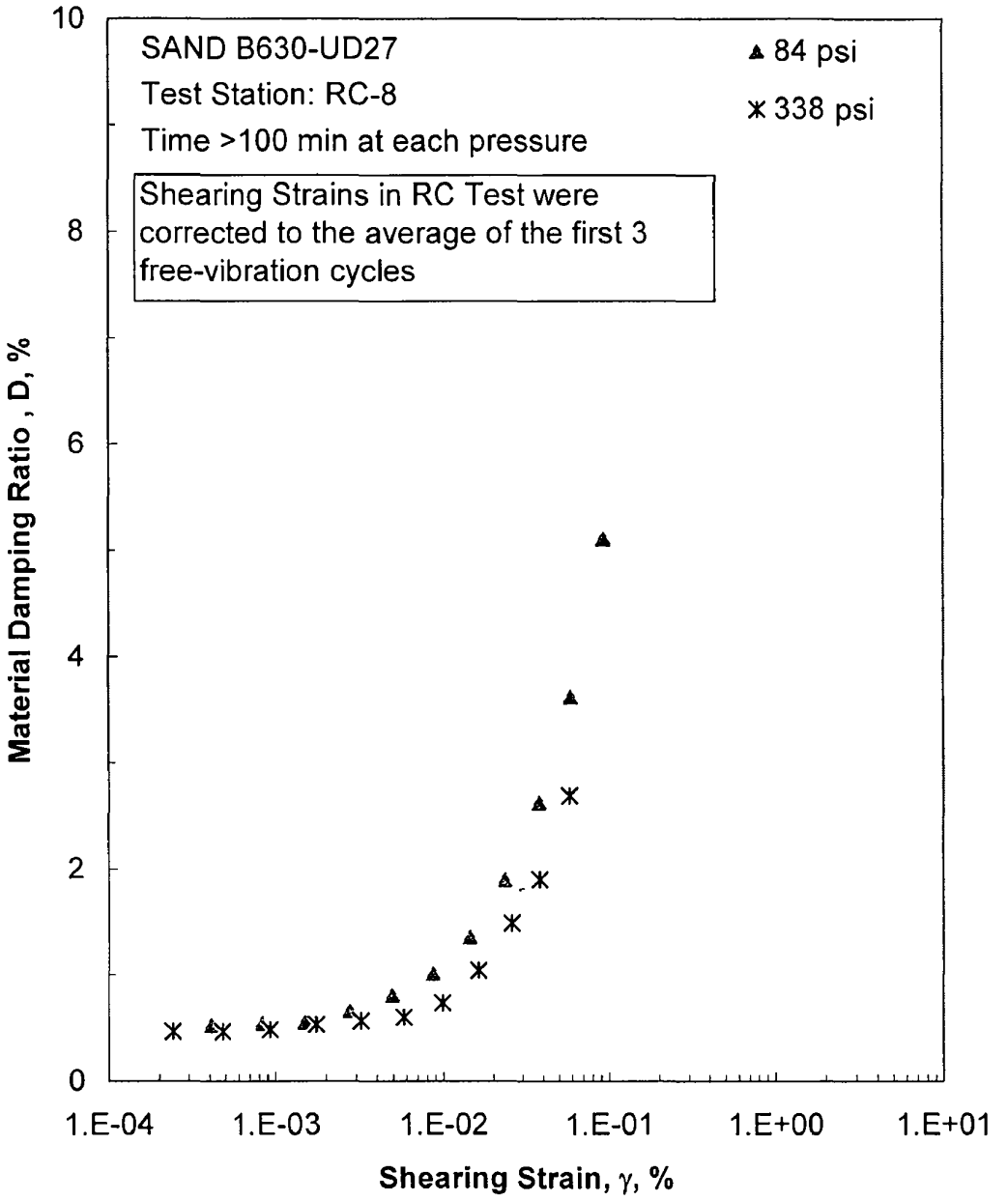


Figure G.10 Comparison of the Variation in Material Damping Ratio with Shearing Strain and Isotropic Confining Pressure from the Resonant Column Tests

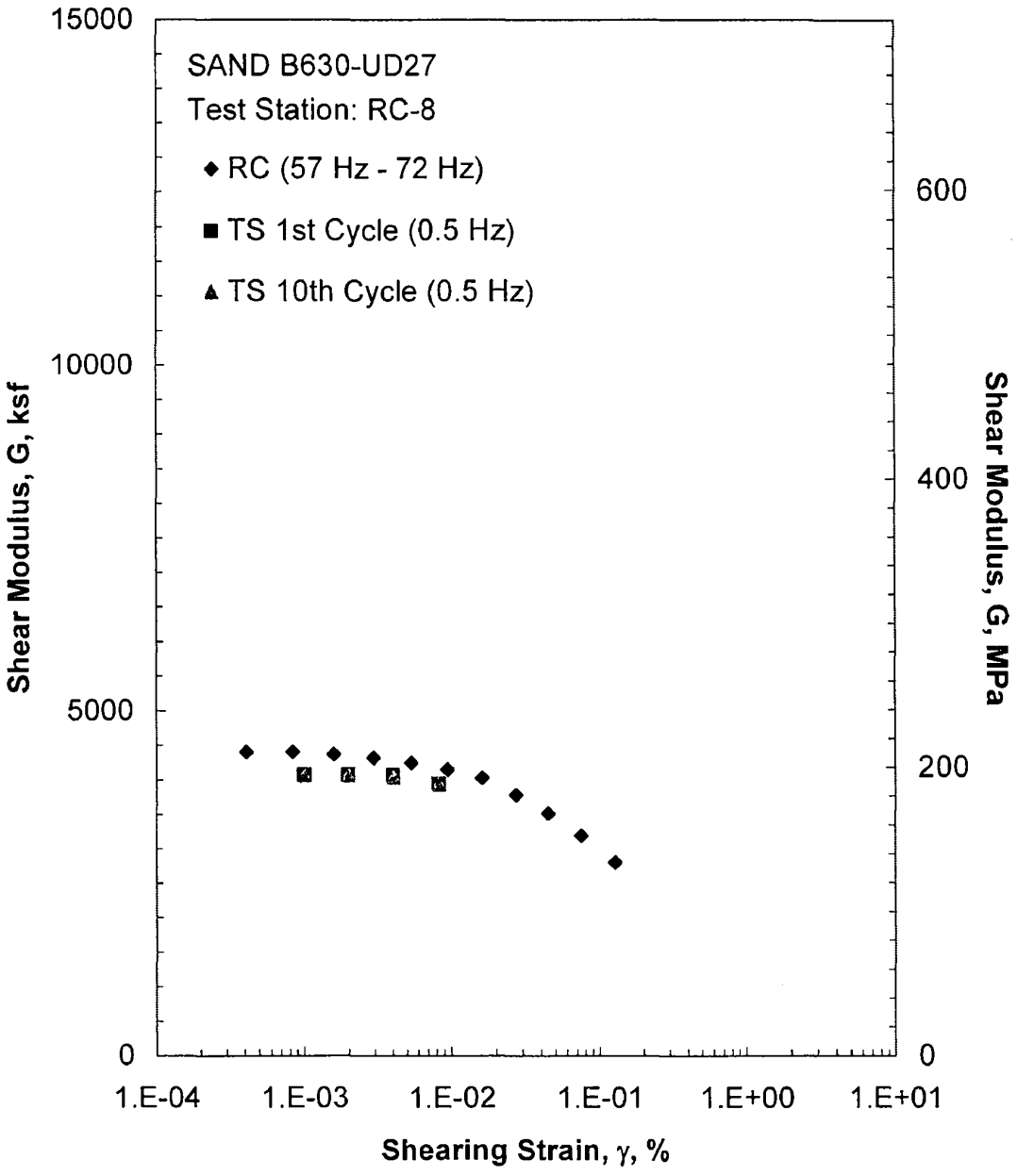


Figure G.11 Comparison of the Variation in Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 84 psi from the Combined RCTS Tests

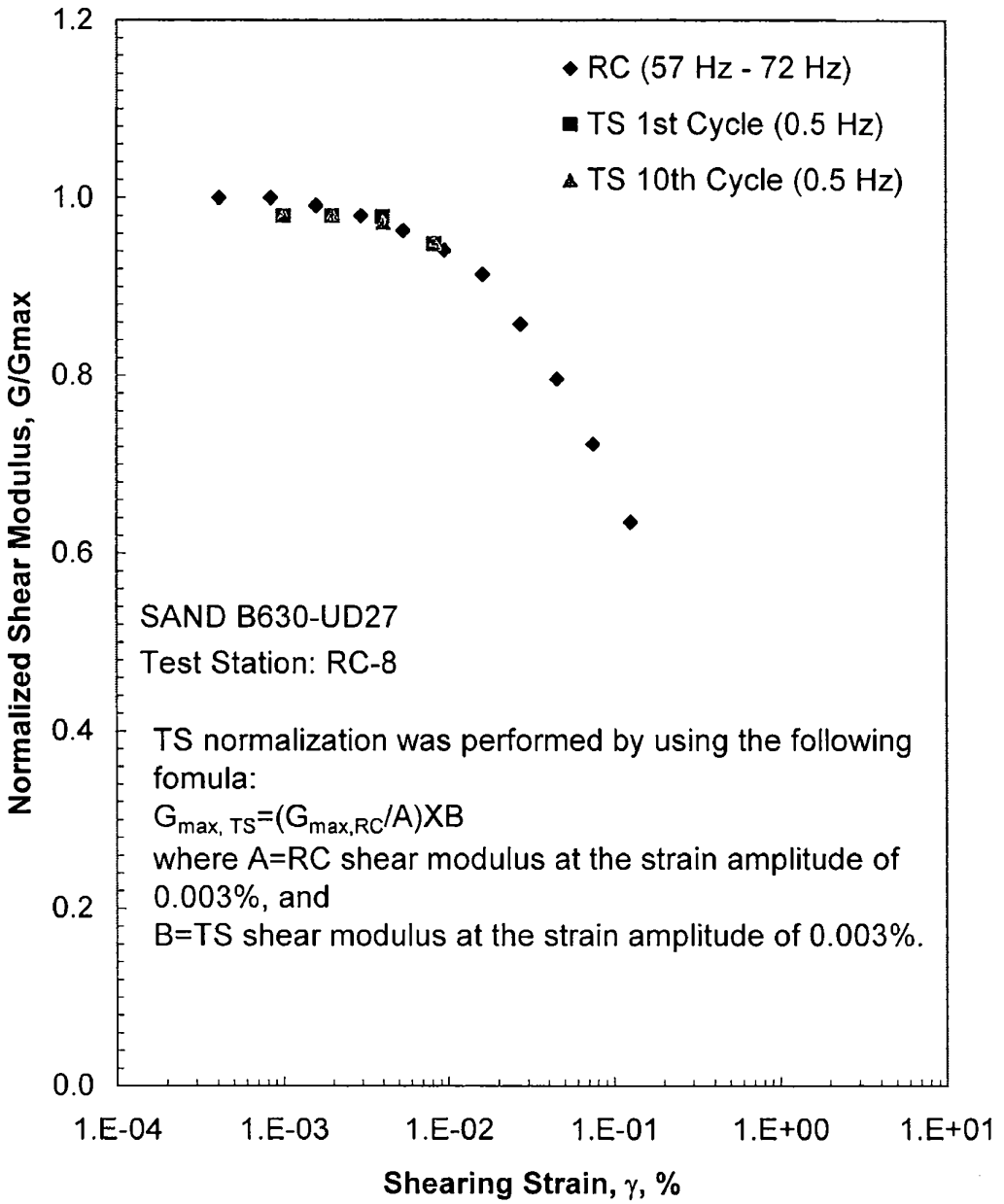


Figure G.12 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 84 psi from the Combined RCTS Tests

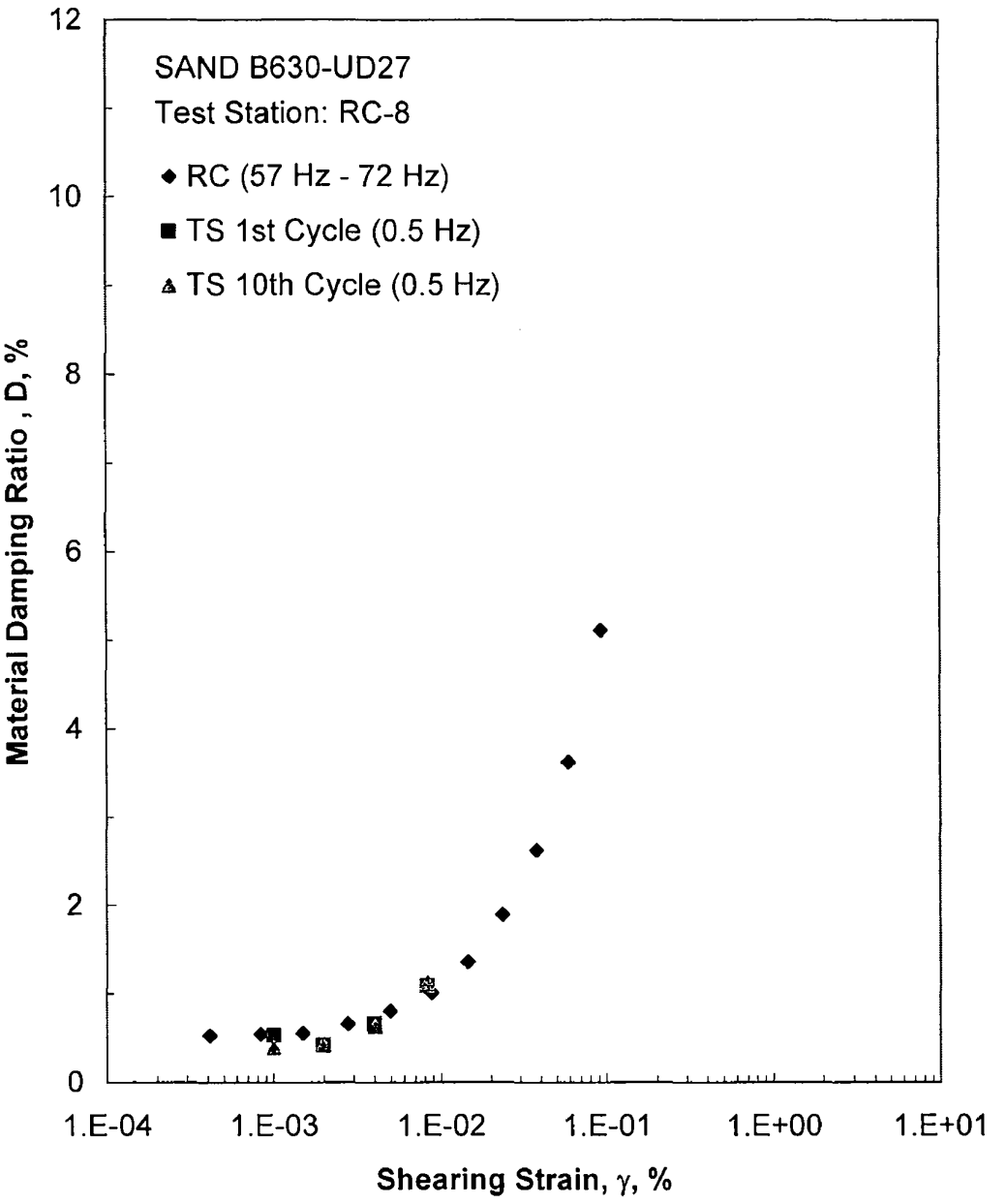


Figure G.13 Comparison of the Variation in Material Damping Ratio with Shearing Strain at an Isotropic Confining Pressure of 84 psi from the Combined RCTS Tests

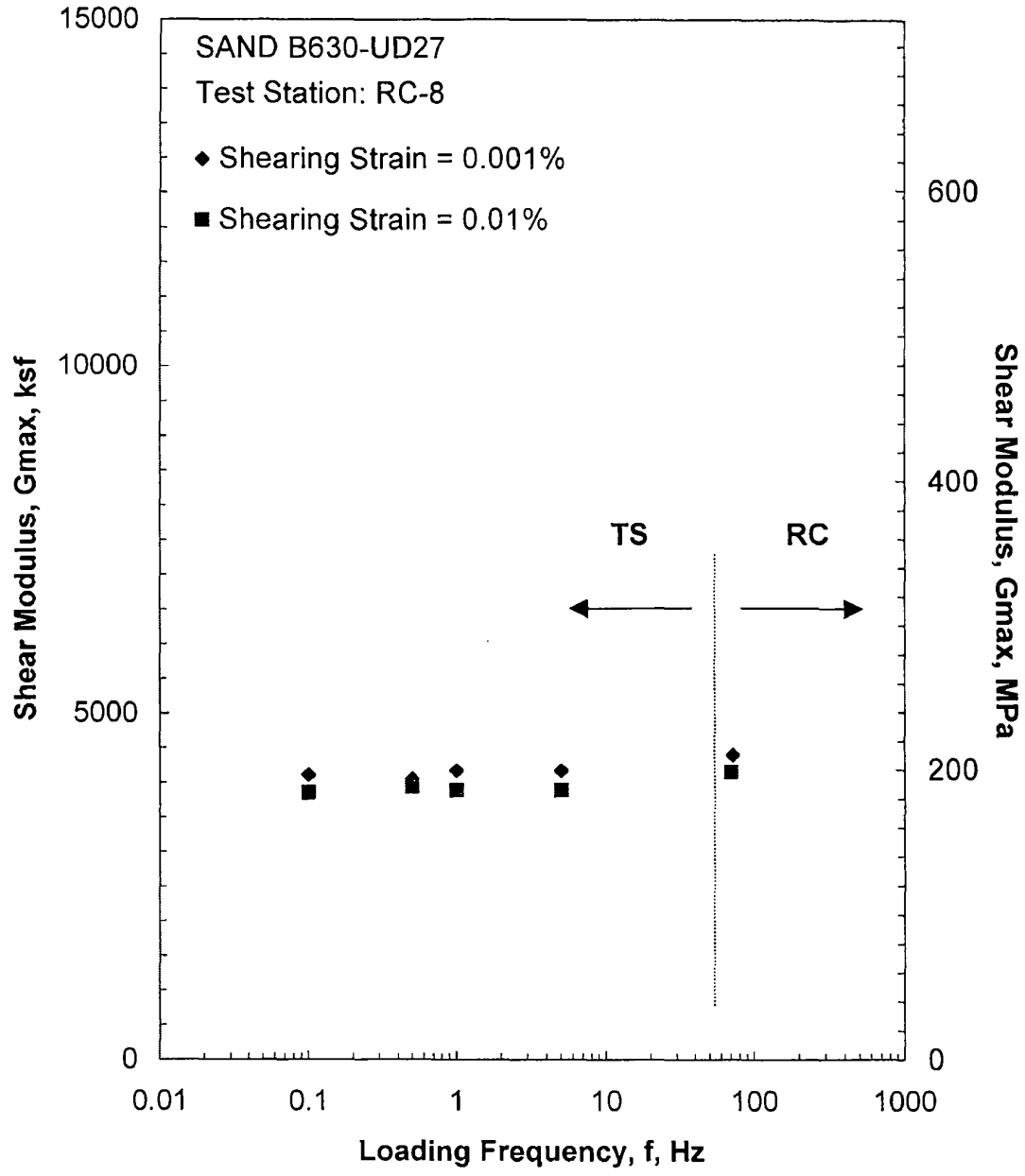


Figure G.14 Comparison of the Variation in Shear Modulus with Loading Frequency at an Isotropic Confining Pressure of 84 psi from the Combined RCTS Tests

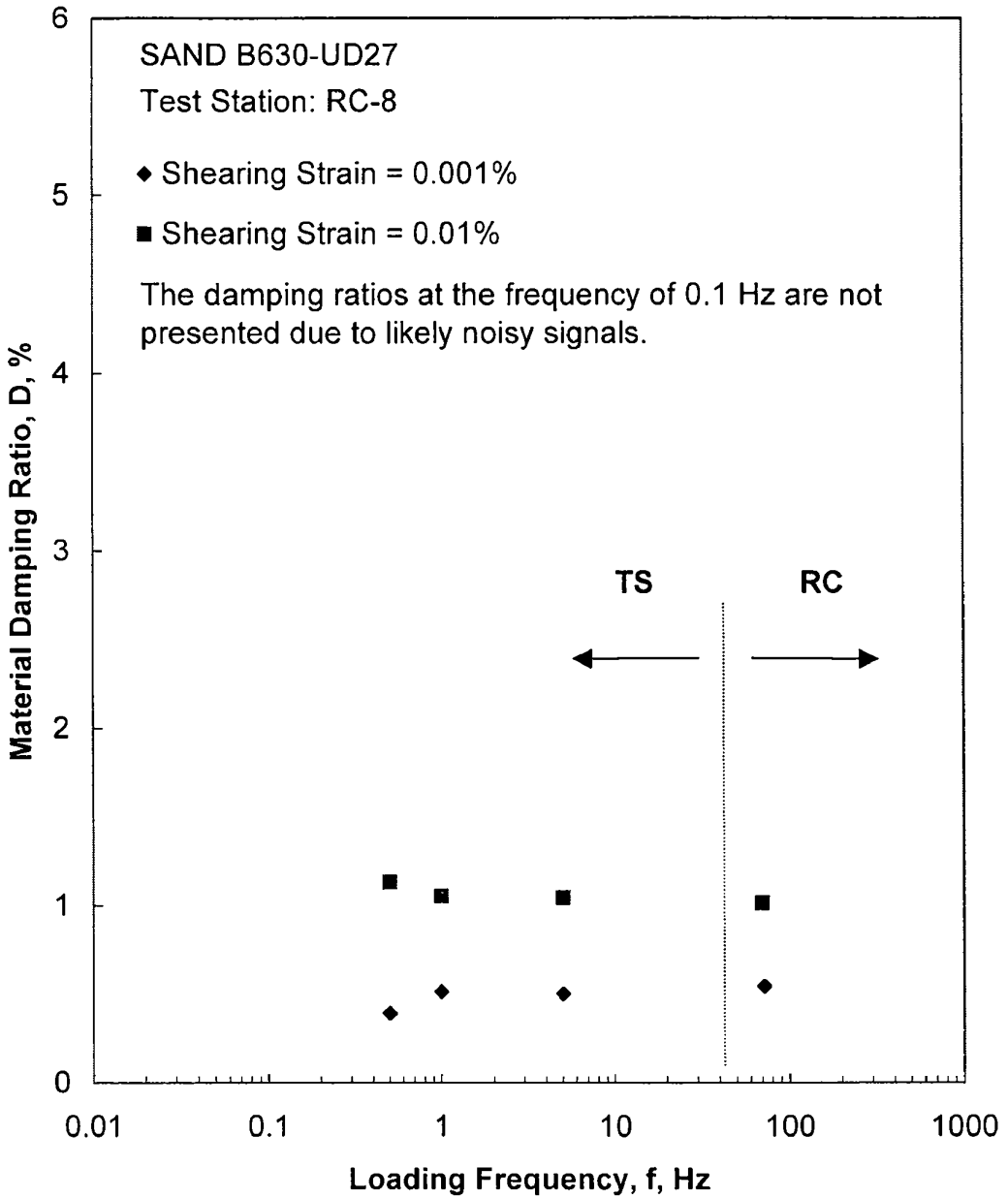


Figure G.15 Comparison of the Variation in Material Damping Ratio with Loading Frequency at an Isotropic Confining Pressure of 84 psi from the Combined RCTS Tests

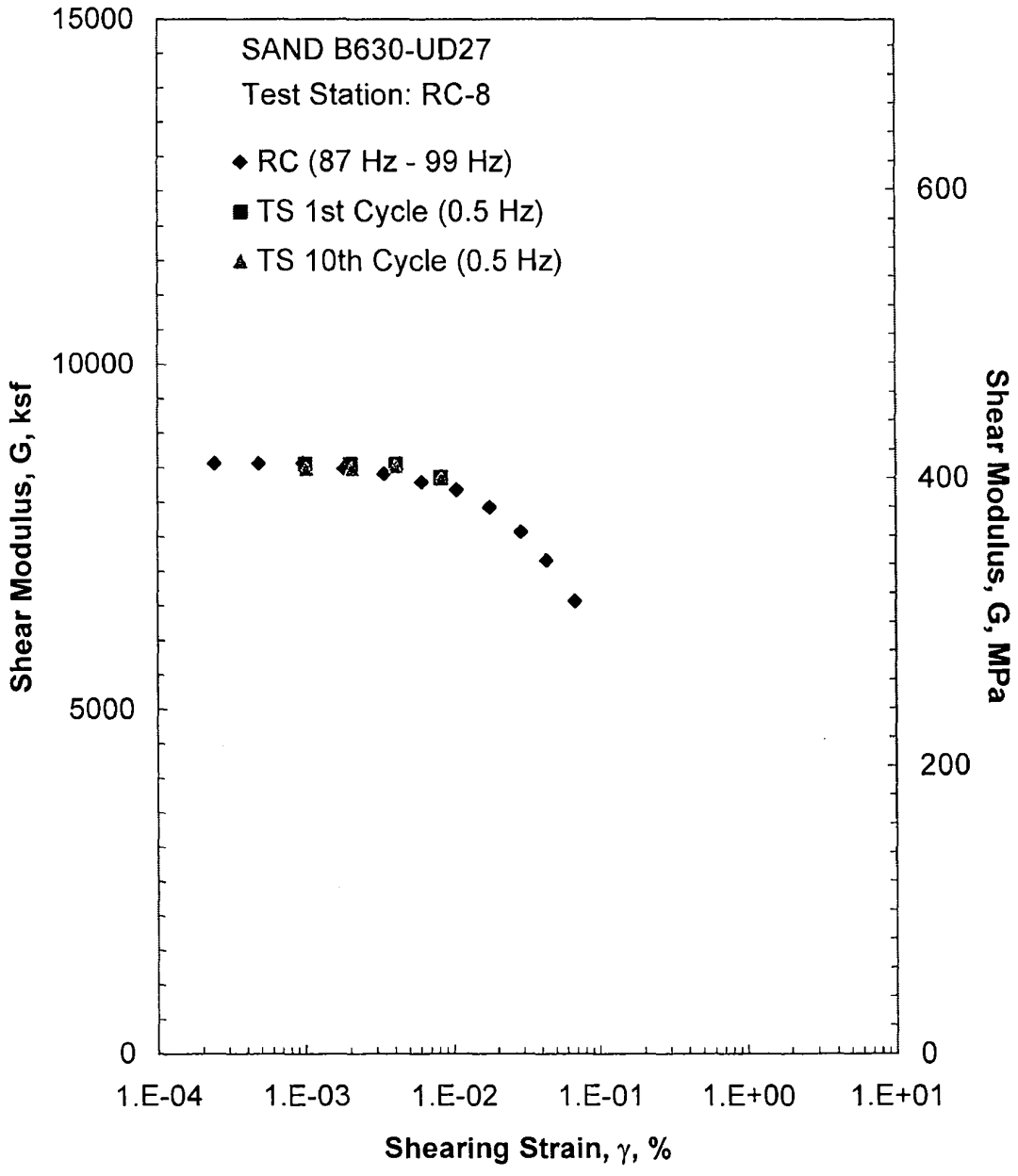


Figure G.16 Comparison of the Variation in Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 338 psi from the Combined RCTS Tests

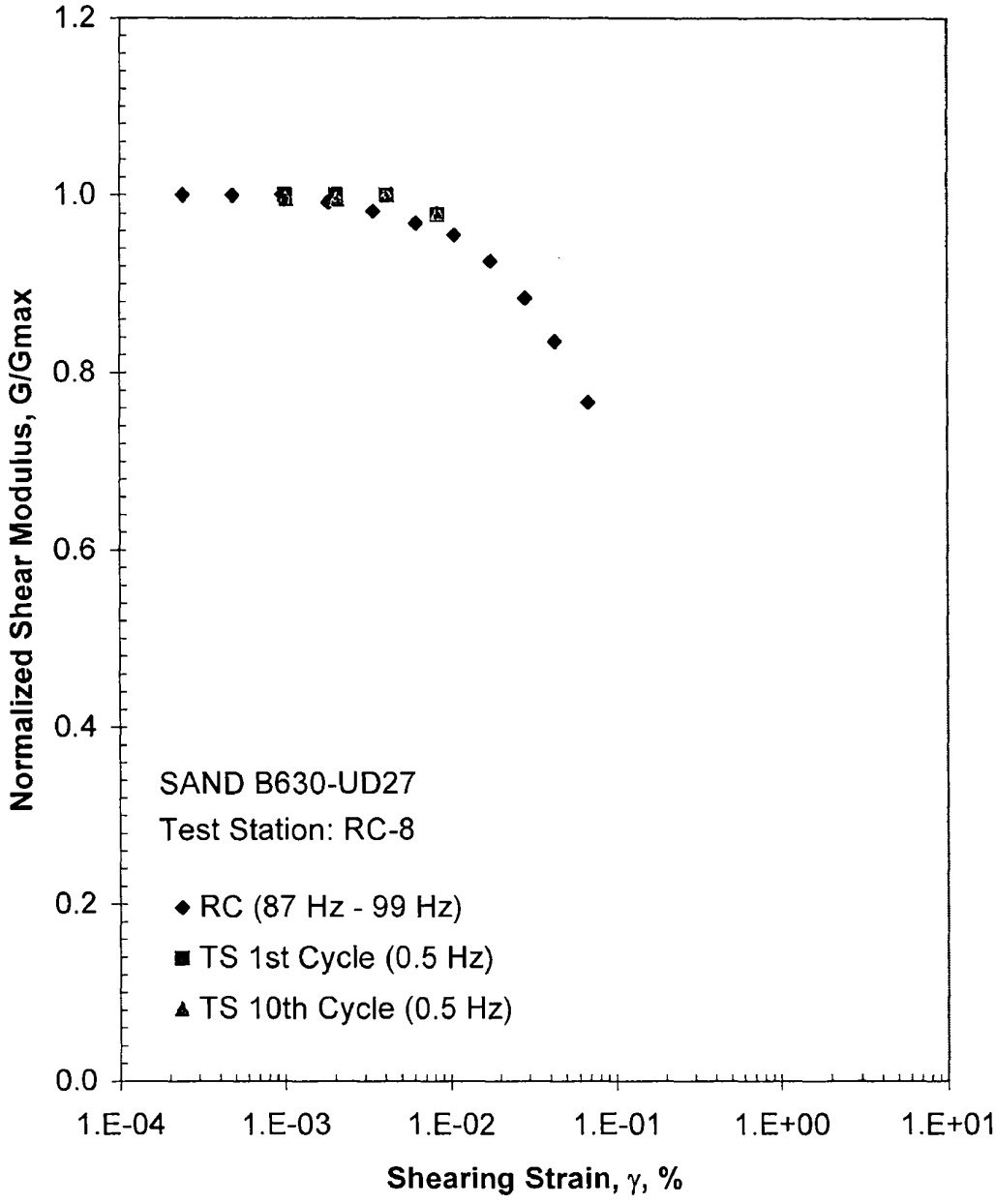


Figure G.17 Comparison of the Variation in Normalized Shear Modulus with Shearing Strain at an Isotropic Confining Pressure of 338 psi from the Combined RCTS Tests

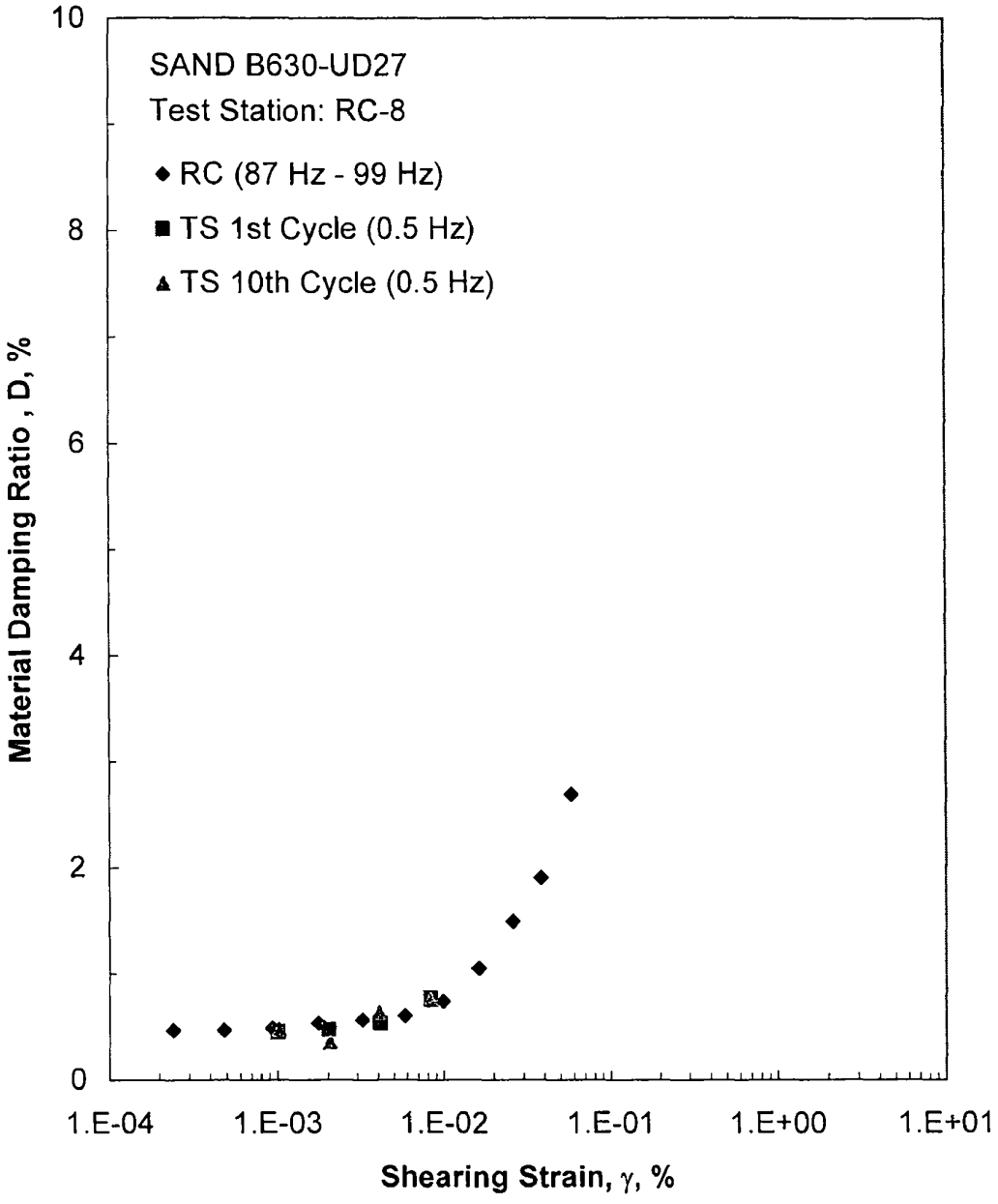


Figure G.18 Comparison of the Variation in Material Damping Ratio with Shearing Strain at an Isotropic Confining Pressure of 338 psi from the Combined RCTS Tests

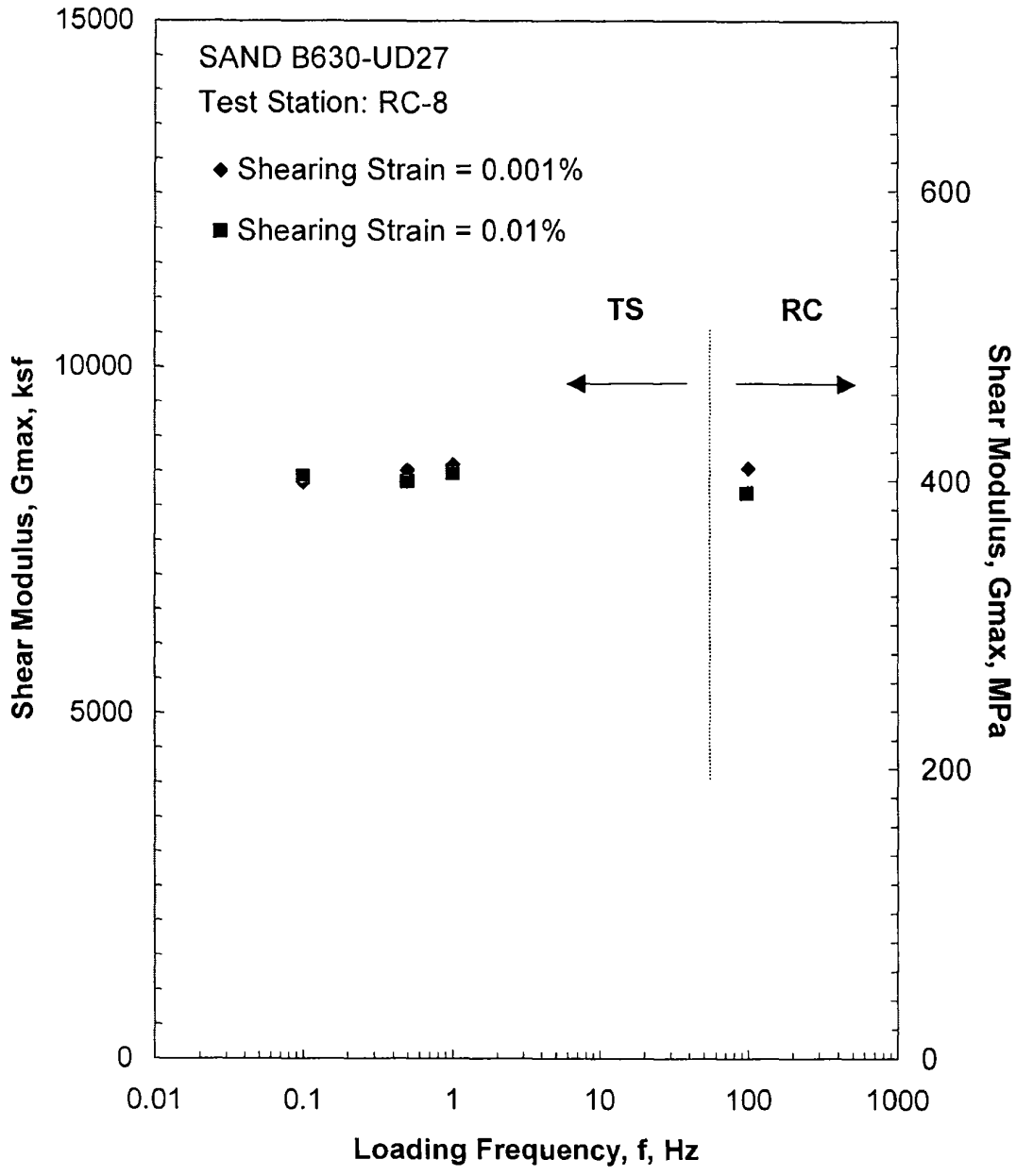


Figure G.19 Comparison of the Variation in Shear Modulus with Loading Frequency at an Isotropic Confining Pressure of 338 psi from the Combined RCTS Tests

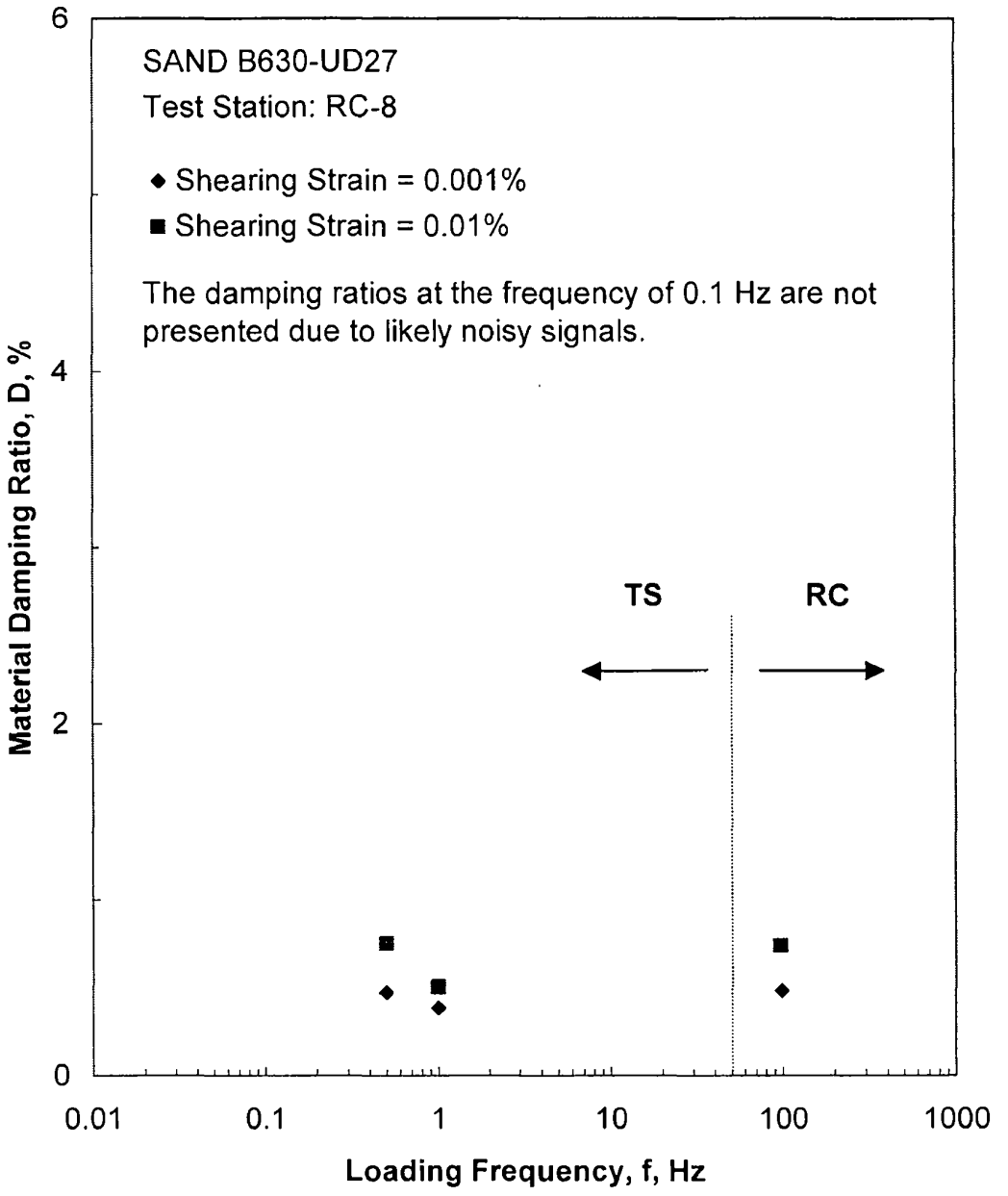


Figure G.20 Comparison of the Variation in Material Damping Ratio with Loading Frequency at an Isotropic Confining Pressure of 338 psi from the Combined RCTS Tests

Table G.1 Variation in Low-Amplitude Shear Wave Velocity, Low-Amplitude Shear Modulus, Low-Amplitude Material Damping Ratio and Estimated Void Ratio with Isotropic Confining Pressure from RC Tests of Specimen B630-UD27

Isotropic Confining Pressure, σ_o			Low-Amplitude Shear Modulus, G_{max}		Low-Amplitude Shear Wave Velocity, Vs	Low-Amplitude Material Damping Ratio, Dmin	Estimated Void Ratio, e
(psi)	(psf)	(kPa)	(ksf)	(MPa)	(fps)	(%)	
21	3024	145	2246	108	771	0.87	0.71
42	6048	289	3108	149	905	0.86	0.70
84	12096	579	4401	211	1075	0.52	0.69
169	24336	1164	6283	302	1279	0.50	0.68
338	48672	2329	8549	410	1485	0.47	0.67

Table G.2 Variation in Shear Modulus and Material Damping Ratio with Shearing Strain from RC Tests of Specimen B630-UD27; Isoptropic Confining Pressure, σ_o= 84 psi (12.1 ksf = 579 kPa)

Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Average[+] Shearing Strain, %	Material Damping Ratio[x], D, %
4.10E-04	4404	1.00	4.10E-04	0.52
8.37E-04	4404	1.00	8.37E-04	0.54
1.58E-03	4367	0.99	1.50E-03	0.55
2.94E-03	4318	0.98	2.77E-03	0.66
5.34E-03	4244	0.96	4.96E-03	0.81
9.49E-03	4147	0.94	8.73E-03	1.01
1.61E-02	4026	0.91	1.45E-02	1.36
2.71E-02	3780	0.86	2.35E-02	1.89
4.50E-02	3508	0.80	3.78E-02	2.62
7.47E-02	3183	0.72	5.90E-02	3.62
1.27E-01	2797	0.63	9.28E-02	5.11

[+] Average Shearing Strain from the First Three Cycles of the Free Vibration Decay Curve

[x] Average Damping Ratio from the First Three Cycles of the Free Vibration Decay Curve

Table G.3 Variation in Shear Modulus, Normalized Shear Modulus and Material Damping Ratio with Shearing Strain from TS Tests of Specimen B630-UD27; Isotropic Confining Pressure, σ_o= 84 psi (12.1 ksf = 579 kPa)

First Cycle				Tenth Cycle			
Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %	Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %
1.00E-03	4074	0.98	0.53	1.00E-03	4061	0.98	0.39
1.98E-03	4074	0.98	0.42	1.99E-03	4061	0.98	0.42
3.99E-03	4068	0.98	0.66	4.03E-03	4027	0.97	0.63
8.23E-03	3942	0.95	1.09	8.25E-03	3933	0.95	1.13

Table G.4 Variation in Shear Modulus and Material Damping Ratio with Shearing Strain from RC Tests of Specimen B630-UD27; Isoptropic Confining Pressure, σ_o= 338 psi (48.7 ksf = 2329 kPa)

Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Average[+] Shearing Strain, %	Material Damping Ratio[x], D, %
2.41E-04	8564	1.00	2.41E-04	0.47
4.81E-04	8564	1.00	4.81E-04	0.47
9.67E-04	8564	1.00	9.28E-04	0.48
1.83E-03	8495	0.99	1.75E-03	0.53
3.39E-03	8413	0.98	3.22E-03	0.56
6.12E-03	8291	0.97	5.82E-03	0.60
1.06E-02	8180	0.96	9.92E-03	0.74
1.76E-02	7925	0.93	1.62E-02	1.04
2.88E-02	7566	0.88	2.59E-02	1.49
4.30E-02	7151	0.84	3.83E-02	1.90
6.79E-02	6562	0.77	5.77E-02	2.69

[+] Average Shearing Strain from the First Three Cycles of the Free Vibration Decay Curve

[x] Average Damping Ratio from the First Three Cycles of the Free Vibration Decay Curve

Table G.5 Variation in Shear Modulus, Normalized Shear Modulus and Material Damping Ratio with Shearing Strain from TS Tests of Specimen B630-UD27; Isotropic Confining Pressure, σ_o= 338 psi (48.7 ksf = 2329 kPa)

First Cycle				Tenth Cycle			
Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %	Peak Shearing Strain, %	Shear Modulus, G, ksf	Normalized Shear Modulus, G/G_{max}	Material Damping Ratio, D, %
1.01E-03	8551	1.00	0.45	1.02E-03	8486	1.00	0.47
2.03E-03	8551	1.00	0.47	2.05E-03	8486	1.00	0.35
4.10E-03	8551	1.00	0.53	4.07E-03	8523	1.00	0.63
8.31E-03	8362	0.98	0.77	8.32E-03	8352	0.98	0.75

FINAL DATA REPORT Rev. 2
GEOTECHNICAL EXPLORATION AND TESTING

TURKEY POINT COL PROJECT
FLORIDA CITY, FLORIDA

October 6, 2008

VOLUME 4
Appendix G – Groundwater Data

Prepared By:

MACTEC Engineering and Consulting, Inc.
Raleigh, North Carolina

MACTEC Project No. 6468-07-1950

Prepared For:

Bechtel Power Corporation
Subcontract No. 25409-102-HC4-CY00-00001

Contents

Well Construction Permits

To: Tom Mc-Daniel

Folio #: 30-7034-000-0010

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-2671
Florida Unique I.D. ____
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No. ____

1. Florida Power + Light Co. (Attn Ed Paula) 9700 SW 344th Street Florida City 33034 3052466407
Owner, Legal Name of Entity if Corporation / Address / City / Zip / Telephone Number

2. Turkey Point Nuclear Generating Station 9760 SW 344th Street Florida City FL 33035
Well Location — Address, Road Name or Number, City

3. MACTEC Engineering + Consulting Inc - Philip Pitts FL # 11035 404 873 4761
Well Drilling Contractor / License No. / Telephone No.

396 Plasters Ave
Address

4. SW 1/4 of NW 1/4 of Section 34 (Indicate Well on Chart) X

Atlanta GA 30324
City / State / Zip

5. Township 57S Range 40E

6. Miami Dade / N/A / N/A / N/A / N/A
County / Subdivision Name / Lot / Block / Unit

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation Well

____ Irrigation (type) Public Water Supply (type) ____ List Other ____

Distance from septic system N/A ft. Description of facility ____ Estimated start of construction date 5/21/08

8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)

9. Estimated: Well Depth 130'+1' Sump Casing Depth 120' Screen Interval from 120 ...
Casing Material: Blk-Steel / Galv / (PVC) Casing Diameter 2" Seal Material Se...

10. If applicable: Proposed Grouting Interval
From 12.0 to 131 Seal Material 16/20 Silica Sand
From 117 to 120 Seal Material Bentonite
From 0 to 117 Seal Material Portland/Bentonite Slurry

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

11. Telescope Casing ____ or Liner X (check one) Diameter 2"
Blk-Steel / Galvanized / (PVC) Other (specify) ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
____ Auger ____ Other (specify) ____

13. Indicate total No. of wells on site 20 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ____ Yes
(If yes, complete the following) CUP/WUP No. N/A
District well I.D. No. N/A
Latitude N/A Longitude N/A
Data obtained from GPS ____ or map ____ or survey ____ (map datum NAD 27 ____ NAD 83 ____)

APPROVED
MIAMI-DADE COUNTY HEALTH DEPARTMENT
PERMIT #: 13-59-2671
6/23-08

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or the permit expiration, whichever occurs first.

[signature] 11035
Signature of Contractor / License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

[signature] 5/20/08
Owner's or Agent's Signature / Date

DO NOT WRITE BELOW THIS LINE — FOR OFFICIAL USE ONLY

Approval Granted By: Astrid Edwards Issue Date: 5-23-08 Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ 50 Receipt No.: I080520430 Check No.: ____

Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

13-WD-34019 I080520430

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-7743
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No.

Fold at this line in order that address is visible through envelope window

1. Florida Power and Light Company, Attn: Mr. Ed Paula 9700 SW 344 Street Florida City 33034 305-246-6407
   Owner, Legal Name of Entity if Corporation | Address | City | Zip | Telephone Number
2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
   Well Location — Address, Road Name or Number, City
3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
   Well Drilling Contractor | License No. | Telephone No.
   396 Plasters Avenue
   Address
   Atlanta | Georgia | 30324
   City | State | Zip
4. SW (smallest) 1/4 of NW (biggest) 1/4 of Section 34
   (Indicate Well on Chart)
5. Township 57S Range 40E

NW	NE
X	
SW	SE

6. Miami-Dade | N/A | N/A | N/A | N/A
   County | Subdivision Name | Lot | Block | Unit

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
   ____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
   Distance from septic system N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ Date Slurry
   (Reason for Abandonment)

9. Estimated: Well Depth 101* ft Casing Depth 90 ft Screen Interval from 90 to 100
   Casing Material: Blk-Steel / Gal / PVC pvc Casing Diameter 2" Seal Material see below

10. If applicable: Proposed Grouting Interval
    From 88 to 100 Seal Material 10/20 silica sand
    From 83 to 85 Seal Material Bentonite
    From 0 to 83 Seal Material Portland/bentonite slurry
    *Well will be installed with a one-foot sump

11. Telescope Casing ____ or Liner X (check one) Diameter 2"
    Blk-Steel / Galvanized / PVC PVC Other (specify): ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
    X Auger ____ Other (specify:) ____

13. Indicate total No. of wells on site 0 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___Yes
    (If yes, complete the following) CUP/WUP No. N/A
    District well I.D. No. N/A
    Latitude N/A Longitude N/A
    Data obtained from GPS ___ or map ___ or survey ___ (map datum NAD 27___ NAD 83___)

APPROVED
Permit no. 13-59-7743
Date: 2-19-08
Miami-Dade County
Health Department

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

North
OW-606L
see attached drawings for proposed well locations
West East
South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that all necessary approvals from other federal, state, or local governmental agencies, if applicable, will be obtained. I agree to provide a well completion report to the District within 30 days after drilling and/or pump operation, whichever occurs first.

Signature of Contractor 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner and the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Owner's or Agent's Signature 2/15/08 Date

DO NOT WRITE BELOW THIS LINE. FOR OFFICIAL USE ONLY

Approval Granted By: ASTRID EDWARDS Issue Date: 2-19-08 Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ 50 Receipt No.: T080215406 Check No.: 52453 4

Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

DCN# TUR060

FAX #: 919-831-8136

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

- ☐ Southwest
- ☐ Northwest
- ☐ St. Johns River
- ☒ South Florida
- ☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-774[?]
Florida Unique I.D. 30-7024-001-0010
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No. ____

1. Florida Power and Light Company, Attn: Mr. Ed Paula 9700 SW 344 Street Florida City 33034 305-246-6407
Owner, Legal Name of Entity if Corporation / Address / City / Zip / Telephone Number

2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached 9760 SW 344th St Homestead FL 33035
Well Location — Address, Road Name or Number, City

3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
Well Drilling Contractor / License No. / Telephone No.

396 Plasters Avenue
Address

Atlanta Georgia 30324
City / State / Zip

4. SW 1/4 of NW 1/4 of Section 34 (Indicate Well on Chart) X

5. Township 57S Range 40E

6. Miami-Dade, N/A, N/A, N/A, N/A
County / Subdivision Name / Lot / Block / Unit

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
____ Irrigation (type) Public Water Supply (type) ____ List Other ____
Distance from septic system N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)

9. Estimated: Well Depth 26* ft Casing Depth 15 ft Screen Interval from 15 to 25
Casing Material: Blk-Steel / Galv / PVC PVC Casing Diameter 2" Seal Material see below
*Well will be installed with a one-foot sump

10. If applicable: Proposed Grouting Interval
From 13 to 25 Seal Material 10/20 silica sand
From 10 to 13 Seal Material Bentonite
From 0 to 10 Seal Material Portland/bentonite slurry

11. Telescope Casing ____ or Liner x (check one) Diameter 2"
Blk-Steel / Galvanized / PVC PVC Other (specify: ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
X Auger ____ Other (specify) ____

13. Indicate total No. of wells on site 0 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___ Yes
(If yes, complete the following) CUP/WUP No. N/A
District well I.D. No. N/A
Latitude N/A Longitude N/A
Data obtained from GPS ___ or map ___ or survey ___ (map datum NAD 27 ___ NAD 83 ___)

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

OW-606U

North / West / East / South

see attached drawings for proposed well locations

APPROVED — Permit No. 13-59-774 Date 2-19-08 Miami-Dade County Health Department

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling of the permit expiration, whichever occurs first.

[signature] 11035
Signature of Contractor / License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well, or, I certify that I am the agent for the owner, that the information provided is accurate and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

[signature] 2/19/08
Owner's or Agent's Signature / Date

DO NOT WRITE BELOW THIS LINE — FOR OFFICIAL USE ONLY

Approval Granted By: ASTRID EDWARDS Issue Date: 2-19-08 Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ 50 Receipt No.: I0802I5406 Check No.: 524534

Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. *This permit is valid for 90 days from date of issue.*

Form 0123 Rev. 4/95

13-WD-33815 I0802I5406

DCN# TUR060

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

Permit No. 13-59-2742
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 wall ☐
CUP/WUP Application No.

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.
The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

1. Florida Power and Light Company, Attn: Mr. Ed Paula | 9700 SW 344 Street | Florida City | 33034 | 305-246-6407
   Owner, Legal Name of Entity if Corporation | Address | City | Zip | Telephone Number
2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
   Well Location — Address, Road Name or Number, City
3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 | 404-873-4761
   Well Drilling Contractor | License No. | Telephone No.
   396 Plasters Avenue
   Address
   Atlanta | Georgia | 30324
   City | State | Zip
4. NW (smallest) 1/4 of NW (biggest) 1/4 of Section 34
   (Indicate Well on Chart)
5. Township 57S Range 40E
6. Miami-Dade | N/A | N/A | N/A | N/A
   County | Subdivision Name | Lot | Block | Unit

NW NE X SW SE

Fold at this line in order that address is visible through envelope window

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
   ____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
   Distance from septic system N/A ft. Description of facility Jet. wastewater discharge area Estimated start of construction date 2/19/08
8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)
9. Estimated: Well Depth 101* ft Casing Depth 90 ft Screen Interval from 90 to 100
   Casing Material: Blk-Steel / Gal / PVC PVC Casing Diameter 2" Seal Material see below
   *Well will be installed with a one-foot sump
10. If applicable: Proposed Grouting Interval
    From 88 to 100 Seal Material 10/20 silica sand
    From 85 to 85 Seal Material Bentonite
    From 0 to 83 Seal Material Portland/bentonite slurry
11. Telescope Casing ____ or Liner X (check one) Diameter 2"
    Blk-Steel / Galvanized / PVC PVC Other (specify): ____
12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
    X Auger ____ Other (specify:) ____)
13. Indicate total No. of wells on site 0 List number of unused wells on site 0
14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___Yes
    (If yes, complete the following) CUP/WUP No. N/A
    District well I.D. No. N/A
    Latitude N/A Longitude N/A
    Data obtained from GPS ___ or map ___ or survey ___ (map datum NAD 27___ NAD 83___)

APPROVED
Permit no. 13-59-2742
Date 2-19-08
Miami-Dade County Health Department

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

North

OW-621L

see attached drawings for proposed well locations

West East

South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments. If applicable, I agree to provide a well completion report to the District within 30 days after drilling or the cancellation, whichever occurs first.

Signature of Contractor 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Owner or Agent's Signature 2/19/08 Date

DO NOT WRITE BELOW THIS LINE — FOR OFFICIAL USE ONLY

Approval Granted By: ASTRID EDUARDES Issue Date: 2-19-08 Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ 50 Receipt No.: T0802150426 Check No.: 52-45 34

Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

DCN# TUR060

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-2744
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No.

1. Florida Power and Light Company, Attn: Mr. Ed Paula — 9700 SW 344 Street — Florida City — 33034 — 305-246-6407
Owner, Legal Name of Entity if Corporation / Address / City / Zip / Telephone Number

2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
Well Location — Address, Road Name or Number, City

3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 — 404-873-4761
Well Drilling Contractor / License No. / Telephone No.

396 Plasters Avenue
Address

Atlanta — Georgia — 30324
City / State / Zip

4. NW 1/4 of NW 1/4 of Section 34 (Indicate Well on Chart)

5. Township 57S Range 40E

6. Miami-Dade, N/A, N/A, N/A, N/A
County / Subdivision Name / Lot / Block / Unit

Fold at this line in order that address is visible through envelope window

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ______ Domestic Monitor (type) Observation well
______ Irrigation (type) (See Back) Public Water Supply (type) ______ (See Back) List Other ______
Distance from septic system N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ______ Repair/Modify ______ Abandonment ______ (Reason for Abandonment)

9. Estimated: Well Depth 26* ft Casing Depth 15 ft Screen Interval from 15 to 25
Casing Material: Blk-Steel / Gal / PVC pvc Casing Diameter 2" Seal Material see below

*Well will be installed with a ten-foot sump

10. If applicable: Proposed Grouting Interval
From 13 to 25 Seal Material 10/20 silica sand
From 10 to 13 Seal Material Bentonite
From 0 to 10 Seal Material Portland/bentonite slurry

11. Telescope Casing ______ or Liner X (check one) Diameter 2"
Blk-Steel / Galvanized / PVC PVC Other (specify: ______

12. Method of Construction: X Rotary ______ Cable Tool ______ Combination
X Auger ______ Other (specify:) ______)

13. Indicate total No. of wells on site 0 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ____ Yes
(If yes, complete the following) CUP/WUP No. N/A
District well I.D. No. N/A
Latitude N/A Longitude N/A
Data obtained from GPS ____ or map ____ or survey ____ (map datum NAD 27 ____ NAD 83 ____)

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

North — OW-621U — West — see attached drawings for proposed well locations — East — South

APPROVED Permit no. 13-59-2744 Date: 2-19-08 Miami-Dade County Health Department

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or the permit expiration, whichever occurs first.

[signature] 11035
Signature of Contractor / License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

[signature] 2/19/08
Owner's or Agent's Signature / Date

DO NOT WRITE BELOW THIS LINE — FOR OFFICIAL USE ONLY

Approval Granted By: Astrid Edwards Issue Date: 2-19-08 Hydrologist Approval ______ (Initials)
Owner Number: ______ Fee Received: $ 50 Receipt No. 10 2021506 Check No.: 524534
Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. *This permit is valid for 90 days from date of issue.*

Form 0123 Rev. 4/95

DCN# TUR060

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-7446
Florida Unique I.D.
Permit Stipulations Required (See attached)
82-524 well ☐
CUP/WUP Application No.

Fold at this line in order that address is visible through envelope window

1. Florida Power and Light Company, Attn: Mr. Ed Paula — 9700 SW 344 Street — Florida City — 33034 — 305-246-6407
   Owner, Legal Name of Entity if Corporation — Address — City — Zip — Telephone Number
2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
   Well Location — Address, Road Name or Number, City
3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 — 404-873-4761
   Well Drilling Contractor — License No. — Telephone No.
4. 396 Plasters Avenue
   Address
   Atlanta — Georgia — 30324
   City — State — Zip
   SE (emailed) 1/4 of SE (zipped) 1/4 of Section 34
5. Township 57S Range 40E
6. Miami-Dade — N/A — N/A — N/A — N/A
   County — Subdivision Name — Lot — Block — Unit

(Indicate Well on Chart)

NW	NE
SW	SE
	X

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
   ____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
   Distance from septic system N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08
8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)
9. Estimated: Well Depth 101* ft Casing Depth 90 ft Screen Interval from 90 to 100
   Casing Material: Blk-Steel / Gal / PVC PVC Casing Diameter 2" Seal Material see below
   *Well will be installed with a one-foot sump
10. If applicable: Proposed Grouting Interval
    From 88 to 100 Seal Material 10/20 silica sand
    From 83 to 85 Seal Material Bentonite
    From 0 to 83 Seal Material Portland/bentonite slurry
11. Telescope Casing ____ or Liner X (check one) Diameter 2"
    Blk-Steel / Galvanized / PVC PVC Other (specify): ____
12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
    X Auger ____ Other (specify:) ____
13. Indicate total No. of wells on site 0 List number of unused wells on site 0
14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___Yes
    (If yes, complete the following) CUP/WUP No. N/A
    District well I.D. No. N/A
    Latitude N/A Longitude N/A
    Data obtained from GPS ____ or map ____ or survey ____ (map datum NAD 27 ____ NAD 83 ____)

Date Started

APPROVED
Permit no. 13-59-7446
Date: 7-19-08
Miami-Dade County
Environmental Resources Management

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

North

OW-636L

West — see attached drawings for proposed well locations — East

South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if required, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments. If applicable, I agree to provide a well completion report to the District within 30 days after drilling or test pumping, whichever occurs first.

Signature of Contractor — 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to permit entry of the WMD or a representative access to the well site.

Owner's or Agent's Signature — 2/19/08 Date

DO NOT WRITE BELOW THIS LINE -- FOR OFFICIAL USE ONLY

Approval Granted By: ASTRID EDWARDS Issue Date: 7-19-08 Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ 50 Receipt No.: TD3021546 Check No.: 524534

Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

DCN# TUR060

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM **MUST** BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13759-7245
Florida Unique I.D.
Permit Stipulations Required (See attached)
82-524 well ☐
CUP/WUP Application No.

1. Florida Power and Light Company, Attn: Mr. Ed Paula 9700 SW 344 Street Florida City 33034 305-246-6407
Owner, Legal Name of Entity if Corporation | Address | City | Zip | Telephone Number

2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
Well Location — Address, Road Name or Number, City

3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
Well Drilling Contractor | License No. | Telephone No.

396 Plasters Avenue
Address

Atlanta | Georgia | 30324
City | State | Zip

4. SE (smallest) 1/4 of SE (biggest) 1/4 of Section 34

5. Township 57S Range 40E

(Indicate Well on Chart)

NW	NE
SW	SE
	X

6. Miami-Dade | N/A | N/A | N/A | N/A
County | Subdivision Name | Lot | Block | Unit

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
Distance from septic system: N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ Date Drilled ____
(Reason for Abandonment)

9. Estimated: Well Depth 26* ft Casing Depth 15 ft Screen Interval from 15 to 25
Casing Material: Blk-Steel / Gal / PVC PVC Casing Diameter 2" Seal Material see below

10. If applicable: Proposed Grouting Interval
From 13 to 25 Seal Material 10/20 silica sand
From 10 to 13 Seal Material Bentonite
From 0 to 10 Seal Material Portland/bentonite slurry
*Well will be installed with a one-foot sump

11. Telescope Casing ____ or Liner X (check one) Diameter 2"
Blk-Steel / Galvanized / PVC PVC Other (specify): ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
X Auger ____ Other (specify:) ____

13. Indicate total No. of wells on site 0. List number of unused wells on site 0.

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___Yes
(If yes, complete the following) CUP/WUP No. N/A
District well I.D. No. N/A
Latitude N/A Longitude N/A
Data obtained from GPS ___ or map ___ or survey ___ (*map datum NAD 27*___ *NAD 83*___)

Draw a map of well location and indicate well site within "X". Identify known roads and landmarks; provide distances between well and landmarks.

North

OW-636U

West | East

see attached drawings for proposed well locations

South

APPROVED
Permit No. 13759-7245
Date: 2-19-08
Miami-Dade County Health Department

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments. If applicable, I agree to provide a well completion report to the District within 30 days after completion of the well construction, or the permit occurs first.

Signature of Contractor 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Owner's or Agent's Signature 2/19/08 Date

DO NOT WELL BELOW THIS LINE FOR OFFICIAL USE ONLY

Approval Granted By: ESTEBAN EDWARDS Issue Date: 2-19-08 Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ 50 Receipt No.: L0802546 Check No.: 524534

Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

DCN# TUR060

To: TOM MCDANIEL

FAX: 305-876-1799

Folio #: 30-7033-004-0010

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.
The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-7697
Florida Unique I.D.
Permit Stipulations Required (See attached)
52-524 well ☐
SWFWMD Application No.

1. Florida Power & Light Co. 9700 SW 344 St Attn Ed Paula Florida City 33034 305 246 6407
Owner, Legal Name of Entity if Corporation — Address — City — Zip — Telephone Number

2. Turkey Point Nuclear Generating Station 9760 SW 344th Street Florida City FL 33035
Well Location — Address, Road Name or Number, City

3. MACTEC Engineering & Consulting Inc - Philip Pitts FL # 11035 404 873 4761
Well Drilling Contractor — License No. — Telephone No.

396 Plasters Ave
Address

Atlanta GA 30324
City — State — Zip

4. NE (quarter) 1/4 of SE (biggest) 1/4 of Section 33

(Indicate Well on Chart)

5. Township 57 S Range 40 E

NW NE SW SE

6. Miami-Dade N/A N/A N/A N/A
County — Subdivision Name — Lot — Block — Unit

Fold at this line in order that address is visible through envelope window

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation Well
____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
Distance from septic system N/A ft. Description of facility ____ Estimated start of construction date 5/21/08

8. Application for: ____ New Construction ____ Repair/Modify ____ Abandonment ____ Date Started 5/20/08
(Reason for Abandonment)

9. Estimated: Well Depth 130'+1' Sump Casing Depth 120' Screen Interval from 120 to 130
Casing Material: Blk-Steel / Gal / PVC Casing Diameter 2" Seal Material Sand

10. If applicable: Proposed Grouting Interval From 120 to 131 Seal Material 10/20 Silica Sand
From 117 to 120 Seal Material Bentonite
From 0 to 117 Seal Material Portland/Bentonite Slurry

Draw a map of well location and indicate well site with an "X", identify known roads and landmarks; provide distances between well and landmarks.

11. Telescope Casing ____ or Liner ____ (check one) Diameter ____
Blk-Steel / Galvanized / PVC Other (specify): ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
____ Auger ____ Other (specify:) ____

13. Indicate total No. of wells on site 20 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ____ Yes
(If yes, complete the following) CUP/WUP No. N/A
District well I.D. No. N/A
Latitude N/A Longitude N/A
Data obtained from GPS ____ or map ____ or survey ____ (map datum NAD 27 ____ NAD 83 ____)

OW706D

North — West — East — South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of activity/construction. I further certify that all information provided on this application is accurate. Additionally I will obtain necessary approval from other federal, state, or local governments. I also further agree to provide a well completion report to the District within 30 days after drilling or the plugging operation, whichever comes first.

Signature of Contractor — 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. I/we consent to personnel of the WMD or a representative access to the well site.

Owner's or Agent's Signature — 5/20/08 Date

DO NOT WRITE BELOW THIS LINE — FOR OFFICIAL USE ONLY

Approval Granted By: ASTRID EDWARDS Issue Date: 5-23-08 Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ 60 Receipt No.: I080520430 Check No.: ____
Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

13-WD-3409

I080520430

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.
The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-2248
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No.

Fold at this line in order that address is visible through envelope window

1. Florida Power and Light Company, Attn: Mr. Ed Pauls 9700 SW 344 Street Florida City 33034 305-246-6407
Owner, Legal Name of Entity if Corporation — Address — City — Zip — Telephone Number

2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
Well Location — Address, Road Name or Number, City

3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
Well Drilling Contractor — License No. — Telephone No.

396 Plasters Avenue
Address

Atlanta Georgia 30324
City State Zip

4. NE (smallest) 1/4 of SE (biggest) 1/4 of Section 33

5. Township 57S Range 40E

(Indicate Well on Chart)

NW	NE
	X
SW	SE

6. Miami-Dade | N/A | N/A | N/A | N/A
County — Subdivision Name — Lot — Block — Unit

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
Distance from septic system N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)

Date Stamp
APPROVED
Permit no. 13-59-2248
Date: 2-19-08
Miami-Dade County
Public Health Department

9. Estimated: Well Depth 101* ft Casing Depth 90 ft Screen Interval from 90 to 100
Casing Material: Blk-Steel / Gal / PVC PVC Casing Diameter 2" Seal Material see below

*Well will be installed with a one-foot sump

10. If applicable: Proposed Grouting Interval
From 88 to 100 Seal Material 10/20 silica sand
From 83 to 85 Seal Material Bentonite
From 0 to 83 Seal Material Portland/bentonite slurry

Draw a map of well location and indicate well site with clear, identify known roads and landmarks; provide distances between well and landmarks.

11. Telescope Casing ____ or Liner X (check one) Diameter 2"
Blk-Steel / Galvanized / PVC PVC Other (specify): ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
X Auger ____ Other (specify:) ____

13. Indicate total No. of wells on site 0 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ____ Yes
(If yes, complete the following) CUP/WUP No. N/A
District well I.D. No. N/A
Latitude N/A Longitude N/A
Data obtained from GPS ____ or map ____ or survey ____ (map datum NAD 27 ____ NAD 83 ____)

North
OW-706L
see attached drawings for proposed well locations
West
East
South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or the permit expiration, whichever occurs first.

Signature of Contractor — License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Owner's or Agent's Signature — Date: 2/15/08

DO NOT WRITE BELOW THIS LINE - FOR OFFICIAL USE ONLY

Approval Granted By: ALFRED EDWARDS Issue Date: 2-19-08 Hydrologist Approval ____ Initials
Owner Number: ____ Fee Received: $ 50 Receipt No.: I080215046 Check No.: 524534
Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. *This permit is valid for 90 days from date of issue.*

Form 0123 Rev. 4/95

DCN# TUR060

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13259-2747
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No.

Fold at this line in order that address is visible through envelope window

1. Florida Power and Light Company, Attn: Mr. Ed Paula 9700 SW 344 Street Florida City 33034 305-246-6407
   Owner, Legal Name of Entity if Corporation | Address | City | Zip | Telephone Number
2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
   Well Location — Address, Road Name or Number, City
3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
   Well Drilling Contractor | License No. | Telephone No.
   396 Plasters Avenue
   Address
   Atlanta | Georgia | 30324
   City | State | Zip
4. NE (smallest) 1/4 of SE (largest) 1/4 of Section 33
   (Indicate Well on Chart)
5. Township 57S Range 40E

NW	NE
	X
SW	SE

6. Miami-Dade | N/A | N/A | N/A | N/A
   County | Subdivision Name | Lot | Block | Unit

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
   ____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
   Distance from septic system N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)

9. Estimated: Well Depth 26* ft Casing Depth 15 ft Screen Interval from 15 to 25
   Casing Material: Blk-Steel / Gal / PVC PVC Casing Diameter 2" Seal Material see below

10. If applicable: Proposed Grouting Interval
    From 13 to 25 Seal Material 10/20 silica sand
    From 10 to 13 Seal Material Bentonite
    From 0 to 10 Seal Material Portland/bentonite slurry
    *Well will be installed with a one-foot sump

11. Telescope Casing ____ or Liner X (check one) Diameter 2"
    Blk-Steel / Galvanized / PVC PVC Other (specify): ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
    X Auger ____ Other (specify:) ____

13. Indicate total No. of wells on site 0, List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___ Yes
    (If yes, complete the following) CUP/WUP No. N/A
    District well I.D. No. N/A
    Latitude N/A Longitude N/A
    Data obtained from GPS ___ or map ___ or survey ___ (map datum NAD 27 ___ NAD 83 ___)

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

North

OW-706U

N

West — see attached drawings for proposed well locations — East

South

Date Stamp: APPROVED Permit no. 13259-2747 Date: 2-19-08 Miami-Dade County Health Department

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if required, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments. If applicable, I agree to provide a well completion report to the District within 30 days after drilling the permit expiration, whichever occurs first.

Signature of Contractor 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personal in the WMD or a representative access to the well site.

Owner's or Agent's Signature 2/15/08 Date

DO NOT WRITE BELOW THIS LINE -- FOR OFFICIAL USE ONLY

Approval Granted By: ASTRID EDWARDS Issue Date: 2-19-08 Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ 50 Receipt No.: T080215046 Check No.: 523534

Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

DCN# TUR060

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM *MUST* BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13159-7760
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No.

1. Florida Power and Light Company, Attn: Mr. Ed Paula 9700 SW 344 Street Florida City 33034 305-246-6407
Owner, Legal Name of Entity if Corporation — Address — City — Zip — Telephone Number

2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
Well Location — Address, Road Name or Number, City

3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
Well Drilling Contractor — License No. — Telephone No.

396 Plasters Avenue
Address

Atlanta Georgia 30324
City — State — Zip

4. SE (smallest) 1/4 of NE (biggest) 1/4 of Section 33
(Indicate Well on Chart)

5. Township 57S Range 40E

NW NE X SW SE

6. Miami-Dade N/A N/A N/A N/A
County — Subdivision Name — Lot — Block — Unit

Fold at this line in order that address is visible through envelope window

7. Number of proposed wells: 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
Distance from septic system N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)

9. Estimated: Well Depth 101* ft Casing Depth 90 ft Screen Interval from 90 to 100
Casing Material: Blk-Steel / Gal / PVC PVC Casing Diameter 2" Seal Material see below
*Well will be installed with a one-foot sump

10. If applicable: Proposed Grouting Interval From 88 to 100 Seal Material 10/20 silica sand
From 83 to 85 Seal Material Bentonite
From 0 to 83 Seal Material Portland/bentonite slurry

11. Telescope Casing ____ or Liner X (check one) Diameter 2"
Blk-Steel / Galvanized / PVC PVC Other (specify: ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
X Auger ____ Other (specify: ____)

13. Indicate total No. of wells on site 0. List number of unused wells on site 0.

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___Yes
(If yes, complete the following) CUP/WUP No. N/A
District well I.D. No. N/A
Latitude N/A Longitude N/A
Data obtained from GPS ___ or map ___ or survey ___ (map datum NAD 27___ NAD 83___)

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

North

OW-721L

West — see attached drawings for proposed well locations — East

South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling the well permitted, provided, all required data first.

Signature of Contractor — 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to performance of the WMD or a representative access to the well site.

Owner's or Agent's Signature — 2/5/08 Date

DO NOT WRITE BELOW THIS LINE FOR OFFICIAL USE ONLY

Approval Granted By: ASTRID EDWARDS Issue Date: 2-19-08 Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ 60 Receipt No.: T080215006 Check No.: 52145341

Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

REVISED 12/97

APPROVED permit no. 13159-7760 Date: 2-19-08 Miami-Dade County Health Department

DCN# TUR060

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM *MUST* BE FILLED OUT COMPLETELY.
The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-2749
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/ WUP Application No.

1. Florida Power and Light Company, Attn: Mr. Ed Pauls 9700 SW 344 Street Florida City 33034 305-246-6407
Owner, Legal Name of Entity if Corporation | Address | City | Zip | Telephone Number

2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
Well Location — Address, Road Name or Number, City

3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
Well Drilling Contractor | License No. | Telephone No.

396 Plasters Avenue
Address

Atlanta Georgia 30324
City | State | Zip

4. SE (smallest) 1/4 of NE (biggest) 1/4 of Section 33

(Indicate Well on Chart)

5. Township 57S Range 40E

NW NE X SW SE

6. Miami-Dade | N/A | N/A | N/A | N/A
County | Subdivision Name | Lot | Block | Unit

Fold at this line in order that address is visible through envelope window

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
Distance from septic system N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)

9. Estimated: Well Depth 26* ft Casing Depth 15 ft Screen Interval from 15 to 25
Casing Material: Blk-Steel / Gal / PVC PVC Casing Diameter 2" Seal Material see below

*Well will be installed with a one-foot sump

10. If applicable: Proposed Grouting Interval
From 13 to 25 Seal Material 10/20 silica sand
From 10 to 13 Seal Material Bentonite
From 0 to 10 Seal Material Portland/bentonite slurry

11. Telescope Casing ____ or Liner X (check one) Diameter 2"
Blk-Steel / Galvanized / PVC PVC Other (specify): ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
X Auger ____ Other (specify): ____

13. Indicate total No. of wells on site 0 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___Yes
(If yes, complete the following) CUP/WUP No. N/A
District well I.D. No. N/A
Latitude N/A Longitude N/A
Data obtained from GPS ___ or map ___ or survey ___ (map datum NAD 27___ NAD 83___)

APPROVED
Permit no. 13-59-2749
Date: 2-19-08
Miami-Dade County Health Department

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

North

OW-721U

see attached drawings for proposed well locations

West East

South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if required, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governmental agencies, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or physical completion, whichever occurs first.

Signature of Contractor 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Owner's or Agent's Signature 2/19/08 Date

DO NOT WRITE BELOW THIS LINE — FOR OFFICIAL USE ONLY

Approval Granted By: ASTRID EDWARDS Issue Date: 2-19-08 Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ 50 Receipt No.: T08021546 Check No.: 524534
Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

DCN# TUR060

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. B-59-7752
Florida Unique I.D.
Permit Stipulations Required (See attached)
82-524 well ☐
CUP/WUP Application No.

1. Florida Power and Light Company, Attn: Mr. Ed Paula 9700 SW 344 Street Florida City 33034 305-246-6407
Owner, Legal Name of Entity if Corporation — Address — City — Zip — Telephone Number

2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
Well Location — Address, Road Name or Number, City

3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
Well Drilling Contractor — License No. — Telephone No.

396 Plasters Avenue
Address

Atlanta Georgia 30324
City — State — Zip

4. SW (Quarter) 1/4 of SE (Quarter) 1/4 of Section 33

(Indicate Well on Chart)

5. Township 57S Range 40E

NW	NE
SW	SE
	X

6. Miami-Dade | N/A | N/A | N/A | N/A
County — Subdivision Name — Lot — Block — Unit

Fold at this line in order that address is visible through envelope window

7. Number of proposed wells: 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
Distance from septic system N/A ft. Description of facility Test watercolor discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)

9. Estimated: Well Depth 101* ft Casing Depth 90 ft Screen Interval from 90 to 100
Casing Material: Blk-Steel / Gal / PVC PVC Casing Diameter 2" Seal Material see below

*Well will be installed with a one-foot sump

10. If applicable: Proposed Grouting Interval
From 88 to 100 Seal Material 10/20 silica sand
From 83 to 85 Seal Material Bentonite
From 0 to 83 Seal Material Portland/bentonite slurry

Date Stamp
APPROVED
Permit no. B-59-225
2-19-08
Date
Miami-Dade County Department

Draw a map of well location and indicate well site with arrow. Identify known roads and landmarks; provide distances between roads and landmarks.

North
OW-735L
West
see attached drawings for proposed well locations
East
South

11. Telescope Casing ____ or Liner X (check one) Diameter 2"
Blk-Steel / Galvanized / PVC PVC Other (specify): ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
X Auger ____ Other (specify:) ____

13. Indicate total No. of wells on site 0. List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ____ Yes
(If yes, complete the following) CUP/WUP No. N/A
District well I.D. No. N/A
Latitude N/A Longitude N/A
Data obtained from GPS ____ or map ____ or survey ____ (map datum NAD 27 ____ NAD 83 ____)

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments. If application agrees to provide a well completion report to the District within 30 days after drilling of the permit expiration, if no work occurs then.

Signature of Contractor — 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to the entry of the WMD or a representative access to the well site.

Owner's or Agent's Signature — 2/15/08 Date

DO NOT WRITE BELOW THIS LINE - FOR OFFICIAL USE ONLY

Approval Granted By: ASTRID EDWARDS Issue Date: 2-19-08 Hydrologist Approval ____
Owner Number: ____ Fee Received: $ 60 Receipt No: E080225W Check No.: 52453 Initials ____
Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

DCN# TUR060

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM *MUST* BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-7751
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No.

Fold at this line in order that address is visible through envelope window

1. Florida Power and Light Company, Attn: Mr. Ed Paula 9700 SW 344 Street Florida City 33034 305-246-6407
   Owner, Legal Name of Entity if Corporation | Address | City | Zip | Telephone Number
2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
   Well Location — Address, Road Name or Number, City
3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
   Well Drilling Contractor | License No. | Telephone No.
   396 Plasters Avenue
   Address
   Atlanta Georgia 30324
   City | State | Zip
4. SW (smallest) 1/4 of SE (largest) 1/4 of Section 33
   (Indicate Well on Chart)
5. Township 57S Range 40E

NW	NE
	X
SW	SE

6. Miami-Dade | N/A | N/A | N/A | N/A
   County | Subdivision Name | Lot | Block | Unit

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
   ____ Irigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
   Distance from septic system N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)

9. Estimated: Well Depth 26* ft Casing Depth 15 ft Screen Interval from 15 to 25
   Casing Material: Blk-Steel / Gal / PVC rvc Casing Diameter 2" Seal Material see below

10. If applicable: Proposed Grouting Interval From 13 to 25 Seal Material 10/20 silica sand
    From 10 to 13 Seal Material Bentonite
    From 0 to 10 Seal Material Portland/bentonite slurry
    *Well will be installed with a one-foot sump

11. Telescope Casing ____ or Liner X (check one) Diameter 2"
    Blk-Steel / Galvanized / PVC PVC Other (specify): ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
    X Auger ____ Other (specify:) ____)

13. Indicate total No. of wells on site 0. List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___Yes
    (If yes, complete the following) CUP/WUP No. N/A
    District well I.D. No. N/A
    Latitude N/A Longitude N/A
    Data obtained from GPS ___ or map ___ or survey ___ (*map datum NAD 27*___ NAD 83___)

Date Stamp
APPROVED
Permit no. 13-59-7751
2-19-08
Date
Miami-Dade County
Environmental Resources Management

Draw a map of well location and indicate well site with at least two identifiably known roads and landmarks; provide distances between well and landmarks.

North
OW-735U
N
see attached drawings for proposed well locations
West
East
South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments. If applicable, I agree to provide a well completion report to the District within 30 days after drilling of the permitted well, unless otherwise stated.

Signature of Contractor 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Owner's or Agent's Signature 1/15/08 Date

DO NOT WRITE BELOW THIS LINE FOR OFFICIAL USE ONLY

Approval Granted By: Astrid Edwards Issue Date: 2-19-08 Hydrologist Approval ____ Initials
Owner Number: ____ Fee Received: $ 50 Receipt No.: 10822566 Check No.: 524534
Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

DCN# TUR060

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.
The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-2254
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No.

1. Florida Power and Light Company, Attn: Mr. Ed Paula — 9700 SW 344 Street — Florida City — 33034 — 305-246-6407
   Owner, Legal Name of Entity if Corporation — Address — City — Zip — Telephone Number
2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
   Well Location — Address, Road Name or Number, City
3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 — 404-873-4761
   Well Drilling Contractor — License No. — Telephone No.
   396 Plasters Avenue
   Address
   Atlanta — Georgia — 30324
   City — State — Zip
4. NE (staked) 1/4 of NE (clipped) 1/4 of Section 34
5. Township 57S Range 40E
   (Indicate Well on Chart)

NW	NE
	X
SW	SE

6. Miami-Dade — N/A — N/A — N/A — N/A
   County — Subdivision Name — Lot — Block — Unit

Fold at this line in order that address is visible through envelope window

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
   ____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
   Distance from septic system: N/A ft. Description of facility 2nd wastewater discharge area Estimated start of construction date 2/19/08
8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)
9. Estimated: Well Depth 101* ft Casing Depth 90 ft Screen Interval from 90 to 100
   Casing Material: Blk-Steel / Gal / PVC PVC Casing Diameter 2" Seal Material see below
   *Well will be installed with a one-foot stick-up
10. If applicable: Proposed Grouting Interval
    From 88 to 100 Seal Material 10/20 silica sand
    From 83 to 85 Seal Material Bentonite
    From 0 to 83 Seal Material Portland/bentonite slurry
11. Telescope Casing ____ or Liner X (check one) Diameter 2"
    Blk-Steel / Galvanized / PVC PVC Other (specify): ____
12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
    X Auger ____ Other (specify:) ____
13. Indicate total No. of wells on site 0 List number of unused wells on site 0
14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___Yes
    (If yes, complete the following) CUP/WUP No. N/A
    District well I.D. No. N/A
    Latitude N/A Longitude N/A
    Data obtained from GPS ___ or map ___ or survey ___ (map datum NAD 27___ NAD 83___)

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

North

OW-802L

West — See attached drawings for proposed well locations — East

South

APPROVED
Permit no. 13-59-2254
Date: 2-19-08
Miami-Dade County Health Department

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if required, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or the permit expiration, whichever occurs first.

Signature of Contractor — License No. 1035

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Owner's or Agent's Signature — Date 2/15/08

DO NOT WRITE BELOW THIS LINE. FOR OFFICIAL USE ONLY

Approval Granted By: ASHED EDWARDS Issue Date: 2/19/08 Hydrologist Approval ____ Initials
Owner Number: ____ Fee Received: $ 50 Receipt No.: D080217406 Check No.: 524536
Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

Revised 4/95

DCN# TUR060

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM *MUST* BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-7763
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No.

1. Florida Power and Light Company, Attn: Mr. Ed Paula 9700 SW 344 Street Florida City 33034 305-246-6407
Owner, Legal Name of Entity if Corporation | Address | City | Zip | Telephone Number

2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
Well Location — Address, Road Name or Number, City

3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
Well Drilling Contractor | License No. | Telephone No.

396 Plasters Avenue
Address

Atlanta Georgia 30324
City | State | Zip

4. NE (smallest) 1/4 of NE (biggest) 1/4 of Section 34

5. Township 57S Range 40E

(Indicate Well on Chart)

NW NE X SW SE

6. Miami-Dade | N/A | N/A | N/A | N/A
County | Subdivision Name | Lot | Block | Unit

Fold at this line in order that address is visible through envelope window

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
Distance from septic system: N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)

Date Stamp: APPROVED Permit no. 13-59-7763 Date 2-19-08 Miami-Dade County Health Department

9. Estimated: Well Depth 26* ft Casing Depth 15 ft Screen Interval from 15 to 25
Casing Material: Blk-Steel / Gal / PVC PVC Casing Diameter 2" Seal Material see below

*Well will be installed with a one-foot stump

10. If applicable: Proposed Grouting Interval
From 13 to 25 Seal Material 10/20 silica sand
From 10 to 13 Seal Material Bentonite
From 0 to 10 Seal Material Portland/bentonite slurry

Draw a map of well location and indicate well site with reference to identifiably known roads and landmarks; provide distances between well and landmarks.

11. Telescope Casing ____ or Liner X (check one) Diameter 2"
Blk-Steel / Galvanized / PVC PVC Other (specify): ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
X Auger ____ Other (specify:) ____

13. Indicate total No. of wells on site 0 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___ Yes
(If yes, complete the following) CUP/WUP No. N/A
District well I.D. No. N/A
Latitude N/A Longitude N/A
Date obtained from GPS ___ or map ___ or survey ___ (map datum NAD 27 ___ NAD 83 ___)

North

OW-802U

see attached drawings for proposed well locations

West East South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if required, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or the permit expiration, whichever occurs first.

Signature of Contractor 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner hereby agrees to personnel of the WMD or a representative access to the well site.

Owner's or Agent's Signature 2/15/08 Date

DO NOT WRITE BELOW THIS LINE — FOR OFFICIAL USE ONLY

Approval Granted By: Alfred Edwards Issue Date: 2-19-08 Hydrologist Approval ____

Owner Number: ____ Fee Received: $ 50 Receipt No.: To8021548 Check No.: 524534
Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

DCN# TUR060

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

Permit No. 13159-7756
Florida Unique I.D.
Permit Stipulations Required (See attached)
82-524 well ☐
CUP/WUP Application No.

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.
The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Fold at this line in order that address is visible through envelope window

1. Florida Power and Light Company, Attn: Mr. Ed Paula | 9700 SW 344 Street | Florida City | 33034 | 305-246-6407
   Owner, Legal Name of Entity if Corporation | Address | City | Zip | Telephone Number
2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
   Well Location — Address, Road Name or Number, City
3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 | 404-873-4761
   Well Drilling Contractor | License No. | Telephone No.
   396 Plasters Avenue
   Address
   Atlanta | Georgia | 30324
   City | State | Zip
4. NE (smallest) 1/4 of SE (biggest) 1/4 of Section 34
   (Indicate Well on Chart)
5. Township 57S Range 40E
6. Miami-Dade | N/A | N/A | N/A | N/A
   County | Subdivision Name | Lot | Block | Unit

NW NE SW SE — X

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
   ____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
   Distance from septic system N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08
8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ Date Plugged
   (Reason for Abandonment)
9. Estimated: Well Depth 101* ft Casing Depth 90 ft Screen Interval from 90 to 100
   Casing Material: Blk-Steel / Gal / PVC PVC Casing Diameter 2" Seal Material see below
   *Well will be installed with a one-foot sump
10. If applicable: Proposed Grouting Interval From 88 to 100 Seal Material 10/20 silica sand
    From 85 to 85 Seal Material Bentonite
    From 0 to 83 Seal Material Portland/bentonite slurry
11. Telescope Casing ____ or Liner X (check one) Diameter 2"
    Blk-Steel / Galvanized / PVC PVC Other (specify): ____
12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
    X Auger ____ Other (specify:) ____
13. Indicate total No. of wells on site 0 List number of unused wells on site 0
14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___Yes
    (If yes, complete the following) CUP/WUP No. N/A
    District well I.D. No. N/A
    Latitude N/A Longitude N/A
    Data obtained from GPS ___ or map ___ or survey ___ (*map datum NAD 27* ___ *NAD 83* ___)

APPROVED
Permit no. 13159-7756
Date: 2-19-08
Miami-Dade County Health Department

Draw a map of well location and indicate well site within "X". Identify known roads and landmarks; provide distances between well and landmarks.

North
OW-805L
see attached drawings for proposed well locations
West East
South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments. If applicable, I agree to provide a well completion report to the District within 30 days after drilling or the permit expires, whichever occurs first.

Signature of Contractor — License No. 11035

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Owner/Agent Authorized Signature — Date 2/15/08

DO NOT WRITE BELOW THIS LINE - FOR OFFICIAL USE ONLY

Approval Granted By: ASTRID EDWARDS Issue Date: 2-19-08 Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ 50 Receipt No.: T080215406 Check No.: 524534

Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-4755
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No.

1. Florida Power and Light Company, Attn: Mr. Ed Paula 9700 SW 344 Street Florida City 33034 305-246-6407
   Owner, Legal Name of Entity if Corporation | Address | City | Zip | Telephone Number
2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
   Well Location — Address, Road Name or Number, City
3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
   Well Drilling Contractor | License No. | Telephone No.
   396 Plasters Avenue
   Address
   Atlanta Georgia 30324
   City | State | Zip

Fold at this line in order that address is visible through envelope window

4. NE (smallest) 1/4 of SE (biggest) 1/4 of Section 34 (Indicate Well on Chart)

NW	NE
SW	SE

5. Township 57S Range 40E
6. Miami-Dade | N/A | N/A | N/A | N/A
   County | Subdivision Name | Lot | Block | Unit

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
   ____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
   Distance from septic system N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)

9. Estimated: Well Depth 26* ft Casing Depth 15 ft Screen Interval from 15 to 25
   Casing Material: Blk-Steel / Gal / PVC PVC Casing Diameter 2" Seal Material see below
   *Well will be installed with a one-foot stick-up

10. If applicable: Proposed Grouting Interval From 13 to 25 Seal Material 10/20 silica sand
    From 10 to 13 Seal Material Bentonite
    From 0 to 10 Seal Material Portland/bentonite slurry

11. Telescope Casing ____ or Liner X (check one) Diameter 2"
    Blk-Steel / Galvanized / PVC PVC Other (specify): ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
    X Auger ____ Other (specify:) ____

13. Indicate total No. of wells on site 0 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___Yes
    (If yes, complete the following) CUP/WUP No. N/A
    District well I.D. No. N/A
    Latitude N/A Longitude N/A
    Data obtained from GPS ___ or map ___ or survey ___ (map datum NAD 27___ NAD 83___)

APPROVED
Permit no. 13-59-4755
Date: 4/19-08
Miami-Dade County
Health Department

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

North

OW-805U

West — see attached drawings for proposed well locations — East

South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if required, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or the date of abandonment, whichever occurs first.

Signature of Contractor 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Owner's or Agent's Signature Date 2/15/08

DO NOT WRITE BELOW THIS LINE. FOR OFFICIAL USE ONLY

Approval Granted By: ALFRED EDWARDS Issue Date: 4/19-08 Hydrologist Approval ____

Owner Number: ____ Fee Received: $ 50 Receipt No.: T082150206 Check No.: 524534
Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

DCN# TUR060

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

- ☐ Southwest
- ☐ Northwest
- ☐ St. Johns River
- ☒ South Florida
- ☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-7758
Florida Unique I.D. ______
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No. ______

1. Florida Power and Light Company, Attn: Mr. Ed Paula | 9700 SW 344 Street | Florida City | 33034 | 305-246-6407
Owner, Legal Name of Entity if Corporation | Address | City | Zip | Telephone Number

2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
Well Location — Address, Road Name or Number, City

3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 | 404-873-4761
Well Drilling Contractor | License No. | Telephone No.
396 Plasters Avenue
Address
Atlanta | Georgia | 30324
City | State | Zip

4. NW 1/4 of SE 1/4 of Section 33 (Indicate Well on Chart)

5. Township 57S Range 40E

6. Miami-Dade | N/A | N/A | N/A | N/A
County | Subdivision Name | Lot | Block | Unit

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ______ Domestic Monitor (type) Observation well
______ Irrigation (type) Public Water Supply (type) ______ List Other ______
Distance from septic system N/A ft. Description of facility Ind. wastewater discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ______ Repair/Modify ______ Abandonment ______ (Reason for Abandonment)

9. Estimated: Well Depth 101* ft Casing Depth 90 ft Screen Interval from 90 to 100
Casing Material: Blk-Steel / Galv / PVC pvc Casing Diameter 2" Seal Material see below

10. If applicable: Proposed Grouting Interval From 88 to 100 Seal Material 10/20 silica sand
From 83 to 85 Seal Material Bentonite
From 0 to 83 Seal Material Portland/bentonite slurry

*Well will be installed with a one-foot sump

11. Telescope Casing ______ or Liner x (check one) Diameter 2"
Blk-Steel / Galvanized / PVC PVC Other (specify) ______

12. Method of Construction: X Rotary ______ Cable Tool ______ Combination
X Auger ______ Other (specify) ______

13. Indicate total No. of wells on site 0 List number of unused wells on site 0

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___ Yes
(If yes, complete the following) CUP/WUP No. N/A
District well I.D. No. N/A
Latitude N/A Longitude N/A
Data obtained from GPS ___ or map ___ or survey ___ (map datum NAD 27 ___ NAD 83 ___)

APPROVED Permit no. 13-59-7758 Date 2-19-08 Miami-Dade County Health Department

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

North / West / East / South

OW-809L

see attached drawings for proposed well locations

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or permit expiration, whichever occurs first.

[signature] 11035
Signature of Contractor | License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well, or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

[signature] 2/15/08
Owner's or Agent's Signature | Date

DO NOT WRITE BELOW THIS LINE — FOR OFFICIAL USE ONLY

Approval Granted By: ASTRID EDWARDS Issue Date: 2-19-08 Hydrologist Approval ______ Initials
Owner Number: ______ Fee Received: $ 50 Receipt No.: I0802164C Check No.: 524534
Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM *MUST* BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13592 7752
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No.

1. Florida Power and Light Company, Attn: Mr. Ed Paula 9700 SW 344 Street Florida City 33034 305-246-6407
   Owner, Legal Name of Entity if Corporation — Address — City — Zip — Telephone Number
2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
   Well Location — Address, Road Name or Number, City
3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
   Well Drilling Contractor — License No. — Telephone No.
   396 Plasters Avenue
   Address
   Atlanta Georgia 30324
   City — State — Zip

Find at this line in order that address is visible through envelope window

4. NW (smallest) 1/4 of SE (biggest) 1/4 of Section 33 (Indicates Well on Chart)

NW	NE
	X
SW	SE

5. Township 57S Range 40E
6. Miami-Dade | N/A | N/A | N/A | N/A
   County — Subdivision Name — Lot — Block — Unit

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
   ____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
   Distance from septic system N/A ft. Description of facility Ind. wastewater disch. prov. Estimated start of construction date 2/19/08
8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)
9. Estimated: Well Depth 26* ft Casing Depth 15 ft Screen Interval from 25 to 25
   Casing Material: Blk-Steel / Gal / PVC pvc Casing Diameter 2" Seal Material see below
10. If applicable: Proposed Grouting Interval From 13 to 25 Seal Material 10/20 silica sand
    From 10 to 13 Seal Material Bentonite
    From 0 to 10 Seal Material Portland/bentonite slurry
    *Well will be installed with a one-foot sump.
11. Telescope Casing ____ or Liner X (check one) Diameter 2"
    Blk-Steel / Galvanized / PVC PVC Other (specify: ____
12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
    X Auger ____ Other (specify:) ____
13. Indicate total No. of wells on site 0, List number of unused wells on site 0
14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___Yes
    (If yes, complete the following) CUP/WUP No. N/A
    District well I.D. No. N/A
    Latitude N/A Longitude N/A
    Data obtained from GPS ___ or map ___, or survey ___ (*map datum* NAD 27 ___ NAD 83 ___)

Draw a map of well location and indicate well site with an "X", identify known roads and landmarks; provide distances between well and landmarks.

North
OW-809U
N
West
see attached drawings for proposed well locations
East
South

APPROVED
Permit no. 13592-7752
2/19/08
Miami-Dade County
Public Health Department
Date

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments. If applicable, I agree to provide a well completion report to the District within 30 days after drilling the permit expiration, whichever occurs first.

Signature of Contractor — 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to permission of the WMD or a representative access to the well site.

Owner's or Agent's Signature — 2/15/08 Date

DO NOT WRITE BELOW THIS LINE — FOR OFFICIAL USE ONLY

Approval Granted By: ASTRID EDWARDS Issue Date: 2-19-08 Hydrologist Approval ____ Initials

Owner Number: ____ Fee Received: $ 150 Receipt No: To80215406 Check No.: 524534

Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

FAX #: 919-831-8136

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM *MUST* BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59-7760
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No.

Fold at this line in order that address is visible through envelope window

1. Florida Power and Light Company, Attn: Mr. Ed Paula 9700 SW 344 Street Florida City 33034 305-246-6407
   Owner, Legal Name of Entity if Corporation | Address | City | Zip | Telephone Number
2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
   Well Location — Address, Road Name or Number, City
3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
   Well Drilling Contractor | License No. | Telephone No.
   396 Plasters Avenue
   Address
   Atlanta Georgia 30324
   City | State | Zip
4. NW (smaller) 1/4 of NE (bigger) 1/4 of Section 33
   (Indicate Well on Chart)
5. Township 57S Range 40E

NW	NE
	X
SW	SE

6. Miami-Dade | N/A | N/A | N/A | N/A
   County | Subdivision Name | Lot | Block | Unit

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
   ____ Irrigation (type) (See Back) Public Water Supply (type) ____ (See Back) List Other ____
   Distance from septic system N/A ft. Description of facility Tail wastewater discharge area Estimated start of construction date 2/19/08

8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)

9. Estimated: Well Depth 101* ft Casing Depth 90 ft Screen Interval from 90 to 100
   Casing Material: Blk-Steel / Gal / PVC PVC Casing Diameter 2" Seal Material see below

10. If applicable: Proposed Grouting Interval
    From 88 to 100 Seal Material 10/20 silica sand
    From 83 to 85 Seal Material Bentonite
    From 0 to 83 Seal Material Portland/bentonite slurry

*Well will be installed with a one-foot sump

APPROVED
Permit no. 13-59-7760
Date: 2/19-08
Miami-Dade County
Health Department

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distance between well and landmarks.

11. Telescope Casing ____ or Liner X (check one) Diameter 2"
    Blk-Steel / Galvanized / PVC PVC Other (specify): ____

12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
    X Auger ____ Other (specify:) ____

13. Indicate total No. of wells on site 0. List number of unused wells on site 0.

14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___Yes
    (If yes, complete the following) CUP/WUP No. N/A
    District well I.D. No. N/A
    Latitude N/A Longitude N/A
    Data obtained from GPS ____ or map ____ or survey ____ (map datum NAD 27____ NAD 83____)

North

OW-812L

West — see attached drawings for proposed well locations — East

South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if required, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain all necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling or abandoning a well, whichever occurs first.

Signature of Contractor 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personal entry of the WMD or a representative upon the well site.

Owner's or Agent's Signature 2/15/08 Date

DO NOT WRITE BELOW THIS LINE — FOR OFFICIAL USE ONLY

Approval Granted By: ASTRID EDWARDS Issue Date: 2-19-08 Hydrologist Approval ____

Owner Number: ____ Fee Received: $ 50 Receipt No.: I0802 15406 Check No.: 524534 (Initials)

Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

sfwmd.gov

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☐ Southwest
☐ Northwest
☐ St. Johns River
☒ South Florida
☐ Suwannee River

CHECK BOX FOR APPROPRIATE DISTRICT. ADDRESS ON BACK OF PERMIT FORM.

THIS FORM MUST BE FILLED OUT COMPLETELY.

The water well contractor is responsible for completing this form and forwarding the permit to the appropriate delegated county where applicable.

Permit No. 13-59- 2759
Florida Unique I.D.
Permit Stipulations Required (See attached)
62-524 well ☐
CUP/WUP Application No.

1. Florida Power and Light Company, Attn: Mr. Ed Paula 9700 SW 344 Street Florida City 33034 305-246-6407
   Owner, Legal Name of Entity if Corporation | Address | City | Zip | Telephone Number
2. Turkey Point Nuclear Generating Station - coordinates of proposed wells attached
   Well Location — Address, Road Name or Number, City
3. MACTEC Engineering and Consulting, Inc. - Phillip K. Pitts FL # 11035 404-873-4761
   Well Drilling Contractor | License No. | Telephone No.
   396 Plasters Avenue
   Address
   Atlanta Georgia 30324
   City | State | Zip
4. NW (smallest) 1/4 of NE (biggest) 1/4 of Section 33
   (Indicate Well on Chart)
5. Township 57S Range 40E
6. Miami-Dade | N/A | N/A | N/A | N/A
   County | Subdivision Name | Lot | Block | Unit

NW	NE
	X
SW	SE

(Fold at this line in order that address is visible through envelope window)

7. Number of proposed wells 1 Check the use of well: (See back of permit for additional choices) ____ Domestic Monitor (type) Observation well
   ____ (See Back) Irrigation (type) Public Water Supply (type) ____ (See Back) List Other ____
   Distance from septic system N/A ft. Description of facility Int. wastewater discharge area Estimated start of construction date 2/19/08
8. Application for: X New Construction ____ Repair/Modify ____ Abandonment ____ (Reason for Abandonment)
9. Estimated: Well Depth 26* ft Casing Depth 15 ft Screen Interval from 15 to 25
   Casing Material: Blk-Steel / Gal / PVC rvc Casing Diameter 2" Seal Material see below
10. If applicable: Proposed Grouting Interval
    From 13 to 25 Seal Material 10/20 silica sand
    From 10 to 13 Seal Material Bentonite
    From 0 to 10 Seal Material Portland/bentonite slurry
    *Well will be installed with a one-foot sump
11. Telescope Casing ____ or Liner X (check one) Diameter 2"
    Blk-Steel / Galvanized / PVCPVC Other (specify): ____
12. Method of Construction: X Rotary ____ Cable Tool ____ Combination
    X Auger ____ Other (specify:) ____
13. Indicate total No. of wells on site 0 List number of unused wells on site 0
14. Is this well or any other well or water withdrawal on the owner's contiguous property covered under a Consumptive Water Use Permit (CUP/WUP) or CUP/WUP Application? X No ___Yes
    (If yes, complete the following) CUP/WUP No. N/A
    District well I.D. No. N/A
    Latitude N/A Longitude N/A
    Data obtained from GPS ____ or map ____ or survey ____ (map datum NAD 27 ____ NAD 83 ____)

APPROVED
Permit no. 13-59-2759
Date: 2/19/08
Miami-Dade County Health Department

Date Stamp

Draw a map of well location and indicate well site with an "X". Identify known roads and landmarks; provide distances between well and landmarks.

North
OW-812U
West
see attached drawings for proposed well locations
East
South

15. I hereby certify that I will comply with the applicable rules of Title 40, Florida Administrative Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided on this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after drilling of the permit expiration, whichever occurs first.

Signature of Contractor 11035 License No.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to personnel of the WMD or a representative access to the well site.

Owner's or Agent's Signature 2/15/08 Date

DO NOT WRITE BELOW THIS LINE — FOR OFFICIAL USE ONLY

Approval Granted By: ASHRAF EDWARDS Issue Date: 2-19-08 Hydrologist Approval ____

Owner Number: ____ Fee Received: $ 50 Receipt No.: T080215406 Check No.: 52453 Initials 34

Enter numerical month, day and full, four-digit year.

THIS PERMIT NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD. IT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL DRILLING OPERATIONS. ***This permit is valid for 90 days from date of issue.***

Form 0123 Rev. 4/95

Observation Well Records

Observation Well Data Sheet

Prepared by: [illegible] Date: 7-10-08
Checked by: CBS Date: 7/10/08

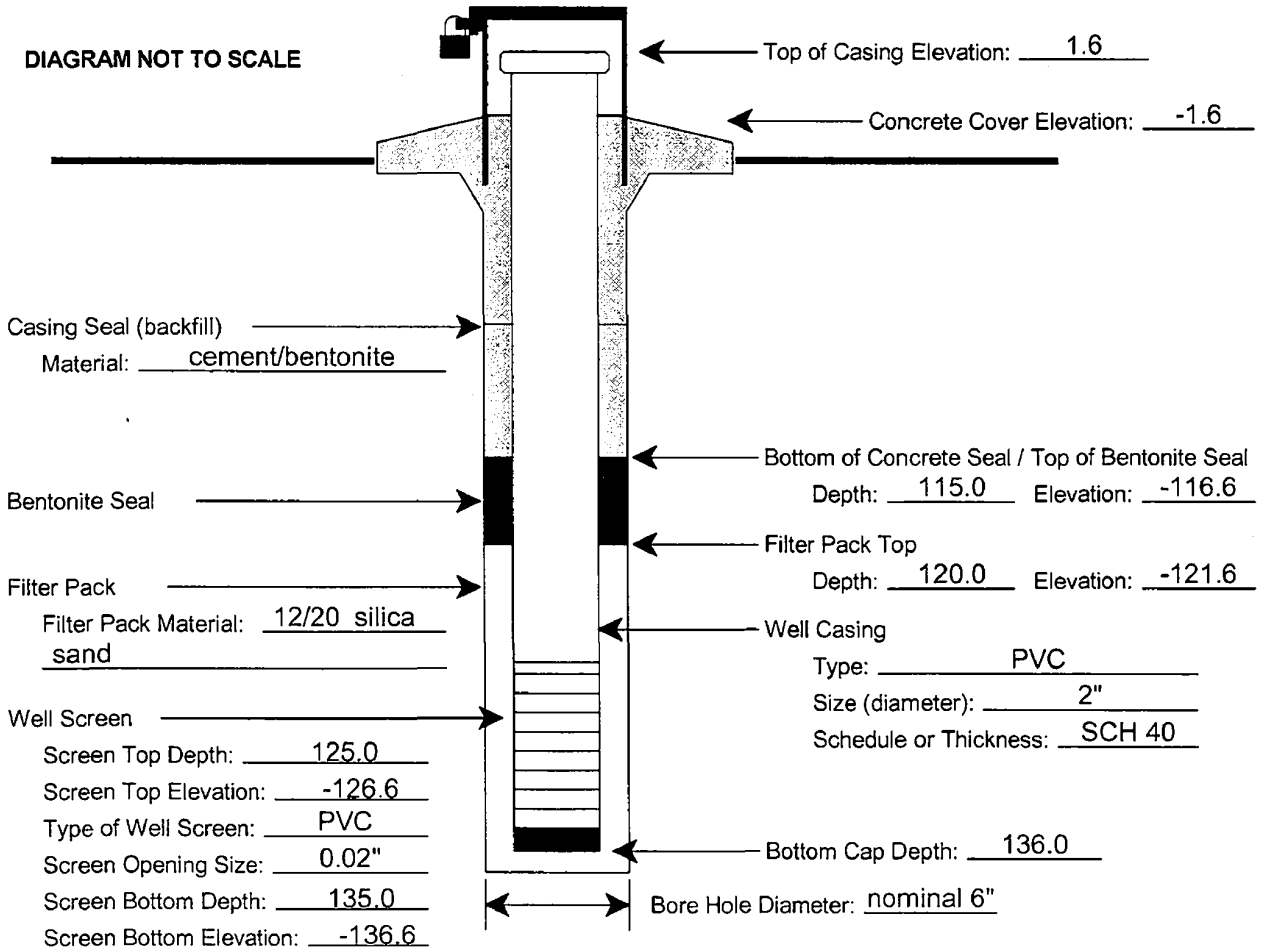
Project Name / No. : Turkey Point Power Station / 6468-07-1950
Observation Well Permit No.: 13-59-2671
County: Miami-Dade County, Florida
Observation Well I.D.: OW-606D
Date of Observation Well Installation: 5/28/08
Date of Well Development: 6/4/08
Observation Well Northing: 396962.8 US ft Easting: 876712.9 US ft
Observation Well Location: Main Island
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

Centralizer installation depths not recorded
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 6/4/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Harry Lyatuu
Static Water Level Elevation (with respect to NAVD88) after Well Development: 1.3
Name of Geologic Formation(s) in which Well is completed: See boring log B-606

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: LSG Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 5/14/08
Observation Well Northing: 396979.9 US ft Easting: 876732.6 US ft
Observation Well Location: Main Island

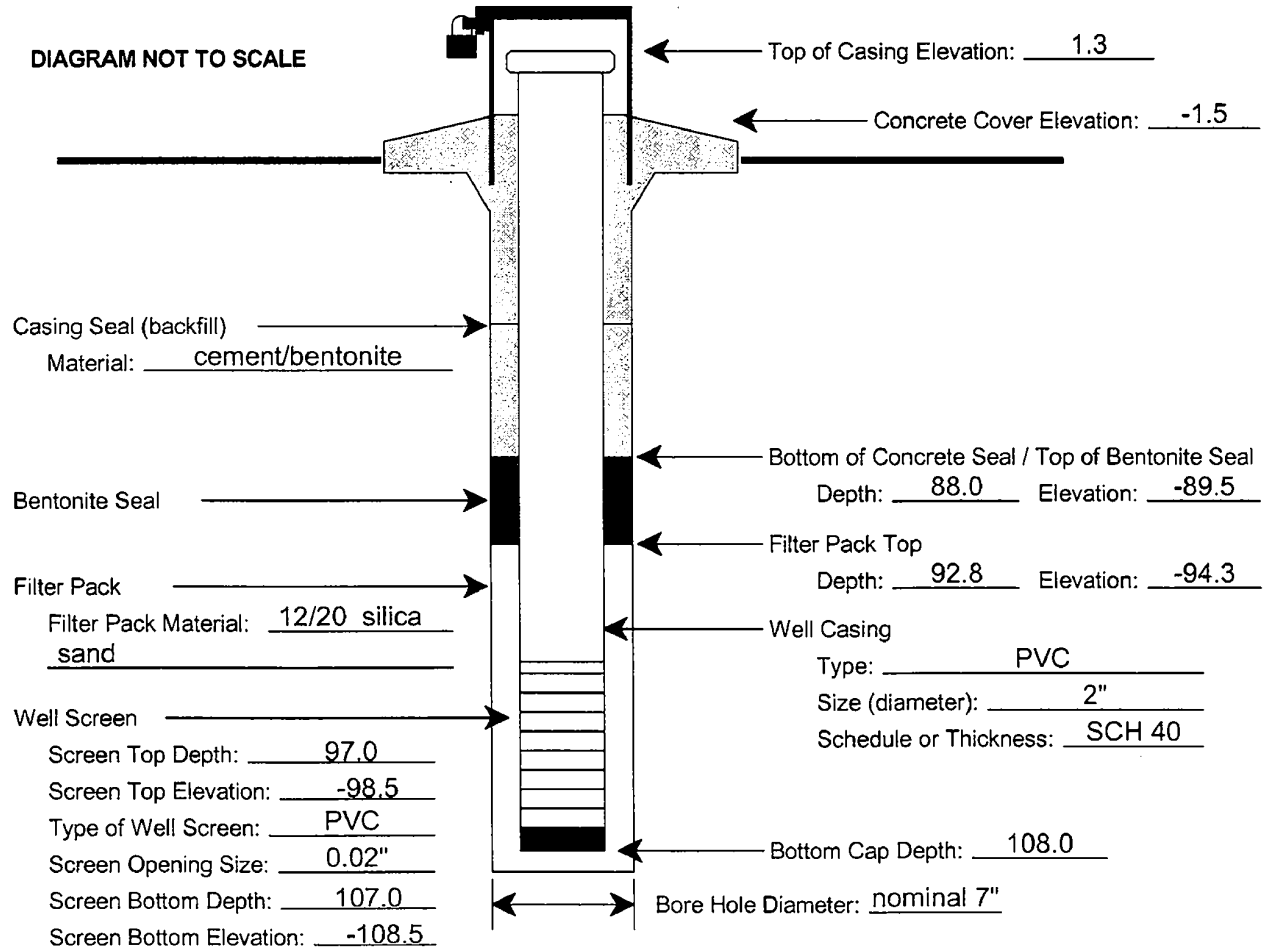
Observation Well Permit No.: 13-59-2243
Observation Well I.D.: OW-606L
Date of Well Development: 5/17/08
Observation Well Driller
Name: Miller Drilling/MACTEC
License No.: 11035

NOTES:

Two, stainless-steel centralizers installed at approximately 47 ft. and 96 ft.
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/18/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.
Drill bit lost in hole at 110.0 ft. Bentonite seal installed from 109.0-110.0', with approval of Bechtel.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Kim Charles-Smith
Static Water Level Elevation (with respect to NAVD88) after Well Development: -1.9
Name of Geologic Formation(s) in which Well is completed: See boring log B-606

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: [illegible] Date: 7-10-08
Checked by: CBS Date: 7/10/08

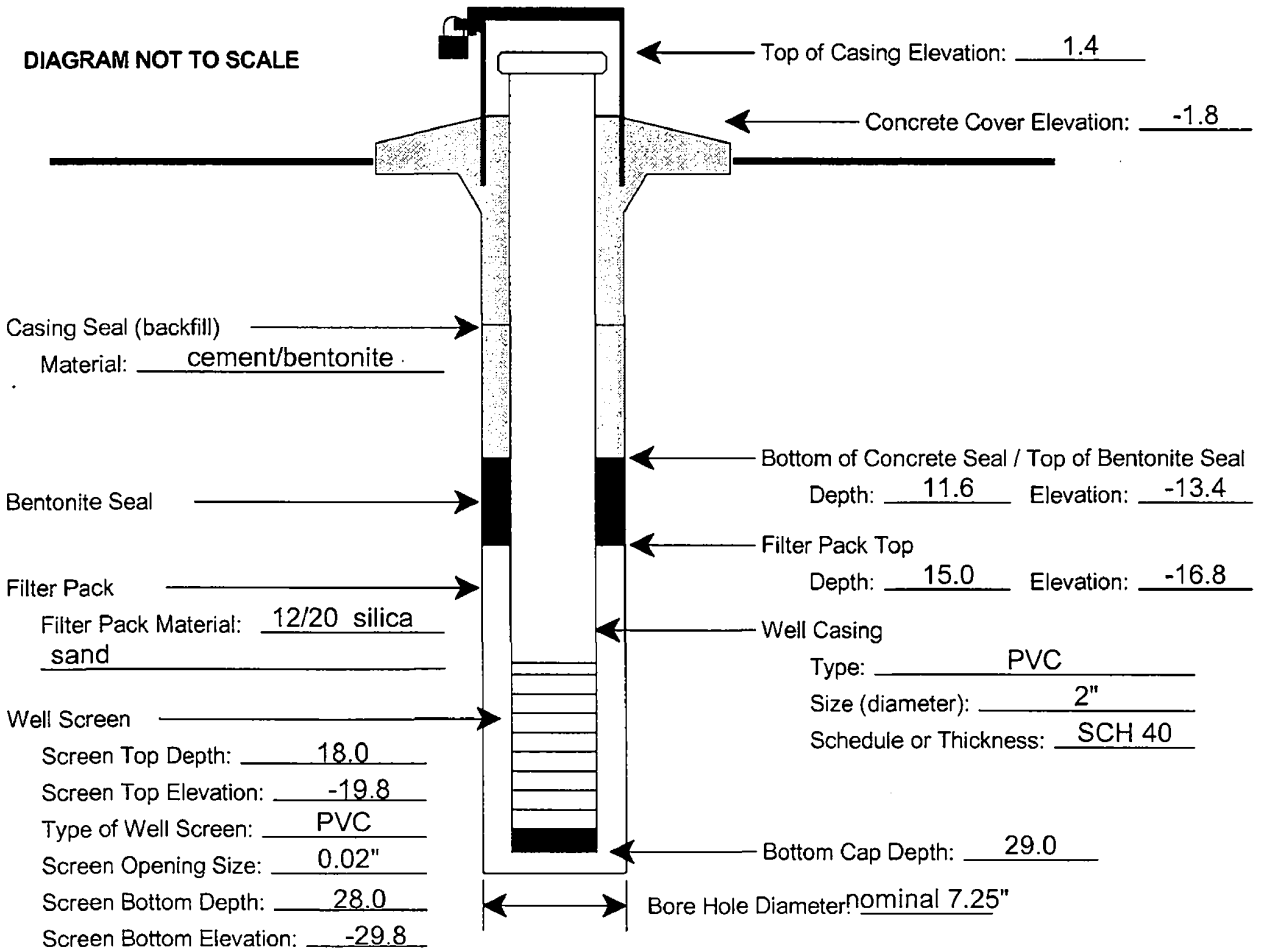
Project Name / No. : Turkey Point Power Station / 6468-07-1950
Observation Well Permit No.: 13-59-2241
County: Miami-Dade County, Florida
Observation Well I.D.: OW-606U
Date of Observation Well Installation: 4/22/08
Date of Well Development: 5/1/08
Observation Well Northing: 396938.0 US ft Easting: 876734.8 US ft
Observation Well Location: Main Island
Observation Well Driller
Name: Miller Drilling/MACTEC
License No.: 11035

NOTES:

One stainless-steel centralizer installed at approximately 11.5 ft.
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/20/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Kim Charles-Smith
Static Water Level Elevation (with respect to NAVD88) after Well Development: -2.1
Name of Geologic Formation(s) in which Well is completed: See boring log B-606

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: [illegible] Date: 7-008
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 4/18/08
Observation Well Northing: 397364.5 US ft Easting: 876970.0 US ft
Observation Well Location: Main Island

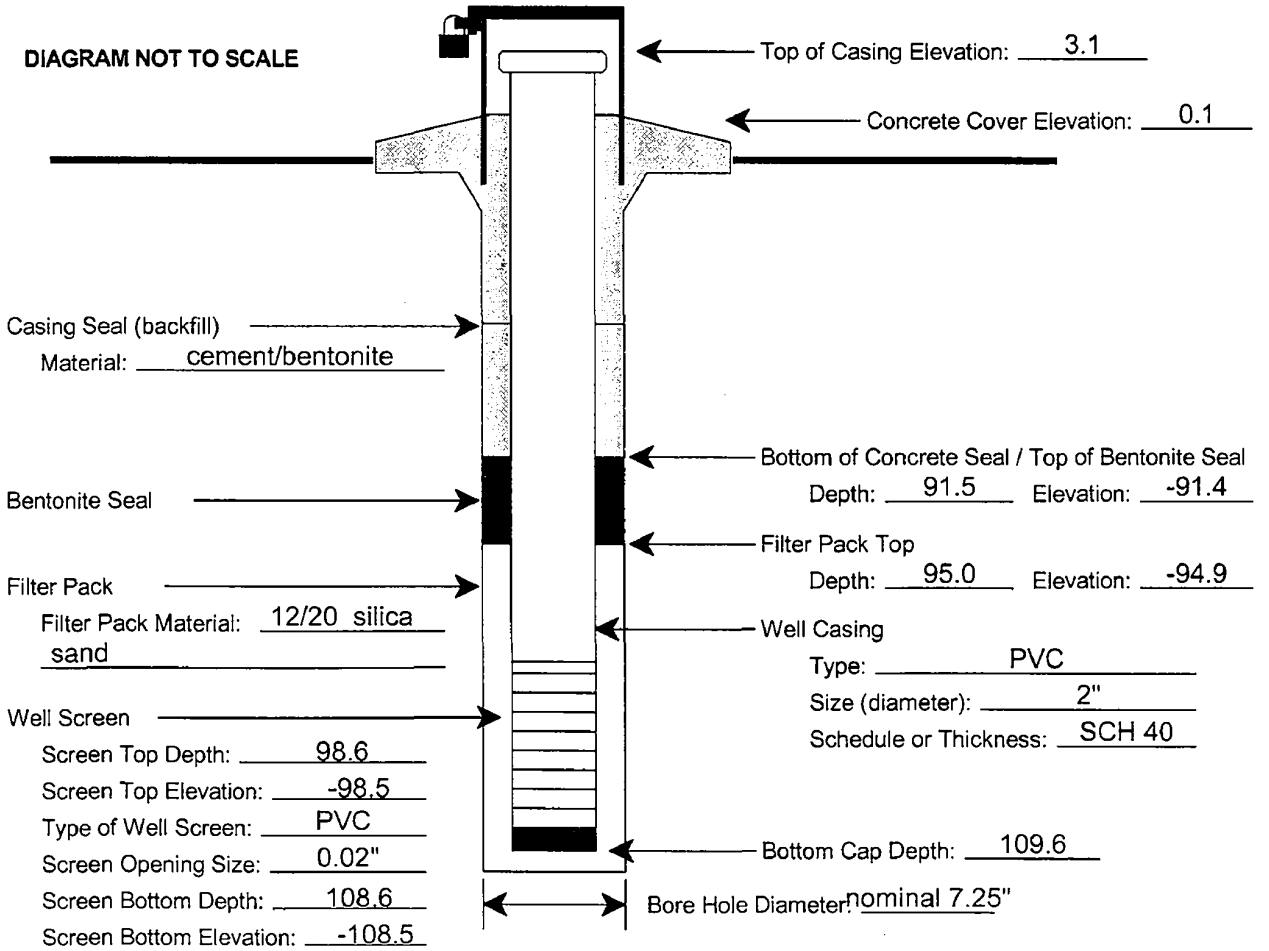
Observation Well Permit No.: 13-59-2242
Observation Well I.D.: OW-621I
Date of Well Development: 5/3/08
Observation Well Driller
Name: Miller Drilling/MACTEC
License No.: 11035

NOTES:

Two, stainless-steel centralizers installed at approximately 48 ft. and 98 ft.
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/17/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Chris Burroughs
Static Water Level Elevation (with respect to NAVD88) after Well Development: -1.0
Name of Geologic Formation(s) in which Well is completed: See boring log B-621

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WSL Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 4/19/08
Observation Well Northing: 397375.8 US ft Easting: 876930.0 US ft
Observation Well Location: Main Island

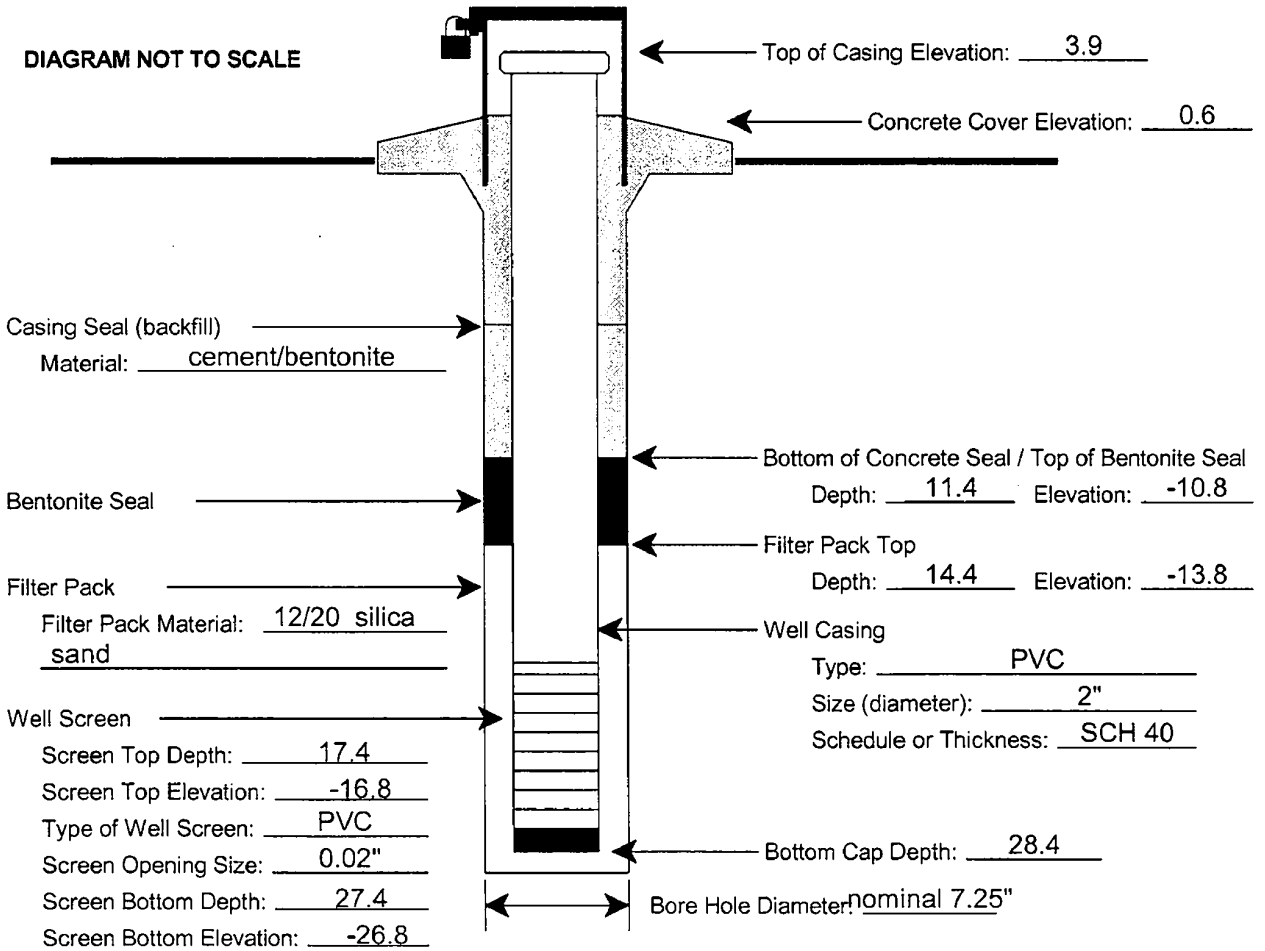
Observation Well Permit No.: 13-59-2244
Observation Well I.D.: OW-621U
Date of Well Development: 5/3/08
Observation Well Driller
Name: Miller Drilling/MACTEC
License No.: 11035

NOTES:

One stainless-steel centralizer installed at approximately 11 ft.
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/20/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Chris Burroughs
Static Water Level Elevation (with respect to NAVD88) after Well Development: -1.8
Name of Geologic Formation(s) in which Well is completed: See boring log B-621

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WS Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 4/8/08
Observation Well Northing: 395290.8 US ft Easting: 877257.2 US ft
Observation Well Location: South Island

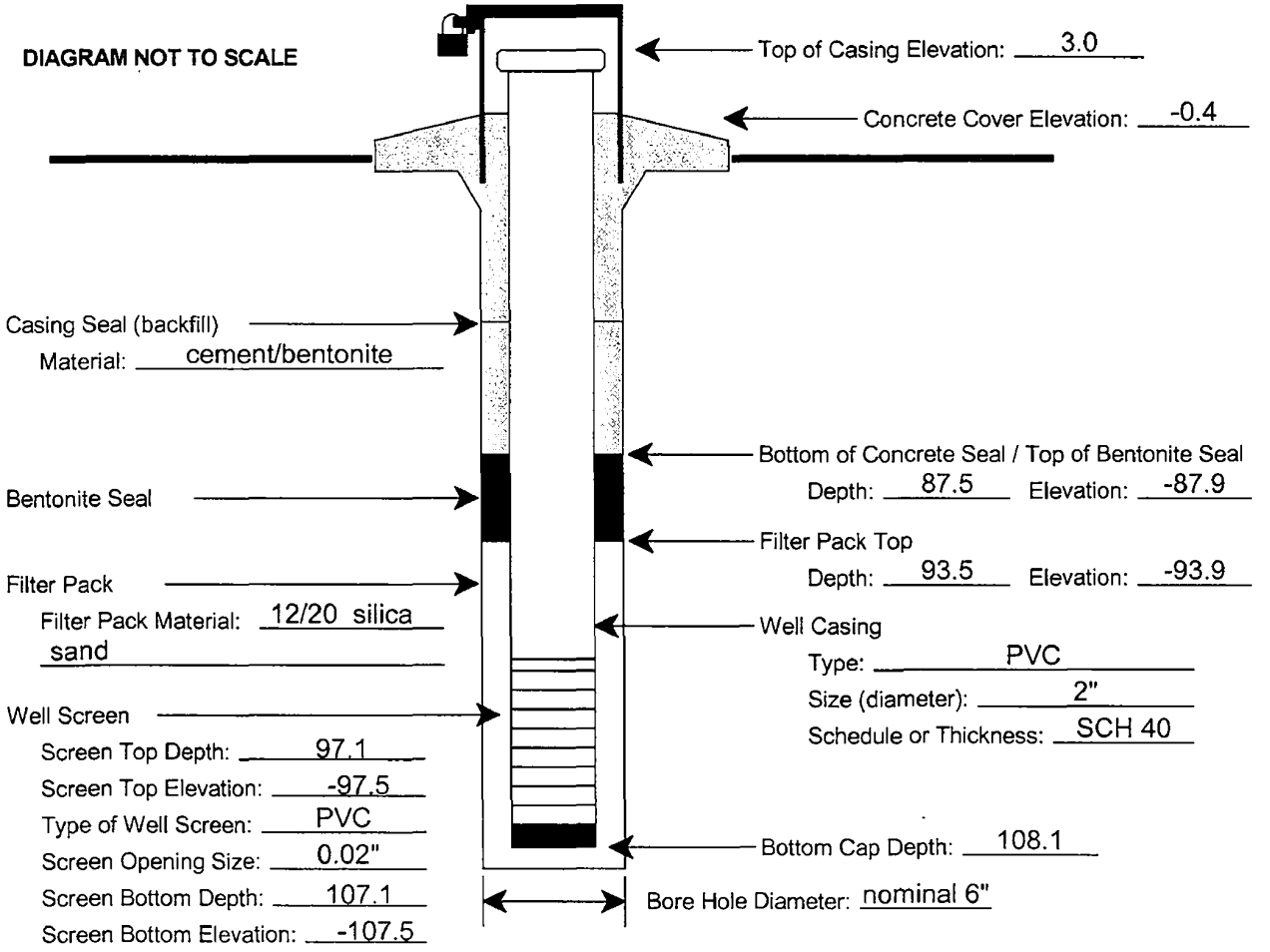
Observation Well Permit No.: 13-59-2246
Observation Well I.D.: OW-636L
Date of Well Development: 5/5/08
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

Two, stainless-steel centralizers installed at approximately 49.5 ft. and 96.6 ft.
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/21/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.
Encountered an apparent obstruction at 69.3 ft.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Chris Burroughs
Static Water Level Elevation (with respect to NAVD88) after Well Development: 0.3
Name of Geologic Formation(s) in which Well is completed: See boring log B-806

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WS Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 4/3/08
Observation Well Northing: 395285.8 US ft Easting: 877215.7 US ft
Observation Well Location: South Island

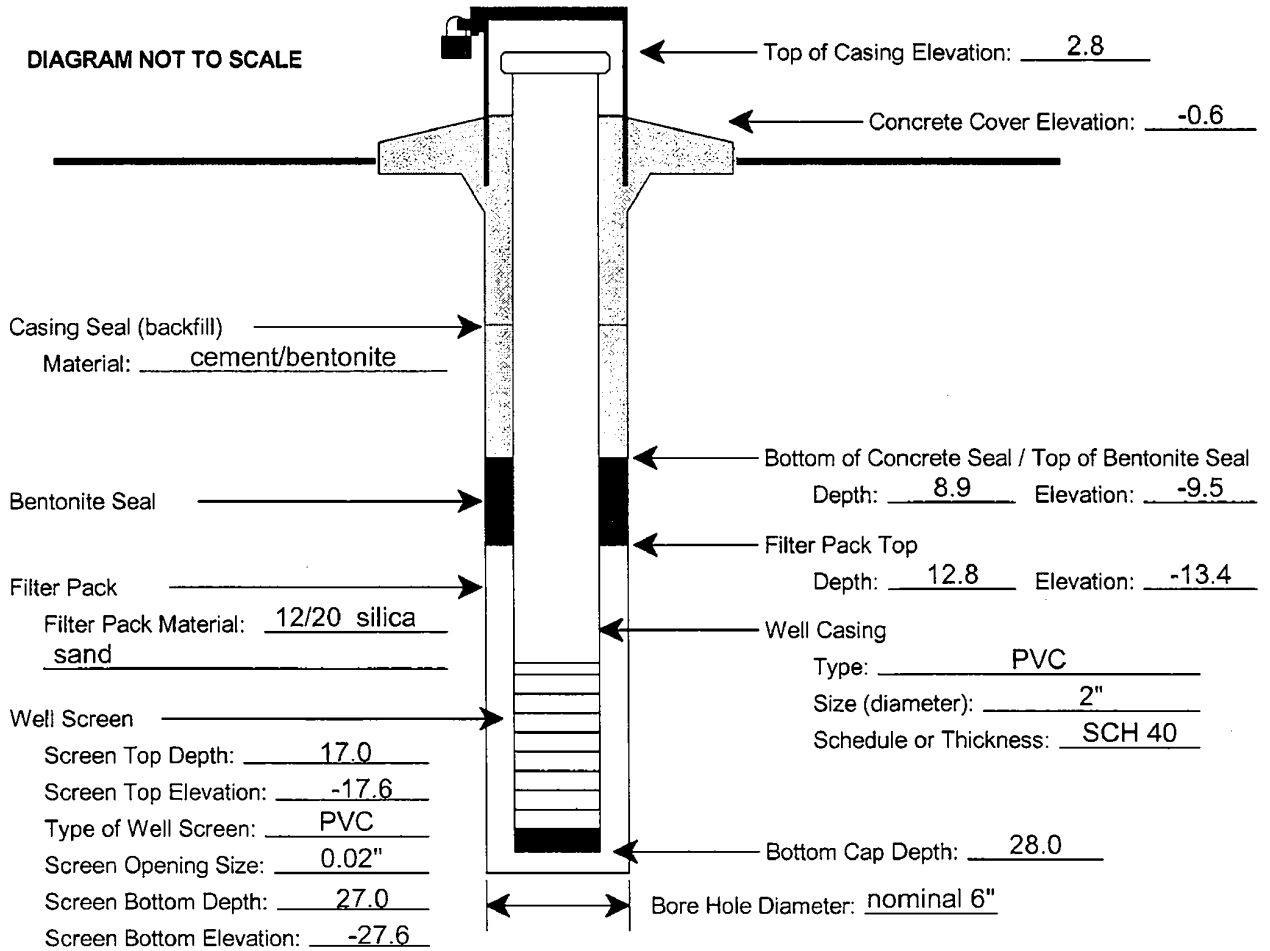
Observation Well Permit No.: 13-59-2245
Observation Well I.D.: OW-636U
Date of Well Development: 5/5/08
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

One stainless-steel centralizer installed at approximately 16.5 ft.
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/21/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Chris Burroughs
Static Water Level Elevation (with respect to NAVD88) after Well Development: -1.6
Name of Geologic Formation(s) in which Well is completed: See boring log B-806

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WS Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 5/29/08
Observation Well Northing: 396960.1 US ft Easting: 875864.4 US ft
Observation Well Location: Main Island

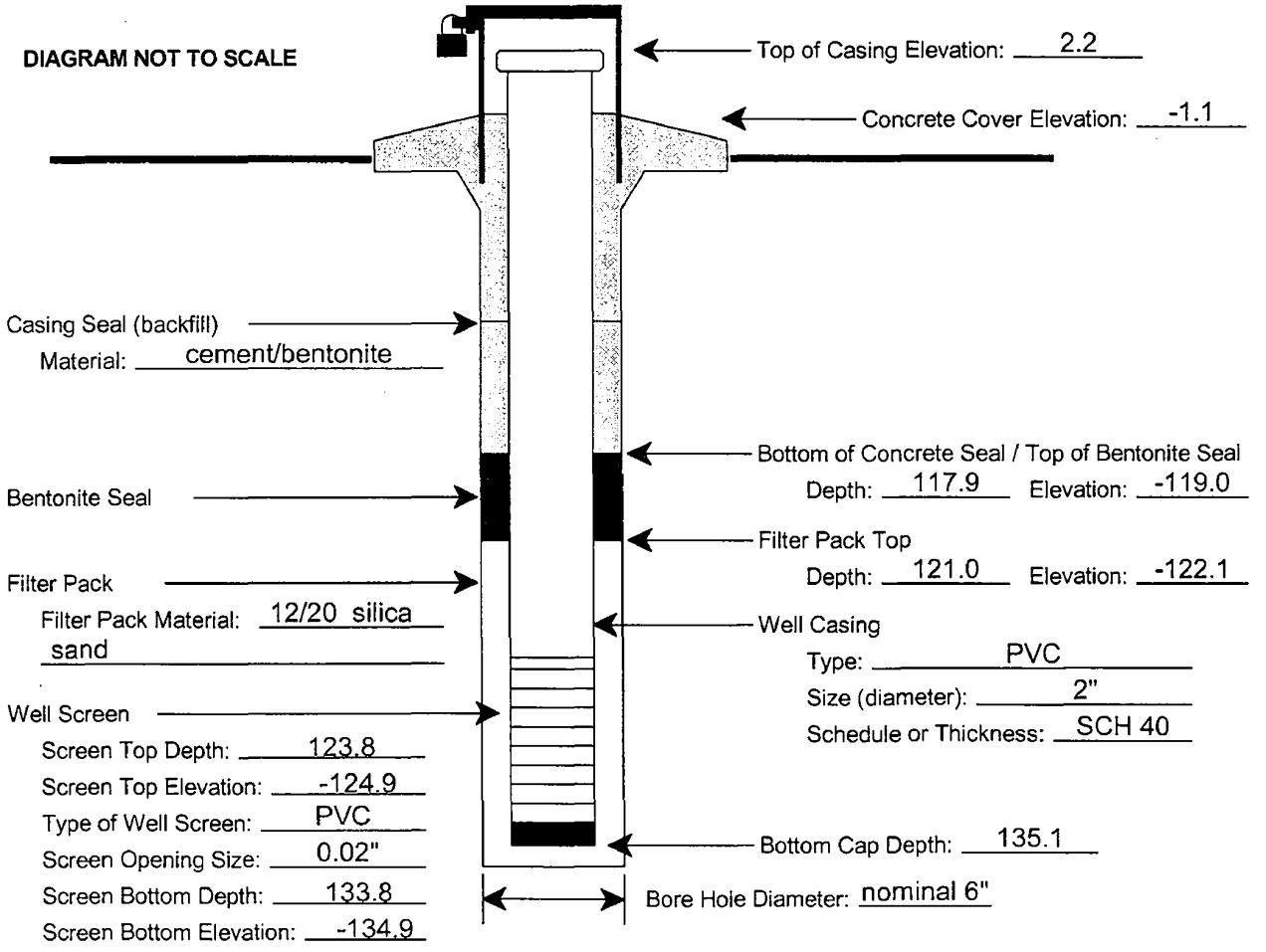
Observation Well Permit No.: 13-59-2672
Observation Well I.D.: OW-706D
Date of Well Development: 6/4/08
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

Centralizer installation depths not recorded
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 6/4/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Chris Burroughs
Static Water Level Elevation (with respect to NAVD88) after Well Development: 1.4
Name of Geologic Formation(s) in which Well is completed: See boring log B-706

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WSL Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 3/25/08
Observation Well Northing: 396978.2 US ft Easting: 875904.6 US ft
Observation Well Location: Main Island

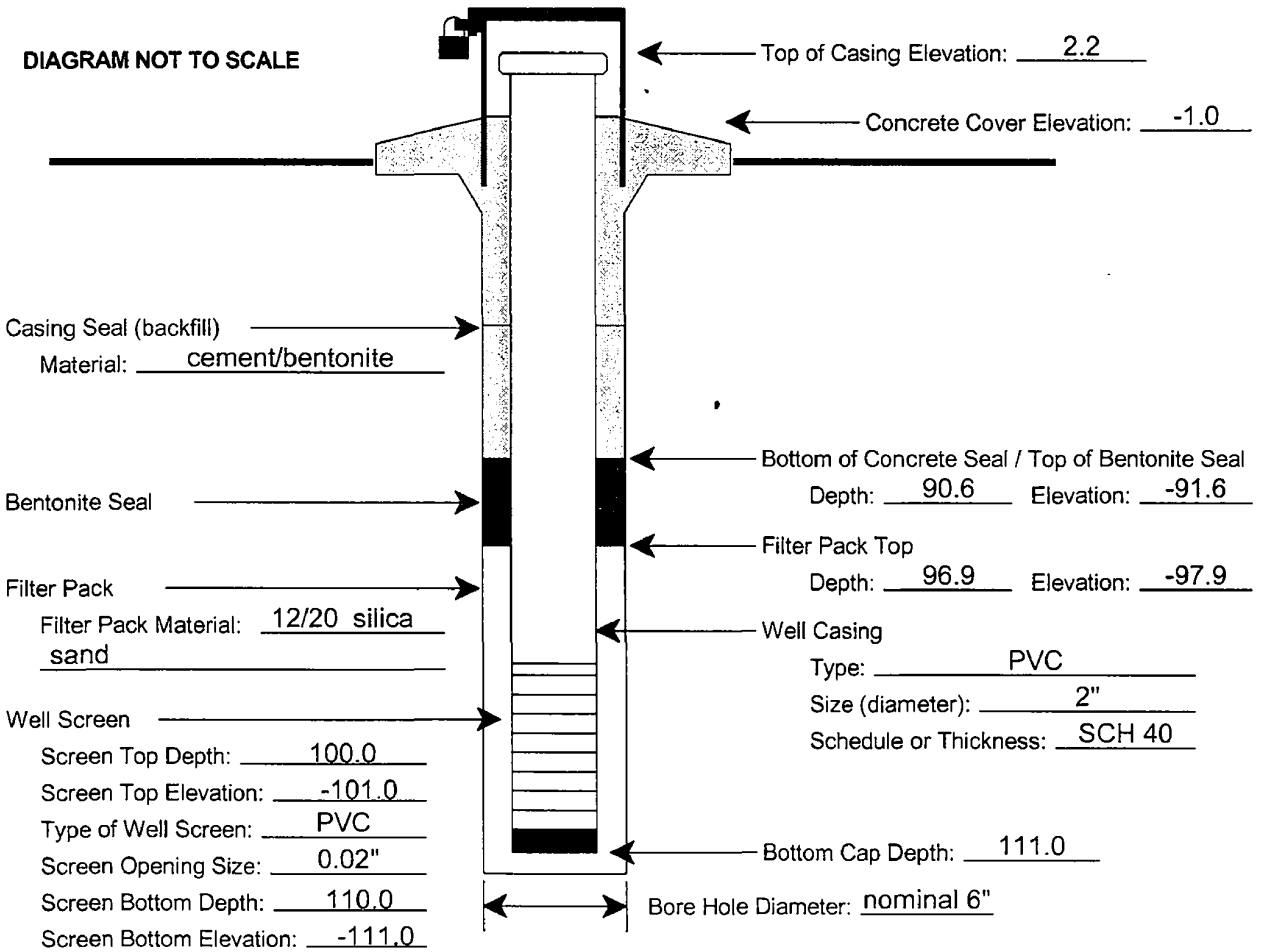
Observation Well Permit No.: 13-59-2248
Observation Well I.D.: OW-706L
Date of Well Development: 4/30/08
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

Centralizer installation depths not recorded
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/16/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Chris Burroughs
Static Water Level Elevation (with respect to NAVD88) after Well Development: 0.7
Name of Geologic Formation(s) in which Well is completed: See boring log B-706

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WSC Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 3/27/08
Observation Well Northing: 396940.1 US ft Easting: 875895.7 US ft
Observation Well Location: Main Island

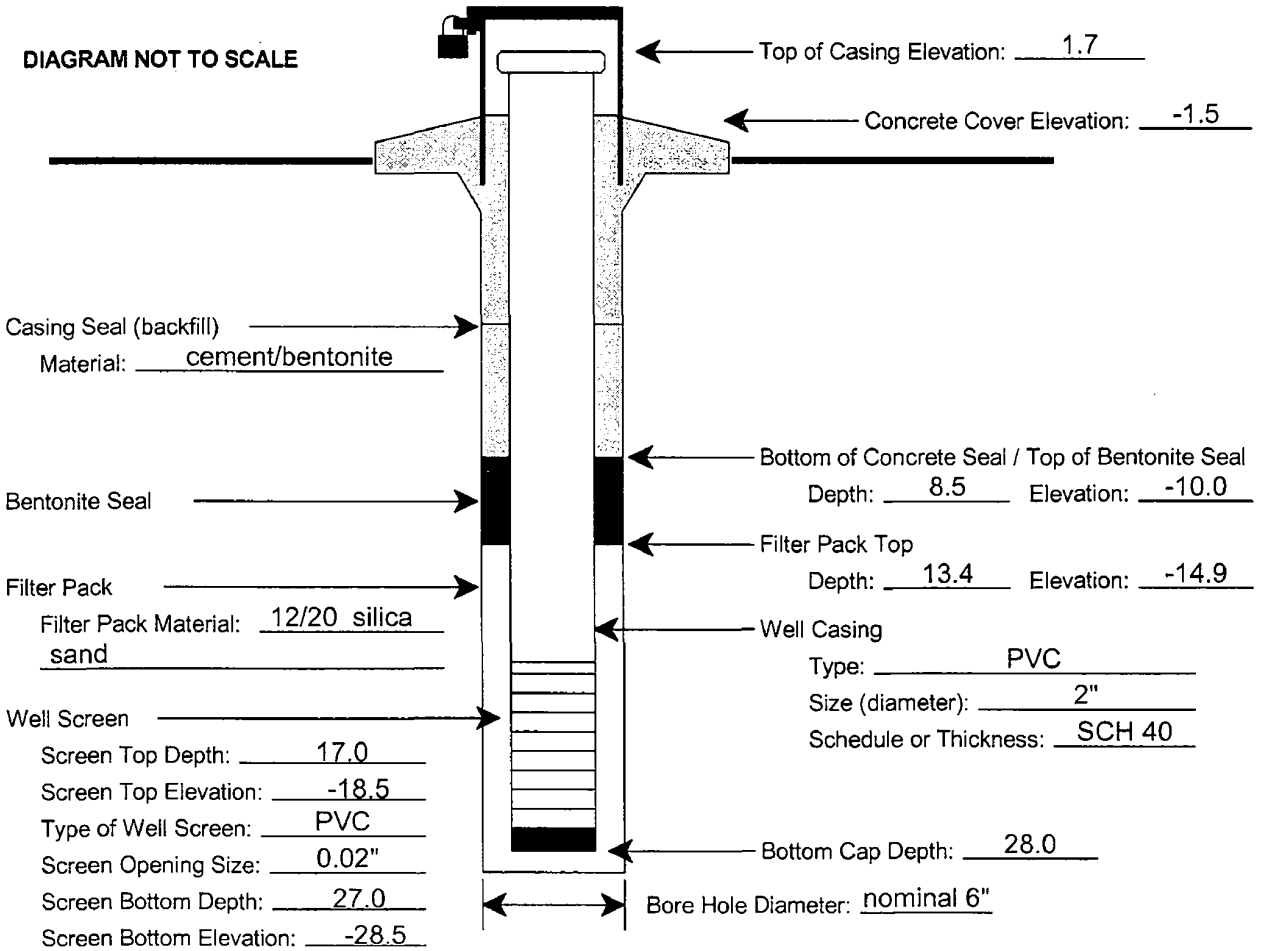
Observation Well Permit No.: 13-59-2247
Observation Well I.D.: OW-706U
Date of Well Development: 4/30/08
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

One stainless-steel centralizer installed at approximately 16.28 ft.
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/16/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Chris Burroughs
Static Water Level Elevation (with respect to NAVD88) after Well Development: -2.0
Name of Geologic Formation(s) in which Well is completed: See boring log B-706

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WSH Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 5/3/08
Observation Well Northing: 397321.5 US ft Easting: 876120.3 US ft
Observation Well Location: Main Island

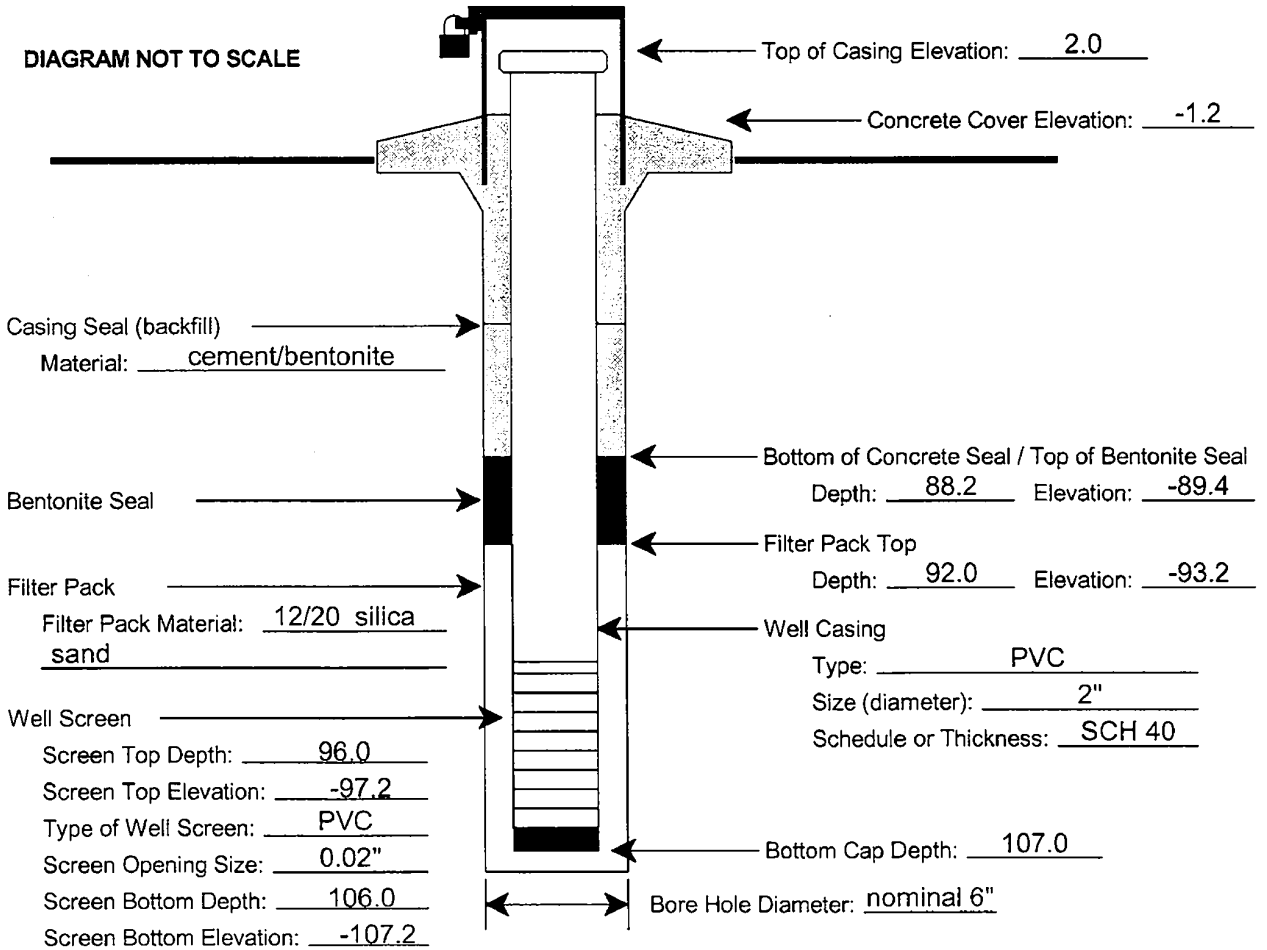
Observation Well Permit No.: 13-59-2250
Observation Well I.D.: OW-721I
Date of Well Development: 5/4/08
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

Two, stainless-steel centralizers installed at approximately 45 ft. and 95 ft.
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/20/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Kim Charles-Smith
Static Water Level Elevation (with respect to NAVD88) after Well Development: 0.0
Name of Geologic Formation(s) in which Well is completed: See boring log B-721

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WSB Date: 7-6-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 5/1/08
Observation Well Northing: 397361.2 US ft Easting: 876121.4 US ft
Observation Well Location: Main Island

Observation Well Permit No.: 13-59-2249
Observation Well I.D.: OW-721U
Date of Well Development: 5/4/08

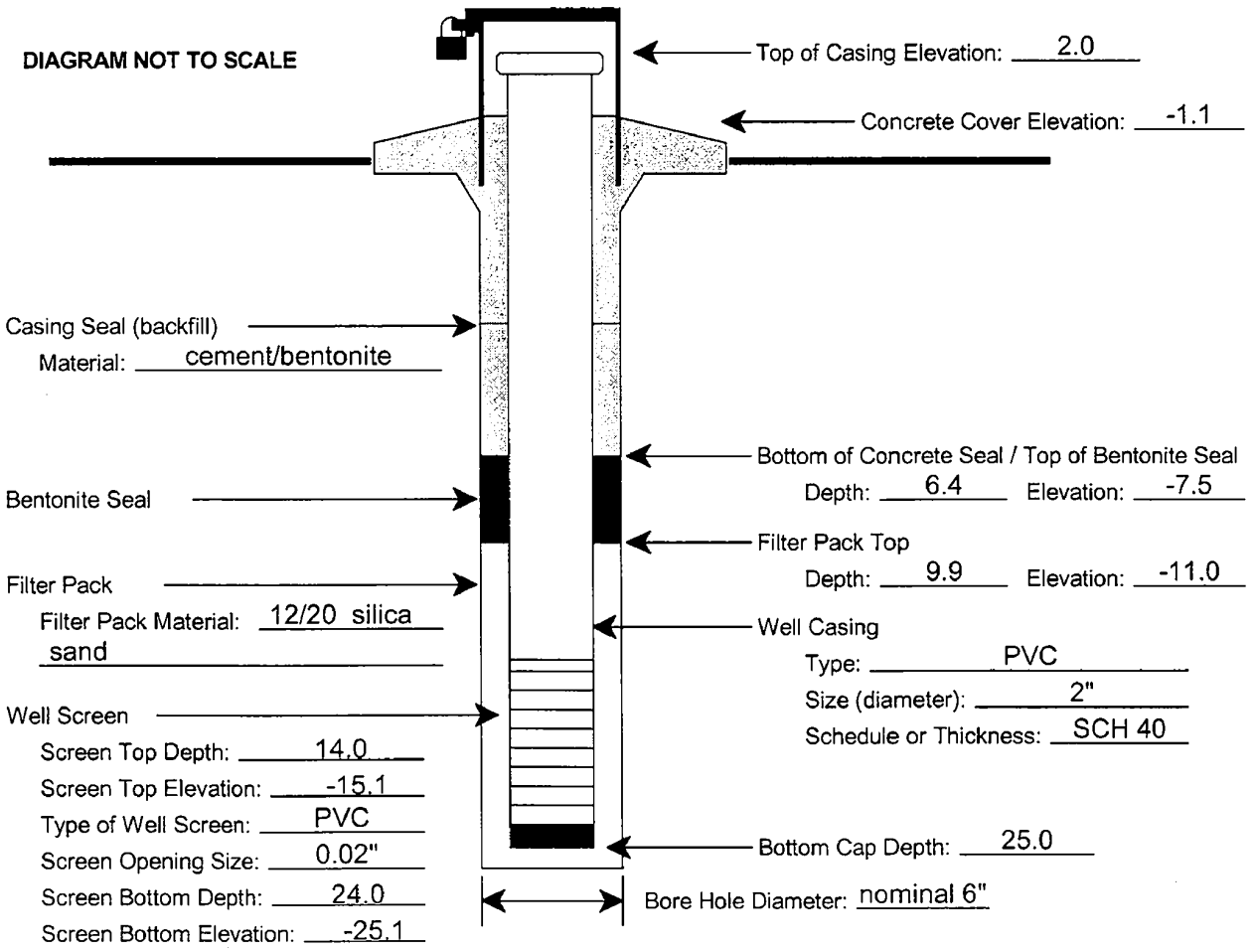
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

One stainless-steel centralizer installed at approximately 13.5 ft.
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/15/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Kim Charles-Smith
Static Water Level Elevation (with respect to NAVD88) after Well Development: -2.4
Name of Geologic Formation(s) in which Well is completed: See boring log B-721

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WSL Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 4/19/08
Observation Well Northing: 395824.3 US ft Easting: 875669.6 US ft
Observation Well Location: South Island

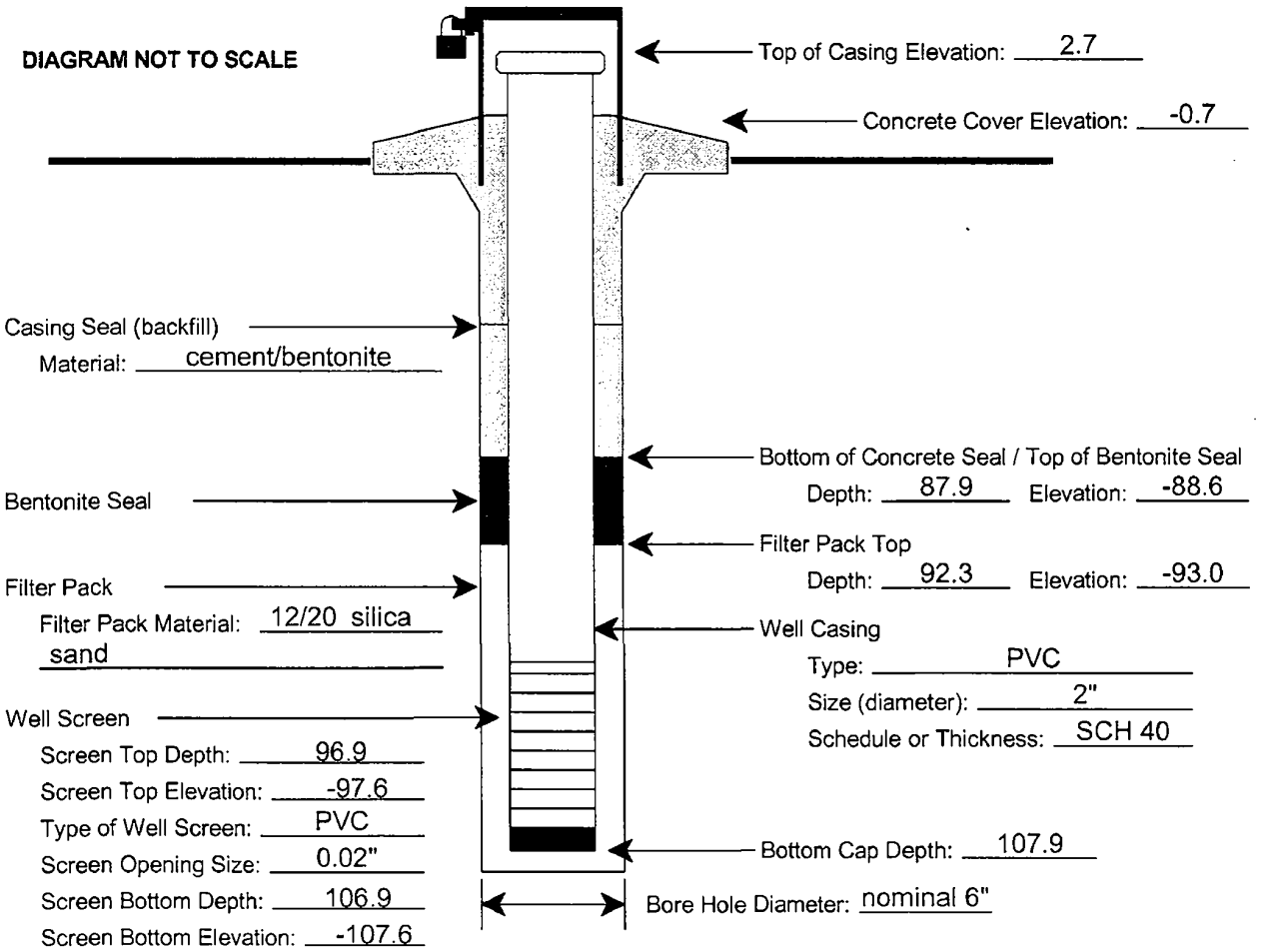
Observation Well Permit No.: 13-59-2252
Observation Well I.D.: OW-735I
Date of Well Development: 4/30/08
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

Two, stainless-steel centralizers installed at approximately 45 ft. and 96 ft.
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/13/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Kim Charles-Smith
Static Water Level Elevation (with respect to NAVD88) after Well Development: -0.3
Name of Geologic Formation(s) in which Well is completed: See boring log B-735

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: LMS Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 4/20/08
Observation Well Northing: 395823.3 US ft Easting: 875709.2 US ft
Observation Well Location: South Island

Observation Well Permit No.: 13-59-2251
Observation Well I.D.: OW-735U
Date of Well Development: 4/29/08

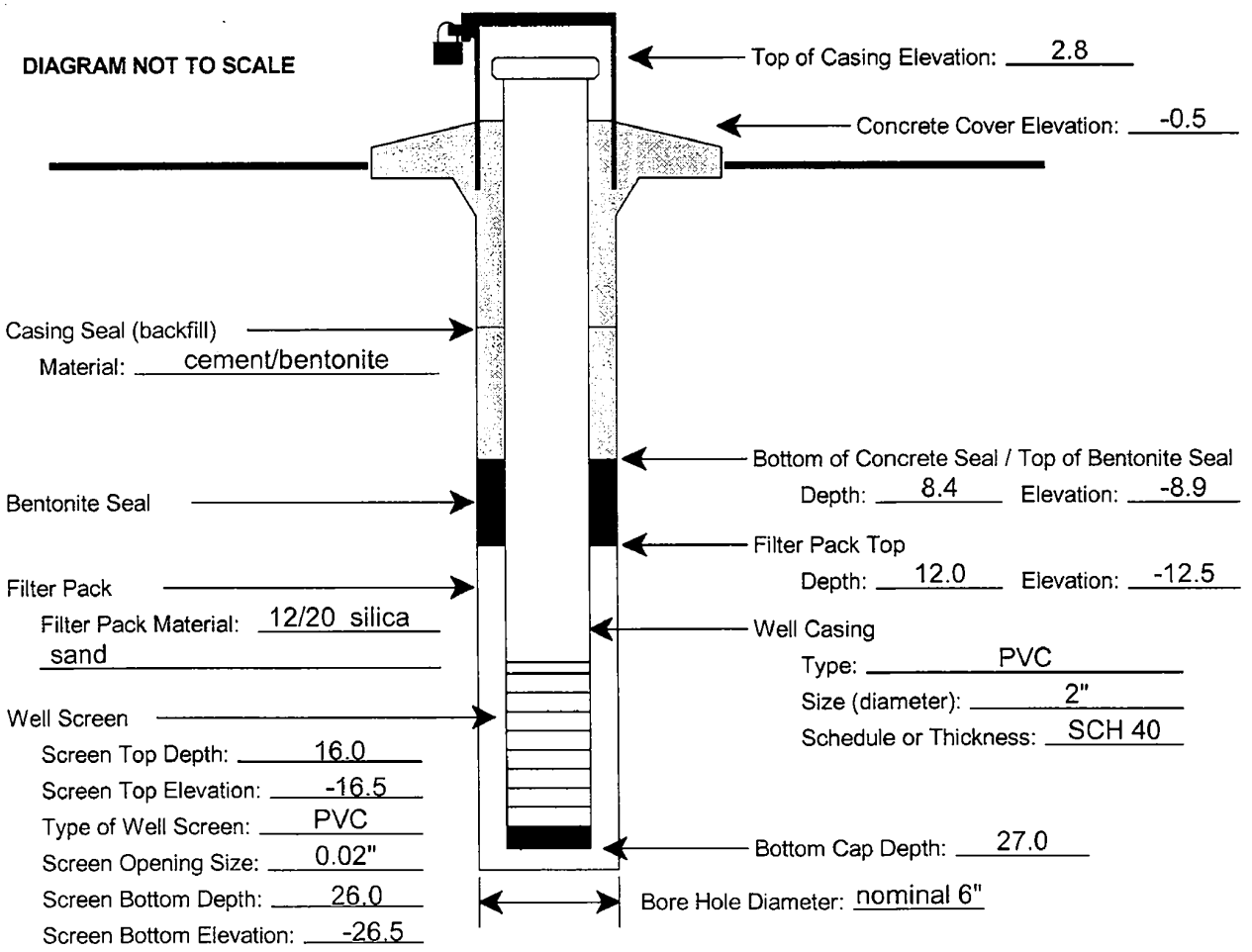
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

One stainless-steel centralizer installed at approximately 15.5 ft.
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/16/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Kim Charles-Smith
Static Water Level Elevation (with respect to NAVD88) after Well Development: -1.9
Name of Geologic Formation(s) in which Well is completed: See boring log B-735

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: [illegible] Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 5/3/08
Observation Well Northing: 398817.1 US ft Easting: 876265.7 US ft
Observation Well Location: North Island

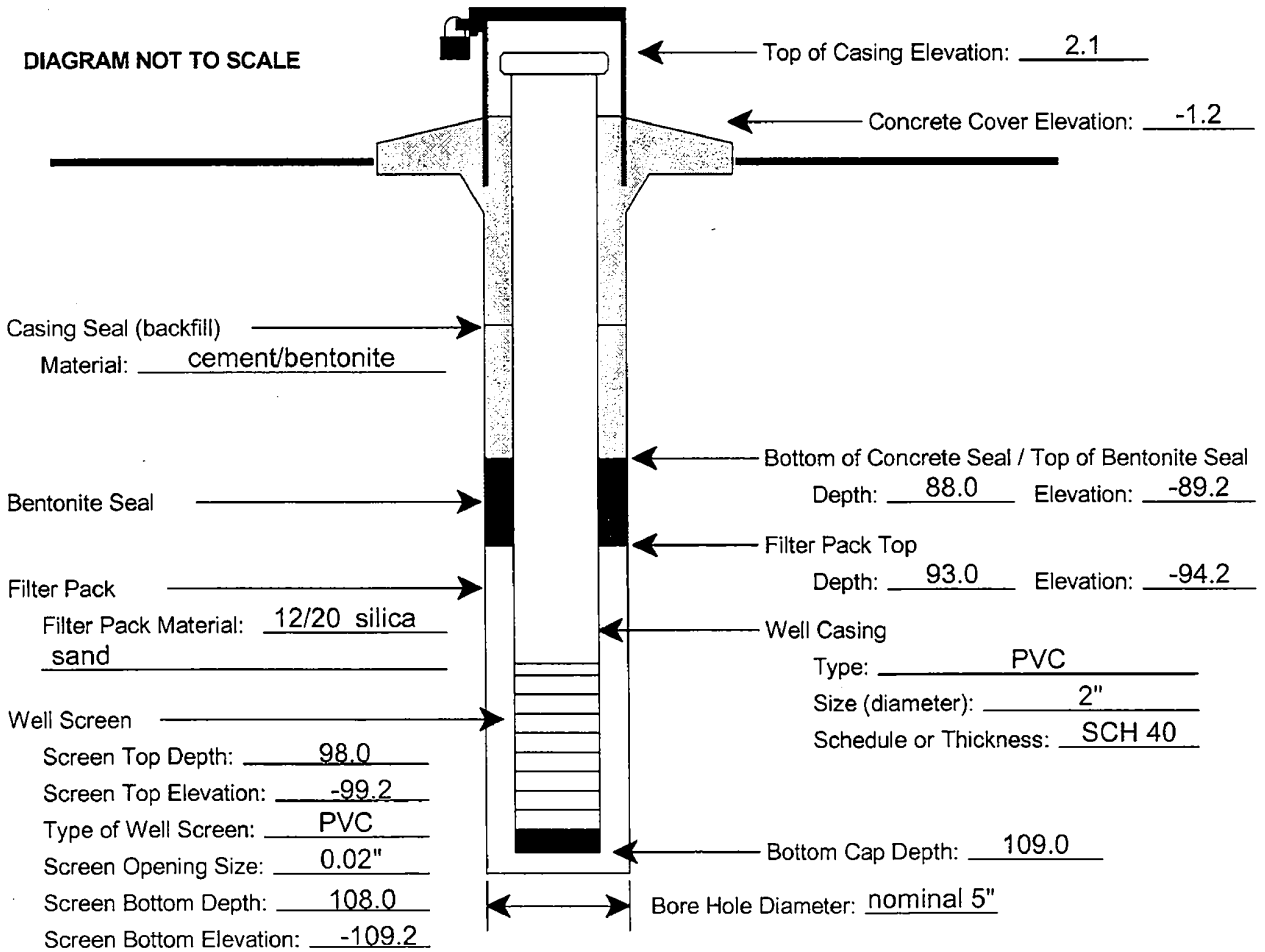
Observation Well Permit No.: 13-59-2254
Observation Well I.D.: OW-802L
Date of Well Development: 5/5/08
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

Centralizer installation depths not recorded
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/20/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Harry Lyatuu
Static Water Level Elevation (with respect to NAVD88) after Well Development: -1.0
Name of Geologic Formation(s) in which Well is completed: See boring log B-802

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WSC Date: 7-6-08
Checked by: CBS Date: 7/10/08

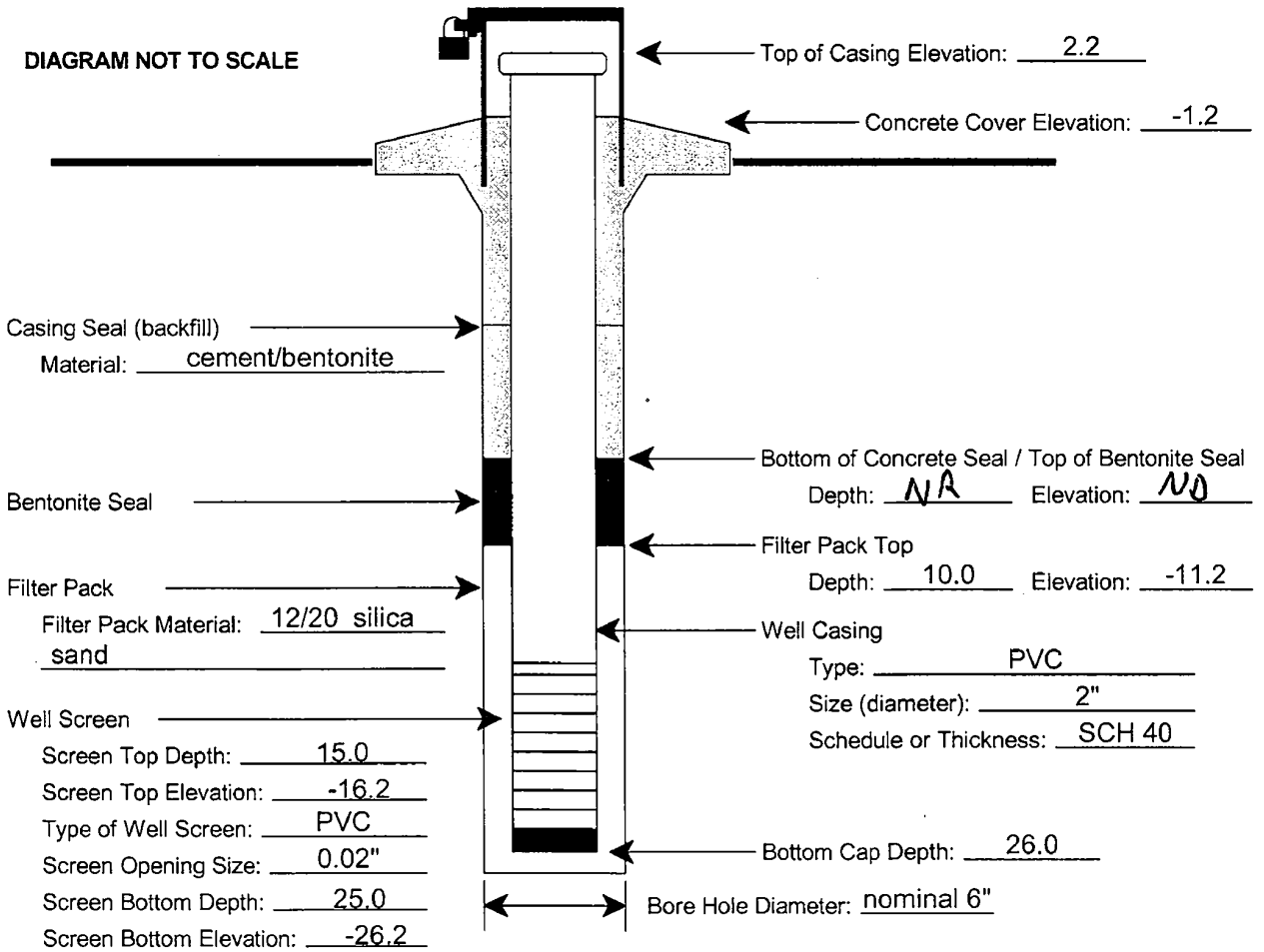
Project Name / No. : Turkey Point Power Station / 6468-07-1950
Observation Well Permit No.: 13-59-2253
County: Miami-Dade County, Florida
Observation Well I.D.: OW-802U
Date of Observation Well Installation: 5/4/08
Date of Well Development: 5/7/08
Observation Well Northing: 398820.2 US ft Easting: 876243.7 US ft
Observation Well Location: North Island
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

Centralizer installation depths not recorded
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/20/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.
Depth to bottom of concrete seal not recorded (NR) and elevation not determined (ND).

Geologist, Hydrologist, or Engineer Supervising Well Installation: Harry Lyatuu
Static Water Level Elevation (with respect to NAVD88) after Well Development: -2.4
Name of Geologic Formation(s) in which Well is completed: See boring log B-802

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WJL Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 5/22/08
Observation Well Northing: 396883.0 US ft Easting: 877239.5 US ft
Observation Well Location: Main Island

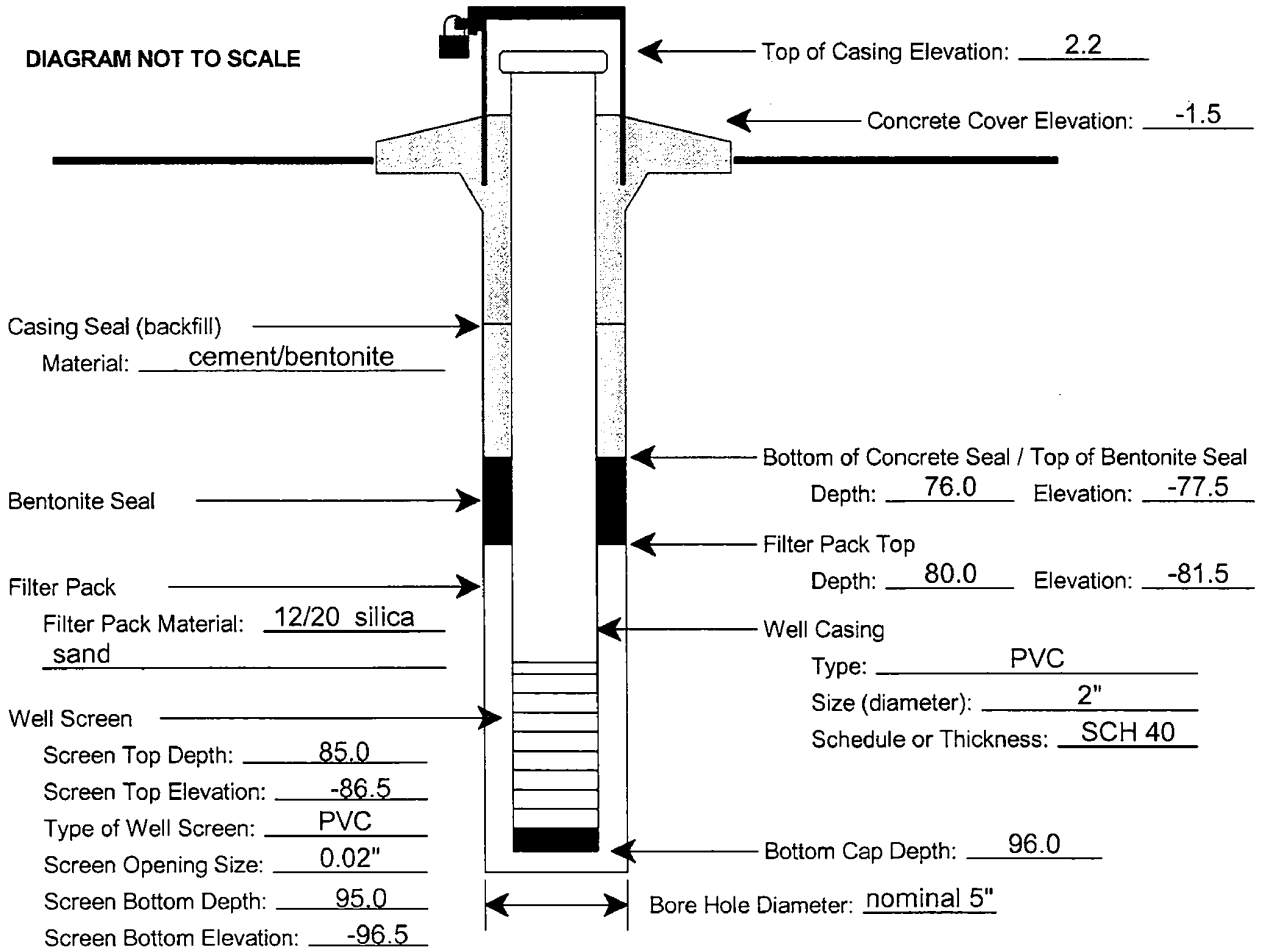
Observation Well Permit No.: 13-59-2256
Observation Well I.D.: OW-805I
Date of Well Development: 6/5/08
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

Centralizer installation depths not recorded
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 6/6/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Harry Lyatuu
Static Water Level Elevation (with respect to NAVD88) after Well Development: -1.0
Name of Geologic Formation(s) in which Well is completed: See boring log B-805

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WSL Date: 7-6-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 5/27/08
Observation Well Northing: 396842.8 US ft Easting: 877240.9 US ft
Observation Well Location: Main Island

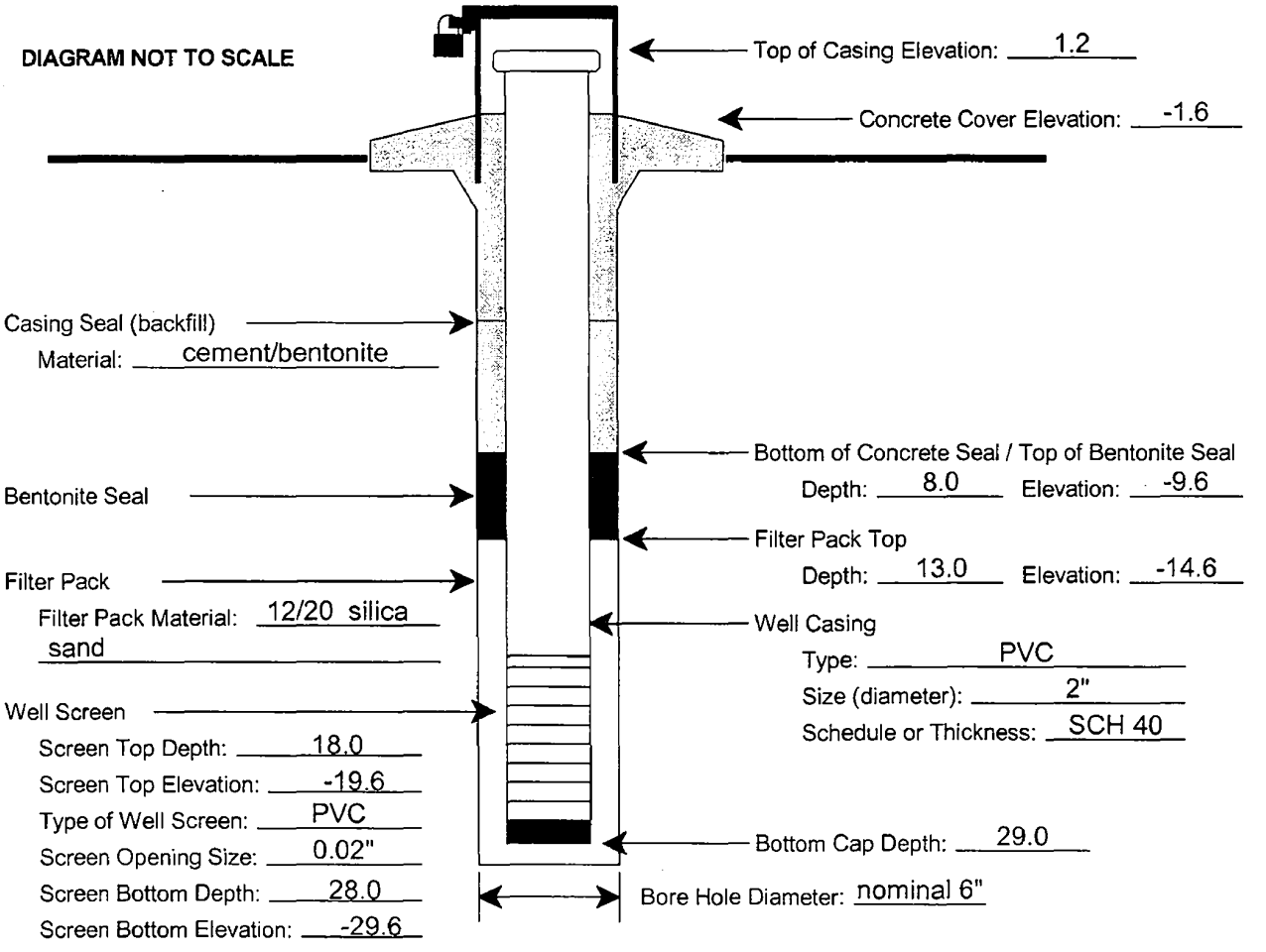
Observation Well Permit No.: 13-59-2255
Observation Well I.D.: OW-805U
Date of Well Development: 6/5/08
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

Centralizer installation depths not recorded
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 6/6/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Harry Lyatuu
Static Water Level Elevation (with respect to NAVD88) after Well Development: -1.8
Name of Geologic Formation(s) in which Well is completed: See boring log B-805

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WSB Date: 7-6-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 5/7/08
Observation Well Northing: 397007.9 US ft Easting: 875152.3 US ft
Observation Well Location: Main Island

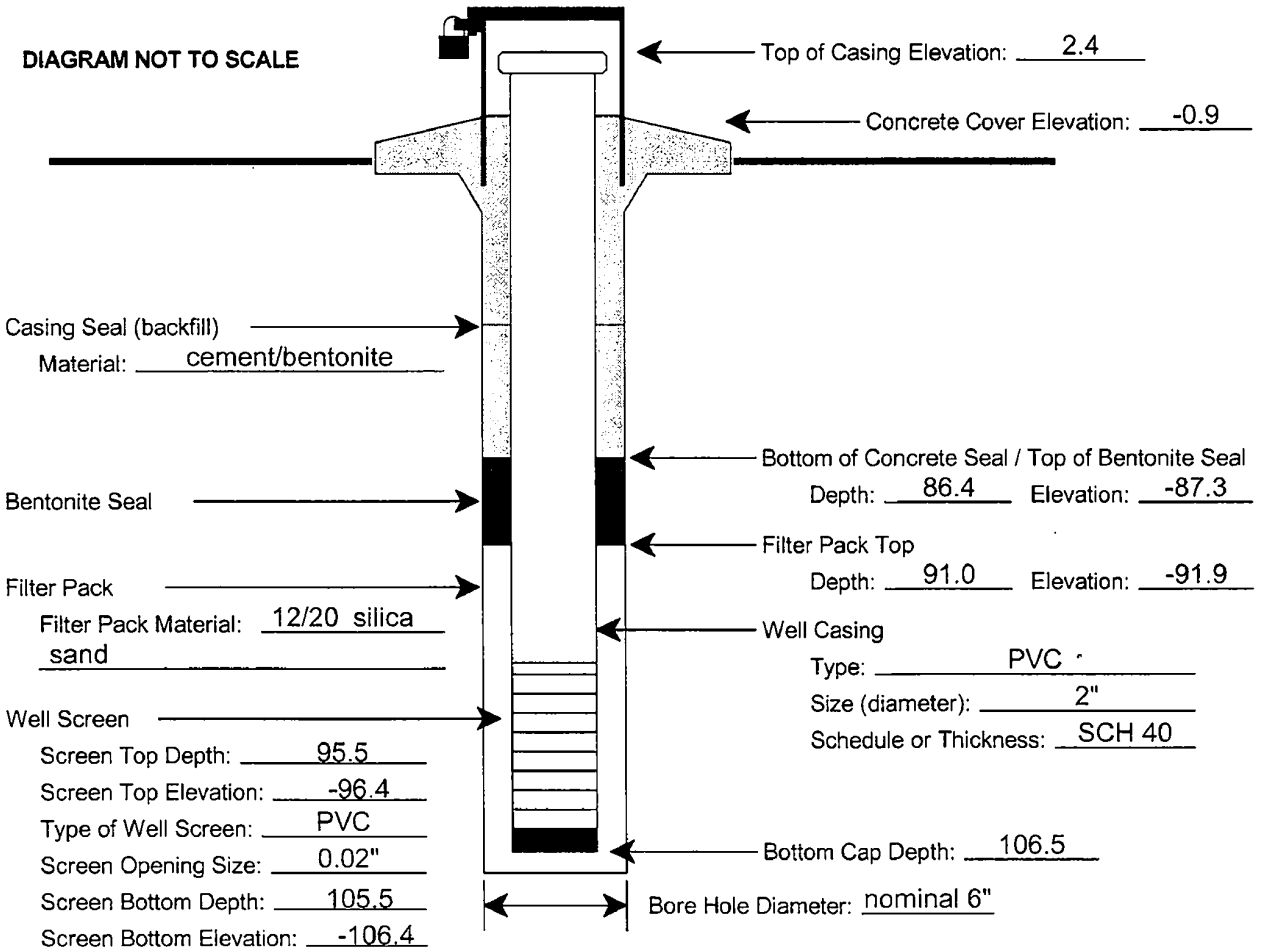
Observation Well Permit No.: 13-59-2258
Observation Well I.D.: OW-809I
Date of Well Development: 5/13/08
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

Two, stainless-steel centralizers installed at approximately 45.5 ft. and 95 ft.
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/15/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Gautham Pillappa/Kim Charles-Smith
Static Water Level Elevation (with respect to NAVD88) after Well Development: -0.9
Name of Geologic Formation(s) in which Well is completed: See boring log B-809

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WS Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 4/1/08
Observation Well Northing: 397045.8 US ft Easting: 875152.4 US ft
Observation Well Location: Main Island

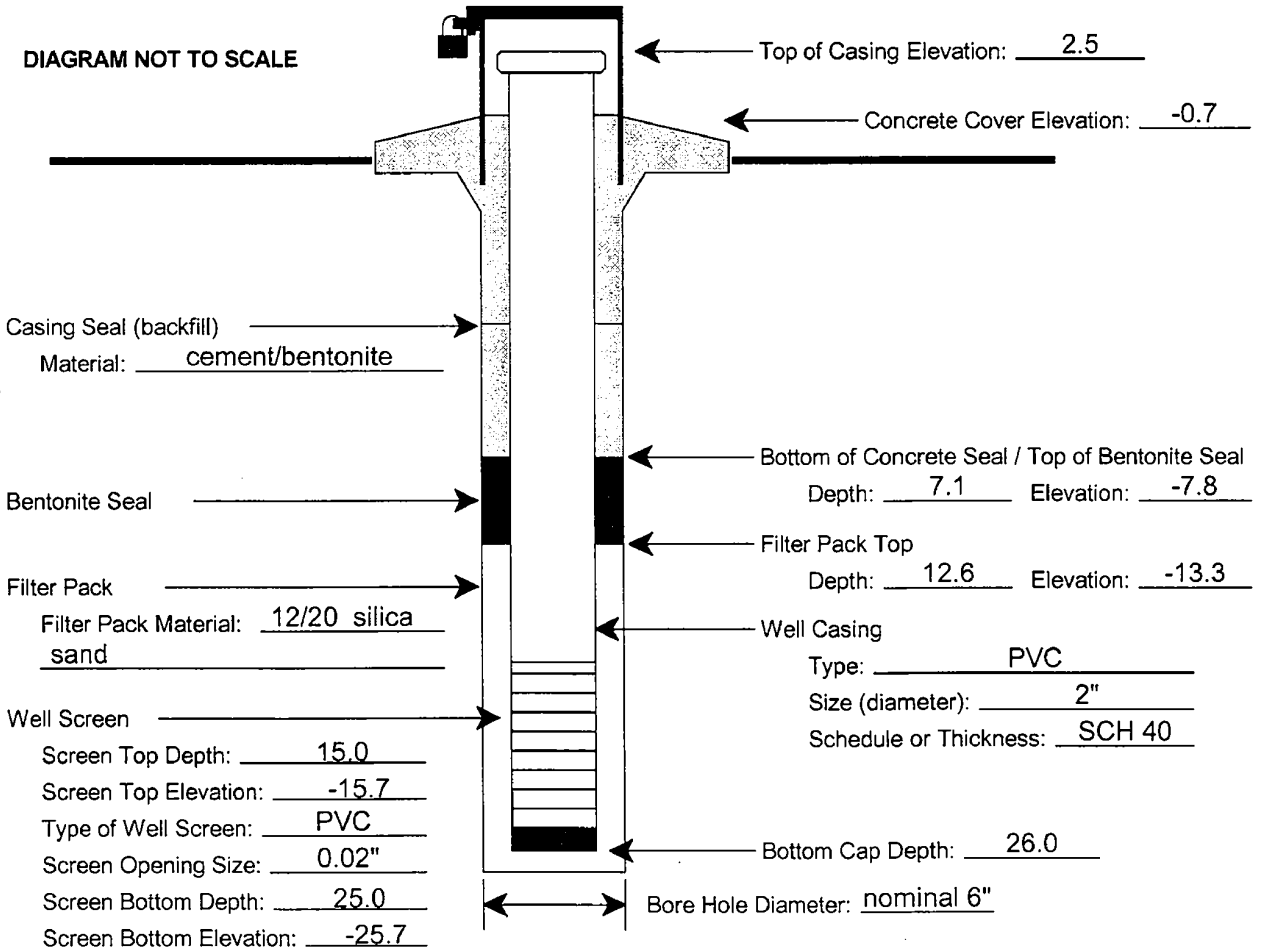
Observation Well Permit No.: 13-59-2257
Observation Well I.D.: OW-809U
Date of Well Development: 5/1/08
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

One stainless-steel centralizer installed at approximately 14.8 ft.
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/15/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Chris Burroughs
Static Water Level Elevation (with respect to NAVD88) after Well Development: -2.2
Name of Geologic Formation(s) in which Well is completed: See boring log B-809

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WS Date: 7-10-08
Checked by: CBS Date: 7/10/08

Project Name / No. : Turkey Point Power Station / 6468-07-1950
County: Miami-Dade County, Florida
Date of Observation Well Installation: 5/7/08
Observation Well Northing: 398892.8 US ft Easting: 875045.5 US ft
Observation Well Location: North Island

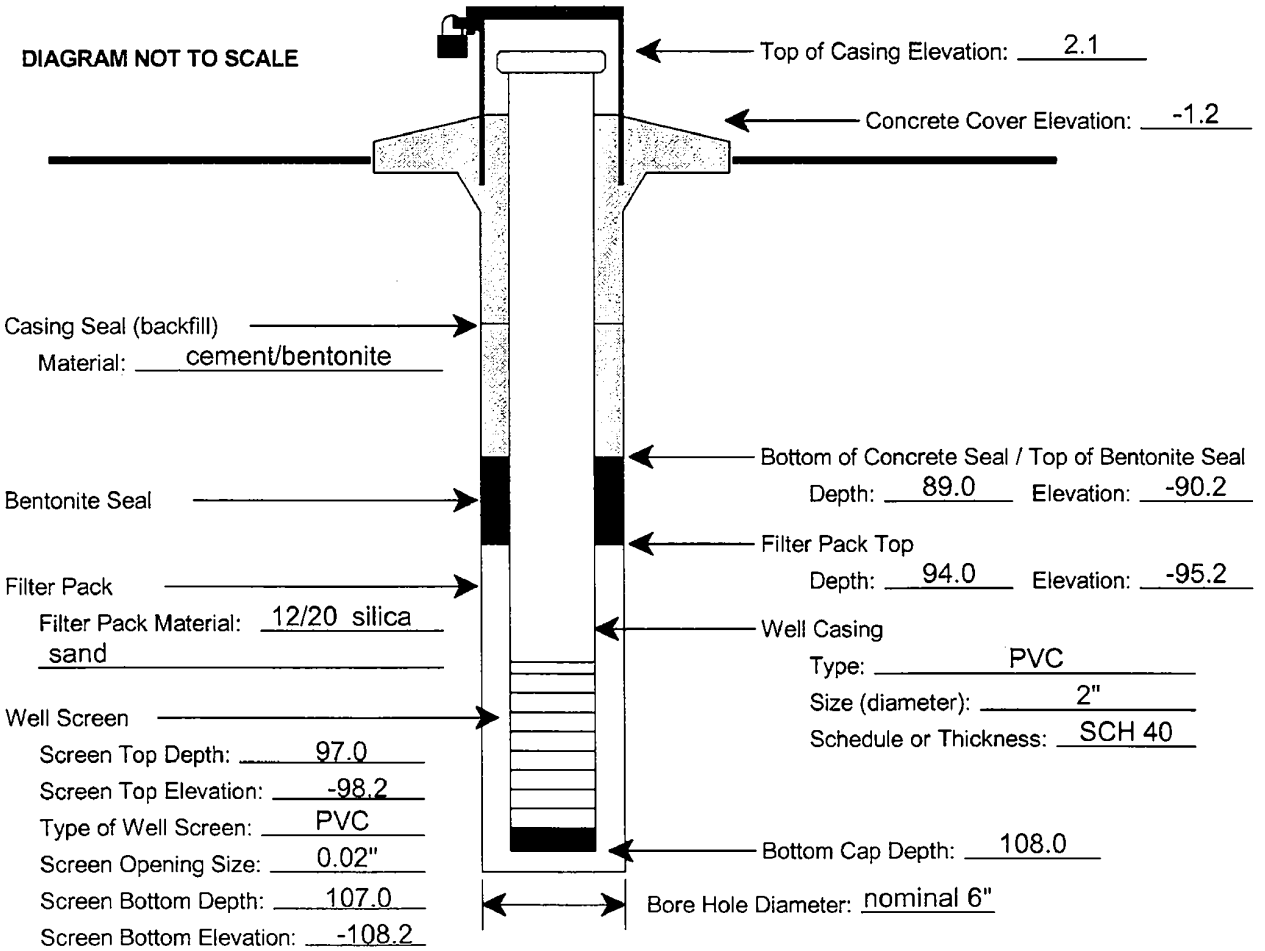
Observation Well Permit No.: 13-59-2260
Observation Well I.D.: OW-812L
Date of Well Development: 5/13/08
Observation Well Driller
Name: MACTEC
License No.: 11035

NOTES:

Centralizer installation depths not recorded
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/20/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Harry Lyatuu
Static Water Level Elevation (with respect to NAVD88) after Well Development: -0.9
Name of Geologic Formation(s) in which Well is completed: See boring log B-812

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Observation Well Data Sheet

Prepared by: WSC Date: 7-6-08
Checked by: CBS Date: 7/10/08

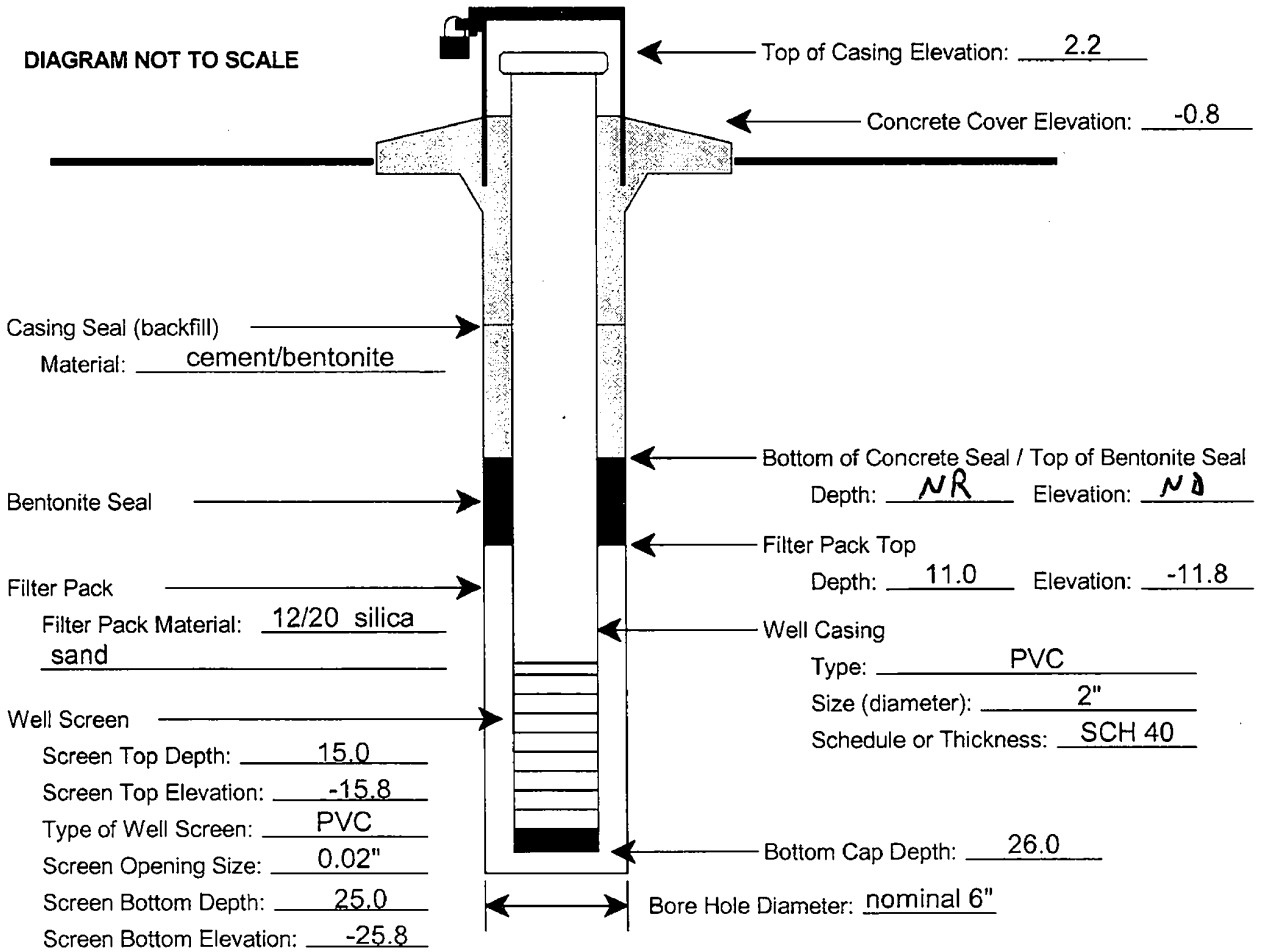
Project Name / No. : Turkey Point Power Station / 6468-07-1950
Observation Well Permit No.: 13-59-2259
County: Miami-Dade County, Florida
Observation Well I.D.: OW-812U
Date of Observation Well Installation: 5/6/08
Date of Well Development: 5/7/08
Observation Well Northing: 398933.9 US ft Easting: 875043.5 US ft
Observation Well Location: North Island
Observation Well Driller Name: MACTEC
License No.: 11035

NOTES:

Centralizer installation depths not recorded
PVC well screen machine-slotted by the manufacturer.
Observation well developed using a submersible pump.
Static water measurement collected 5/20/08.
Upon completion of well installation, MACTEC installed two seep holes in the protective steel cover.
Depth to bottom of concrete seal not recorded (NR) and elevation not determined (ND).

Geologist, Hydrologist, or Engineer Supervising Well Installation: Harry Lyatuu
Static Water Level Elevation (with respect to NAVD88) after Well Development: -2.4
Name of Geologic Formation(s) in which Well is completed: See boring log B-812

Type of Locking Device: Masterlock - 0536 Type of Casing Protection: Steel
Concrete Surface Pad (with steel reinforcement) Dimensions: 2'x2'x0.5'



Well Development Records

Well Development Record

Well No.: OW-606L

Project No. 6468-07-1950 | Logged By: Kim Chadd-Smith

Client Name: Bechtel | Project Name: TP COL | Checked By:

Well Installation Date: 5-14-08 | Start Date: 4-23-08 | Finish Date: 5-14-08

Well Development Date: 5-17-08 | Start Time: 1002 | Finish Time: 1132

Initial Water Level (ft.): 0.48' From TOC.

Water Level during **Initial** Pumping/Purging (ft).: 0.88' From TOC

Water Level at **Termination** of Pumping/Purging (ft).: 0.68' From TOC

Weather: Sunny ~ 80°F

Height of Water Column: _____ (ft.) x ~~0.16 gal./ft. (2 in.)~~ _____ ~~0.65 gal./ft. (4 in.)~~ _____ ~~1.5 gal./ft. (6 in.)~~ _____ gal./ft. (_____ in.) = _____ Well ~~Volume~~ (gal./ft.)

KF 5-17-08 See notes

	Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
0.88'	1) 26 gal.	1011	27.95	6.43	9.29	3.1 gpm	197
	2) 52 gal.	1020	29.03	7.01	9.04	↓	153
0.89'	3) 78 gal.	1029	~~31.00~~ 29.54	~~7.02~~ 7.07	~~8.96~~ 8.98	↓	107
	4) 104 gal.	1038	29.00	7.08	8.96	3.1 gpm	104
0.88'	5) 130 gal.	1047	28.59	7.09	9.04	↓	101
	6) 156 gal.	1056	28.82	7.08	8.98	↓	20
	7) 182 gal.	1105	28.60	7.07	9.03	3.1 gpm	8
0.88'	8) 208 gal.	1114	28.61	7.08	9.03	↓	7 KF 5-17-08
	9) 234 gal.	1123	28.65	7.07	9.01	↓	5
	10) 260 gal.	1132	28.59	7.09	9.03	↓	3

Notes: Surged well Sump + Screen for entire 1st well volume. KF 5-17-08 & while pumping. Water is Gray w/very Fine Sand Set pump in middle of Screen.
- See well volume calculation Spreadsheet for volume calcs.

Well Developers Signature: Kim Chadd-Smith

FIGURE 9

MACTEC Engineering and Consulting, Inc.

Graphics\Misc.\Forms

Well Development Record

Project No. 6468-07	Logged By: Kim	Well No.: OW-606U
Client Name: Bechtel	Project Name: TPCOL	Checked By:
Well Installation Date: 4-22-08	Start Date: 4-22-08	Finish Date: 4-22-08
Well Development Date: 5-1-08	Start Time: 1107	Finish Time: 1137

Initial Water Level (ft.): Artesia Flowing

Water Level during **Initial** Pumping/Purging (ft).: 0.24' From ToC

Water Level at **Termination** of Pumping/Purging (ft).: 0.35' From ToC

Weather: Sunny ~75°F

~~Height of Water Column: ____ (ft.) x ____ 0.16 gal./ft. (2 in.) ____ 0.65 gal./ft. (4 in.) ____ 1.5 gal./ft. (6 in.) ____ gal./ft. (____ in.) = ____ Well Volume (gal./ft.)~~

See notes KJ 5-1-08

Water level below ToC	Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
0.24'	(1) 13 gal.	1110	27.74	7.14	62.8	5 gpm	6.93
	(2) 26 gal.	1113	27.83	7.13	62.9	5 gpm	2.69
	(3) 39 gal.	1116	27.84	7.13	63.0	5 gpm	1.67
0.24'	(4) 52 gal.	1119	27.83	7.12	63.3	5 gpm	1.43
	(5) 65 gal.	1122	27.85	7.14	63.4	5 gpm	1.24
	(6) 78 gal.	1125	27.38	7.15	63.7	5 gpm	1.01
0.20'	(7) 91 gal.	1128	27.41	7.13	63.4	5 gpm	0.96
	(8) 104 gal.	1131	28.01	7.14	63.1	5 gpm	0.80
	(9) 117 gal.	1134	28.03	7.14	63.4	5 gpm	0.75
0.20'	(10) 130 gal.	1137	28.03	7.16	63.2	5 gpm	0.53

Notes: – Surged well with Grundfos to remove sediment from bottom of well.
– See well volume calculation sheet for volume calcs.

Well Developers Signature: [signature]

FIGURE 9

Graphics\Misc.\Forms — MACTEC Engineering and Consulting, Inc.

Well Development Record

Well No.: OW-621L

Project No. 6468-07-1950	Logged By: Kim Chalo-Smith	
Client Name: Bechtel	Project Name: TPCL	Checked By:
Well Installation Date: 4-18-08	Start Date: 4-17-08	Finish Date: 4-18-08
Well Development Date: 5-3-08	Start Time: 1335	Finish Time: 1505

Initial Water Level (ft.): 0' Artesian Flowing KJS 5-3-08 KJS 5-3-08

Water Level during **Initial** Pumping/Purging (ft).: ~~0'~~ Artesian Flowing 0.80'

Water Level at **Termination** of Pumping/Purging (ft).: 0.80' KJS 5-3-08

Weather: Sunny ~ 80°F

5-3-08 KJS See notes

Height of ~~Water~~ Column: _____ (ft.) × _____ 0.16 gal./ft. (2 in.) / 0.65 gal./ft. (4 in.) / ~~1.5 gal./ft. (6 in.)~~ / _____ gal./ft. (____ in.) = _____ Well Volume (gal./ft.)

Water level below TOC	Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
0.80'	(1) 26 gal.	1344	28.62	6.48	55.3	3.0 gpm	56.9
	(2) 52 gal.	1353	28.27	7.00	56.3	3.0 gpm	17.6
0.80'	(3) 78 gal.	1402	28.21	7.07	57.0	3.0 gpm	11.8
	(4) 104 gal.	1411	28.46	7.11	57.4	3.0 gpm	6.08
0.80'	(5) 130 gal.	1420	28.20	7.12	57.6	3.0 gpm	5.23
	(6) 156 gal.	1429	28.43	7.12	57.8	3.0 gpm	3.97
	(7) 182 gal.	1438	28.33	7.13	57.9	3.0 gpm	3.90
0.81'	(8) 208 gal.	1447	28.36	7.13	58.0	3.0 gpm	3.52
	(9) 234 gal.	1456	28.27	7.12	58.1	3.0 gpm	3.54
0.80'	(10) 260 gal.	1505	28.17	7.13	58.1	3.0 gpm	3.04

Notes:

Set Grundfos Approx. 2' above Screen and Surged well w/ pump to clean out Sump. Cannot pump.

- See well volume calculation spreadsheet for volume calcs.

Well Developers Signature: Kimberly Chalo-Smith

FIGURE 9

MACTEC Engineering and Consulting, Inc.

Graphics\Misc.\Forms

Well Development Record

Well No.: OW-621U

Project No. 6468-07-1950	Logged By: Kim Chubb-Smith	
Client Name: Bechtel	Project Name: TPCoL 4-18-08	Checked By:
Well Installation Date: 4-19-08	Start Date: ~~5-3-08~~ 5-3-08	Finish Date: 4-19-08
Well Development Date: 5-3-08	Start Time: 1554 KC 5-3-08	Finish Time: 1624
Initial Water Level (ft.): 1.66'		
Water Level during **Initial** Pumping/Purging (ft).: 1.86'		
Water Level at **Termination** of Pumping/Purging (ft).: 1.88'		
Weather: Sunny ~ 80°F		

KK 5-3-08 See notes

Height of Water Column: _____ (ft.) x _____ 0.16 gal./ft. (2 in.) / 0.65 gal./ft. (4 in.) / ~~1.5 gal./ft. (6 in.)~~ / _____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

	Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
1.86'	(1) 13 gal.	1557	29.07	7.17	54.9	5 gpm	24.5
	(2) 26 gal.	1600	28.67	7.17	55.0	5 gpm	12.5
1.86'	(3) 39 gal.	1603	28.54	7.17	54.8	5 gpm	8.12
	(4) 52 gal.	1606	28.44	7.16	54.9	5 gpm	6.67
1.88'	(5) 65 gal.	1609	28.40	7.16	55.0	5 gpm	5.58
	(6) 78 gal	1612	28.64	7.16	55.0	5 gpm	3.97
1.88'	(7) 91 gal	1615	28.55	7.16	55.1	5 gpm	3.59
	(8) 104 gal.	1618	28.46	7.15	55.1	5 gpm	3.46
	(9) 117 gal.	1621	28.48	7.15	55.2	5 gpm	2.07
1.88'	(10) 130 gal.	1624 KK 5-3-08	28.65	7.15	55.2	5 gpm	2.19

Notes: Set Grundfos Approx. 2' Above bottom of well
Surged well while pumping.
- See well volume calculation sheet for volume calcs.

Well Developers Signature: Kimberly Chubb-Smith

FIGURE 9

Graphics\Misc.\Forms — MACTEC Engineering and Consulting, Inc.

Well Development Record

Well No.: OW-636L

Project No. 6468-07-1950	Logged By: KrisChales-Smith		
Client Name: Bechtel ~~KY~~	Project Name: TPCoL ~~KY~~ 4-5-08		Checked By:
Well Installation Date: ~~4-4-08~~ ~~4-5-08~~ 4-6-08	Start Date: 4-6-08		Finish Date: 4-6-08
Well Development Date: 5-5-08	Start Time: 0958		Finish Time: 1138
Initial Water Level (ft.): 2.16			
Water Level during **Initial** Pumping/Purging (ft).: 3.92'			
Water Level at **Termination** of Pumping/Purging (ft).: 2.07'			
Weather: Sunny ~ 84°F			

Height of Water Column: _____ (ft.) x ~~0.16 gal./ft. (2 in.)~~ ~~0.65 gal./ft. (4 in.)~~ ~~1.5 gal./ft. (6 in.)~~ _____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

KY 5-5-08 See notes

Water level From TOC

Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
KY 5-5-08 3.92 (1) 24 gal.	1008	29.46	7.05	36.4	2.5 GPM	2.73
(2) 48 gal.	1018	29.28	7.01	36.2	2.5 GPM	1.23
4.12' (3) 72 gal.	1028	29.34	7.05	36.4	3.0 GPM	1.13
(4) 96 gal.	1038	29.40	7.01	36.7	3.0 GPM	1.31
4.10' (5) 120 gal.	1048	29.453	7.02	37.1	3.0 GPM	1.39
(6) 144 gal.	1058	KY 4-5-08 29.49	7.02	37.1	3.0 GPM	1.32
4.09' (7) 168 gal.	1108	29.56	7.02	37.4	3.0 GPM	1.21
(8) 192 gal.	1118	29.64	7.03	37.4	3.0 GPM	1.15
4.07' (9) 216 gal.	1128	29.96	7.03	37.5	3.0 GPM	0.88
4.06' (10) 240 gal.	1138	29.62	7.04	37.7	3.0 GPM	0.84

Notes: Set grundfos pump Approx 2' above Sump and Surged well with pump running for first volume.

- See well volume calculation Spreadsheet for volume calcs.

Well Developers Signature: Kris Chales-Smith III

FIGURE 9

MACTEC Engineering and Consulting, Inc.

Graphics\Misc.\Forms

Well Development Record

Well No.: OW-636U

Project No. 6468-07-1950	Logged By: Kim Charles-Smith	
Client Name: Bechtel	Project Name: TPCOL	Checked By:
Well Installation Date: 4-3-08	Start Date: 4-3-08	Finish Date: 4-3-08
Well Development Date: 5-5-08	Start Time: 0906	Finish Time: 0924

Initial Water Level (ft.): 3.90'

Water Level during **Initial** Pumping/Purging (ft).: 3.90'

Water Level at **Termination** of Pumping/Purging (ft).: 2.95'

Weather: Sunny ~ 84°F

KJ 5-5-08 See notes

Height of Water Column: _____ (ft.) × _____ 0.16 gal./ft. (2 in.) / 0.65 gal./ft. (4 in.) / ~~1.5 gal./ft.~~ (6 in.) / _____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

Water level below TOC

Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
3.90' 1) 10 gal.	0906	24.70	7.03	46.9	5 gpm	3.13
2) 20 gal.	0908	27.04	6.91	41.3		1.51
3) 30 gal.	0910	27.15	6.95	42.2		0.85
3.90' 4) 40 gal.	0912	27.22	6.99	42.6	↓	1.50
5) 60 gal.	0914	27.27	7.01	42.8	5 gpm	0.72
3.08' 6) 60 gal.	0916	27.31	7.00	42.8		0.40
7) 70 gal.	0918	27.24	7.01	42.8		0.67
8) 80 gal.	0920	27.31	7.00	43.1		0.61
3.08' 9) 90 gal.	0922	27.33	7.02	43.1	↓	0.70
10) 100 gal.	0924	27.31	7.02	43.2	5 gpm	0.83

Notes: KJ 5-5-08 Set Grundfos 2' ~~abv~~ above sump and Surged Well with pump running for first volume - See well volume calculation spreadsheet for volume calcs.

Well Developers Signature: Kim Charles-Smith

FIGURE 9

MACTEC Engineering and Consulting, Inc.

Graphics\Misc.\Forms

Well Development Record

Well No.: MW-706L

Project No: 468-07-1950	Logged By: Kim Clark-Smith	
Client Name: Bechtel	Project Name: TP COL	Checked By:
Well Installation Date: 3-22-08 to 3-25-08	Start Date: 3-22-08	Finish Date: 3-25-08
Well Development Date: 4-30-08	Start Time: 1230	Finish Time: 1420

Initial Water Level (ft.): 0.21' from TOC (Artesian)

Water Level during **Initial** Pumping/Purging (ft).: 1.07' KK 4-30-08

Water Level at **Termination** of Pumping/Purging (ft).: 0.30' below TOC

Weather: Sunny ~ 75°F 0.52'

KK 4-30-08 See notes

~~Height of Water Column:~~ _____ (ft.) × _____ 0.16 gal./ft. (2 in.) / 0.65 gal./ft. (4 in.) / ~~1.5 gal./ft. (6 in.)~~ _____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

TOC water level	Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
1.07'	(1) 25 gal.	1245	29.84	7.06	49.0	2.5 gpm	2.19
	(2) 50 gal.	1255	27.67	7.00	49.3	2.5 gpm	0.75
	(3) 75 gal.	1310	27.50	KK 4-30-08 6.98	50.9	2.5 gpm	0.58
1.19'	(4) 100 gal.	1320	27.62	6.99	52.1	2.5 gpm	0.68
	(5) 125 gal.	1330	27.66	7.00	52.4	2.5 gpm	0.80
	(6) 150 gal.	1340	27.63	7.00	53.1	2.5 gpm	0.56
1.19'	(7) 175 gal.	1350	27.64	7.01	53.5	2.5 gpm	0.73
	(8) 200 gal.	1400	27.81	7.00	53.4	2.5 gpm	0.44
1.21'	(9) 225 gal.	1410	27.71	6.99	54.4	2.5 gpm	0.38
	(10) 250 gal.	1420	27.78	7.00	54.5	2.5 gpm	0.40

Notes: Set Grundfos ~ 2' above bottom of well surged well while running pump until water ran clear, Approx. 5-10 gallons.

Well Developers Signature: Kimberly Clark-Smith

FIGURE 9

MACTEC Engineering and Consulting, Inc.

Graphics\Misc.\Forms

See Well Volume Calculation Spread Sheet for Volume Calcs.

Well Development Record

Well No.: AW-706d

Project No. 6468-07-1950	Logged By: Kim Charlo Smith		
Client Name: Bechtel	Project Name: TPCOL		Checked By:
Well Installation Date: 3-26-08 to 3-27-08	Start Date: 3-26-08		Finish Date: 3-27-08
Well Development Date: 4-30-08	Start Time: 1509		Finish Time: 1539

Initial Water Level (ft.): 1.60' from TOC

Water Level during **Initial** Pumping/Purging (ft).: 1.68' below TOC

Water Level at **Termination** of Pumping/Purging (ft).: 1.62' below TOC

Weather: Sunny ~ 75°F

KMF 4-30-08

~~Height of Water Column:~~ _____ (ft.) x ~~0.16 gal./ft. (2 in.)~~ ~~0.65 gal./ft. (4 in.)~~ ~~1.5 gal./ft. (6 in.)~~ _____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

See notes

Water level from TOC

Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
1.68' (1) 11 gal.	1512	28.83	6.86	82.5	4.0 gpm	5.99
1.72' (2) 22 gal.	1515	28.51	6.85	83.1	5.0 gpm	5.99
(3) 33 gal.	1518	27.66	6.89	83.1	5.0 gpm	7.33
(4) 44 gal.	1521	28.50	6.86	82.4	5.0 gpm	4.20
1.76' (5) 55 gal.	1524	28.25	6.84	82.7	5.0 gpm	3.38
(6) 66 gal.	1527	28.26	6.86	82.6	5.0 gpm	3.50
1.76' (7) 77 gal.	1530	28.20	6.86	82.3	5.0 gpm	2.18
(8) 88 gal.	1533	27.85	6.84	82.7	5.0 gpm	2.77
1.76' (9) 99 gal.	1536	27.64	6.86	82.6	5.0 gpm	1.80
1.76' (10) 110 gal	1539	27.66	6.86	82.8	5.0 gpm	1.82

Notes: Set Grundfos pump ~ 2' from bottom of well. Surged well w/pump. ~~pumped to~~ KMF 4-30-08 Until water ran clear Approx. 5 gallons.

See well volume calculation spreadsheet for volume calcs.

Well Developers Signature: Kimberly Charlo-Smith

FIGURE 9

MACTEC Engineering and Consulting, Inc.

Graphics\Misc.\Forms

Well Development Record

Well No.: OW-721L

Project No. 6468-07-1950	Logged By: Kevin Charles-Smith	
Client Name: Bechtel	Project Name: TPCOL	Checked By:
Well Installation Date: 5-3-08	Start Date: 5-2-08	Finish Date: 5-3-08
Well Development Date: 5-4-08	Start Time: 1101	Finish Time: 1337

Initial Water Level (ft.): 1.93'

Water Level during **Initial** Pumping/Purging (ft).: 4.40'

Water Level at **Termination** of Pumping/Purging (ft).: 2.56'

Weather: Sunny ~ 80°F

Height of Water Column: _____ (ft.) x _____ 0.16 gal./ft. (2 in.) / 0.65 gal./ft. (4 in.) / 1.5 gal./ft. (6 in.) / _____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

KC 5-4-08 See notes

underlined From TOC

Number of Well Volumes:	KC 5-4-08 Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
4.40' KC 5-4-08	1127					
1.93' KC 5-4-08 (1) 23 gal.	1140	29.38	7.12	51.1	2.25 gpm	>1000
(2) 46 gal.	1137	29.32	7.07	42.8	2.25 gpm	146
3.59' (3) 69 gal.	1147	29.30	7.06	42.0	2.25 gpm	106
(4) 92 gal.	1157	29.38	7.07	42.0	2.25 gpm	86.8
3.95' (5) 115 gal.	1207	29.45	7.06	42.1	2.25 gpm	78.8
(6) 138 gal.	1217	29.35	7.06	41.2	2.25 gpm KC 5-4-08	72.4
(7) 161 gal.	1227	29.56	7.07	42.3	2.25 gpm	72.6
3.87' (8) 184 gal.	1237	29.33	7.05	42.9	2.25 gpm	21.8
(9) 207 gal.	1247	29.30	7.05	42.8	2.25 gpm	16.5
3.87' (10) 230 gal.	1257	29.31	7.06	42.5	2.25 gpm	28.9
(12) 276 gal.	1317	29.69	7.05	42.5	2.25 gpm	16.2
(14) 322 gal.	1337	29.44	7.05	42.5	2.25 gpm	8.41

Notes: Set Grundfos Approx 2' above Sump and Surged Well with pump.
- See well volume calculation Sheet for Volume calcs.

Well Developers Signature: Kevin Charles-Smith

FIGURE 9

MACTEC Engineering and Consulting, Inc.

Graphics\Misc.\Forms

Well Development Record

Well No.: OW-721U

Project No. 6468-07-1950	Logged By: Kim Charles-Smith	
Client Name: Bechtel	Project Name: TPCOL	Checked By:
Well Installation Date: 5-2-08	Start Date: 5-2-08	Finish Date: 5-2-08
Well Development Date: 5-4-08	Start Time: 0948	Finish Time: 1008
Initial Water Level (ft.): 0.84'		
Water Level during **Initial** Pumping/Purging (ft).: 1.86'		
Water Level at **Termination** of Pumping/Purging (ft).: 0.97'		
Weather: Sunny ~ 80°F		

Height of Water Column: ____ (ft.) x ____ 0.16 gal./ft. (2 in.) / ____ 0.65 gal./ft. (4 in.) / ____ 1.5 gal./ft. (6 in.) / ~~____ gal./ft. (____ in.)~~ = ____ Well Volume (gal./ft.)

KK 5-4-08 See notes

5.4.08 KK

Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: ms/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
water level From TOC						
1.86' (1) 10 gal.	0950	27.76	6.69	41.0	5 gpm	54.8
(2) 20 gal.	0952	28.07	7.00	42.4	↓	25.4
(3) 30 gal	0954	28.64	7.03	42.3	↓	14.2
1.73' (4) 40 gal.	0956	28.77	7.06	43.0	5 gpm	14.6
(5) 50 gal.	0958	28.79	7.05	43.1	↓	16.9
1.50' (6) 60 gal.	1000	28.74	7.08	43.5	5 gpm	9.73
(7) 70 gal.	1002	28.84	7.07	43.3	↓	7.92
(8) 80 gal.	1004	28.93	7.08	43.2	↓	7.14
1.49' (9) 90 gal.	1006	28.95	7.07	43.0	5 gpm	6.31
(10) 100 gal.	1008	28.96	7.07	43.1	5 gpm	5.03

Notes: Set Grundfos Approx 2' above bottom of well + Surged to clean out Sump.
- See well volume calculation spreadsheet for volume calcs.

Well Developers Signature: Kimberly Charles-Smith

FIGURE 9

MACTEC Engineering and Consulting, Inc.

Graphics\Misc.\Forms

Well Development Record

Well No.: OW-735L

Project No. 6468-07-1950	Logged By: Kim Clarke-Smith	
Client Name: Bechtel	Project Name: TPCOL	Checked By:
Well Installation Date: 4-15-08 to 4-19-08	Start Date: 4-15-08	Finish Date: 4-19-08
Well Development Date: 4-29-08/4-30-08	Start Time: 1440 (4-29-08)	Finish Time: 0932 (4-30-08)
Initial Water Level (ft.): 0.34' from TOC		
Water Level during **Initial** Pumping/Purging (ft).: 0.49'		
Water Level at **Termination** of Pumping/Purging (ft).: TOC (Artesian)		
Weather: Sunny / partly Cloudy 72°F		

KJ 4-30-08 See notes

Height of Water Column: _____ (ft.)

~~0.16 gal./ft. (2 in.)~~
x ~~0.65 gal./ft. (4 in.)~~
~~1.5 gal./ft. (6 in.)~~
~~_____ gal./ft. (_____ in.)~~ = _____ Well Volume (gal./ft.)

Water level From TOC

	Number of Well Volumes:	Time:	Temperature: °C	pH: Su	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
0.83'	1) 25 gal.	1430	29.51	6.63	62.8	2.5 gpm	25.3
	2) 50 gal.	1440	29.44	6.64	62.5	2.5 gpm	14.4
	3) 75 gal.	1450	29.31	6.65	62.6	2.5 gpm	9.95
	4) 100 gal.	1500	29.19	6.65	62.5	2.5 gpm	9.59
0.84'	5) 125 gal.	1510	28.93	6.66	62.3	2.5 gpm	7.94
	6) 150 gal.	1520	28.71	6.66	62.1	2.5 gpm	7.26
	7) 175 gal.	1530	28.72	6.65	62.2	2.5 gpm	7.45
	8) 200 gal.	1540	28.71	6.66	62.5	2.5 gpm	6.24
0.65'	9) 225 gal.	0922	27.38	6.65	79.0	2.5 gpm	8.21
	10) 250 gal.	0932	28.41	6.67	82.9	2.5 gpm	4.42

Notes:

Set Grundfos pump ~ 2' from bottom of well tagged T.D. Surged well w/pump and lowered pump to clean out Sediment.
Completed well Development Volumes 9 & 10 on 4-30-08 due to Thunderstorm on 4-29-08.

Well Developers Signature: Kim Clarke-Smith

FIGURE 9

Graphics\Misc.\Forms

MACTEC Engineering and Consulting, Inc.

See well volume Calculation Sheet for volume calcs.

Well Development Record

Well No.: OW-7354

Project No. 6468-07-1950	Logged By: KinCholo-Smith	
Client Name: Bechtel	Project Name: TP COL	Checked By:
Well Installation Date: 4-20-08	Start Date: 4-20-08	Finish Date: 4-20-08
Well Development Date: 4-29-08	Start Time: 1130	Finish Time: 1353
Initial Water Level (ft.): 2.0' from TOC		
Water Level during **Initial** Pumping/Purging (ft).: Unchanged -2.04'		
Water Level at **Termination** of Pumping/Purging (ft).: 2.03'		
Weather: SUNNY, ~75°F		

Height of Water Column: _____ (ft.) x _____ 0.16 gal./ft. (2 in.) / 0.65 gal./ft. (4 in.) / 1.5 gal./ft. (6 in.) / _____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

See notes

Water level	Number of Well Volumes:	Time:	Temperature:	pH: SU	Conductivity: mS/cm (see note)	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
2.03'	1 (10 gal.)	1130 4-28-08	28.12	6.77	0.001 KB 4-29-08	2.0 gpm	17.7
	2 (20 gal.)	~~1148~~	29.83	6.89	0.001 KB 4-29-08	3.0 gpm	12.0
	3 (30 gal.)	1156	30.31	6.88	60.5	2.5 gpm	7.96
	4 (40 gal.)	1200	29.25	6.48	60.4	2.5 gpm	5.82
2.04'	5 (50 gal.)	1335	29.70	6.73	61.7	2.5 gpm	2.71
	6 (60 gal.)	1339	29.95	6.77	62.0	3.0 gpm	4.34
2.02'	7 (70 gal.)	1344	29.77	6.78	62.5	4.0 gpm	7.65
	8 (80 gal.)	1347	29.72	6.79	62.2	4.0 gpm	8.80
	9 (90 gal.)	1350	29.81	6.80	62.1	4.5 gpm	8.41
2.03'	10 (100 gal.)	1353	29.93	6.81	62.5	4.5 gpm	8.20

Notes:
- Grundfos pump set Approximately 2.0' off bottom of tagged T.D
- Surged well for first 3 vol. by turning off pump and allowing well to settle then turning on pump again.
- Lowered pump to bottom of well @ Approximately 50 gal.

Well Developers Signature: Kristy Choy-Smith

FIGURE 9

MACTEC Engineering and Consulting, Inc.

Graphics\Misc.\Forms

note: had a problem with Conductivity, had to change probes. First ~~two~~ two conductivity readings not valid. KB 4-29-08

See well volume calculation sheet for well volume factors.

Well Development Record

Well No.: OW-802L

Project No. 6468-07-1950	Logged By: Kim Chesley-Smith	
Client Name: Bechtel	Project Name: TPCOL	Checked By:
Well Installation Date: 5-4-08	Start Date: 5-3-08	Finish Date: 5-4-08
Well Development Date: 5-5-08	Start Time: 1451	Finish Time: 1631

Initial Water Level (ft.): Artesian Flowing

Water Level during **Initial** Pumping/Purging (ft).: 0.77'

Water Level at **Termination** of Pumping/Purging (ft).: 0.28'

Weather: Sunny ~84°F

KJ 5-5-08 See note

Height of Water ~~Column~~: _____ (ft.) x ~~0.16 gal./ft. (2 in.)~~ ~~0.65 gal./ft. (4 in.)~~ ~~1.5 gal./ft. (6 in.)~~ _____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

water level from TOC

Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
0.77' 1) 24 gal.	1501	29.39	6.86	49.9	3.0 gpm	0.49
2) 48 gal.	1509	29.40	6.88	50.5		0.42
0.81' 3) 72 gal.	1517	28.95	6.92	50.7		0.35
4) 96 gal.	1525	29.12	6.93	51.0		0.32
5) 120 gal.	1533	29.22	6.96	51.7	↓	0.44
0.86' 6) 144 gal.	1541	28.97	6.95	51.8	3.0 gpm	0.29
7) 168 gal.	1549	28.76	6.95	52.4		0.27
0.87' 8) 192 gal.	1557	28.65	6.95	52.6		0.59
9) 216 gal.	1605	28.59	6.94	52.9	↓	0.65
0.89 10) 240 gal.	1613	28.61	6.94	52.8	3.0 gpm	0.36
	~~1621~~ KJ 5-5-08					

Notes: Surged Sump w/ grundfos while pumping, for first well volumes removed.
— See well volume calculation spreadsheet for volume calcs.

Well Developers Signature: Kimmy Chesley-Smith

FIGURE 9

MACTEC Engineering and Consulting, Inc.

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Well Development Record

Well No.: OW-802U

Project No. 6468-07-1950 | Logged By: Kim Charles-Smith

Client Name: Bechtel | Project Name: TPCOL | Checked By:

Well Installation Date: 5-4-08 | Start Date: 5-4-08 | Finish Date: 5-4-08

Well Development Date: 5-7-08 | Start Time: ~~5-7-08~~ KJS | Finish Time: ~~1413~~ KJS

Initial Water Level (ft.): 2.10' KJS 5-7-08 ~~1353~~ 5-7-08 1513 5-7-08

Water Level during **Initial** Pumping/Purging (ft).: ~~2.10'~~ 2.64' 1455 KJS 5-7-08

Water Level at **Termination** of Pumping/Purging (ft).: 2.99'

Weather: Sunny ~ 85°F

Height of ~~Water Column~~: _____ (ft.) x ~~0.16 gal./ft. (2 in.)~~ / ~~0.65 gal./ft. (4 in.)~~ / ~~1.5 gal./ft. (6 in.)~~ / _____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

See notes KJS 5-7-08

Water level from TOC

Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
2.64' 1) 10 gal.	~~14~~ 1355	28.97	6.36	66.5	5 gpm	4.42
2) 20 gal.	~~14~~ 1357	28.68	6.70	68.6	↓	2.49
3) 30 gal.	~~14~~ 1359	28.66	6.75	69.8	5 gpm	1.87
2.65' 4) 40 gal.	15 1401	28.64	6.76	70.4	↓	1.84
5) 50 gal.	15 1403	28.58	6.77	70.3	↓	1.76
6) 60 gal.	15 1405	28.70	6.75	70.6	5 gpm	1.25
2.67' 7) 70 gal.	15 1407	28.68	6.81	70.7	↓	1.19
8) 80 gal.	15 1409	28.70	6.82	71.1	↓	1.16
2.68' 9) 90 gal.	15 1411	28.69	6.82	71.1	5 gpm	1.06
2.68' 10) 100 gal.	15 1413	28.71	6.82	71.3	5 gpm	0.82
	~~14~~ KJS 5-7-08					

Notes: Surged Sump with Grundfos for 1st volume until water ran clear.
- See well volume calculation spreadsheet for volume calcs.

Well Developers Signature: Kim Charles-Smith

FIGURE 9

MACTEC Engineering and Consulting, Inc.

Graphics\Misc.\Forms

Well Development Record

Well No.: AW-809L

Project No. 6468-07-1950	Logged By: Kim Charles-Smith		
Client Name: Bechtel	Project Name: TPCOL		Checked By:
Well Installation Date: 5-07-08	Start Date: 5-5-08		Finish Date: 5-7-08
Well Development Date: 5-13-08	Start Time: 1337		Finish Time: 1507
Initial Water Level (ft.): 3.36'			
Water Level during **Initial** Pumping/Purging (ft).: 3.92'			
Water Level at **Termination** of Pumping/Purging (ft).: 3.44'			
Weather: Sunny ~ 85°F			

Height of Water Column: _____ (ft.) × _____ 0.16 gal./ft. (2 in.) / _____ 0.65 gal./ft. (4 in.) / _____ 1.5 gal./ft. (6 in.) / _____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)

KJC 5-13-08 See note

Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
3.92' 1) 23 gal.	1346	31.38	6.71	40.5	2.8 gpm	13.3
2) 46 gal.	1355	29.76	6.66	40.8		7.47
3) 69 gal.	1404	29.78	6.67	41.1		5.31
4) 92 gal.	1413	29.60	6.68	41.5	2.8 gpm	3.83
5) 115 gal.	1422	29.75	6.70	41.8		2.96
6) 138 gal.	1431	29.76	6.71	42.1		2.45
7) 161 gal.	1440	29.72	6.70	42.7		2.43
8) 184 gal.	1449	29.74	6.72	43.0		2.49
3.92' 9) 207 gal.	1458	29.81	6.73	43.3	2.8 gpm	2.06
10) 230 gal.	1507	29.77	6.72	43.3		2.05
3 KJC 5-13-08 4.94'						
3 KJC 5-13-08 4.95'						

Notes: KJC 5-13-08 KJC 5-13-08 Surged ~~Grund. pump~~ Sump w/Grundfos to remove sediment. Set pump in middle of Screen and removed 10 well volumes.
— See well volume calculation spreadsheet for volume calcs.

Well Developers Signature: Kimberly Charles-Smith

FIGURE 9

Graphics\Misc.\Forms

MACTEC Engineering and Consulting, Inc.

Well Development Record

Well No.: OW-809U

Project No. 6468-07-1950	Logged By: Kim Clarke-Smith	
Client Name: Bechtel	Project Name: TPCA	Checked By:
Well Installation Date: 4-1-08	Start Date 4-1-08	Finish Date: 4-1-08
Well Development Date: 5-1-08	Start Time: 0844	Finish Time: 0910
Initial Water Level (ft.): 2.79'		
Water Level during **Initial** Pumping/Purging (ft).: 3.92'		
Water Level at **Termination** of Pumping/Purging (ft).: 2.82'		
Weather: Sunny ~ 73°F		

See notes
KJ 5-1-08

~~Height of Water Column: _____ (ft.) x _____ 0.16 gal./ft. (2 in.) _____ 0.65 gal./ft. (4 in.) _____ 1.5 gal./ft. (6 in.) _____ gal./ft. (_____ in.) = _____ Well Volume (gal./ft.)~~

Water Level From TOC	Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
3.92'	(1) 10 gal.	0847	26.80	6.38	65.8	4.0 gpm	2.37
	(2) 20 gal.	0850	27.97	6.91	69.1	4.0 gpm	1.86
2.99'	(3) 30 gal.	0853	29.29	6.96	69.3	4.0 gpm	1.53
	(4) 40 gal.	0856	29.34	6.99	68.9	4.0 gpm	1.46
2.98'	(5) 50 gal.	0859	29.32	6.97	68.8	4.0 gpm	1.48
	(6) 60 gal.	0902	29.53	6.99	68.9	5.0 gpm	1.23
2.98'	(7) 70 gal.	0904	29.43	7.00	68.9	5.0 gpm	0.63
	(8) 80 gal.	0906	29.04	7.02	68.8	5.0 gpm	0.92
2.98'	(9) 90 gal.	0908	29.15	7.01	68.7	5.0 gpm	1.29
	(10) 100 gal.	0910	29.18	7.00	68.6	5.0 gpm	1.58

Notes: - Surged well with Grundfos to remove sediment from bottom of well.
- See well volume calculation sheet for volume calcs.

Well Developers Signature: Kim Clarke-Smith

FIGURE 9

MACTEC Engineering and Consulting, Inc.

Graphics\Misc.\Forms

Well Development Record

Well No.: OW-812L

Project No. 26468-07-1950	Logged By: Kim Clark-Smith		
Client Name: Bechtel	Project Name: TPCOL		Checked By:
Well Installation Date: 5-6-08 KJ 5-13-08		Start Date: 5-6-08	Finish Date: 5-7-08
Well Development Date: 5-13-08		Start Time: 1010	Finish Time: 1136
Initial Water Level (ft.): 1.46'			
Water Level during **Initial** Pumping/Purging (ft).: 1.90'			
Water Level at **Termination** of Pumping/Purging (ft).: 1.55'			
Weather: Sunny ~ 80°F			

KJ 5-13-08 see notes

Height of Water Column: _____ (ft.) x _____ 0.16 gal./ft. (2 in.) / _____ 0.65 gal./ft. (4 in.) / _____ 1.5 gal./ft. (6 in.) / _____ gal./ft. (____ in.) = _____ Well Volume (gal./ft.)

	Number of Well Volumes:	Time:	Temperature: °C	pH: SU	KJ 5-13-08 Conductivity: ~~mS/cm~~ µS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
1.90'	1) 23 gal.	1024	31.74	6.57	43.6	3.0 gpm	0.75
	2) 46 gal.	1032	31.23	6.84	42.0		1.23
1.85'	3) 69 gal.	1040	31.01	6.84	42.5		0.80
	4) 92 gal.	1048	30.78	6.84	42.2		0.58
1.85'	5) 115 gal.	1056	30.93	6.85	42.2	3.0 gpm	0.42
	6) 138 gal.	1104	30.83	6.86	42.6		0.63
1.86'	7) 161 gal.	1112	30.91	6.86	42.6		0.58
	8) 184 gal.	1120	30.83	6.86	42.7		0.64
1.85'	9) 207 gal.	1128	30.77	6.86	42.8	3.0 gpm	0.66
	10) 230 gal.	1136	30.80	6.85	42.7		0.51

Notes: Surged well sump with grundfos to remove sediment Set S Grundfos pump in screen and removed 10 well volumes. KJ 5-13-08
- see well volume calculation spreadsheet for volume calcs.

Well Developers Signature: Kim Clark-Smith

FIGURE 9

Graphics\Misc.\Forms

MACTEC Engineering and Consulting, Inc.

Well Development Record

Well No.: OW-812U

Project No. 6468-07-1950	Logged By: Kim Charles-Smith	
Client Name: Bechtel	Project Name: TPCoL	Checked By:
Well Installation Date: 5-7-08	Start Date: 5-7-08	Finish Date: 5-7-08
Well Development Date: 5-7-08	Start Time: 1333	Finish Time: 1453 KF 5-7-08
Initial Water Level (ft.): 2.31'		
Water Level during **Initial** Pumping/Purging (ft).: 2.68'		
Water Level at **Termination** of Pumping/Purging (ft).: 2.45'		
Weather: Sunny ~ 85°F		

Height of Water Column: _____ (ft.) × 0.16 gal./ft (2 in.) / 0.65 gal./ft. (4 in.) / 1.5 gal./ft. (6 in.) / _____ gal./ft. (_____ in.) = Well Volume (gal./ft.)

See notes KF 5-7-08

Water level From TOC	Number of Well Volumes:	Time:	Temperature: °C	pH: SU	Conductivity: mS/cm	Approximate Pumping Rate (gal./min.):	Turbidity (NTU's):
2.68'	1) 10 gal.	1335	~~32.77~~ KF 5-7-08 32.77	6.80	76.3	5 gpm	5.08
	2) 20 gal.	1337	32.44	6.79	76.7		3.30
	3) 30 gal	1339	32.90	6.80	79.6		1.89
2.76'	4) 40 gal.	1341	33.05	6.80	~~79~~ 77.2 KF 5-7-08		1.26
	5) 50 gal.	1343	33.28	6.81	77.6	5 gpm	0.80
2.78'	6) 60 gal.	1345	33.20	6.81	77.5		0.83
	7) 70 gal.	~~5-7-08~~ KF 1347	33.01	6.82	77.8		0.78
2.79'	8) 80 gal.	KF 1349	33.17	6.81	77.7		0.88
	9) 90 gal.	1351	33.16	6.81	77.7	5 gpm	0.67
2.80'	10) 100 gal	1353 KF 5-7-08	33.10	6.81	77.4	5 gpm	0.51

Notes:
Until Surged Sump with grundfos for 1st volume then water ran clear.
KF 5-7-08
See well volume Calculation spreadsheet for volume calcs.
KF 5-7-08

Well Developers Signature: Kimmy Charles-Smith

FIGURE 9

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MACTEC Engineering and Consulting, Inc.

Well Sampling Records

MACTEC

MACTEC Engineering and Consulting, Inc.
3301 Atlantic Avenue
Raleigh, North Carolina 27604

OBSERVATION WELL SAMPLING WORKSHEET

OBSERVATION WELL ID:	**OW-606U**			MACTEC JOB NUMBER:	**6468-07-1950**
PROJECT:	**Turkey Point COL Project**	SITE:	**Florida City, Florida**	DATE:	**5/28/2008**
MEASURED WELL DEPTH:	**31.91 FT.**	SCREENED INTERVAL:	**18-28 FT.**	WELL DIAMETER:	**2 IN.**
HEIGHT OF MEASURING POINT ABOVE LAND SURFACE:		**3.0**	CASING MATERIAL:		**PVC**
SAMPLING DEVICE:	**See below**		TUBING TYPE:		**Dedicated, Disposable Tubing**
MEASURING POINT:	**Top of Casing**		DEPTH TO GROUNDWATER:		**2.71**
SAMPLING PERSONNEL:	**L. Bisson**		WATER-COLUMN HEIGHT:		**29.20**

STEEL GUARD PIPE AROUND CASING:	☑	YES	☐	NO	
LOCKING CAP:	☑	YES	☐	NO	
PROTECTIVE POST/ABUTMENT:	☐	YES	☑	NO	
NONPOTABLE LABEL:	☑	YES	☐	NO	
ID PLATE:	☑	YES	☐	NO	
WELL INTEGRITY SATISFACTORY:	☑	YES	☐	NO	
WELL YIELD:	☑	HIGH	☐	MODERATE	☐ LOW

COMMENTS **Monsoon submersible pump, Horiba U-22 S/N MO15-09.**

Purge volume determined by multiplying water-column height by 0.16 gal/ft for a 2-inch well

PURGE VOLUME (gallons)	PURGE RATE (gpm)	TEMP (°C)	PH (S.U.)	D.O. (mg/L)	SP. COND. (mS/cm)	TURBIDITY (NTU)	O.R.P. (± mV)	NOTES
12.2	0.4	28.66	6.86	1.65	66.7	2.00	-355	
26.2	0.4	28.70	6.88	1.55	66.9	0.39	-368	
32.6	0.4	28.70	6.84	1.61	66.8	0.46	-339	
39.0	0.4	28.71	6.84	1.66	66.9	0.30	-342	
45.4	0.4	28.71	6.84	1.64	66.9	0.34	-347	
Sample	**0.3**	**28.71**	**6.84**	**1.66**	**66.9**	**0.34**	**-344**	

Sample collected at 16:10 for the following tests

TDS - Method 160.1 / Alkalinity - Method 310.1
Anions and Nitrate/Nitrite - Method 300.0
Cations - Method 6020
Ammonia - Method 350.1
Kd - distribution coefficient

Observation wells purged in accordance with ASTM D-6452-99

Prepared by: [signature] Date: 7-7-08

Checked by: CBS Date: 7/7/08

MACTEC

MACTEC Engineering and Consulting, Inc.
3301 Atlantic Avenue
Raleigh, North Carolina 27604

OBSERVATION WELL SAMPLING WORKSHEET

OBSERVATION WELL ID:	**OW-606L**			MACTEC JOB NUMBER:	**6468-07-1950**
PROJECT:	**Turkey Point COL Project**	SITE:	**Florida Cirty, Florida**	DATE:	**5/28/2008**
MEASURED WELL DEPTH:	**111.31 FT.**	SCREENED INTERVAL:	**97-107 FT.**	WELL DIAMETER:	**2 IN.**
HEIGHT OF MEASURING POINT ABOVE LAND SURFACE:		**2.8**	CASING MATERIAL:		**PVC**
SAMPLING DEVICE:	**See below**		TUBING TYPE:	**Dedicated, Disposable Tubing**	
MEASURING POINT:	**Top of Casing**		DEPTH TO GROUNDWATER:		**2.30**
SAMPLING PERSONNEL:	**K. Charles-Smith**		WATER-COLUMN HEIGHT:		**109.01**

STEEL GUARD PIPE AROUND CASING:	☑	YES	☐	NO		
LOCKING CAP:	☑	YES	☐	NO		
PROTECTIVE POST/ABUTMENT:	☐	YES	☑	NO		
NONPOTABLE LABEL:	☑	YES	☐	NO		
ID PLATE:	☑	YES	☐	NO		
WELL INTEGRITY SATISFACTORY:	☑	YES	☐	NO		
WELL YIELD:	☑	HIGH	☐	MODERATE	☐	LOW

COMMENTS **Monsoon submersible pump, Horiba U-22 S/N MO15-09.**

Purge volume determined by multiplying water-column height by 0.16 gal/ft for a 2-inch well

PURGE VOLUME (gallons)	PURGE RATE (gpm)	TEMP (°C)	PH (S.U.)	D.O. (mg/L)	SP. COND. (mS/cm)	TURBIDITY (NTU)	O.R.P. (± mV)	NOTES
26	0.4	28.78	7.41	10.02	52.6	1.22	-306	
52	0.4	28.32	7.09	9.57	52.8	0.61	-365	
65	0.4	28.38	7.08	9.89	52.9	0.91	-367	
78	0.4	28.14	7.09	9.98	52.7	0.74	-370	
91	0.4	28.09	7.08	9.84	52.7	0.83	-370	
Sample	**0.3**	**28.29**	**7.08**	**9.92**	**52.8**	**0.77**	**-370**	

Sample collected at 15:40 for the following tests

Analytical Method

TDS - Method 160.1 / Alkalinity - Method 310.1
Anions and Nitrate/Nitrite - Method 300.0
Cations - Method 6020
Ammonia - Method 350.1
Kd - distribution coefficient

Observation wells purged in accordance with ASTM D-6452-99

Prepared by: LWL Date: 7-7-08

Checked by: CBS Date: 7/7/08

MACTEC

MACTEC Engineering and Consulting, Inc.
3301 Atlantic Avenue
Raleigh, North Carolina 27604

OBSERVATION WELL SAMPLING WORKSHEET

OBSERVATION WELL ID:	**OW-621U**			MACTEC JOB NUMBER:	**6468-07-1950**
PROJECT:	**Turkey Point COL Project**	SITE:	**Florida City, Florida**	DATE:	**5/29/2008**
MEASURED WELL DEPTH:	**32.36 FT.**	SCREENED INTERVAL:	**17.4-27.4 FT.**	WELL DIAMETER:	**2 IN.**
HEIGHT OF MEASURING POINT ABOVE LAND SURFACE:		**3.30**	CASING MATERIAL:		**PVC**
SAMPLING DEVICE:	**See below**		TUBING TYPE:	**Dedicated, Disposable Tubing**	
MEASURING POINT:	**Top of Casing**		DEPTH TO GROUNDWATER:		**5.23**
SAMPLING PERSONNEL:	**K. Charles-Smith**		WATER-COLUMN HEIGHT:		**27.13**

STEEL GUARD PIPE AROUND CASING:	☑	YES	☐	NO	
LOCKING CAP:	☑	YES	☐	NO	
PROTECTIVE POST/ABUTMENT:	☐	YES	☑	NO	
NONPOTABLE LABEL:	☑	YES	☐	NO	
ID PLATE:	☑	YES	☐	NO	
WELL INTEGRITY SATISFACTORY:	☑	YES	☐	NO	
WELL YIELD:	☑	HIGH	☐	MODERATE	☐ LOW

COMMENTS **Monsoon submersible pump, Horiba U-22 S/N MO15-09.**

Purge volume determined by multiplying water-column height by 0.16 gal/ft for a 2-inch well

PURGE VOLUME (gallons)	PURGE RATE (gpm)	TEMP (°C)	PH (S.U.)	D.O. (mg/L)	SP. COND. (mS/cm)	TURBIDITY (NTU)	O.R.P. (± mV)	NOTES
12	0.4	27.81	7.16	0.07	92.6	21.8	-306	
24	0.4	27.82	7.10	0.05	90.6	3.72	-342	
30	0.4	27.81	7.08	0.05	90.9	2.93	-349	
36	0.4	27.81	7.08	0.05	91.0	2.89	-351	
42	0.4	27.83	7.07	0.05	91.1	2.90	-350	
Sample	**0.3**	**27.82**	**7.08**	**0.05**	**91.0**	**2.91**	**-351**	

Sample collected at 16:10 for the following tests

Analytical Method
TDS - Method 160.1 / Alkalinity - Method 310.1
Anions and Nitrate/Nitrite - Method 300.0
Cations - Method 6020
Ammonia - Method 350.1
Kd - distribution coefficient

Observation wells purged in accordance with ASTM D-6452-99

Prepared by: ewsl Date: 7-7-08

Checked by: CBS Date: 7/7/08

MACTEC

MACTEC Engineering and Consulting, Inc.
3301 Atlantic Avenue
Raleigh, North Carolina 27604

OBSERVATION WELL SAMPLING WORKSHEET

OBSERVATION WELL ID:	**OW-621L**			MACTEC JOB NUMBER:	**6468-07-1950**
PROJECT:	**Turkey Point COL Project**	SITE:	**Florida City, Florida**	DATE:	**6/4/2008**
MEASURED WELL DEPTH:	**111.55 FT.**	SCREENED INTERVAL:	**98.6-108.6 FT.**	WELL DIAMETER:	**2 IN.**
HEIGHT OF MEASURING POINT ABOVE LAND SURFACE:		**3.0**	CASING MATERIAL:		**PVC**
SAMPLING DEVICE:	**See below**		TUBING TYPE:		**Dedicated, Disposable Tubing**
MEASURING POINT:	**Top of Casing**		DEPTH TO GROUNDWATER:		**3.50**
SAMPLING PERSONNEL:	**K. Charles-Smith**		WATER-COLUMN HEIGHT:		**108.05**

STEEL GUARD PIPE AROUND CASING:	☑	YES	☐	NO		
LOCKING CAP:	☑	YES	☐	NO		
PROTECTIVE POST/ABUTMENT:	☐	YES	☑	NO		
NONPOTABLE LABEL:	☑	YES	☐	NO		
ID PLATE:	☑	YES	☐	NO		
WELL INTEGRITY SATISFACTORY:	☑	YES	☐	NO		
WELL YIELD:	☑	HIGH	☐	MODERATE	☐	LOW

COMMENTS **Monsoon submersible pump, Horiba U-22 S/N MO15-09.**

Purge volume determined by multiplying water-column height by 0.16 gal/ft for a 2-inch well

PURGE VOLUME (gallons)	PURGE RATE (gpm)	TEMP (°C)	PH (S.U.)	D.O. (mg/L)	SP. COND. (mS/cm)	TURBIDITY (NTU)	O.R.P. (± mV)	NOTES
26	0.4	27.74	7.07	1.68	>99.9	0.31	-353	
52	0.4	27.72	7.06	1.67	>99.9	0.34	-352	
65	0.4	27.81	7.05	1.66	>99.9	0.20	-347	
78	0.4	27.81	7.06	1.66	>99.9	0.21	-347	
91	0.4	27.81	7.06	1.66	>99.9	0.21	-349	
Sample	**0.3**	**27.80**	**7.06**	**1.66**	**>99.9**	**0.21**	**-349**	

Sample collected at 14:20 for the following tests

Analytical Method

TDS - Method 160.1 / Alkalinity - Method 310.1
Anions and Nitrate/Nitrite - Method 300.0
Cations - Method 6020
Ammonia - Method 350.1
Kd - distribution coefficient

Observation wells purged in accordance with ASTM D-6452-99

Prepared by: [signature] Date: 7-7-08

Checked by: CBS Date: 7/7/08

MACTEC

MACTEC Engineering and Consulting, Inc.
3301 Atlantic Avenue
Raleigh, North Carolina 27604

OBSERVATION WELL SAMPLING WORKSHEET

OBSERVATION WELL ID:	**OW-706U**			MACTEC JOB NUMBER:	**6468-07-1950**
PROJECT:	**Turkey Point COL Project**	SITE:	**Florida City, Florida**	DATE:	**5/29/2008**
MEASURED WELL DEPTH:	**31.72 FT.**	SCREENED INTERVAL:	**17-27 FT.**	WELL DIAMETER:	**2 IN.**
HEIGHT OF MEASURING POINT ABOVE LAND SURFACE:		**3.2**	CASING MATERIAL:		**PVC**
SAMPLING DEVICE:	**See below**		TUBING TYPE:		**Dedicated, Disposable Tubing**
MEASURING POINT:	**Top of Casing**		DEPTH TO GROUNDWATER:		**3.02**
SAMPLING PERSONNEL:	**L. Bisson and K. Charles-Smith**		WATER-COLUMN HEIGHT:		**28.70**

STEEL GUARD PIPE AROUND CASING:	☑	YES	☐	NO	
LOCKING CAP:	☑	YES	☐	NO	
PROTECTIVE POST/ABUTMENT:	☐	YES	☑	NO	
NONPOTABLE LABEL:	☑	YES	☐	NO	
ID PLATE:	☑	YES	☐	NO	
WELL INTEGRITY SATISFACTORY:	☑	YES	☐	NO	
WELL YIELD:	☑	HIGH	☐	MODERATE	☐ LOW

COMMENTS **Monsoon submersible pump, Horiba U-22 S/N MO15-09.**

Purge volume determined by multiplying water-column height by 0.16 gal/ft for a 2-inch well

PURGE VOLUME (gallons)	PURGE RATE (gpm)	TEMP (°C)	PH (S.U.)	D.O. (mg/L)	SP. COND. (mS/cm)	TURBIDITY (NTU)	O.R.P. (± mV)	NOTES
10	0.4	29.16	6.67	1.17	74.9	18.1	-373	
20	0.4	29.55	6.62	1.34	76.5	1.84	-378	
26	0.4	29.95	6.66	1.20	76.7	1.25	-385	
32	0.4	30.19	6.67	1.10	76.7	1.09	-388	
38	0.4	30.70	6.66	1.15	76.7	1.08	-391	
Sample	**0.3**	**30.85**	**6.65**	**1.13**	**76.6**	**0.83**	**-392**	

Sample collected at 11:00 for the following tests

Analytical Method

TDS - Method 160.1 / Alkalinity - Method 310.1
Anions and Nitrate/Nitrite - Method 300.0
Cations - Method 6020
Ammonia - Method 350.1
Kd - distribution coefficient

Observation wells purged in accordance with ASTM D-6452-99

Prepared by: WS Date: 7-7-08

Checked by: CBS Date: 7/7/08

MACTEC

MACTEC Engineering and Consulting, Inc.
3301 Atlantic Avenue
Raleigh, North Carolina 27604

OBSERVATION WELL SAMPLING WORKSHEET

OBSERVATION WELL ID:	**OW-706L**			MACTEC JOB NUMBER:	**6468-07-1950**
PROJECT:	**Turkey Point COL Project**	SITE:	**Florida City, Florida**	DATE:	**5/29/2008**
MEASURED WELL DEPTH:	**114.56 FT.**	SCREENED INTERVAL:	**17-27 FT.**	WELL DIAMETER:	**2 IN.**
HEIGHT OF MEASURING POINT ABOVE LAND SURFACE:		**3.2**	CASING MATERIAL:		**PVC**
SAMPLING DEVICE:	**See below**		TUBING TYPE:		**Dedicated, Disposable Tubing**
MEASURING POINT:	**Top of Casing**		DEPTH TO GROUNDWATER:		**0.62**
SAMPLING PERSONNEL:	**K. Charles-Smith**		WATER-COLUMN HEIGHT:		**113.94**

STEEL GUARD PIPE AROUND CASING:	☑	YES	☐	NO		
LOCKING CAP:	☑	YES	☐	NO		
PROTECTIVE POST/ABUTMENT:	☐	YES	☑	NO		
NONPOTABLE LABEL:	☑	YES	☐	NO		
ID PLATE:	☑	YES	☐	NO		
WELL INTEGRITY SATISFACTORY:	☑	YES	☐	NO		
WELL YIELD:	☑	HIGH	☐	MODERATE	☐	LOW

COMMENTS **Monsoon submersible pump, Horiba U-22 S/N MO15-09.**

Purge volume determined by multiplying water-column height by 0.16 gal/ft for a 2-inch well

PURGE VOLUME (gallons)	PURGE RATE (gpm)	TEMP (°C)	PH (S.U.)	D.O. (mg/L)	SP. COND. (mS/cm)	TURBIDITY (NTU)	O.R.P. (± mV)	NOTES
24	0.4	29.50	6.87	1.92	44.4	9.05	-287	
48	0.4	29.42	6.85	1.79	46.7	0.86	-334	
60	0.4	29.54	6.88	1.61	45.7	0.57	-343	
72	0.4	29.57	6.85	1.57	46.2	0.35	-346	
84	0.4	29.60	6.86	1.51	46.2	0.24	-351	
Sample	**0.3**	**29.61**	**6.83**	**1.49**	**46.4**	**0.20**	**-351**	

Sample collected at 12:35 for the following tests

Analytical Method

TDS - Method 160.1 / Alkalinity - Method 310.1
Anions and Nitrate/Nitrite - Method 300.0
Cations - Method 6020
Ammonia - Method 350.1
Kd - distribution coefficient

Observation wells purged in accordance with ASTM D-6452-99

Prepared by: [signature] Date: 7-7-08

Checked by: CBS Date: 7/7/08

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MACTEC Engineering and Consulting, Inc.
3301 Atlantic Avenue
Raleigh, North Carolina 27604

OBSERVATION WELL SAMPLING WORKSHEET

OBSERVATION WELL ID:	**OW-721U**			MACTEC JOB NUMBER:	**6468-07-1950**
PROJECT:	**Turkey Point COL Project**	SITE:	**Florida City, Florida**	DATE:	**5/28/2008**
MEASURED WELL DEPTH:	**28.00 FT.**	SCREENED INTERVAL:	**14-24 FT.**	WELL DIAMETER:	**2 IN.**
HEIGHT OF MEASURING POINT ABOVE LAND SURFACE:		**3.1**	CASING MATERIAL:		**PVC**
SAMPLING DEVICE:	**See below**		TUBING TYPE:		**Dedicated, Disposable Tubing**
MEASURING POINT:	**Top of Casing**		DEPTH TO GROUNDWATER:		**3.23**
SAMPLING PERSONNEL:	**K. Charles-Smith**		WATER-COLUMN HEIGHT:		**24.77**

STEEL GUARD PIPE AROUND CASING:	☑	YES	☐	NO		
LOCKING CAP:	☑	YES	☐	NO		
PROTECTIVE POST/ABUTMENT:	☐	YES	☑	NO		
NONPOTABLE LABEL:	☑	YES	☐	NO		
ID PLATE:	☑	YES	☐	NO		
WELL INTEGRITY SATISFACTORY:	☑	YES	☐	NO		
WELL YIELD:	☑	HIGH	☐	MODERATE	☐	LOW

COMMENTS **Monsoon submersible pump, Horiba U-22 S/N MO15-09.**

Purge volume determined by multiplying water-column height by 0.16 gal/ft for a 2-inch well

PURGE VOLUME (gallons)	PURGE RATE (gpm)	TEMP (°C)	PH (S.U.)	D.O. (mg/L)	SP. COND. (mS/cm)	TURBIDITY (NTU)	O.R.P. (± mV)	NOTES
9	0.4	28.91	7.12	10.8	54.8	0.28	-361	
18	0.4	29.22	7.11	10.6	55.5	0.48	-364	
22.5	0.4	29.26	7.08	10.6	52.7	0.37	-364	
27	0.4	29.27	7.08	10.6	53.0	0.46	-362	
31.5	0.4	29.30	7.07	10.8	52.8	0.30	-362	
Sample	**0.3**	**28.92**	**7.10**	**10.6**	**53.1**	**0.36**	**-364**	

Sample collected at 11:00 for the following tests

Analytical Method

TDS - Method 160.1 / Alkalinity - Method 310.1
Anions and Nitrate/Nitrite - Method 300.0
Cations - Method 6020
Ammonia - Method 350.1
Kd - distribution coefficient

Observation wells purged in accordance with ASTM D-6452-99

Prepared by: WSL Date: 7-7-08

Checked by: CBS Date: 7/7/08

MACTEC

MACTEC Engineering and Consulting, Inc.
3301 Atlantic Avenue
Raleigh, North Carolina 27604

OBSERVATION WELL SAMPLING WORKSHEET

OBSERVATION WELL ID:	**OW-721L**			MACTEC JOB NUMBER:	**6468-07-1950**
PROJECT:	**Turkey Point COL Project**	SITE:	**Florida City, Florida**	DATE:	**5/28/2008**
MEASURED WELL DEPTH:	**107.62 FT.**	SCREENED INTERVAL:	**96-106 FT.**	WELL DIAMETER:	**2 IN.**
HEIGHT OF MEASURING POINT ABOVE LAND SURFACE:		**3.2**	CASING MATERIAL:		**PVC**
SAMPLING DEVICE:	**See below**		TUBING TYPE:		**Dedicated, Disposable Tubing**
MEASURING POINT:	**Top of Casing**		DEPTH TO GROUNDWATER:		**1.07**
SAMPLING PERSONNEL:	**L. Bisson**		WATER-COLUMN HEIGHT:		**106.55**

STEEL GUARD PIPE AROUND CASING:	☑	YES	☐	NO	
LOCKING CAP:	☑	YES	☐	NO	
PROTECTIVE POST/ABUTMENT:	☐	YES	☑	NO	
NONPOTABLE LABEL:	☑	YES	☐	NO	
ID PLATE:	☑	YES	☐	NO	
WELL INTEGRITY SATISFACTORY:	☑	YES	☐	NO	
WELL YIELD:	☑	HIGH	☐	MODERATE	☐ LOW

COMMENTS **Monsoon submersible pump, Horiba U-22 S/N MO15-09.**

Purge volume determined by multiplying water-column height by 0.16 gal/ft for a 2-inch well

PURGE VOLUME (gallons)	PURGE RATE (gpm)	TEMP (°C)	PH (S.U.)	D.O. (mg/L)	SP. COND. (mS/cm)	TURBIDITY (NTU)	O.R.P. (± mV)	NOTES
25.2	0.4	28.86	6.80	1.71	73.6	175	-337	
48.0	0.4	28.68	6.78	1.18	74.3	5.41	-358	
60.0	0.4	28.62	6.75	1.24	74.4	7.20	-361	
72.0	0.4	28.64	6.75	1.08	74.4	7.60	-364	
84.0	0.4	28.60	6.77	1.17	74.3	7.55	-369	
Sample	**0.3**	**28.56**	**6.76**	**1.18**	**74.3**	**7.55**	**-370**	

Sample collected at 13:25 for the following tests

Analytical Method

TDS - Method 160.1 / Alkalinity - Method 310.1
Anions and Nitrate/Nitrite - Method 300.0
Cations - Method 6020
Ammonia - Method 350.1
Kd - distribution coefficient

Observation wells purged in accordance with ASTM D-6452-99

Prepared by: WSB Date: 7-7-08

Checked by: CBS Date: 7/7/08

MACTEC

MACTEC Engineering and Consulting, Inc.
3301 Atlantic Avenue
Raleigh, North Carolina 27604

OBSERVATION WELL SAMPLING WORKSHEET

OBSERVATION WELL ID:	**OW-735U**			MACTEC JOB NUMBER:	**6468-07-1950**
PROJECT:	**Turkey Point COL Project**	SITE:	**Florida City, Florida**	DATE:	**5/27/2008**
MEASURED WELL DEPTH:	**30.19 FT.**	SCREENED INTERVAL:	**16-26 FT.**	WELL DIAMETER:	**2 IN.**
HEIGHT OF MEASURING POINT ABOVE LAND SURFACE:		**3.3**	CASING MATERIAL:		**PVC**
SAMPLING DEVICE:	**See below**		TUBING TYPE:		**Dedicated, Disposable Tubing**
MEASURING POINT:	**Top of Casing**		DEPTH TO GROUNDWATER:		**4.40**
SAMPLING PERSONNEL:	**K. Charles-Smith**		WATER-COLUMN HEIGHT:		**25.79**

STEEL GUARD PIPE AROUND CASING:	☑	YES	☐	NO	
LOCKING CAP:	☑	YES	☐	NO	
PROTECTIVE POST/ABUTMENT:	☐	YES	☑	NO	
NONPOTABLE LABEL:	☑	YES	☐	NO	
ID PLATE:	☑	YES	☐	NO	
WELL INTEGRITY SATISFACTORY:	☑	YES	☐	NO	
WELL YIELD:	☑	HIGH	☐	MODERATE	☐ LOW

COMMENTS **Monsoon submersible pump, Horiba U-22 S/N MO15-09.**

Purge volume determined by multiplying water-column height by 0.16 gal/ft for a 2-inch well

PURGE VOLUME (gallons)	PURGE RATE (gpm)	TEMP (°C)	PH (S.U.)	D.O. (mg/L)	SP. COND. (mS/cm)	TURBIDITY (NTU)	O.R.P. (± mV)	NOTES
9.5	0.4	29.42	7.02	0.04	84.6	0.99	-334	
19	0.4	29.46	7.01	0.02	84.7	0.99	-351	
23.75	0.4	29.46	7.00	0.01	84.8	0.92	-357	
28.5	0.4	29.45	6.99	0.02	84.8	0.86	-357	
33.25	0.4	29.48	6.99	0.02	84.8	0.90	-357	
Sample	**0.3**	**29.47**	**7.00**	**0.02**	**86.6**	**0.92**	**-360**	

Sample collected at 11:35 for the following tests

Analytical Method

TDS - Method 160.1 / Alkalinity - Method 310.1
Anions and Nitrate/Nitrite - Method 300.0
Cations - Method 6020
Ammonia - Method 350.1
Kd - distribution coefficient

Observation wells purged in accordance with ASTM D-6452-99

Prepared by: [signature] Date: 7-7-08

Checked by: CBS Date: 7/7/08

MACTEC

MACTEC Engineering and Consulting, Inc.
3301 Atlantic Avenue
Raleigh, North Carolina 27604

OBSERVATION WELL SAMPLING WORKSHEET

OBSERVATION WELL ID:	**OW-802U**			MACTEC JOB NUMBER:	**6468-07-1950**
PROJECT:	**Turkey Point COL Project**	SITE:	**Florida City, Florida**	DATE:	**6/5/2008**
MEASURED WELL DEPTH:	**29.11 FT.**	SCREENED INTERVAL:	**15-25 FT.**	WELL DIAMETER:	**2 IN.**
HEIGHT OF MEASURING POINT ABOVE LAND SURFACE:		**3.4**	CASING MATERIAL:		**PVC**
SAMPLING DEVICE:	**See below**		TUBING TYPE:		**Dedicated, Disposable Tubing**
MEASURING POINT:	**Top of Casing**		DEPTH TO GROUNDWATER:		**4.05**
SAMPLING PERSONNEL:	**K. Charles-Smith**		WATER-COLUMN HEIGHT:		**25.06**

STEEL GUARD PIPE AROUND CASING:	☑	YES	☐	NO		
LOCKING CAP:	☑	YES	☐	NO		
PROTECTIVE POST/ABUTMENT:	☐	YES	☑	NO		
NONPOTABLE LABEL:	☑	YES	☐	NO		
ID PLATE:	☑	YES	☐	NO		
WELL INTEGRITY SATISFACTORY:	☑	YES	☐	NO		
WELL YIELD:	☑	HIGH	☐	MODERATE	☐	LOW

COMMENTS **Monsoon submersible pump, Horiba U-22 S/N MO15-09.**

Purge volume determined by multiplying water-column height by 0.16 gal/ft for a 2-inch well

PURGE VOLUME (gallons)	PURGE RATE (gpm)	TEMP (°C)	PH (S.U.)	D.O. (mg/L)	SP. COND. (mS/cm)	TURBIDITY (NTU)	O.R.P. (± mV)	NOTES
10	0.4	28.23	6.86	2.05	82.7	0.91	-352	
20	0.4	28.20	6.86	1.76	82.7	0.50	-355	
25	0.4	28.22	6.89	1.90	82.7	0.57	-360	
30	0.4	28.50	6.88	1.91	82.6	0.52	-363	
35	0.4	28.36	6.84	1.90	82.6	0.48	-361	
Sample	**0.3**	**28.27**	**6.80**	**1.90**	**82.8**	**0.48**	**-322**	

Sample collected at 12:35 for the following tests

Analytical Method

TDS - Method 160.1 / Alkalinity - Method 310.1
Anions and Nitrate/Nitrite - Method 300.0
Cations - Method 6020
Ammonia - Method 350.1
Kd - distribution coefficient

Observation wells purged in accordance with ASTM D-6452-99

Prepared by: CWSL Date: 7-7-08

Checked by: CBS Date: 7/7/08

MACTEC

MACTEC Engineering and Consulting, Inc.
3301 Atlantic Avenue
Raleigh, North Carolina 27604

OBSERVATION WELL SAMPLING WORKSHEET

OBSERVATION WELL ID:	**OW-805U**			MACTEC JOB NUMBER:	**6468-07-1950**
PROJECT:	**Turkey Point COL Project**	SITE:	**Florida City, Florida**	DATE:	**6/5/2008**
MEASURED WELL DEPTH:	**33.85 FT.**	SCREENED INTERVAL:	**18-28 FT.**	WELL DIAMETER:	**2 IN.**
HEIGHT OF MEASURING POINT ABOVE LAND SURFACE:		**2.8**	CASING MATERIAL:		**PVC**
SAMPLING DEVICE:	**See below**		TUBING TYPE:		**Dedicated, Disposable Tubing**
MEASURING POINT:	**Top of Casing**		DEPTH TO GROUNDWATER:		**3.05**
SAMPLING PERSONNEL:	**K. Charles-Smith**		WATER-COLUMN HEIGHT:		**30.80**

STEEL GUARD PIPE AROUND CASING:	☑	YES	☐	NO	
LOCKING CAP:	☑	YES	☐	NO	
PROTECTIVE POST/ABUTMENT:	☐	YES	☑	NO	
NONPOTABLE LABEL:	☑	YES	☐	NO	
ID PLATE:	☑	YES	☐	NO	
WELL INTEGRITY SATISFACTORY:	☑	YES	☐	NO	
WELL YIELD:	☑	HIGH	☐	MODERATE	☐ LOW

COMMENTS **Monsoon submersible pump, Horiba U-22 S/N MO15-09.**

Purge volume determined by multiplying water-column height by 0.16 gal/ft for a 2-inch well

PURGE VOLUME (gallons)	PURGE RATE (gpm)	TEMP (°C)	PH (S.U.)	D.O. (mg/L)	SP. COND. (mS/cm)	TURBIDITY (NTU)	O.R.P. (± mV)	NOTES
10.5	0.4	28.04	7.29	1.19	64.0	0.86	-296	
21.0	0.4	28.31	7.14	1.18	61.1	0.43	-342	
26.5	0.4	28.19	7.13	1.18	61.0	0.36	-345	
32.0	0.4	28.31	7.10	1.19	60.8	0.32	-345	
37.5	0.4	28.35	7.11	1.19	61.1	0.33	-344	
Sample	**0.3**	**28.26**	**7.10**	**1.19**	**60.9**	**0.32**	**-346**	

Sample collected at 15:00 for the following tests

Analytical Method

TDS - Method 160.1 / Alkalinity - Method 310.1
Anions and Nitrate/Nitrite - Method 300.0
Cations - Method 6020
Ammonia - Method 350.1
Kd - distribution coefficient

Observation wells purged in accordance with ASTM D-6452-99

Prepared by: CWS Date: 7-7-08

Checked by: CBS Date: 7/7/08

MACTEC

MACTEC Engineering and Consulting, Inc.
3301 Atlantic Avenue
Raleigh, North Carolina 27604

OBSERVATION WELL SAMPLING WORKSHEET

OBSERVATION WELL ID:	**OW-809U**			MACTEC JOB NUMBER:	**6468-07-1950**
PROJECT:	**Turkey Point COL Project**	SITE:	**Florida City, Florida**	DATE:	**5/27/2008**
MEASURED WELL DEPTH:	**29.71 FT.**	SCREENED INTERVAL:	**15-25 FT.**	WELL DIAMETER:	**2 IN.**
HEIGHT OF MEASURING POINT ABOVE LAND SURFACE:		**3.2**	CASING MATERIAL:		**PVC**
SAMPLING DEVICE:	**See below**		TUBING TYPE:		**Dedicated, Disposable Tubing**
MEASURING POINT:	**Top of Casing**		DEPTH TO GROUNDWATER:		**3.38**
SAMPLING PERSONNEL:	**K. Charles-Smith**		WATER-COLUMN HEIGHT:		**26.33**

STEEL GUARD PIPE AROUND CASING:	☑	YES	☐	NO		
LOCKING CAP:	☑	YES	☐	NO		
PROTECTIVE POST/ABUTMENT:	☐	YES	☑	NO		
NONPOTABLE LABEL:	☑	YES	☐	NO		
ID PLATE:	☑	YES	☐	NO		
WELL INTEGRITY SATISFACTORY:	☑	YES	☐	NO		
WELL YIELD:	☑	HIGH	☐	MODERATE	☐	LOW

COMMENTS **Monsoon submersible pump, Horiba U-22 S/N MO15-09.**

Purge volume determined by multiplying water-column height by 0.16 gal/ft for a 2-inch well

PURGE VOLUME (gallons)	PURGE RATE (gpm)	TEMP (°C)	PH (S.U.)	D.O. (mg/L)	SP. COND. (mS/cm)	TURBIDITY (NTU)	O.R.P. (± mV)	NOTES
9	0.4	31.02	6.99	0.01	85.1	4.39	-368	
18	0.4	30.83	6.98	0.02	84.0	1.09	-370	
22.5	0.4	30.99	6.98	0.02	84.1	0.97	-371	
27	0.4	30.81	6.98	0.01	84.0	0.99	-370	
31.5	0.4	30.81	6.98	0.01	83.9	0.99	-371	
Sample	**0.3**	**30.82**	**6.98**	**0.01**	**83.9**	**0.97**	**-371**	

Sample collected at 14:55 for the following tests

Analytical Method

TDS - Method 160.1 / Alkalinity - Method 310.1
Anions and Nitrate/Nitrite - Method 300.0
Cations - Method 6020
Ammonia - Method 350.1
Kd - distribution coefficient

Observation wells purged in accordance with ASTM D-6452-99

Prepared by: [signature] Date: 7-7-08

Checked by: CBS Date: 7/7/08

Laboratory Test Reports

Supplier Deviation Disposition Request

Notes

1. COMPLETE INSTRUCTIONS ON BACK OF THIS SHEET
2. Items 1-18 below to be completed by supplier
3. *Items, Bechtel entries only
4. Nonapplicable items to be marked "N/A"
5. Attach additional information whenever necessary
6. Bechtel must be notified within 5 days after detection of deviation
7. A copy of the completed SDDR form shall be included by the supplier in the quality verification data package for each item to which this SDDR applies.

For Supplier Use		Project FPL Turkey Point COL	For Bechtel Use	
Supplier SDDR No.	Date Submitted	Job No. 25409	Bechtel SDDR No.	Date Received
76	5/18/09		see above	~~4/19/09~~ 5-19-09

1. Supplier Name	Address	City & State	Zip Code
MACTEC Engineering and Consulting, Inc	3301 Atlantic Avenue	Raleigh, NC	27604

2. Supplier's Order No.	3. Supplier's Part No.	4. Supplier's Part Name	5. Deviation Detected Date	5. Deviation Detected Method	6. All Previous SDDRs (Numbers and Dates)
NA	NA	NA	9/22/2008	NCR	

7. Bechtel PO & Rev. No.	8. Bechtel Part No.	9. Bechtel Part Name	10. Bechtel SQR Notified Date	10. Bechtel SQR Notified Method	11. Bechtel Eng. Notified Date	11. Bechtel Eng. Notified Method
Subcontract No. 25409-102-3PS-CT20-00001 rev 001	NA	NA	5/18/2009	SDDR	5/18/2009	SDDR

12. Deviation Description (Attach extra sheets, photographs, sketches, etc., as necessary and identify quantity and serial numbers as applicable)
Please see attached NCR TP 40 (attachment 3 pgs).

13. Supplier's Proposed Disposition [ ] Use-As-Is [ ] Repair [X] Modify Bechtel Requirement

DATA REJECTED AS INDICATED BY ATTACHED NCR TP 40.

14. Cost Impact None

15. Schedule Impact None

16. Proposed Disposition and Technical (plus Cost/Schedule if applicable) Justification: Attach extra sheets, sketches, etc., as necessary
Please see attached document with information (attachment 3 pgs).

17. Associated Supplier Document Change(s) none

18. Supplier's Authorized Representative

Name	Signature	Title	Date
RICHARD S. ALLEN		PROJECT MANAGER	5-18-09

*19. Bechtel Engineering Action

[ ]	Accepted	Engineering	[ ]	Drawing Change	[ ]	Bechtel	[ ]	Supplier	[ ] Licensing Doc. Changes
[√]	Rejected	Follow-up	[ ]	Spec/Req. Change	[ ]	Bechtel	[ ]	Supplier	[ ] Price Adjustment
			[ ]	Other Suppliers Affected			[ ]	Other	

*20. Bechtel Disposition Statement Including Justification (Attach extra sheets, sketches, etc., as necessary).
SEE PAGE 5 FOR DISPOSITION
Construction Action Required [ ] Yes [√] No

*21. Bechtel Disposition Approval/Signature		Date	22. Supplier	Date
RE	Thomas Bilash	6/17/09	N/A	
Checker		6/17/09		
EGS	JLM	6/17/09	*23. Bechtel Supplier Quality Representative	Date
PE		6-17-09	N/A	

SDDR Document – attachment 3 Pages **DCN# TUR765**

4 HP 6-16-09

Rev. 1

FPL COL PROJECT – Turkey Point **MACTEC Project No. 6468-07-1950**

NCR TP 40	**Nonconformance and Corrective Action Report**	
Organization: MACTEC Engineering and Consulting		Location: Raleigh
Reported By: William S. Grimes		Date: 9/22/08

Nonconformance

Description of Nonconformance:

Description of Nonconformance: Based on review of the laboratory test reports, it appears that the total dissolved solids (TDS) results are erroneous. The measured TDS results are typically less than the sum of the individual analytes. TDS values should be as large or larger than the sum of the available analytes.

Representative Notified: Al Tice

Date Notified: 9/22/2008 | Date Corrective Action Plan Due:10/10/2008

Corrective Action Plan

Description of Evaluation to Determine Root Cause: MACTEC Senior Scientists reviewed the laboratory test reports and concluded that the TDS results did not appear accurate. Additionally, MACTEC QA personnel interviewed TestAmerica to review their testing procedures to determine if errors were made during the testing.

Assignable Cause: Due to the high concentrations of analytes in the samples, a diluted aliquot was necessary to meet the final method requirements of not exceeding 200 milligrams of residue for the TDS tests. TestAmerica reported in their investigation that any suspended particulates may have affected pipette volume accuracy. Therefore, the TDS values could differ from the sum of available analytes based on an insufficient sample volume.

Potential Harm: Based on discussions with the Bechtel, we understand that the primary objective for the groundwater sampling and testing assignment was to support review of specific conductivity data. Therefore, we believe the potentially erroneous TDS test results will not compromise Bechtel's objective for the assignment. This will be confirmed with formal submittal of an SDDR to cover this NCR.

Description of Corrective Actions (current and to prevent recurrence): A MACTEC Senior Chemist reviewed the laboratory test reports to identify issues and disposition the data. Additionally, MACTEC QA coordinated with TestAmerica to identify steps /procedures to make sure this issue is not repeated in future analyses.

Estimated Completion Date: 10/15/08

Recommended disposition of nonconforming items (i.e. reject/dispose, repair, rework, use-as-is) Include technical justification:

MACTEC rejects the TDS results, please see attached disposition statement.

10 CFR 21 Notification Required: YES NO

Signature of Preparer: William S. Grimes	Date: 5-14-09
Corrective Action Approval Signature: (Principal or Chief Engineer)	Date: 5-14-09

Corrective Action Closure

Comments:

Approved/Actual Disposition of Nonconforming Items:

BECHTEL Approval Signature: To be confirmed with SDDR Date:

MACTEC QAR Approval Signature:	Date: 5/14/09
MACTEC Chief Engineer Signature:	Date: ~~5/13/09~~ SJC 5/14/09

DCN: TUR

SDDR PAGE 2 of 5

NCR TP 40 Disposition Statement

Laboratory reported TDS values should be at least equal to, if not greater than the summation of the individual cations and anions that comprise TDS. During our review of the TDS data, MACTEC identified that the reported TDS values for eight of the twelve groundwater samples tested were less than the summation of the individual analytes. MACTEC identified that the charge balances were all below 10% error which suggests good analytical accuracy for the cation and anion results thus supporting the use of the summed totals for comparison with reported TDS values. Based on these comparisons, the TDS values reported by TestAmerica were deemed suspect.

MACTEC QA personnel interviewed TestAmerica to determine if there were operational or procedural issues that affected the test results. TestAmerica identified that to meet the method requirement for final residue weight, they had to dilute the sample and use a smaller than normal sample aliquot. TestAmerica used a narrow tipped pipette and determined that any suspended particles could have affected pipette volume accuracy, which would have produced lower TDS results (see attached report). To eliminate this potential source of error, TestAmerica ordered custom-made, wide mouth pipettes for drawing small volume aliquots. Additionally, TestAmerica implemented a policy to check to TDS/chloride ratio for samples to determine if the test needs to be rerun within the hold times.

No definite cause for this error could be determined through our investigation. However, MACTEC suspects that inaccurate sample volume is the source for the lower than expected TDS results. Therefore, MACTEC **rejects** all TDS results reported by TestAmerica.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

10-10-08

Turkey Point Data

After re-reviewing the data for the TDS and Chlorides, no definitive answer for the higher Chloride result could be determined. The data for the samples, balances, pipettes and internal QC were re-reviewed and no definitive cause for the low bias to the TDS could be determined. The laboratory conducted an ion mass balance evaluation for the samples, which showed that the charge balance differences were all below 10%, indicating good analytical accuracy for the cations and anions, including chloride. Data was also reviewed by a corporate technical director. The samples were run, for all parameters, at a high dilution due to the high levels of the requested analytes present in the samples. Initially it was suspected that the high levels of the salts may have been a contributing factor. After reviewing technical documents it was decided that the high salt levels in the samples, while making the analysis difficult due to the dilutions we had to apply, really would not explain the lower TDS numbers. The original sample containers were pulled and there were no visible solids found in the sample remaining in the containers.

The Method blanks and LCS samples run with each set of data met all criteria. The balances and pipettes used for the analyses were calibrated the day of use and fell within acceptance criteria. The laboratory has passed the last several sets of PT samples for TDS.

One possible reason for the low TDS result in these samples is the small amount of material used to perform the TDS analysis. The method requires that the final weight of the residue not exceed 200 mg. In order to meet this, the lab used 1 ml of sample, due to the high levels of TDS present. The one ml aliquot is drawn up using a narrow tipped pipette. Any suspended particulates in the sample could interfere with the pipette volume accuracy. The lab has ordered a custom made Class A wide mouth pipette to eliminate this potential source of error.

Another corrective action we will implement is an immediate check of the TDS/Chloride ratio for samples, so that if it fails we can re-run within hold time.

We continue to monitor and evaluate the TDS analysis.

Marti Ward

Marti Ward
Quality Assurance Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

13715 Rider Trail North
Earth City, MO 63045
314-298-8566
www.testamericainc.com

Supplier Deviation Disposition Request (Continuation Sheet)

Bechtel SDDR No. 25409-102-YD4-CY00-00076

20. Bechtel Disposition Statement

This SDDR addresses MACTEC NCR TP 40 regarding the laboratory test results for water sample TDS values. The test results have been rejected by MACTEC as the total TDS values for eight of the twelve groundwater samples tested were less than the summation of the individual analytes. TDS totals should be as large as or larger than the sum of the analytes.

Bechtel concurs with rejecting the data and requests that groundwater samples be retested. The October 10, 2008 letter from TestAmerica indicates there are changes that could be made to improve the test procedure and the TDS results while staying within the 200 mg residue limit. Bechtel requests that the TestAmerica test procedure be reviewed and accepted prior to running any further tests as the extremely high salinity values in the groundwater must be accounted for.

Bechtel does not concur with the proposed disposition of **MODIFY BECHTEL REQUIREMENT** as the data has been rejected.

Supplier Deviation Disposition Request

Notes

1. COMPLETE INSTRUCTIONS ON BACK OF THIS SHEET
2. Items 1-18 below to be completed by supplier
3. *Items, Bechtel entries only
4. Nonapplicable items to be marked "N/A"
5. Attach additional information whenever necessary
6. Bechtel must be notified within 5 days after detection of deviation
7. A copy of the completed SDDR form shall be included by the supplier in the quality verification data package for each item to which this SDDR applies.

For Supplier Use			For Bechtel Use	
Supplier SDDR No.	Date Submitted	Project FPL Turkey Point COL	Bechtel SDDR No.	Date Received
77	6/5/09	Job No. 25409	SEE ABOVE	6/9/09

1. Supplier Name	Address	City & State	Zip Code
MACTEC Engineering and Consulting, Inc	3301 Atlantic Avenue	Raleigh, NC	27604

2. Supplier's Order No.	3. Supplier's Part No.	4. Supplier's Part Name	5. Deviation Detected Date	5. Deviation Detected Method	6. All Previous SDDRs (Numbers and Dates)
NA	NA	NA	5/20/2009	NCR	

7. Bechtel PO & Rev. No.	8. Bechtel Part No.	9. Bechtel Part Name	10. Bechtel SQR Notified Date	10. Bechtel SQR Notified Method	11. Bechtel Eng. Notified Date	11. Bechtel Eng. Notified Method
Subcontract No. 25409-102-3PS-CT20-00001 rev 001	NA	NA	6/5/2009	SDDR	6/5/2009	SDDR

12. Deviation Description (Attach extra sheets, photographs, sketches, etc., as necessary and identify quantity and serial numbers as applicable)
Please see attached NCR TP 41 (attachment 6 pgs).

13. Supplier's Proposed Disposition: [ ] Use-As-Is [X] Repair [ ] Modify Bechtel Requirement

14. Cost Impact: None

15. Schedule Impact: None

16. Proposed Disposition and Technical (plus Cost/Schedule if applicable) Justification: Attach extra sheets, sketches, etc., as necessary
Please see attached document with information (attachment 6 pgs).

17. Associated Supplier Document Change(s): none

18. Supplier's Authorized Representative

Name	Signature	Title	Date
Richard S. Arcen		Project Manager	6/5/09

*19. Bechtel Engineering Action

[X]	Accepted	Engineering	[ ]	Drawing Change	[ ]	Bechtel	[ ]	Supplier	[ ]	Licensing Doc. Changes
[ ]	Rejected	Follow-up	[ ]	Spec/Req. Change	[ ]	Bechtel	[ ]	Supplier	[ ]	Price Adjustment
			[ ]	Other Suppliers Affected			[ ]	Other		

*20. Bechtel Disposition Statement Including Justification (Attach extra sheets, sketches, etc., as necessary).
SEE PAGE 8 FOR DISPOSITION
Construction Action Required [ ] Yes [X] No

*21. Bechtel Disposition Approval/Signature		Date	22. Supplier	Date
RE	Thomas Bladen	6/17/09	S. CRISCENZO (SEE NCR TP 41)	6-3-09
Checker		6/17/09		
EGS	Approved for JLM	6/17/09	*23. Bechtel Supplier Quality Representative: N/A	Date
PE		6-17-09		

SDDR Document – attachment 6 Pages **DCN# TUR781**

6-16-09

Rev. 1

FPL COL PROJECT – Turkey Point **MACTEC Project No. 6468-07-1950**

NCR TP 41	Nonconformance and Corrective Action Report	
Organization: MACTEC Engineering and Consulting	Location: Raleigh	
Reported By: William S. Grimes		Date: 5/20/2009

Nonconformance

Description of Nonconformance: During review of the bicarbonate and carbonate alkalinity results (Method 310.1) and total alkalinity results (SM18 2320 B), it was noted that the summation of the bicarbonate and carbonate values were significantly lower than the reported total alkalinity results for seven of the twelve samples. TestAmerica informed MACTEC that bicarbonate values reported for these samples were not valid.

Representative Notified: Al Tice

Date Notified: 5/20/2009 | Date Corrective Action Plan Due: 5/20/2009

Corrective Action Plan

Description of Evaluation to Determine Root Cause: MACTEC Senior Scientists reviewed the laboratory test reports and concluded that seven of the Total Alkalinity results did not agree with the summation of the bicarbonate and carbonate results. Upon receiving information from TestAmerica that the bicarbonate results were erroneous, MACTEC requested that TestAmerica evaluate this condition. TestAmerica reported that the test results manually entered into the report generation software were inadvertently copied from the pH 4.5 column of the bench sheet as opposed to the bicarbonate result column.

Assignable Cause: The assignable cause is a data entry error. Additionally, a second level review of the data was not thoroughly conducted.

Potential Harm: Based on discussions with the Bechtel, we understand that the primary objective for the groundwater sampling and testing assignment was to support review of specific conductivity data. Therefore, we believe this deviation will not compromise Bechtel's objective for the assignment. This will be confirmed with formal submittal of an SDDR to cover this NCR.

Description of Corrective Actions (current and to prevent recurrence): MACTEC requested that TestAmerica investigate this error and prepare a report that describes their investigation, corrective action, and steps to prevent recurrence. No MACTEC corrective action is required. TestAmerica reported that the analyst and second level reviewer were both alerted to the error and re-trained on the critical aspects of TestAmerica's QA policies. To prevent recurrence, TestAmerica has modified their spreadsheet such that the columns to be entered into the laboratory LIMs system are highlighted to serve as a reminder as to what data should be reported.

Estimated Completion Date: 5/28/2009

Recommended disposition of nonconforming items (i.e. reject/dispose, repair, rework, use-as-is) Include technical justification:
Repair – see attached disposition

10 CFR 21 Notification Required: YES NO

Signature of Preparer: William. S. Grimes	Date: 5-28-09
Corrective Action Approval Signature: (Principal or Chief Engineer)	Date: 6-2-09

Corrective Action Closure

Comments:

JDM 6/4/09

Approved/Actual Disposition of Nonconforming Items: ~~REPAIR~~ REWORK

BECHTEL Approval Signature: To be confirmed with SDDR	Date:
MACTEC QAR Approval Signature:	Date: 6/4/09
MACTEC Chief Engineer Signature:	Date: 6/3/09

DCN: TUR

SDDR PAGE 2 of 8

NCR TP 41 Disposition Statement

Review of the laboratory test data collected from the selected observation wells indicated that the total alkalinity results were significantly greater than the summation of the bicarbonate and carbonate alkalinity results for the groundwater samples collected from observation wells OW-606L, OW-606U, OW-621U, OW-706L, OW-706U, OW-721L, and OW-721U. After being informed of this condition, TestAmerica reported that the bicarbonate alkalinity results were in error and conducted an investigation.

Through their investigation, TestAmerica identified that a data entry error had occurred during the transfer of the data from the laboratory bench sheets to the LIMs system used for data report preparation. The analyst had apparently transferred the results from the pH 4.5 column into the reporting software as opposed to transferring to bicarbonate results. Additionally, TestAmerica identified that the second level data review was not thoroughly conducted for the two sample lots affected. TestAmerica reported that the analyst and second-level reviewer were alerted to this error, and were re-trained in the critical aspects of TestAmerica's Qulaity Assurance policies. To prevent recurrence, TestAmerica reported that they have modified the bench sheets such that the columns of data that are transferred to the LIMs system are highlighted to remind analysts to import the correct data. A copy of TestAmerica's Non-Conformance Report is attached.

Based on these findings, TestAmerica issued revised laboratory test reports for those two sample lots. MACTEC has reviewed these reports and accepted the revised bicarbonate alkalinity results. MACTEC has revised Table 5.3 "Summary of Groundwater Test Results" that was included in the Final Data Report Revision 2 10-6-2008. A copy of this table is attached.

MACTEC's recommended disposition of the bicarbonate alkalinity data is to repair the data to include the revisions made by TestAmerica. The revised data, as shown on the attached table, is released as project data.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Non-Conformance Report: Alkalinity (Lot F8E300223, F8E290268)

The alkalinity data was incorrectly reported for Lots F8E290268 and F8E300223. The client notified the lab that in both reports, the total alkalinity results were much higher than the summation of Alkalinity-bicarbonate and Alkalinity-carbonate results. The sample duplicate results were outside (high) of the QC limits for total alkalinity. All other method QC samples were within acceptance criteria.

Review of the data shows an error in transcribing the results from the bench sheet to the laboratory's LIM system. The results manually entered into the report generation software were inadvertently taken from the pH 4.5 column on the spreadsheet, instead of from the bicarbonate results column. (See attached bench sheet) No calculation errors were found, and no changes to the raw data are required.

A second, or peer, review of the data is a requirement of the TestAmerica St. Louis QA program. This review includes a comparison of the data on the spreadsheet to the data entered into the LIMs system. In this instance, the second level review was not thoroughly conducted. We recognize the importance of providing accurate results, the analyst and the second level reviewer have been made aware of the issue and re-trained on the key aspects of our process. QA will monitor the process to ensure compliance.

To determine the extent of the error and to determine if it is systematic, QA reviewed sets of alkalinity data before and after this occurrence. No other instances were identified, indicating that the error is isolated and not indicative of the process. No systematic deficiencies were noted. To prevent further occurrences, the spreadsheet is being updated to highlight the columns that are to be used to enter data into the LIMs system. This will act as a reminder as to which data is to be reported.

TestAmerica St. Louis apologizes for any inconvenience caused by this error. If you have any questions, or require additional information, please contact me at (314) 298-8566 or marti.ward@testamericainc.com.

Regards,

Marti Ward

Marti Ward
Quality Assurance Manager
TestAmerica St. Louis

[illegible] TestAmerica St. Louis Laboratory [illegible]
Alkalinity Method 310.1
(Waters)

Analyst: sdb

Batch: 8154059 8154060 8154061 8154062 8154063

Titrant Normality (N) 0.0200

Analysis Date: 6/2/2008

Laboratory ID	Standard Conc. mg/L	Sample Volume mL (Nom. 50ml)	Leachate Volume DI water (Nom. 100ml)	Titrated Volume mL (Nom. 50ml)	Sample pH	Titrant Volume, ml (Nom. 50 ml) pH 4.5	pH 4.2	pH 8.3	Alkalinity, Total mg/L Total pH 4.5	Low pH 4.2	Phenyl pH 8.3	Alkalinity as CaCO3 mg/L Carbonate	Bicarbonate	Hydroxide	Recovery %	RPD %
KNXAK		50		50	6.88	8.85			177.00		0.00	0.00	177.00			
KN3HJ		50		50	7.08	8.2			164.00		0.00	0.00	164.00			
KN3JD		50		50	7.12	9			180.00		0.00	0.00	180.00			
KN3JR		50		50	7.22	7.75			155.00		0.00	0.00	155.00			
KN3JT		50		50	7.31	8.25			165.00		0.00	0.00	165.00			
KN5JV		50		50	7.07	10.2			204.00		0.00	0.00	204.00			
KN5J1		50		50	7.34	9.55			191.00		0.00	0.00	191.00			
KN5J2		50		50	7.38	9.45			189.00		0.00	0.00	189.00			
KN5J2S		50		50	8.42	13.95			279.00		0.00	0.00	279.00			
KN5J2X		50		50	7.31	8.3			166.00		0.00	0.00	166.00			12.0%
									#VALUE!		#VALUE!	#VALUE!	#VALUE!	#VALUE!		
									#VALUE!		#VALUE!	#VALUE!	#VALUE!	#VALUE!		
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Control Limits (Water): LCS = 90 - 110 RPD 20%
Control Limits (Water): MS = 50 - 121 RPD 20%

SOP	Rev	Date
STL-WC-0019	7	10/23/2007

Total Alkalinity as $CaCO_3$ = titrant X N X 50000 / Titrated Vol., ml

Total Alkalinity, Low as $CaCO_3$ = 2(ml titrant(pH 4.5))-ml titrant(pH 4.2) X N X 50000 / Titrated Vol., ml

Results are raw calculation and do not reflect rounding, requested significant figures, or client reporting limits.
* Results on spreadsheet are "wet weight".

stsvr01/WetChemResults/Alkalinity.xls, modified 11/16/06

DCN# TUR781

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SDDR PAGE 5 of 8

Lims Data Entry Print Out

EDE115

TestAmerica Laboratories, Inc.
Inorganics Batch Review
QC Batch 8154062

Date 6/02/2008
Time 12:33:33

Method Code:UK Alkalinity, Bicarbonate (310.1)
Analyst:Steve Krantz

Work Order	Result	Units	LDL/Dil	Prep. - Anal.	Total Solids	PSRL Flag	R/R	Rounded Result	Output LDL	Dil
KN3ED-1-AJ	179	mg/L	5	06/02/08	.00	N		179	5.0	1.00
KN3EK-1-AJ	177	mg/L	5	06/02/08	.00	N		177	5.0	1.00
KN2K8-1-AJ	91	mg/L	5	06/02/08	.00	N		91.0	5.0	1.00
KN2LJ-1-AB	71	mg/L	5	06/02/08	.00	N		71.0	5.0	1.00
KN2LJ-1-BK	73	mg/L	5	06/02/08	.00	N		73.0	5.0	1.00
KN2LW-1-AE	55	mg/L	5	06/02/08	.00	N		55.0	5.0	1.00
KN2LW-1-BM	52	mg/L	5	06/02/08	.00	N		52.0	5.0	1.00
KN2KJ-1-AJ	51	mg/L	5	06/02/08	.00	N		51.0	5.0	1.00
KN2KJ-1-G7	50	mg/L	5	06/02/08	.00	N		50.0	5.0	1.00
KN2FK-1-AE	56	mg/L	5	06/02/08	.00	N		56.0	5.0	1.00
KN2P2-1-AE	55	mg/L	5	06/02/08	.00	N		55.0	5.0	1.00
KN3EJ-1-AJ	8.2	mg/L	5	06/02/08	.00	N		8.2	5.0	1.00
KN3JD-1-AJ	9	mg/L	5	06/02/08	.00	N		9.0	5.0	1.00
KN3JR-1-AJ	7.75	mg/L	5	06/02/08	.00	N		7.8	5.0	1.00
KN3JT-1-AJ	8.25	mg/L	5	06/02/08	.00	N		8.2	5.0	1.00
KN46M-1-A2	76	mg/L	5	06/02/08	.00	N		76.0	5.0	1.00
KN46M-1-DM	78	mg/L	5	06/02/08	.00	N		78.0	5.0	1.00
KN47P-1-AD	55	mg/L	5	06/02/08	.00	N		55.0	5.0	1.00
KN5JV-1-AK	10.2	mg/L	5	06/02/08	.00	N		10.2	5.0	1.00
KN5J1-1-AM	9.55	mg/L	5	06/02/08	.00	N		9.6	5.0	1.00
KN5J2-1-AM	9.45	mg/L	5	06/02/08	.00	N		9.4	5.0	1.00
KN5J2-1-A5	9.3	mg/L	5	06/02/08	.00	N		9.3	5.0	1.00
KN6WN-1-A3	52	mg/L	5	06/02/08	.00	N		52.0	5.0	1.00
KN6XA-1-AE	79	mg/L	5	06/02/08	.00	N		79.0	5.0	1.00
KN6XH-1-AE	121	mg/L	5	06/02/08	.00	N		121	5.0	1.00

SM 6-4-8

DCN# TUR781

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TABLE 5.3
SUMMARY OF GROUNDWATER TEST RESULTS
TURKEY POINT COL PROJECT
MACTEC PROJECT NO. 6468-07-1950

Analytical Method →		160.1	6020C								300.0						310.1 - Alkalinity		SM 18 2320B	350.1	SM18 1030F & AFI
Constituent →		TDS	Calcium	Iron	Magnesium	Manganese	Potassium	Silica	Silicon	Sodium	Bromide	Chloride	Fluoride	Sulfate	Nitrate	Nitrite	Bicarbonate	Carbonate	Total Alkalinity	Ammonia*	Ion Balance Difference
Well ID	Date Collected	mg/L	µg/L								mg/L						mg/L		mg/L	µg/L	%
OW-606L	5/28/2008	49100[R]	632,000 N	<50U	1,880,000 N	39.1	549,000 N	2,630	<250,000 N	15,100,000 N	62.5	29,600	<20.0	3,860	<0.20	<200	165	<5.0	165	1,580	3.2
OW-606U	5/28/2008	43100[R]	535,000 N	318 NB	1,730,000 N	35.4	525,000 N	729	<250,000 N	14,400,000 N	56.6	27,900	<20.0	3,470	<0.20	<200	155	<5.0	155	844	2.7
OW-621L	6/4/2008	52800[R]	574,000 N	<50,000 N	1,960,000 N	<2,000 N	586,000 N	133,000 JB	62,100 JBN	16,300,000 N	65.9	31,300 B	<20.0	3,610	<0.20	<200	181	<5.0	181	1,300	2.8
OW-621U	5/29/2008	19400[R]	492,000 N	453 NB	1,600,000 N	36.8	476,000 N	637	<250,000 N	13,100,000 N	50.6	25,500	<1.0	3,210	<4.0	<200	189	<5.0	189	588	2.7
OW-706L	5/29/2008	17400[R]	413,000 N	531 NB	1,170,000 N	8.3	327,000 N	7,560	<250,000 N	9,440,000 N	37.7 J	19,100	<1.0	2,280	<4.0	<200	191	<5.0	191	611	4.0
OW-706U	5/29/2008	40500[R]	725,000 N	178 NB	2,150,000 N	43.5	658,000 N	1,840	<250,000 N	17,500,000 N	70.5	33,300	<1.0	3,850	<4.0	<200	204	<5.0	204	2,090	1.1
OW-721L	5/28/2008	54600[R]	667,000 N	362 NB	2,020,000 N	46.2	587,000 N	3,170	<250,000 N	16,300,000 N	64.9	31,100	<20.0	3,990	<0.20	<200	180	<5.0	180	1,820	1.7
OW-721U	5/28/2008	45400[R]	603,000 N	329 NB	1,890,000 N	58.1	569,000 N	848	<250,000 N	15,400,000 N	60.1	29,900	<20.0	3,860	<0.20	<200	164	<5.0	164	1,680	2.8
OW-735U	5/27/2008	40,200[R]	749,000 N	133 NB	2,140,000 N	32.7	655,000 N	<250	<250,000 N	17,700,000 N	262	37,500	<20.0	4,090	<4.0	<200	179	<5.0	179	2,150	6.7
OW-802U	6/5/2008	53900[R]	579,000 N	<50,000 N	1,980,000 N	<2,000 N	586,000 N	143,000 J	66,700 JN	16,400,000 N	65.1	31,600 B	<20.0	3,720	<0.20	<200	178	<5.0	178	1,400	3.0
OW-805U	6/5/2008	45700[R]	447,000 N	<50,000 N	1,570,000 N	<2,000 N	493,000 N	107,000 J	49,900 JN	13,200,000 N	53.6	27,600 B	<20.0	3,070	<0.20	<200	177	<5.0	177	548	6.9
OW-809U	5/27/2008	34,800[R]	704,000 N	158 NB	2,040,000 N	28.1	607,000 N	<250	<250,000 N	16,700,000 N	241 J	35,900	<1.0	4,050	<4.0	<200	177	<5.0	177	2,210	7.4

* = Test conducted on Nitrogen, as Ammonia.
< # = Indicates analyte not detected at or above the method detection limit.
<50U = Indicates analyte detected in the associated method blank at a concentration between the method detection limit and quantitation limit. Based on EPA 540-R-04-004, this result has been flagged as "non-detect" at the quantitation limit.
N = Spiked analyte recovery is outside stated control limits. Method performance confirmed using Laboratory Control Spike sample results.
J = Estimated result. Result is less than the reporting limit.
B = Method blank contamination. The associated method blank contains the target analyte at a reportable level. These data should be used with caution.
[1] = Because the initial results exceeded the SOP limits for this test, the samples were diluted and re-analyzed. Re-analysis was conducted out of hold time.
[R] = Indicates result has been rejected during data review process (see Section 5.5 for discussion). These results are not considered valid and should not be used.

Prepared by: [illegible] Date: 5-22-09
Checked by: CBS Date: 5/22/09

Page 7 of 8

DCN# TUR781 6/6

Supplier Deviation Disposition Request (Continuation Sheet)

Bechtel SDDR No. 25409-102-YD4-CY00-00077

20. Bechtel Disposition Statement

This SDDR addresses MACTEC NCR TP 41 regarding the bicarbonate alkalinity laboratory test results for groundwater sample from observation wells OW-606L, OW-606U, OW-621U, OW-706L, OW-706U, OW-721L, and OW-721U. The reported total alkalinity results were much higher than the summation of alkalinity-bicarbonate and alkalinity-carbonate results.

Bechtel concurs with the corrective actions taken:

- MACTEC notified the analytical laboratory (TestAmerica), which after review of the data identified that a data entry error had occurred during transfer of the data from the laboratory bench sheets to the LIMs system used for report preparation. No calculation errors were found, and no changes in the raw data were required.
- TestAmerica, in order to prevent a recurrence of this problem, retrained their analysts in the critical aspects of TestAmerica's Quality Assurance policies and modified data sheets to highlight columns of data that are transferred to the LIMs system as a reminder to the analysts to import the correct data.
- TestAmerica issued revised laboratory test reports to MACTEC.
- MACTEC QA reviewed these reports and accepted the revised bicarbonate alkalinity results and revised Table 5.3 "Summary of Groundwater Test Results" included in the Final Data Report Revision 2 10-6-2008.

Bechtel concurs with the proposed disposition of **REPAIR** the data to include the revisions made by TestAmerica.

6-16-09

MACTEC

DOCUMENTATION OF TECHNICAL REVIEW
SUBCONTRACTOR WORK PRODUCT

Project Name: Turkey Point COL Project

Project Number: 6468-07-1950

Project Manager: Scott Auger

Project Principal: Tom McDaniel

The report described below has been prepared by the named subcontractor retained in accordance with the MACTEC QAPD. The work and report have been reviewed by a MACTEC technically qualified person. Comments on the work or report, if any, have been satisfactorily addressed by the subcontractor. The attached report is approved in accordance with section QS-7 of MACTEC's QAPD.

The information and data contained in the attached report are hereby released by MACTEC for project use.

REPORT : **Analytical Report Lot #: F8F050344_rev1**

SUBCONTRACTOR: **TestAmerica, Earth City, MO**

DATE OF ACCEPTANCE : 7/23/2008

TECHNICAL REVIEWER: William S. Grimes

PROJECT PRINCIPAL: Tom McDaniel

MACTEC

Client **Bechtel Power Corp.** Laboratory **TestAmerica Inc.**

MACTEC Project **6468-07-1950** Data Report Number/Date **Lot# F8F050344_rev1/ 7-9-08**

LABORATORY DATA REVIEW CHECKLIST

		YES	NO	NOT APPLICABLE
1.	Laboratory analytical data report appears complete (all data results present for all samples submitted for analysis) and there are no apparent transcription errors:	✓	___	___
2.	Samples analyzed within applicable holding times (based on date of sample collection):*	✓		___
3.	Trip blanks, field blanks or laboratory method blanks are free of blank contamination:	___	✓[1]	___
4.	If field duplicate samples collected, calculated results meet Relative Percent Difference guidelines: **	___	___	✓
5.	Surrogate recoveries (organic analyses only) within laboratory reported recovery acceptance ranges:	___	___	✓
6.	If Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples required to meet project objectives, Percent Recoveries (%R) and Relative Percent Difference (RPD) within laboratory reported acceptance ranges:	___	✓[2]	___
7.	Reported detection limits meet project objectives (e.g., are capable of achieving applicable site standards):	✓	___	___
8.	Completed Chain-Of-Custody received noting sample/custody seal condition (with airbill, if appropriate):	✓	___	___
9.	Analytical costs within authorized budget for these services:	___	___	✓

COMMENTS: [1] **Estimated concentrations of silica, silicon, and chloride were detected in the method blank, at concentrations between the PQL and MDL. Concentrations of these analytes in site samples were considerably higher, and likely reflect ambient aquifer conditions.** [2] **MS/MSD recoveries were outside QC limits for several analytes possibly due to matrix interference. QC established based on acceptable LCS recoveries and results for analytes with acceptable recoveries.**

Notes: 1. This checklist is intended for use with the laboratory reporting formats typical of most projects. If "no" is answered to one or more of the above checklist questions 1 through 7, a more detailed Data Validation may be required, and a person knowledgeable in Data Validation protocols should be consulted. This checklist should not be used if the project scope requires Data Validation from the onset.

2. * = Based upon EPA Guidance and the applicable analytical method references. See reverse side of checklist for details.

3. ** = Based upon EPA Guidance. Use these criteria on duplicate and sample results which exceed five times the reported detection limit. See reverse side of checklist for details.

Checked by: William A. Lee Date: 7-14-08

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

REVISED

PROJECT NO. 6468071950

FPL Turkey Point COL

Lot #: F8F050344

Al Tice

MACTEC Engineering and Cons.
3301 Atlantic Ave.
Raleigh, NC 27604

TESTAMERICA LABORATORIES, INC.

Ivan Vania
Project Manager

July 9, 2008

Case Narrative
LOT NUMBER: F8F050344 – Revision 1

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on June 5, 2008. This sample is associated with your FPL Turkey Point COL project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

This revision contains results for TDS analysis and corrections to flags for ion balance.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

ICP-MS (SW846-6020)
The MS (MSD) recoveries for batch 8168278 - calcium, potassium, magnesium, sodium, silicon are outside the established QC limits. The analyte concentrations in the original sample are greater than four times the amount spiked, making percent recovery information ineffective. Method performance is demonstrated by acceptable LCS recovery.
Affected Samples:
F8F050344 (1): OW-6211

The MS (MSD) recoveries for batch 8168278 – iron are outside the established QC limits. The RPD is within method acceptance criteria indicating possible matrix interference. Method performance is demonstrated by acceptable LCS recovery.
Affected Samples:
F8F050344 (1): OW-6211

The MS (MSD) recoveries for batch 8164260 - manganese are outside the established QC limits due to matrix interference. Method performance is demonstrated by acceptable LCS recovery.
Affected Samples:
F8F050344 (1): OW-6211

Batch 8168278:
The samples were analyzed at a dilution due to high concentrations of target analytes. The reporting limits were adjusted for the dilution since no analysis at a lesser dilution was performed.
Affected Samples:
F8F050344 (1): OW-6211

Batch 8168278:
The serial dilution for calcium is outside of method acceptance criteria indicating a potential matrix interference. All associated samples are flagged accordingly.
Affected Samples:
F8F050344 (1): OW-6211

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F8F050344

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
pH Aqueous	SW846 9040	SW846 9040
Alkalinity, Total	SM18 2320 B	SM18 2320 B
Bicarbonate Alkalinity	MCAWW 310.1	MCAWW 310.1
Bromide	MCAWW 300.0A	MCAWW 300.0A
Carbonate Alkalinity	MCAWW 310.1	MCAWW 310.1
Chloride	MCAWW 300.0A	MCAWW 300.0A
Filterable Residue (TDS)	MCAWW 160.1	MCAWW 160.1
Fluoride	MCAWW 300.0A	MCAWW 300.0A
Ion Balance (%Difference)	SM18 1030F & AP	SM18 1030F & AP
ICP-MS (6020)	SW846 6020	
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Nitrite as N	MCAWW 300.0A	MCAWW 300.0A
Nitrogen, Ammonia	MCAWW 350.1	MCAWW 350.1
Sulfate	MCAWW 300.0A	MCAWW 300.0A

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SM18 "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F8F050344

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KPF63	001	OW-6211	06/04/08	14:20

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-6211

TOTAL Metals

Lot-Sample #...: F8F050344-001 Matrix.....: WATER
Date Sampled...: 06/04/08 14:20 Date Received..: 06/05/08

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8168278						
Calcium	574000 N	100000	ug/L	SW846 6020	06/16-06/25/08	KPF631AD
		Dilution Factor: 1000		Analysis Time..: 17:38		
Iron	ND N	50000	ug/L	SW846 6020	06/16-06/25/08	KPF631AE
		Dilution Factor: 1000		Analysis Time..: 17:38		
Potassium	586000 N	100000	ug/L	SW846 6020	06/16-06/25/08	KPF631AF
		Dilution Factor: 1000		Analysis Time..: 17:38		
Magnesium	1960000 N	50000	ug/L	SW846 6020	06/16-06/25/08	KPF631AG
		Dilution Factor: 1000		Analysis Time..: 17:38		
Manganese	ND N	2000	ug/L	SW846 6020	06/16-06/25/08	KPF631AH
		Dilution Factor: 1000		Analysis Time..: 17:38		
Sodium	16300000 N	50000	ug/L	SW846 6020	06/16-06/25/08	KPF631AJ
		Dilution Factor: 1000		Analysis Time..: 17:38		
Silicon	62100 BN	250000	ug/L	SW846 6020	06/16-06/25/08	KPF631AK
		Dilution Factor: 1000		Analysis Time..: 17:38		
Prep Batch #...: 8175115						
Silica	133000 J,B	250000	ug/L	SW846 6020	06/16-06/25/08	KPF631AL
		Dilution Factor: 1000		Analysis Time..: 17:38		

NOTE(S):

N Spiked analyte recovery is outside stated control limits.

J Estimated result. Result is less than RL.

B The associated method blank contains thetarget analyte at a reportable level.

MACTEC Engineering & Consulting Inc

Client Sample ID: OW-6211

General Chemistry

Lot-Sample #...: F8F050344-001 Work Order #...: KPF63 Matrix.....: WATER
Date Sampled...: 06/04/08 14:20 Date Received..: 06/05/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.2	0.10	No Units	SW846 9040	06/05/08	8158106
		Dilution Factor: 1		Analysis Time..: 00:00		
Bicarbonate Alkalinity	181	5.0	mg/L	MCAWW 310.1	06/10/08	8161269
		Dilution Factor: 1		Analysis Time..: 00:00		
Bromide	65.9	50.0	mg/L	MCAWW 300.0A	06/05/08	8175487
		Dilution Factor: 200		Analysis Time..: 08:25		
Carbonate Alkalinity	ND	5.0	mg/L	MCAWW 310.1	06/10/08	8161267
		Dilution Factor: 1		Analysis Time..: 00:00		
Chloride	31300 J	2000	mg/L	MCAWW 300.0A	06/05/08	8175488
		Dilution Factor: 10000		Analysis Time..: 08:49		
Fluoride	ND	20.0	mg/L	MCAWW 300.0A	06/05/08	8175489
		Dilution Factor: 200		Analysis Time..: 08:25		
Ion Balance Difference	2.8	0.10	%	SM18 1030F & API	07/01/08	8183319
		Dilution Factor: 1		Analysis Time..: 00:00		
Nitrate	ND	0.20	mg/L	MCAWW 300.0A	06/05/08	8158391
		Dilution Factor: 10		Analysis Time..: 08:13		
Nitrite	ND	200	mg/L	MCAWW 300.0A	06/05/08	8158392
		Dilution Factor: 10000		Analysis Time..: 08:49		
Nitrogen, as Ammonia	1300	100	ug/L	MCAWW 350.1	06/06/08	8156506
		Dilution Factor: 2		Analysis Time..: 00:00		
Sulfate	3610	500	mg/L	MCAWW 300.0A	06/05/08	8175490
		Dilution Factor: 1000		Analysis Time..: 08:37		
Total Alkalinity	181	5.0	mg/L	SM18 2320 B	06/10/08	8161265
		Dilution Factor: 1		Analysis Time..: 00:00		
Total Dissolved Solids	52800	500	mg/L	MCAWW 160.1	06/11-06/12/08	8163486
		Dilution Factor: 100		Analysis Time..: 00:00		

NOTE(S):

RL Reporting Limit

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F8F050344 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F8F160000-278 **Prep Batch #...:** 8168278						
Calcium	ND B	100	ug/L	SW846 6020	06/16-06/25/08	KP13D1AA
		Dilution Factor: 1				
		Analysis Time..: 17:30				
Iron	ND	50	ug/L	SW846 6020	06/16-06/25/08	KP13D1AC
		Dilution Factor: 1				
		Analysis Time..: 17:30				
Magnesium	ND	50	ug/L	SW846 6020	06/16-06/25/08	KP13D1AE
		Dilution Factor: 1				
		Analysis Time..: 17:30				
Manganese	ND	2	ug/L	SW846 6020	06/16-06/25/08	KP13D1AF
		Dilution Factor: 1				
		Analysis Time..: 17:30				
Potassium	ND	100	ug/L	SW846 6020	06/16-06/25/08	KP13D1AD
		Dilution Factor: 1				
		Analysis Time..: 17:30				
Silicon	**67.1 B**	**250**	**ug/L**	**SW846 6020**	**06/16-06/25/08**	**KP13D1AH**
		Dilution Factor: 1				
		Analysis Time..: 17:30				
Sodium	ND	50	ug/L	SW846 6020	06/16-06/25/08	KP13D1AG
		Dilution Factor: 1				
		Analysis Time..: 17:30				
MB Lot-Sample #: F8F230000-115 **Prep Batch #...:** 8175115						
Silica	**144 J**	**250**	**ug/L**	**SW846 6020**	**06/16-06/25/08**	**KQL7H1AA**
		Dilution Factor: 1				
		Analysis Time..: 17:38				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: F8F050344 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bicarbonate Alkalinity		Work Order #: KPLC11AA		MB Lot-Sample #:	F8F090000-269	
	ND	5.0	mg/L	MCAWW 310.1	06/10/08	8161269
		Dilution Factor: 1				
		Analysis Time..: 00:00				
Bromide		Work Order #: KQG151AA		MB Lot-Sample #:	F8F230000-487	
	ND	0.25	mg/L	MCAWW 300.0A	06/05/08	8175487
		Dilution Factor: 1				
		Analysis Time..: 07:51				
Carbonate Alkalinity		Work Order #: KPLCR1AA		MB Lot-Sample #:	F8F090000-267	
	ND	5.0	mg/L	MCAWW 310.1	06/10/08	8161267
		Dilution Factor: 1				
		Analysis Time..: 00:00				
Chloride		Work Order #: KQG161AA		MB Lot-Sample #:	F8F230000-488	
	0.026 B	**0.20**	**mg/L**	**MCAWW 300.0A**	**06/05/08**	**8175488**
		Dilution Factor: 1				
		Analysis Time..: 07:51				
Fluoride		Work Order #: KQG191AA		MB Lot-Sample #:	F8F230000-489	
	ND	0.10	mg/L	MCAWW 300.0A	06/05/08	8175489
		Dilution Factor: 1				
		Analysis Time..: 07:51				
Nitrate		Work Order #: KPM9F1AA		MB Lot-Sample #:	F8F060000-391	
	ND	0.020	mg/L	MCAWW 300.0A	06/05/08	8158391
		Dilution Factor: 1				
		Analysis Time..: 07:51				
Nitrite		Work Order #: KPM9K1AA		MB Lot-Sample #:	F8F060000-392	
	ND	0.020	mg/L	MCAWW 300.0A	06/05/08	8158392
		Dilution Factor: 1				
		Analysis Time..: 07:51				
Nitrogen, as Ammonia		Work Order #: KPD7C1AA		MB Lot-Sample #:	F8F040000-506	
	ND	50.0	ug/L	MCAWW 350.1	06/06/08	8156506
		Dilution Factor: 1				
		Analysis Time..: 00:00				
Sulfate		Work Order #: KQG2C1AA		MB Lot-Sample #:	F8F230000-490	
	ND	0.50	mg/L	MCAWW 300.0A	06/05/08	8175490
		Dilution Factor: 1				
		Analysis Time..: 07:51				

(Continued on next page)

METHOD BLANK REPORT

General Chemistry

Client Lot #...: F8F050344 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Alkalinity		Work Order #: KPLCP1AA		MB Lot-Sample #:	F8F090000-265	
	ND	5.0	mg/L	SM18 2320 B	06/10/08	8161265
		Dilution Factor: 1				
		Analysis Time..: 00:00				
Total Dissolved Solids		Work Order #: KPQXJ1AA		MB Lot-Sample #:	F8F110000-486	
	ND	5.0	mg/L	MCAWW 160.1	06/11-06/12/08	8163486
		Dilution Factor: 1				
		Analysis Time..: 00:00				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F8F050344 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F8F160000-278 **Prep Batch #...:** 8168278					
Calcium	104	(85 - 115)	SW846 6020	06/16-06/25/08	KP13D1AJ
		Dilution Factor: 1		Analysis Time..: 17:34	
Iron	107	(85 - 115)	SW846 6020	06/16-06/25/08	KP13D1AK
		Dilution Factor: 1		Analysis Time..: 17:34	
Potassium	105	(85 - 115)	SW846 6020	06/16-06/25/08	KP13D1AL
		Dilution Factor: 1		Analysis Time..: 17:34	
Magnesium	102	(85 - 115)	SW846 6020	06/16-06/25/08	KP13D1AM
		Dilution Factor: 1		Analysis Time..: 17:34	
Manganese	112	(85 - 115)	SW846 6020	06/16-06/25/08	KP13D1AN
		Dilution Factor: 1		Analysis Time..: 17:34	
Sodium	102	(85 - 115)	SW846 6020	06/16-06/25/08	KP13D1AP
		Dilution Factor: 1		Analysis Time..: 17:34	
Silicon	113	(85 - 115)	SW846 6020	06/16-06/25/08	KP13D1AQ
		Dilution Factor: 1		Analysis Time..: 17:34	
LCS Lot-Sample#: F8F230000-115 **Prep Batch #...:** 8175115					
Silica	113 N	(0.0- 0.0)	SW846 6020	06/16-06/25/08	KQL7H1AC
		Dilution Factor: 1		Analysis Time..: 00:00	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: F8F050344 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrogen, as Ammonia	WO#:KPD7C1AC-LCS/KPD7C1AD-LCSD					LCS Lot-Sample#: F8F040000-506	
	103	(90 - 110)			MCAWW 350.1	06/06/08	8156506
	100	(90 - 110)	2.7	(0-20)	MCAWW 350.1	06/06/08	8156506

Dilution Factor: 1 Analysis Time..: 00:00

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: F8F050344 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (liquid)		Work Order #: KPGWD1AA	LCS Lot-Sample#: F8F060000-106		
	100	(99 - 101)	SW846 9040	06/05/08	8158106
		Dilution Factor: 1	Analysis Time..: 00:00		
Bicarbonate Alkalinity		Work Order #: KPLC11AC	LCS Lot-Sample#: F8F090000-269		
	101	(90 - 110)	MCAWW 310.1	06/10/08	8161269
		Dilution Factor: 1	Analysis Time..: 00:00		
Bromide		Work Order #: KQG151AC	LCS Lot-Sample#: F8F230000-487		
	101	(90 - 110)	MCAWW 300.0A	06/05/08	8175487
		Dilution Factor: 1	Analysis Time..: 07:41		
Carbonate Alkalinity		Work Order #: KPLCR1AC	LCS Lot-Sample#: F8F090000-267		
	101	(90 - 110)	MCAWW 310.1	06/10/08	8161267
		Dilution Factor: 1	Analysis Time..: 00:00		
Chloride		Work Order #: KQG161AC	LCS Lot-Sample#: F8F230000-488		
	98	(90 - 110)	MCAWW 300.0A	06/05/08	8175488
		Dilution Factor: 1	Analysis Time..: 07:41		
Fluoride		Work Order #: KQG191AC	LCS Lot-Sample#: F8F230000-489		
	99	(90 - 110)	MCAWW 300.0A	06/05/08	8175489
		Dilution Factor: 1	Analysis Time..: 07:41		
Nitrate		Work Order #: KPM9F1AC	LCS Lot-Sample#: F8F060000-391		
	101	(90 - 110)	MCAWW 300.0A	06/05/08	8158391
		Dilution Factor: 1	Analysis Time..: 07:41		
Nitrite		Work Order #: KPM9K1AC	LCS Lot-Sample#: F8F060000-392		
	100	(90 - 110)	MCAWW 300.0A	06/05/08	8158392
		Dilution Factor: 1	Analysis Time..: 07:41		
Sulfate		Work Order #: KQG2C1AC	LCS Lot-Sample#: F8F230000-490		
	95	(90 - 110)	MCAWW 300.0A	06/05/08	8175490
		Dilution Factor: 1	Analysis Time..: 07:41		
Total Alkalinity		Work Order #: KPLCP1AC	LCS Lot-Sample#: F8F090000-265		
	101	(90 - 110)	SM18 2320 B	06/10/08	8161265
		Dilution Factor: 1	Analysis Time..: 00:00		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F8F050344 **Matrix.....:** WATER
Date Sampled...: 06/04/08 14:20 **Date Received..:** 06/05/08

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F8F050344-001 **Prep Batch #...:** 8168278							
Calcium	0 N	(75 - 125)			SW846 6020	06/16-06/25/08	KPF631A8
	0 N	(75 - 125)	0.0	(0-20)	SW846 6020	06/16-06/25/08	KPF631A9
		Dilution Factor: 1000					
		Analysis Time..: 17:45					
Iron	0 N	(75 - 125)			SW846 6020	06/16-06/25/08	KPF631CA
	0 N	(75 - 125)	0.0	(0-20)	SW846 6020	06/16-06/25/08	KPF631CC
		Dilution Factor: 1000					
		Analysis Time..: 17:45					
Magnesium	0 N	(75 - 125)			SW846 6020	06/16-06/25/08	KPF631CF
	0 N	(75 - 125)	0.0	(0-20)	SW846 6020	06/16-06/25/08	KPF631CG
		Dilution Factor: 1000					
		Analysis Time..: 17:45					
Manganese	117	(75 - 125)			SW846 6020	06/16-06/25/08	KPF631CH
	130 N	(75 - 125)	11	(0-20)	SW846 6020	06/16-06/25/08	KPF631CJ
		Dilution Factor: 1000					
		Analysis Time..: 17:45					
Potassium	0 N	(75 - 125)			SW846 6020	06/16-06/25/08	KPF631CD
	17 N	(75 - 125)	0.0	(0-20)	SW846 6020	06/16-06/25/08	KPF631CE
		Dilution Factor: 1000					
		Analysis Time..: 17:45					
Silicon	85 B	(75 - 125)			SW846 6020	06/16-06/25/08	KPF631CM
	0 N	(75 - 125)	0.0	(0-20)	SW846 6020	06/16-06/25/08	KPF631CN
		Dilution Factor: 1000					
		Analysis Time..: 17:45					
Sodium	0 N	(75 - 125)			SW846 6020	06/16-06/25/08	KPF631CK
	0 N	(75 - 125)	0.0	(0-20)	SW846 6020	06/16-06/25/08	KPF631CL
		Dilution Factor: 1000					
		Analysis Time..: 17:45					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

B Estimated result. Result is less than RL.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: F8F050344 **Matrix.....:** WATER
Date Sampled...: 06/04/08 14:20 **Date Received..:** 06/05/08

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide		Work Order #...: KPF631CP		MS Lot-Sample #: F8F050344-001	
	92	(90 - 110)	MCAWW 300.0A	06/05/08	8175487
		Dilution Factor: 200	Analysis Time..: 08:25		
Chloride		Work Order #...: KPF631CR		MS Lot-Sample #: F8F050344-001	
	97	(90 - 110)	MCAWW 300.0A	06/05/08	8175488
		Dilution Factor: 10000	Analysis Time..: 08:49		
Fluoride		Work Order #...: KPF631CU		MS Lot-Sample #: F8F050344-001	
	100	(90 - 110)	MCAWW 300.0A	06/05/08	8175489
		Dilution Factor: 200	Analysis Time..: 08:25		
Nitrate		Work Order #...: KPF631A2		MS Lot-Sample #: F8F050344-001	
	93	(90 - 110)	MCAWW 300.0A	06/05/08	8158391
		Dilution Factor: 10	Analysis Time..: 08:13		
Nitrite		Work Order #...: KPF631A4		MS Lot-Sample #: F8F050344-001	
	102	(90 - 110)	MCAWW 300.0A	06/05/08	8158392
		Dilution Factor: 10000	Analysis Time..: 08:49		
Nitrogen, as Ammonia		Work Order #...: KPC951C5		MS Lot-Sample #: F8F040293-001	
	96	(90 - 110)	MCAWW 350.1	06/06/08	8156506
		Dilution Factor: 1	Analysis Time..: 00:00		
Sulfate		Work Order #...: KPF631CW		MS Lot-Sample #: F8F050344-001	
	100	(90 - 110)	MCAWW 300.0A	06/05/08	8175490
		Dilution Factor: 1000	Analysis Time..: 08:37		
Total Alkalinity		Work Order #...: KPF631A0		MS Lot-Sample #: F8F050344-001	
	92	(80 - 120)	SM18 2320 B	06/10/08	8161265
		Dilution Factor: 1	Analysis Time..: 00:00		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8F050344 **Work Order #...:** KPC95-SMP KPC95-DUP **Matrix.....:** WATER

Date Sampled...: 06/02/08 09:46 **Date Received..:** 06/04/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrogen, as Ammonia						SD Lot-Sample #: F8F040293-001		
	190	160	ug/L	14	(0-20)	MCAWW 350.1	06/06/08	8156506

Dilution Factor: 1 Analysis Time..: 00:00

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8F050344 **Work Order #...:** KN9V9-SMP KN9V9-DUP **Matrix.....:** WATER

Date Sampled...: 06/02/08 07:50 **Date Received..:** 06/03/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bicarbonate Alkalinity						SD Lot-Sample #: F8F030220-002		
	57.0	56.0	mg/L	1.8	(0-15)	MCAWW 310.1	06/10/08	8161269
			Dilution Factor: 1			Analysis Time..: 00:00		
Carbonate Alkalinity						SD Lot-Sample #: F8F030220-002		
	ND	ND	mg/L	0	(0-20)	MCAWW 310.1	06/10/08	8161267
			Dilution Factor: 1			Analysis Time..: 00:00		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F8F050344 **Work Order #...:** KPF63-SMP KPF63-DUP **Matrix.....:** WATER

Date Sampled...: 06/04/08 14:20 **Date Received..:** 06/05/08

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Bromide						SD Lot-Sample #:	F8F050344-001	
	65.9	65.0	mg/L	1.5	(0-20)	MCAWW 300.0A	06/05/08	8175487
		Dilution Factor: 200				Analysis Time..: 08:25		
Chloride						SD Lot-Sample #:	F8F050344-001	
	31300 J	32900	mg/L	4.8	(0-20)	MCAWW 300.0A	06/05/08	8175488
		Dilution Factor: 10000				Analysis Time..: 08:49		
Fluoride						SD Lot-Sample #:	F8F050344-001	
	ND	ND	mg/L	0	(0-20)	MCAWW 300.0A	06/05/08	8175489
		Dilution Factor: 200				Analysis Time..: 08:25		
Sulfate						SD Lot-Sample #:	F8F050344-001	
	3610	3600	mg/L	0.34	(0-20)	MCAWW 300.0A	06/05/08	8175490
		Dilution Factor: 1000				Analysis Time..: 08:37		
Nitrite						SD Lot-Sample #:	F8F050344-001	
	ND	ND	mg/L	0	(0-20)	MCAWW 300.0A	06/05/08	8158392
		Dilution Factor: 10000				Analysis Time..: 08:49		
Nitrate						SD Lot-Sample #:	F8F050344-001	
	ND	ND	mg/L	0	(0-20)	MCAWW 300.0A	06/05/08	8158391
		Dilution Factor: 10				Analysis Time..: 08:13		
Total Alkalinity						SD Lot-Sample #:	F8F050344-001	
	181	183	mg/L	1.1	(0-20)	SM18 2320 B	06/10/08	8161265
		Dilution Factor: 1				Analysis Time..: 00:00		
pH (liquid)						SD Lot-Sample #:	F8F050344-001	
	7.2	7.2	No Units	0.0	(0-0.0)	SW846 9040	06/05/08	8158106
		Dilution Factor: 1				Analysis Time..: 00:00		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

F8F050344 CLIENT ANALYSIS SUMMARY

Storage Loc: 1-131-132,M
Date Received: 2008-06-05
Analytical Due Date: 2008-06-24
Report Due Date: 2008-06-26
Report Type: W
EDD Code: 00

Project Manager: IV
Project: 6468071950
PO#: 200807151
Client: 63036 MACTEC Engineering & Consulting Inc
Quote #: 79192 SDG:
FPL Turkey Point COL
Report to: Al Tice
#SMPS In LOT: 1

Inform PM of any receiving issues.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	
1	OW-621I			2008-06-04 / 1420	KPF63	WATER

SAMPLE COMMENTS:

	FE	MH	SW846	6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	KX	MH	SW846	6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	MG	MH	SW846	6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	MN	MH	SW846	6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	NA	MH	SW846	6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	SA	MH	SW846	6020	WATER, Silica by calculation	0X	CALCULATION ONLY	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: A	WRK LOC	06	
	SI	MH	SW846	6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	CA	MH	SW846	6020	WATER, 6020, Metals	GJ	METALS, TOTAL - 2% HCL	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	AK	MCAW W	160.1	WATER, 160.1, Solids, Filterable "TDS"	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	C8	MCAW W	300.0A	WATER, 300.0A, Fluoride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	C9	MCAW W	300.0A	WATER, 300.0A, Nitrate as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	CB	MCAW W	310.1	WATER, 310.1, Alkalinity, Carbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	CX	MCAW W	300.0A	WATER, 300.0A, Chloride	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	CY	MCAW W	300.0A	WATER, 300.0A, Sulfate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	FJ	SW846	9040	WATER, 9040C, pH	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	GM	MCAW W	300.0A	WATER, 300.0A, Bromide	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	GO	MCAW W	300.0A	WATER, 300.0A, Nitrite as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	LV	SM18	2320 B	WATER, 2320 B, Alkalinity, Total	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	SL	SM18	1030F & API	WATER, 1030F & API, Ion Balance	0X	CALCULATION ONLY	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	UX	MCAW W	310.1	WATER, 310.1, Alkalinity, Bicarbonate	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	VM	MCAW W	350.1	WATER, 350.1, Nitrogen, Ammonia	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
S	XX	C9	MCAW W	300.0A	WATER, 300.0A, Nitrate as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
S	XX	GO	MCAW W	300.0A	WATER, 300.0A, Nitrite as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
S	XX	LV	SM18	2320 B	WATER, 2320 B, Alkalinity, Total	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
X	XX	C9	MCAW W	300.0A	WATER, 300.0A, Nitrate as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
X	XX	FJ	SW846	9040	WATER, 9040C, pH	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
X	XX	GO	MCAW W	300.0A	WATER, 300.0A, Nitrite as N	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
X	XX	LV	SM18	2320 B	WATER, 2320 B, Alkalinity, Total	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	

AUL 3550

[redacted]

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt ______

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: MACTEC	Project Manager: Scott Auger	Date: 06-04-08	Chain of Custody Number: 062466
Address: 3301 Atlantic Avenue	Telephone Number (Area Code)/Fax Number: 919-876-0416	Lab Number:	Page 1 of 1
City: Raleigh / State: NC / Zip Code: 27604	Site Contact: Matt Cooke / Lab Contact: Ivan Vania		
Project Name and Location (State): Turkey Point Col	Carrier/Waybill Number: FE 8656 2694 6664		
Contract/Purchase Order/Quote No.: 6468-07-1950			

Analysis (Attach list if more space is needed): 1L P1 no pres / TDS/Anions/Alk/pH; 125 mL P1 HNO3 Cations; 125 mL P1 H2SO4 NH3/NO2-NO3; (4250 M)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	1L P1 no pres TDS/Anions/Alk/pH	125 mL HNO3 Cations	125 mL H2SO4 NH3/NO2-NO3	
OW-621L	06/04/08	1420		X			1	2	1				1	1	2	i.l, 3x250P

Special Instructions/ Conditions of Receipt:

Cations: Calcium, Iron, Magnesium, Manganese, Potassium, Silica, Sodium
- pH - EPA SW846 9045(D)
TDS - EPA 160.1
- Cation - EPA 6020C
Inorganic Ions MCAWW 300.0 A
- Alkalinity - EPA 310.1
- Ammonia - EPA - 350.1
nitrate nitrite - EPA 300.0

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other Standard

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Kristy Clump-Smith	06/04/08		1. Received By: [signature]	6/5/08	0915
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): - 3550 - F8F050354 RD 544

Condition Upon Receipt Form

Client: Master COC/RFA No: 062466 Date: 6/5/08
Quote No: 79142 Initiated By: BD Time: 0915

Shipping Information

Shipper Name: FE Multiple Packages Y (N)

Shipping # (s):*		Sample Temperature (s):**	
1. 8456 2694 6666 4	6.	1. 4	6.
2.	7.	2.	7.
3.	8.	3.	8.
4.	9.	4.	9.
5.	10.	5.	10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	(Y) N	Are there custody seals present on the cooler?	8.	Y (N)	Are there custody seals present on bottles?
2.	Y (N) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N (N/A)	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	(Y) N N/A	Was sample received with proper pH!? (If not, make note below)
4.	(Y) N	Sample received with Chain of Custody?	11.	Y N	If N/A- Was pH taken by original TestAmerica lab?
5.	(Y) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	(Y) N	Sample received in proper containers?
6.	Y (N)	Was sample received broken?	13.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	(Y) N	Is sample volume sufficient for analysis?	14.	Y N	Was Internal COC/Workshare received?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:
- ☐ Client Contact Name: Informed by:
- ☐ Sample(s) processed "as is"
- ☐ Sample(s) on hold until: If released, notify:

Project Management Review: Date: 6-6-8

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 08/06/07\\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc