

APPENDIX D

LABORATORY SOIL AND ROCK CORE TESTING

Project Name **BINGHAM ME - PROPOSED BLUE SKY WEST POWER PROJECT -
PRELIMINARY GEOTECHNICAL SERVICES**

Project Number **10-0014.2**

Client **REED & REED, INC.**

Lab ID **16146G**

Date Received **11/15/2012**

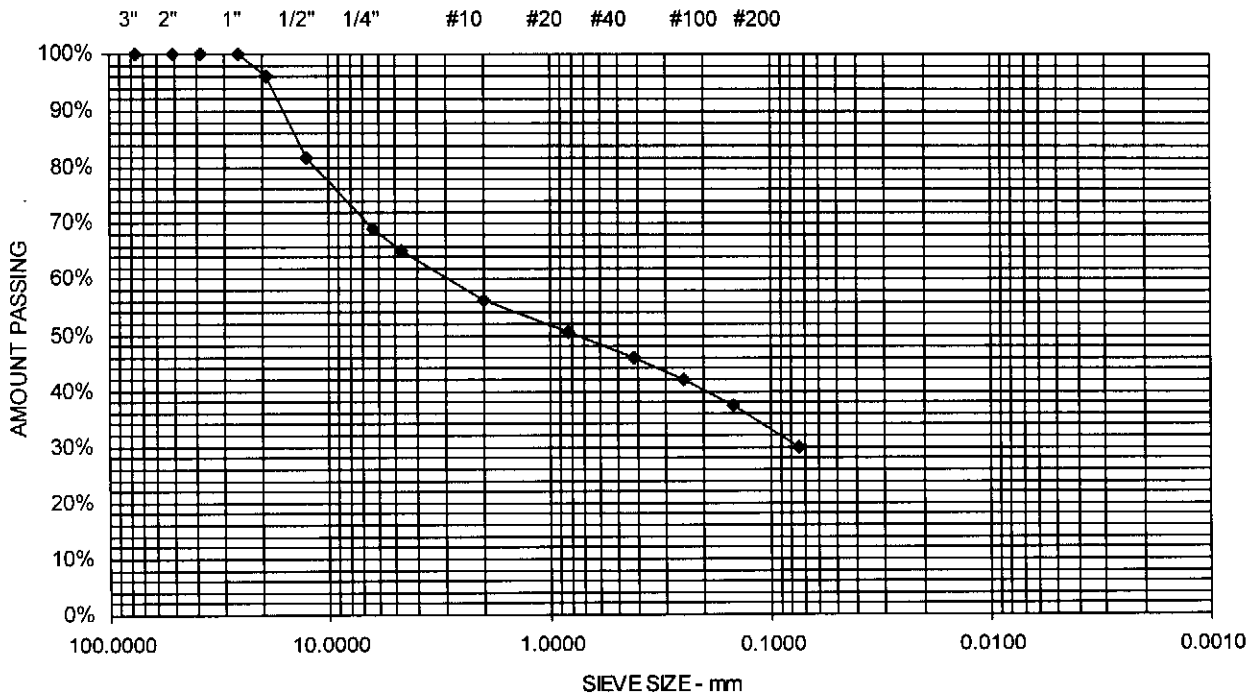
Date Completed **11/19/2012**

Material Source **B-T5 2D**

Tested By **JUSTIN BISSON**

<u>STANDARD DESIGNATION (mm/um)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	96	
12.5 mm	1/2"	82	
6.3 mm	1/4"	69	
4.75 mm	No. 4	65	34.9% Gravel
2.00 mm	No. 10	56	
850 um	No. 20	51	
425 um	No. 40	46	35.1% Sand
250 um	No. 60	42	
150 um	No. 100	37	
75 um	No. 200	30.0	30% Fines

GRAVELLY SAND AND SILT



Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER PROJECT -
PRELIMINARY GEOTECHNICAL SERVICES

Project Number 10-0014.2

Client REED & REED, INC.

Lab ID 16139G

Date Received 11/15/2012

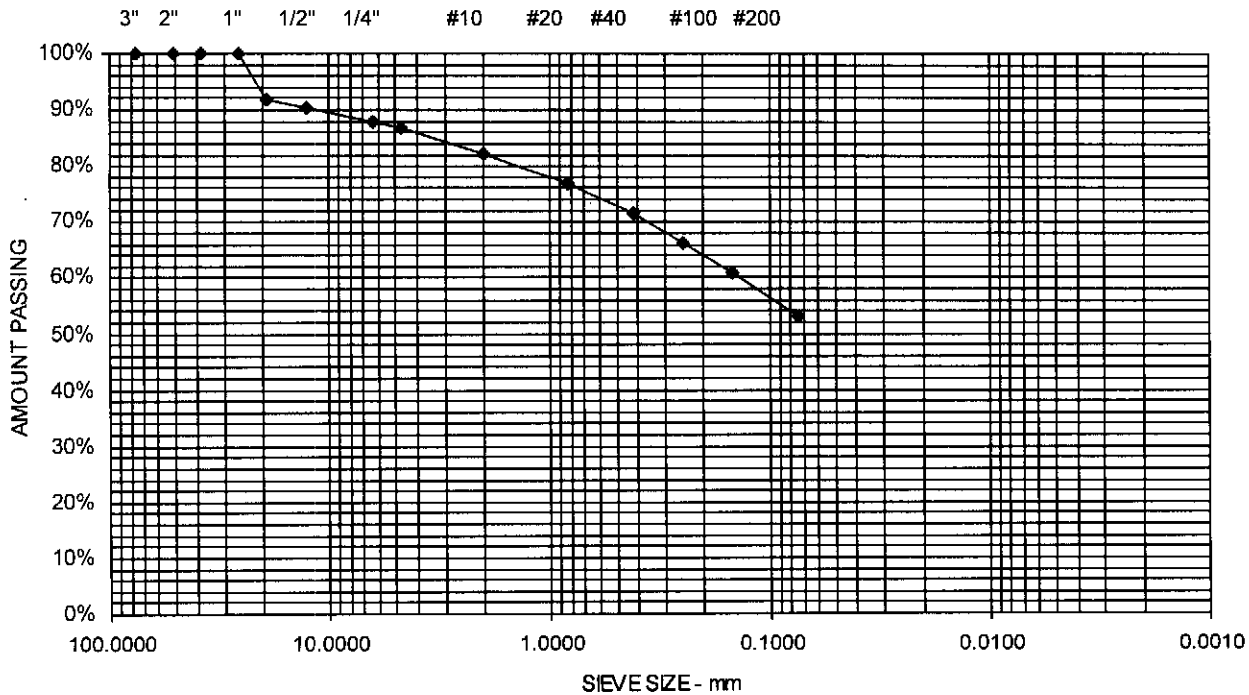
Date Completed 11/20/2012

Material Source B-T12 2D

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	92	
12.5 mm	1/2"	90	
6.3 mm	1/4"	88	
4.75 mm	No. 4	87	13.3% Gravel
2.00 mm	No. 10	82	
850 μm	No. 20	77	
425 μm	No. 40	71	33.6% Sand
250 μm	No. 60	66	
150 μm	No. 100	61	
75 μm	No. 200	53.1	53.1% Fines

SANDY SILT, SOME GRAVEL



Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER PROJECT -
PRELIMINARY GEOTECHNICAL SERVICES

Project Number 10-0014.2

Client REED & REED, INC.

Lab ID 16141G

Date Received 11/15/2012

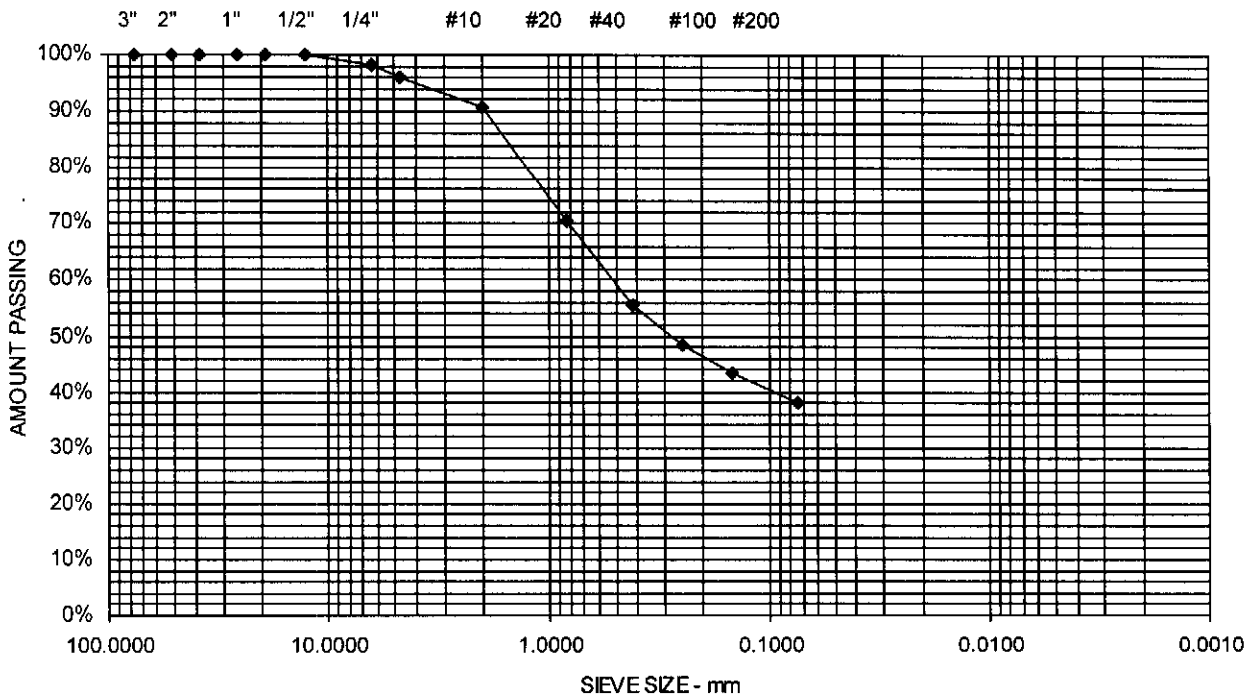
Date Completed 11/19/2012

Material Source B-T12 4D

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/um)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	98	
4.75 mm	No. 4	96	3.9% Gravel
2.00 mm	No. 10	91	
850 um	No. 20	70	
425 um	No. 40	56	58.1% Sand
250 um	No. 60	48	
150 um	No. 100	44	
75 um	No. 200	38.0	38% Fines

SAND AND SILT, TRACE GRAVEL



Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER PROJECT -
PRELIMINARY GEOTECHNICAL SERVICES

Project Number 10-0014.2

Client REED & REED, INC.

Lab ID 16143G

Date Received 11/15/2012

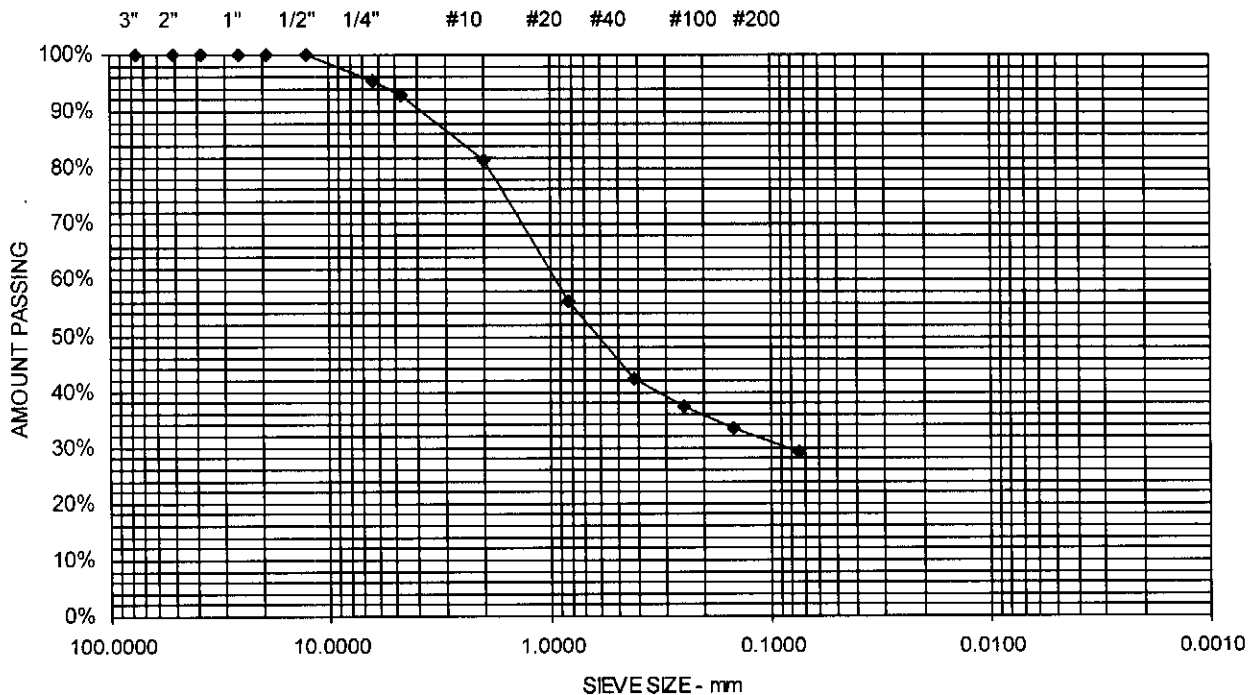
Date Completed 11/20/2012

Material Source B-T12 6D

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	95	
4.75 mm	No. 4	93	7% Gravel
2.00 mm	No. 10	81	
850 μm	No. 20	56	
425 μm	No. 40	43	63.8% Sand
250 μm	No. 60	37	
150 μm	No. 100	34	
75 μm	No. 200	29.2	29.2% Fines

SILTY SAND, SOME GRAVEL



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES

Project Number 10-0014.3

Client REED & REED, INC.

Lab ID 17585G

Date Received 12/6/2013

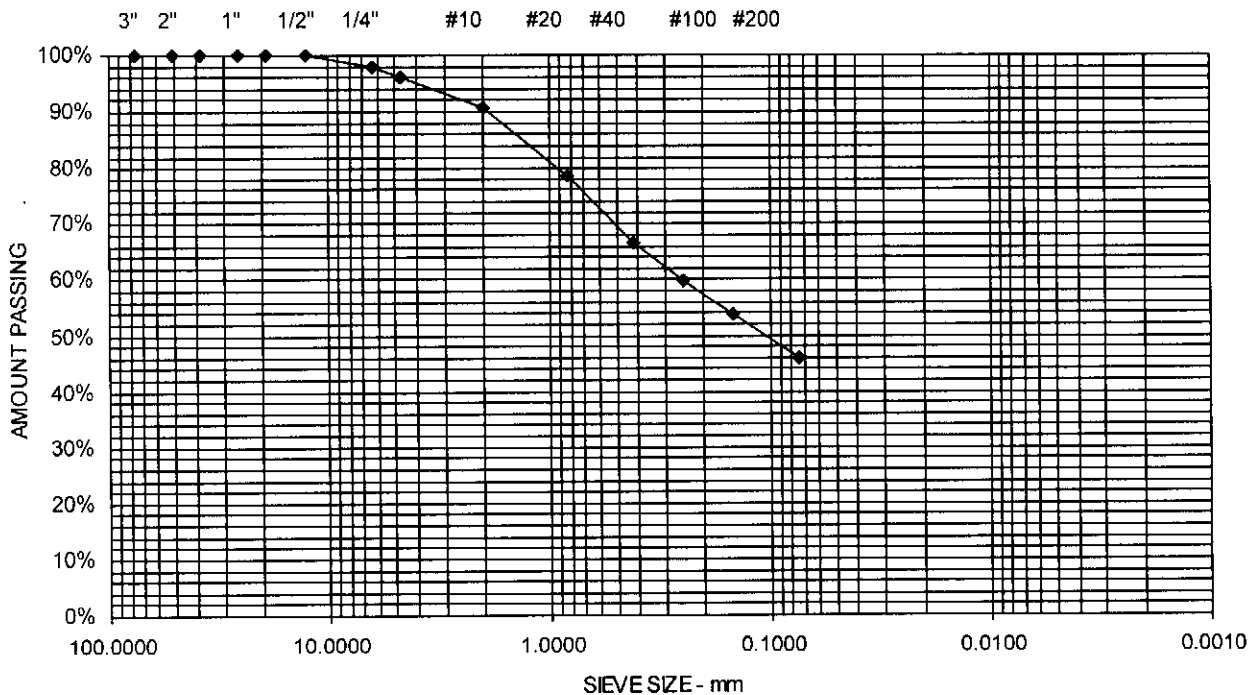
Date Completed 12/11/2013

Material Source B-25 4D 15-15.7

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	98	
4.75 mm	No. 4	96	4.1% Gravel
2.00 mm	No. 10	91	
850 μm	No. 20	79	
425 μm	No. 40	67	50% Sand
250 μm	No. 60	60	
150 μm	No. 100	54	
75 μm	No. 200	45.9	45.9% Fines

SAND AND SILT, TRACE GRAVEL



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES

Client REED & REED, INC.

Material Source B-25 3D 10-12

Project Number 10-0014.3

Lab ID 17584G

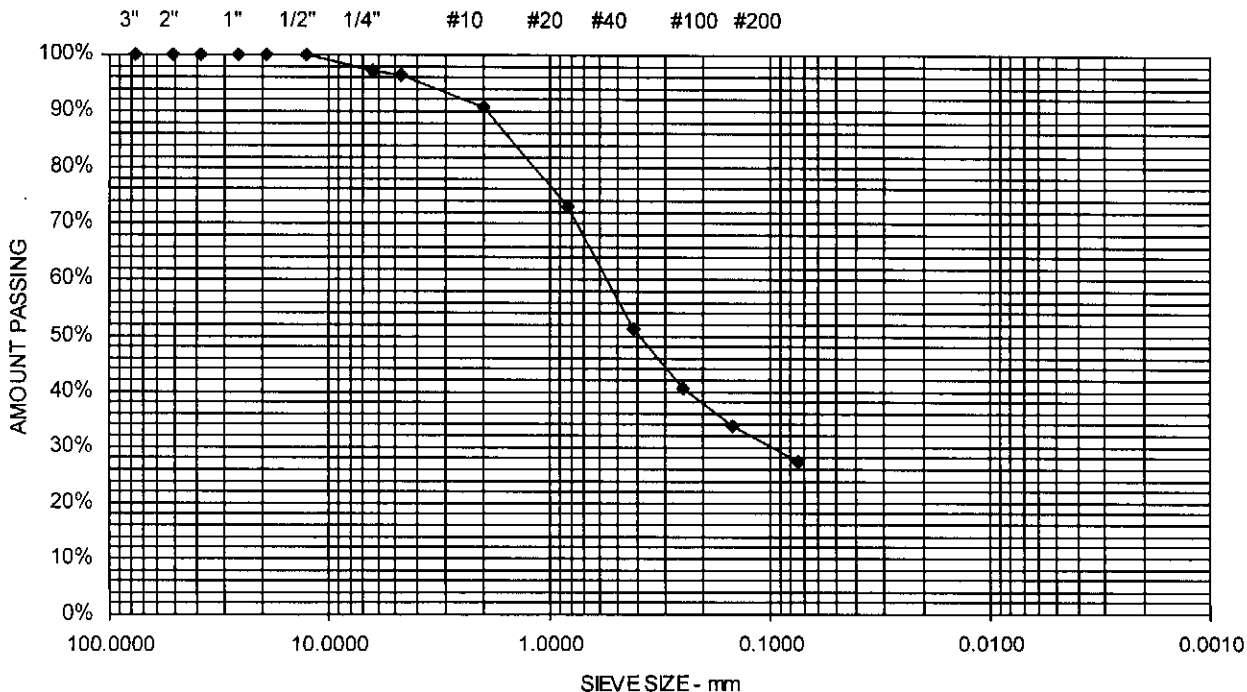
Date Received 12/6/2013

Date Completed 12/11/2013

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	97	
4.75 mm	No. 4	96	3.7% Gravel
2.00 mm	No. 10	91	
850 μm	No. 20	73	
425 μm	No. 40	51	68.8% Sand
250 μm	No. 60	41	
150 μm	No. 100	34	
75 μm	No. 200	27.5	27.5% Fines

SILTY SAND, TRACE GRAVEL



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES

Project Number 10-0014.3

Client REED & REED, INC.

Lab ID 17586G

Date Received 12/6/2013

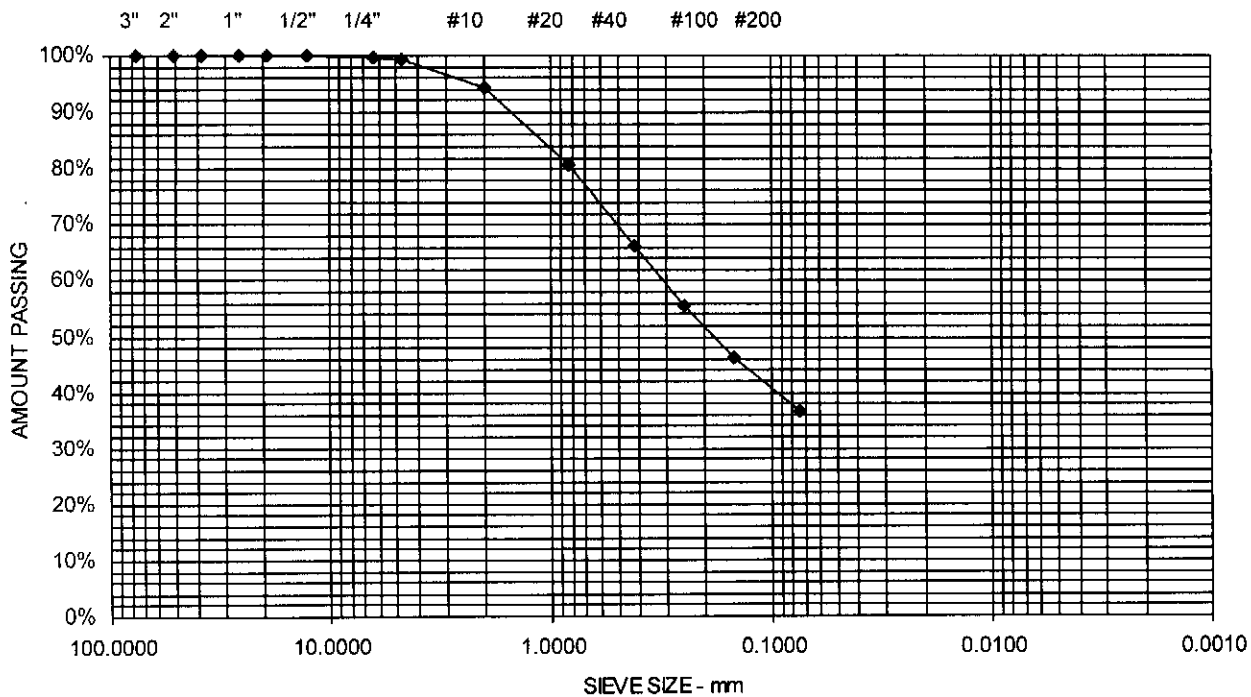
Date Completed 12/11/2013

Material Source B-25 5D 20-20.4

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/µm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	99	0.8% Gravel
2.00 mm	No. 10	94	
850 µm	No. 20	81	
425 µm	No. 40	66	62.7% Sand
250 µm	No. 60	56	
150 µm	No. 100	46	
75 µm	No. 200	36.5	36.5% Fines

SAND AND SILT, TRACE GRAVEL



Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER PROJECT -
PRELIMINARY GEOTECHNICAL SERVICES

Project Number 10-0014.2

Client REED & REED, INC.

Lab ID 16149G

Date Received 11/15/2012

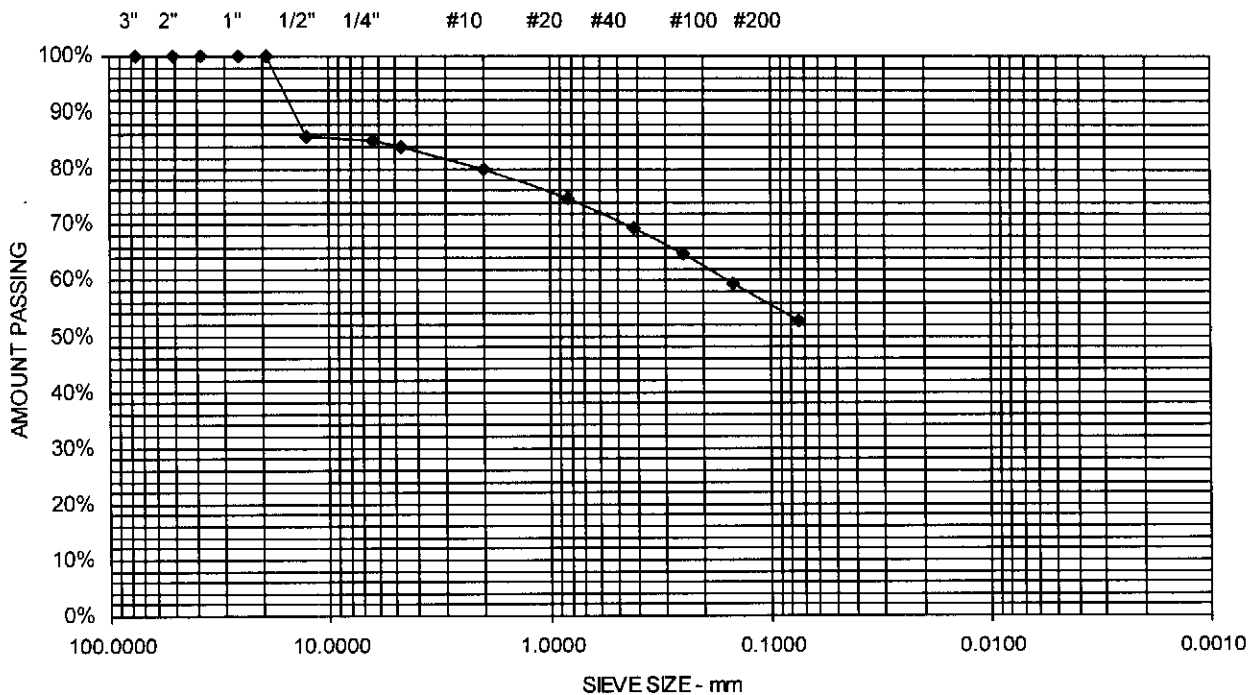
Date Completed 11/19/2012

Material Source B-T28 2D

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	86	
6.3 mm	1/4"	85	
4.75 mm	No. 4	84	16.1% Gravel
2.00 mm	No. 10	80	
850 μm	No. 20	75	
425 μm	No. 40	69	31.2% Sand
250 μm	No. 60	65	
150 μm	No. 100	60	
75 μm	No. 200	52.7	52.7% Fines

GRAVELLY, SANDY SILT



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES

Project Number 10-0014.3

Client REED & REED, INC.

Lab ID 17588G

Date Received 12/6/2013

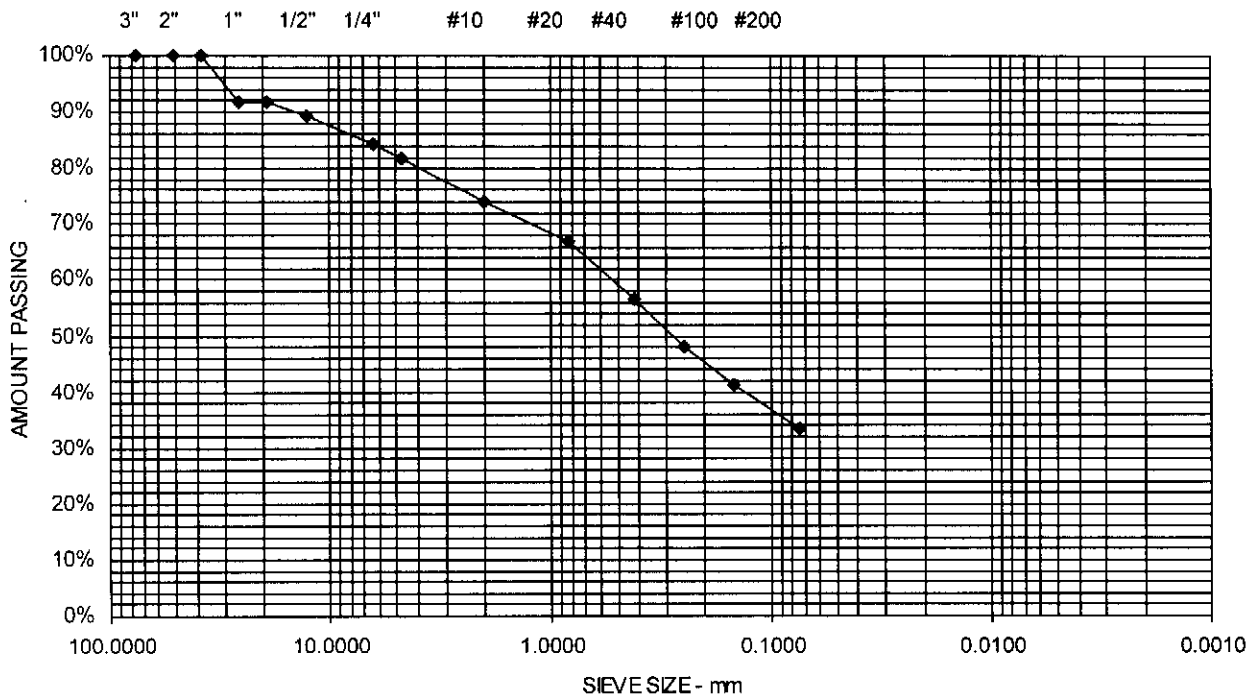
Date Completed 12/11/2013

Material Source B-55 4D 15-16.5

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	92	
19.0 mm	3/4"	92	
12.5 mm	1/2"	89	
6.3 mm	1/4"	84	
4.75 mm	No. 4	82	18% Gravel
2.00 mm	No. 10	74	
850 μm	No. 20	67	
425 μm	No. 40	57	48.4% Sand
250 μm	No. 60	48	
150 μm	No. 100	41	
75 μm	No. 200	33.5	33.5% Fines

GRAVELY SILTY SAND



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES

Project Number 10-0014.3

Client REED & REED, INC.

Lab ID 17587G

Date Received 12/6/2013

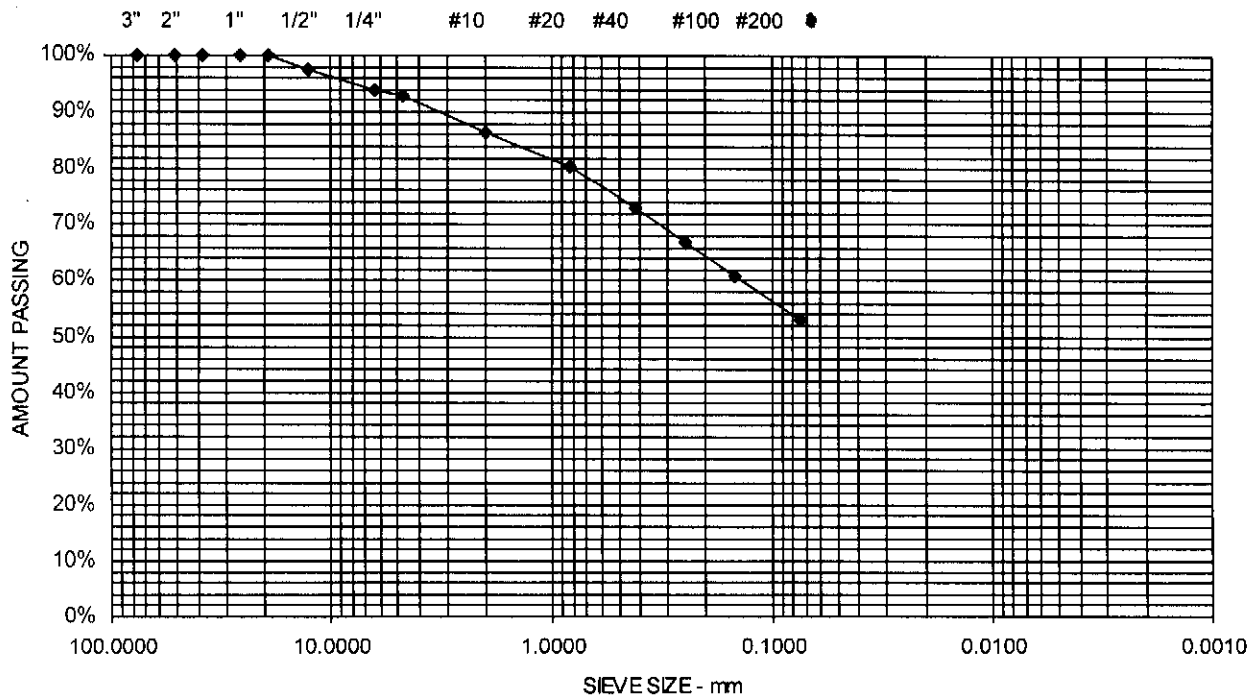
Date Completed 12/11/2013

Material Source B-55 3D 10-12

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	97	
6.3 mm	1/4"	94	
4.75 mm	No. 4	93	7.2% Gravel
2.00 mm	No. 10	87	
850 μm	No. 20	80	
425 μm	No. 40	73	39.7% Sand
250 μm	No. 60	67	
150 μm	No. 100	61	
75 μm	No. 200	53.1	53.1% Fines

SILT AND SAND, SOME GRAVEL



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES

Client REED & REED, INC.

Project Number 10-0014.3

Lab ID 17589G

Date Received 12/6/2013

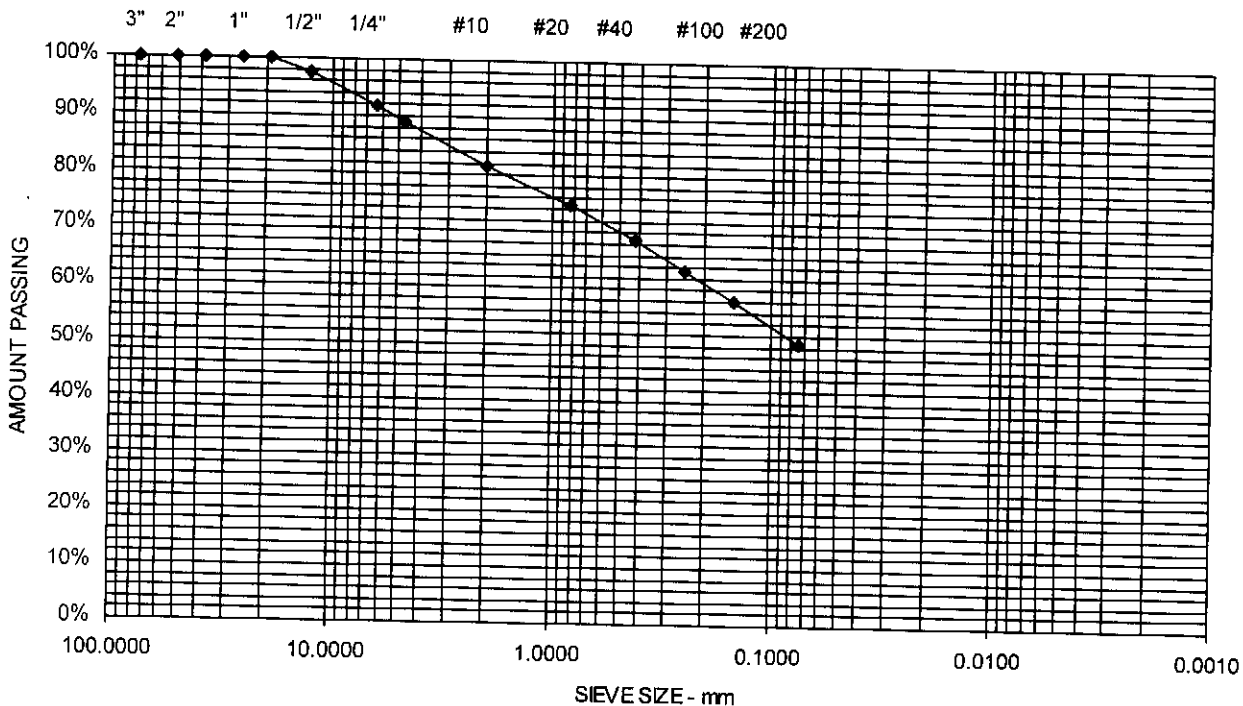
Date Completed 12/11/2013

Tested By JUSTIN BISSON

Material Source B-55 6D 25-26.3

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	97	
6.3 mm	1/4"	92	
4.75 mm	No. 4	89	11.2% Gravel
2.00 mm	No. 10	81	
850 μm	No. 20	75	
425 μm	No. 40	69	38.1% Sand
250 μm	No. 60	63	
150 μm	No. 100	58	
75 μm	No. 200	50.7	50.7% Fines

SILT AND SAND, SOME GRAVEL



Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER PROJECT -
PRELIMINARY GEOTECHNICAL SERVICES

Project Number 10-0014.2

Client REED & REED, INC.

Lab ID 16150G

Date Received 11/15/2012

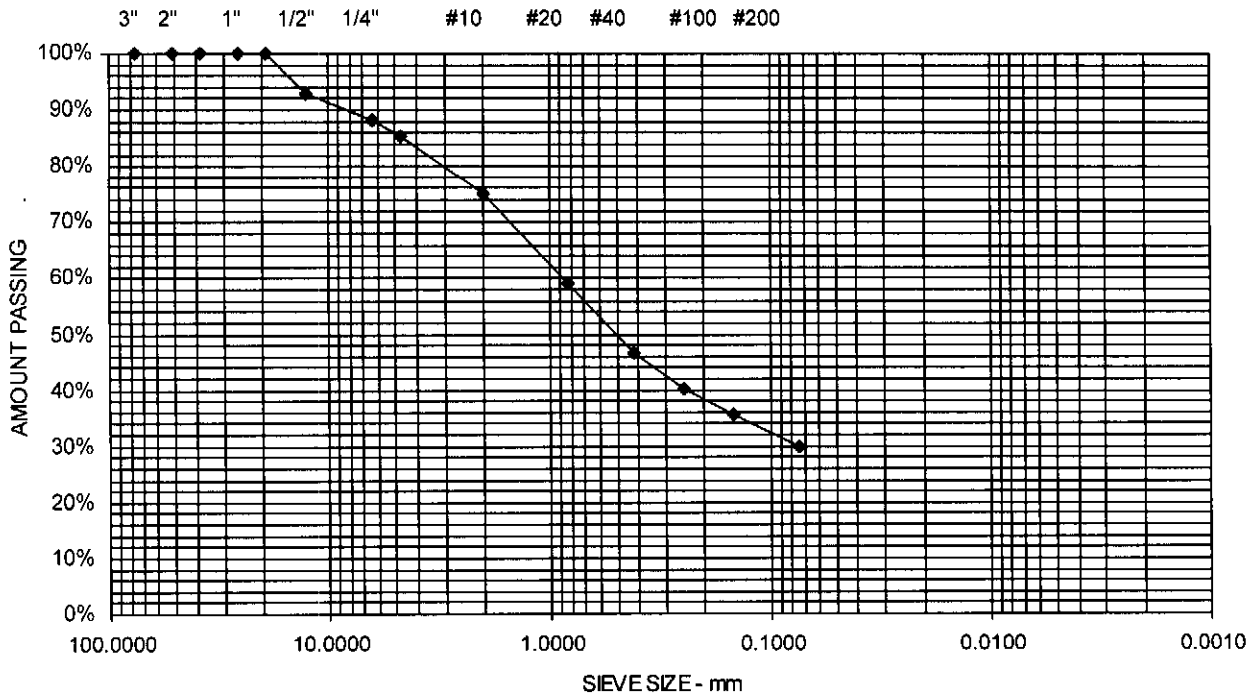
Date Completed 11/19/2012

Material Source B-T56 2D

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	93	
6.3 mm	1/4"	88	
4.75 mm	No. 4	85	14.6% Gravel
2.00 mm	No. 10	75	
850 μm	No. 20	59	
425 μm	No. 40	47	55.4% Sand
250 μm	No. 60	40	
150 μm	No. 100	35	
75 μm	No. 200	30.0	30% Fines

GRAVELLY SAND AND SILT



Project Name Blue Sky West Power Project
 Client Reed & Reed
 Material Type Test Pit
 Material Source TP-1 T-28
 Exploration

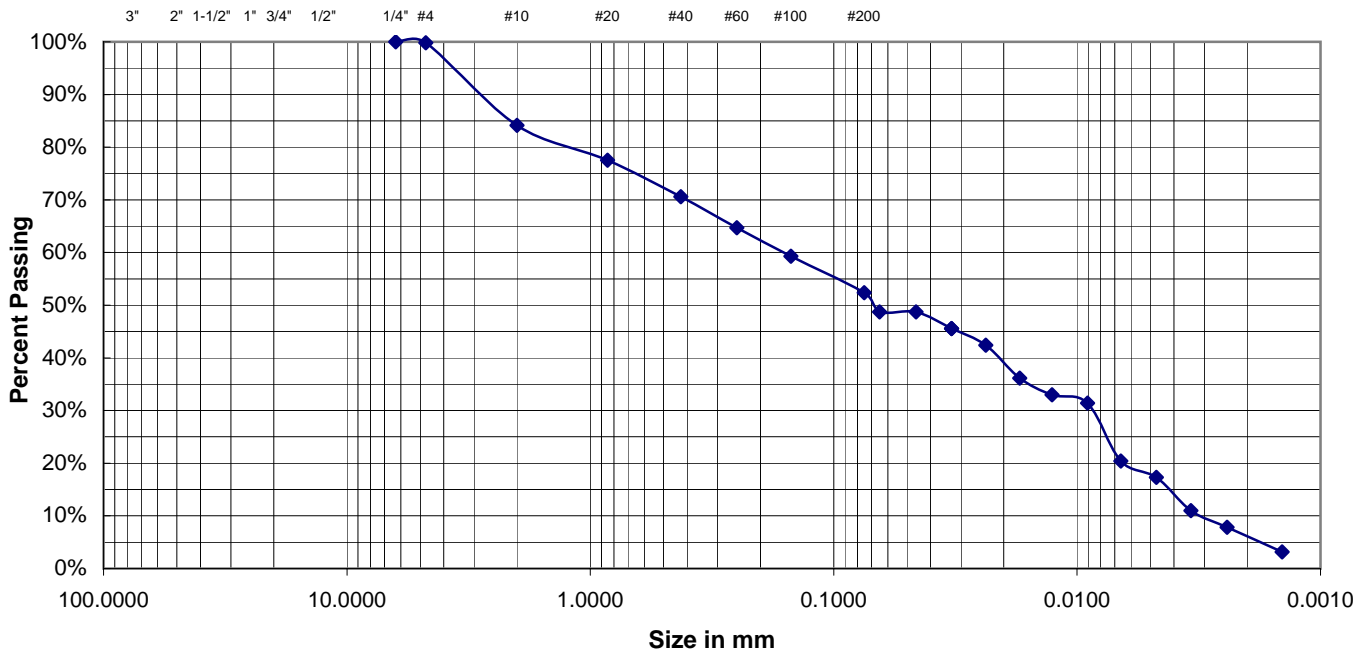
Project Number 10-0014.2
 Lab ID 16135G
 Date Received 11/12/2012
 Date Completed 11/27/2012
 Tested By JRB

Sieve Analysis

Sieve Size	Standard Designation (mm)	Amount Passing (%)
3"	76	100
2"	50	100
1-1/2"	38.1	100
1"	25	100
3/4"	19	100
1/2"	12.5	100
1/4"	6.3	100
No. 4	4.75	100
No. 10	2	84
No. 20	0.85	78
No. 40	0.425	71
No. 60	0.25	65
No. 100	0.15	59
No. 200	0.075	52.4

Hydrometer Analysis

Particle Size (mm)	Amount Passing (%)
0.06482	48.7
0.04584	48.7
0.01267	33.0
0.00907	31.4
0.00661	20.4
0.00473	17.3



Particle Distribution

Gravel, passing 3" and retained on #4	0.2%
Sand, passing #4 and retained on #200	47.5%
Fines, 0.075 to 0.005	34.9%
Clay Fraction, <0.005	17.5%

Comments:

w = 16.5%

RED

Reviewed By

Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER PROJECT -
PRELIMINARY GEOTECHNICAL SERVICES

Client REED & REED, INC.

Exploration TP-2

Material Source TP-2 S-1 SUBSTATION

Project Number 10-0014.2

Lab ID 16133G

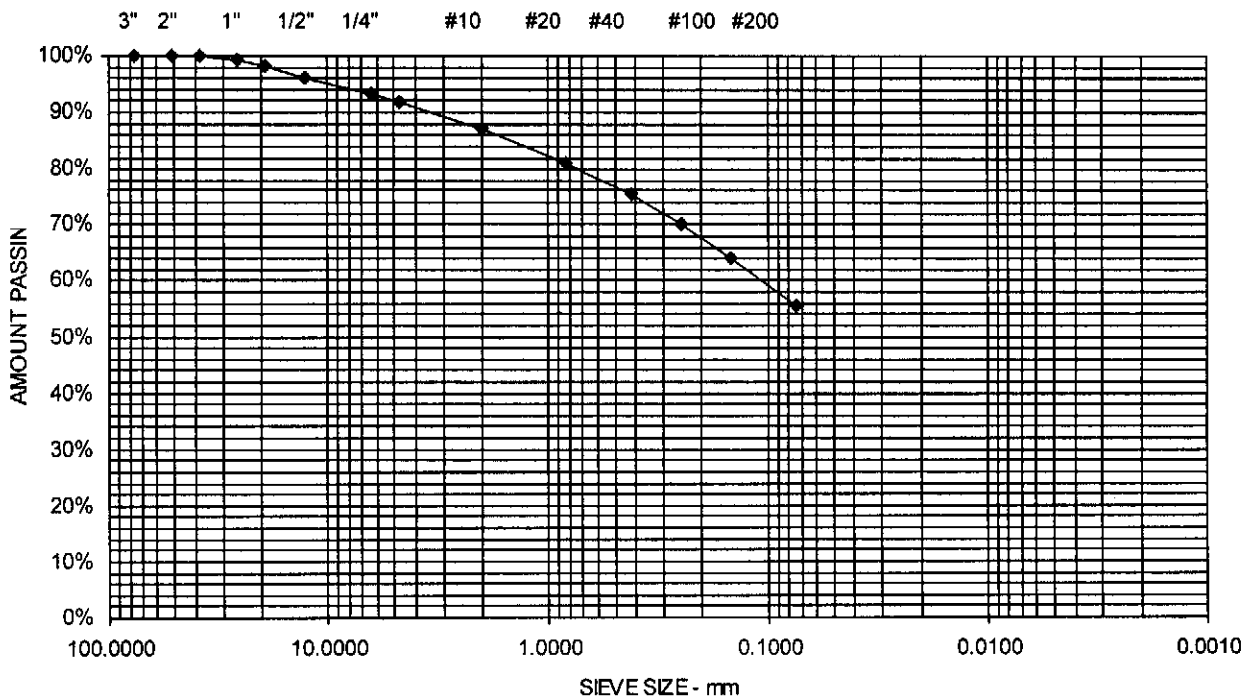
Date Received 11/13/2012

Date Completed 11/15/2012

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	99	
19.0 mm	3/4"	98	
12.5 mm	1/2"	96	
6.3 mm	1/4"	93	
4.75 mm	No. 4	92	8.2% Gravel
2.00 mm	No. 10	87	
850 μm	No. 20	81	
425 μm	No. 40	75	36.3% Sand
250 μm	No. 60	70	
150 μm	No. 100	64	
75 μm	No. 200	55.5	55.5% Fines

SILT AND SAND, SOME GRAVEL

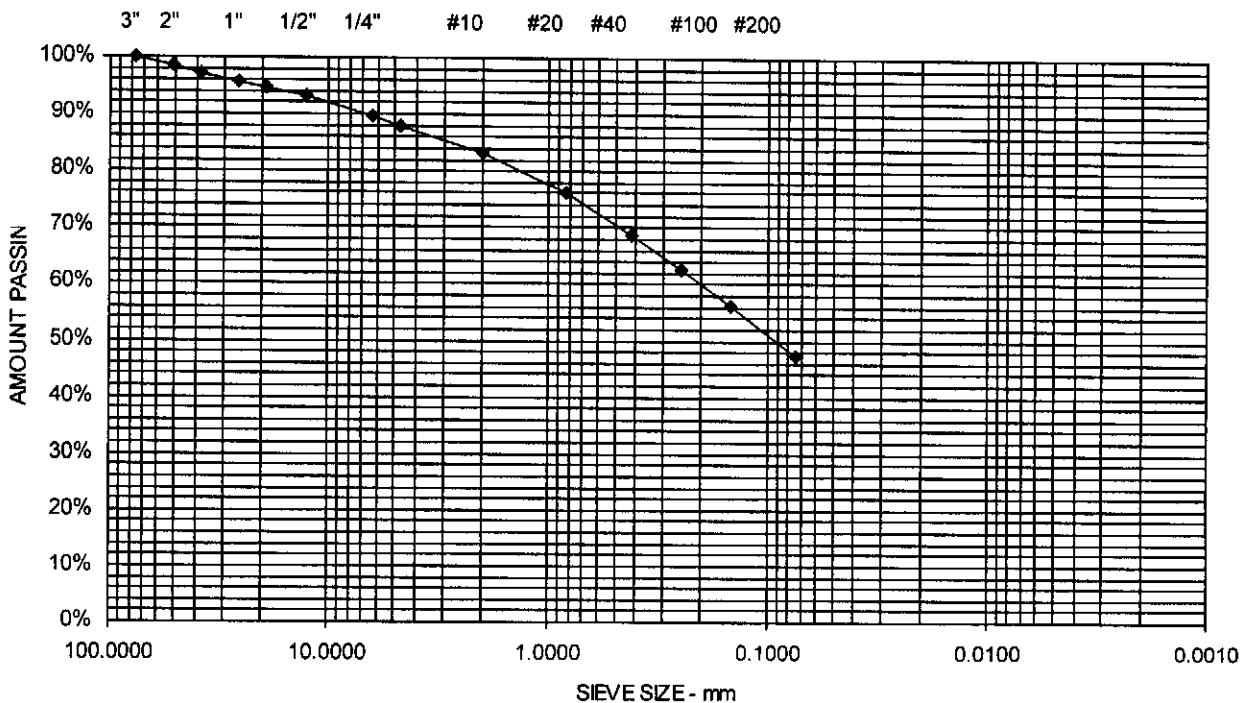


Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER PROJECT -
PRELIMINARY GEOTECHNICAL SERVICES
Client REED & REED, INC.
Exploration TP-9
Material Source TP-9 S-1 TURBINE 14

Project Number 10-0014.2
Lab ID 16134G
Date Received 11/13/2012
Date Completed 11/15/2012
Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	99	
38.1 mm	1-1/2"	97	
25.0 mm	1"	96	
19.0 mm	3/4"	95	
12.5 mm	1/2"	93	
6.3 mm	1/4"	90	
4.75 mm	No. 4	88	12% Gravel
2.00 mm	No. 10	83	
850 μm	No. 20	76	
425 μm	No. 40	69	40.8% Sand
250 μm	No. 60	63	
150 μm	No. 100	56	
75 μm	No. 200	47.2	47.2% Fines

SILT AND SAND, SOME GRAVEL



Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER PROJECT -
PRELIMINARY GEOTECHNICAL SERVICES

Project Number 10-0014.2

Client REED & REED, INC.

Lab ID 16155G

Date Received 11/15/2012

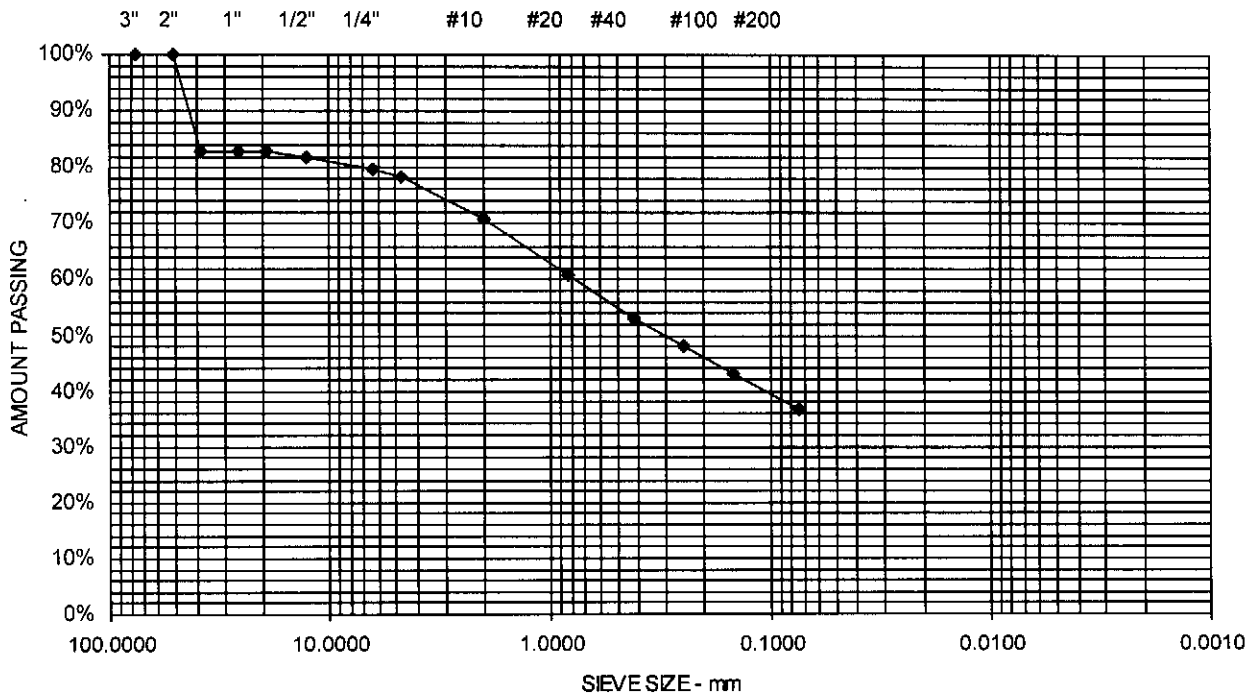
Date Completed 11/26/2012

Material Source TP-14 T-24

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	83	
25.0 mm	1"	83	
19.0 mm	3/4"	83	
12.5 mm	1/2"	82	
6.3 mm	1/4"	80	
4.75 mm	No. 4	78	21.6% Gravel
2.00 mm	No. 10	71	
850 μm	No. 20	61	
425 μm	No. 40	53	41.7% Sand
250 μm	No. 60	48	
150 μm	No. 100	43	
75 μm	No. 200	36.6	36.6% Fines

GRAVELY SAND AND SILT



Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER PROJECT -
PRELIMINARY GEOTECHNICAL SERVICES

Project Number 10-0014.2

Client REED & REED, INC.

Lab ID 16156G

Date Received 11/15/2012

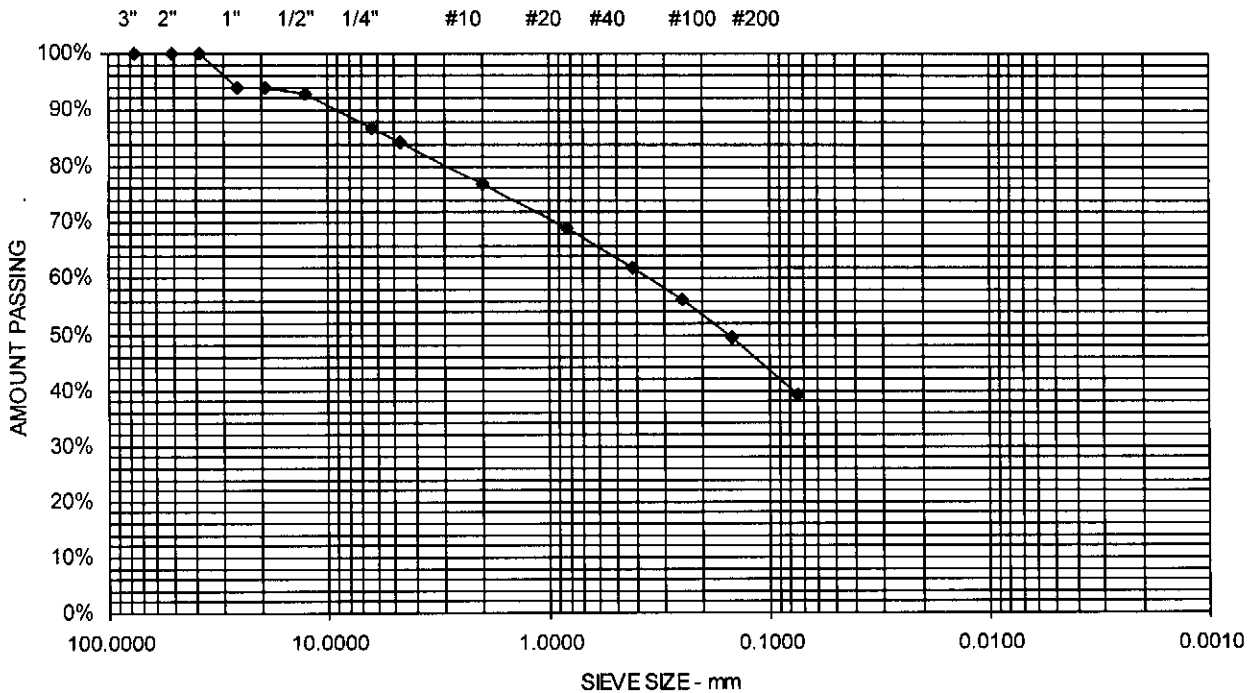
Date Completed 11/26/2012

Material Source TP-15 T-32

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	94	
19.0 mm	3/4"	94	
12.5 mm	1/2"	93	
6.3 mm	1/4"	87	
4.75 mm	No. 4	84	15.6% Gravel
2.00 mm	No. 10	77	
850 μm	No. 20	69	
425 μm	No. 40	62	45.1% Sand
250 μm	No. 60	56	
150 μm	No. 100	49	
75 μm	No. 200	39.2	39.2% Fines

GRAVELY SAND AND SILT



Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER PROJECT -
PRELIMINARY GEOTECHNICAL SERVICES

Project Number 10-0014.2

Client REED & REED, INC.

Lab ID 16158G

Date Received 11/15/2012

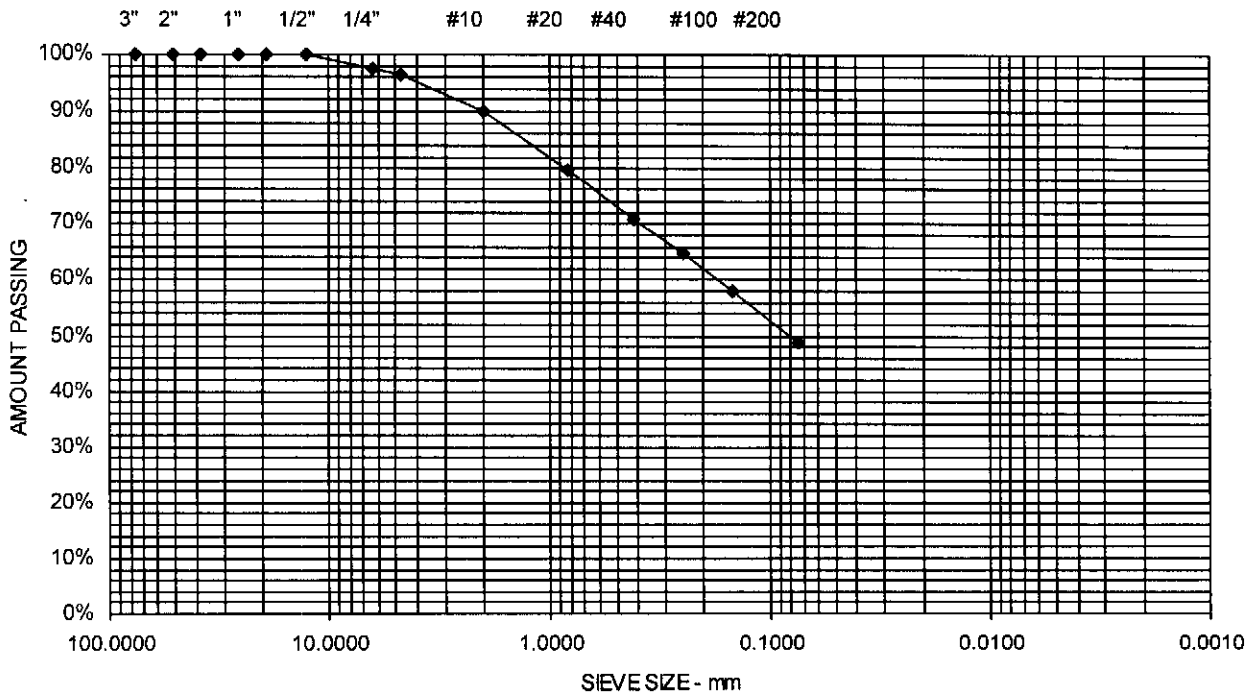
Date Completed 11/26/2012

Material Source TP-17 S2 T-45

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	98	
4.75 mm	No. 4	96	3.5% Gravel
2.00 mm	No. 10	90	
850 μm	No. 20	80	
425 μm	No. 40	71	47.6% Sand
250 μm	No. 60	65	
150 μm	No. 100	58	
75 μm	No. 200	48.8	48.8% Fines

SILT AND SAND, TRACE GRAVEL



Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER PROJECT -
PRELIMINARY GEOTECHNICAL SERVICES

Client REED & REED, INC.

Project Number 10-0014.2

Lab ID 16159G

Date Received 11/15/2012

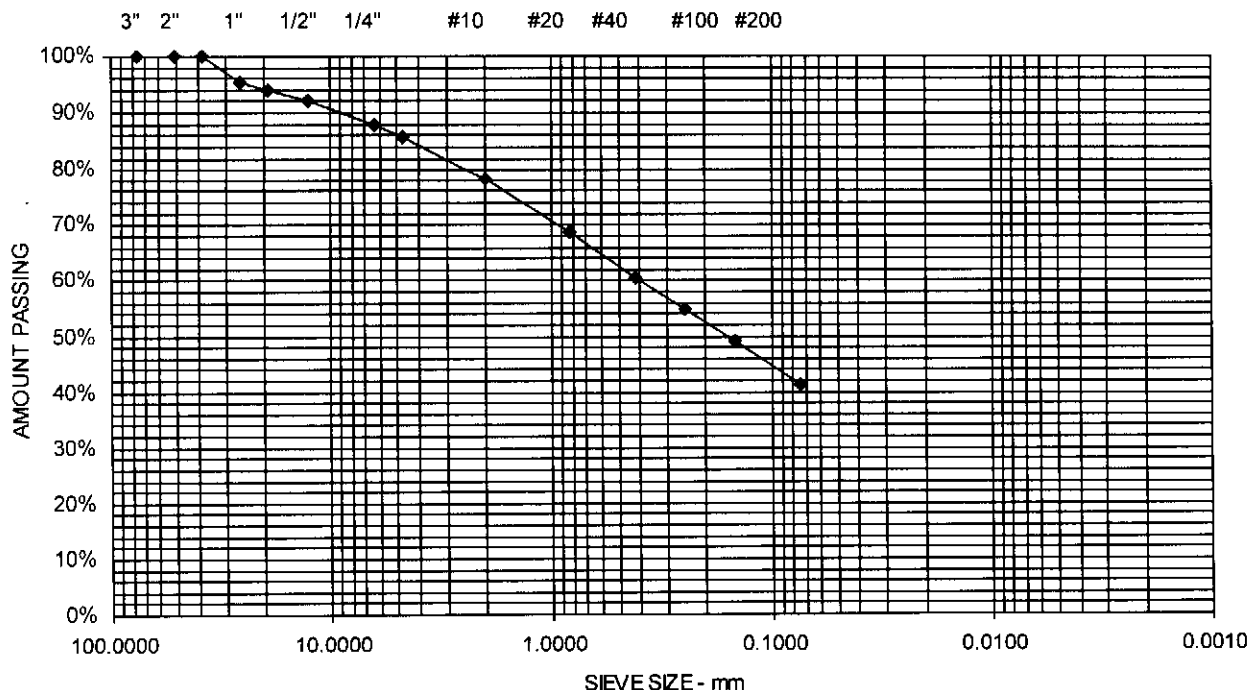
Date Completed 11/26/2012

Material Source TP-19 T-42

Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/um)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	95	
19.0 mm	3/4"	94	
12.5 mm	1/2"	92	
6.3 mm	1/4"	88	
4.75 mm	No. 4	86	14.2% Gravel
2.00 mm	No. 10	78	
850 um	No. 20	69	
425 um	No. 40	60	44.5% Sand
250 um	No. 60	55	
150 um	No. 100	49	
75 um	No. 200	41.3	41.3% Fines

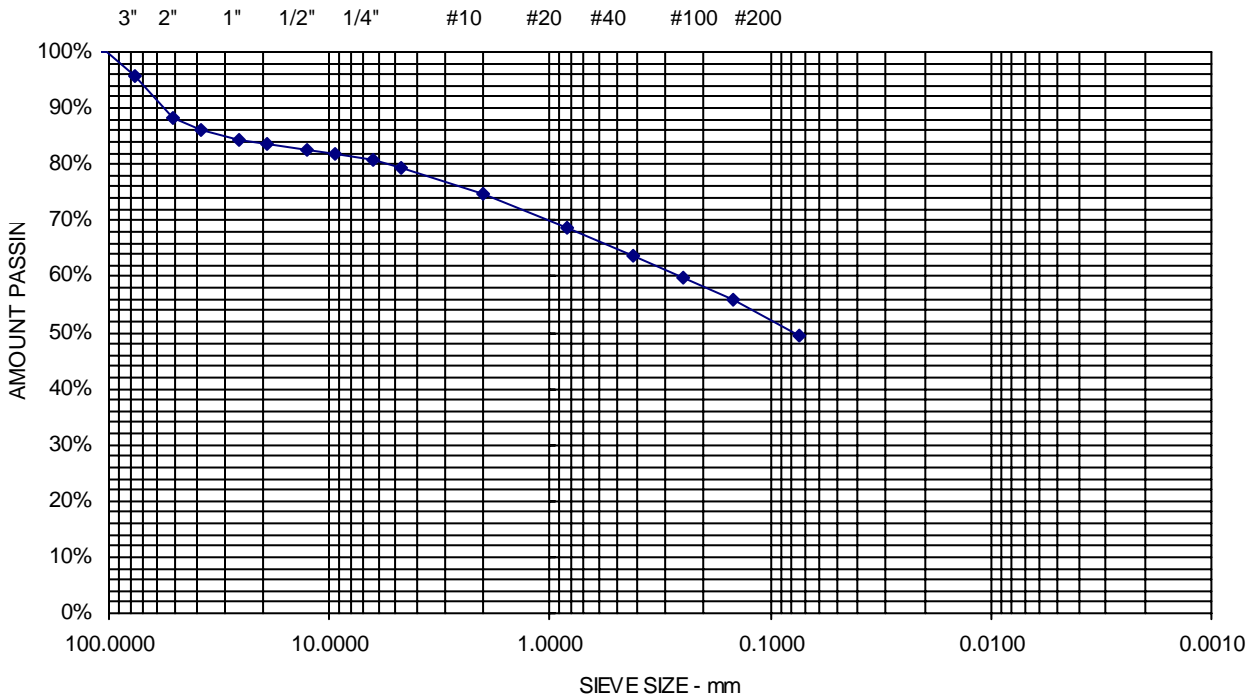
GRAVELY SAND AND SILT



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Exploration **TP-104 & TP-105**
Material Source **4-6'**

Project Number 10-0014.3
Lab ID 8037A
Date Received 11/18/2013
Date Completed 11/22/2013
Tested By NEIL DAVIS

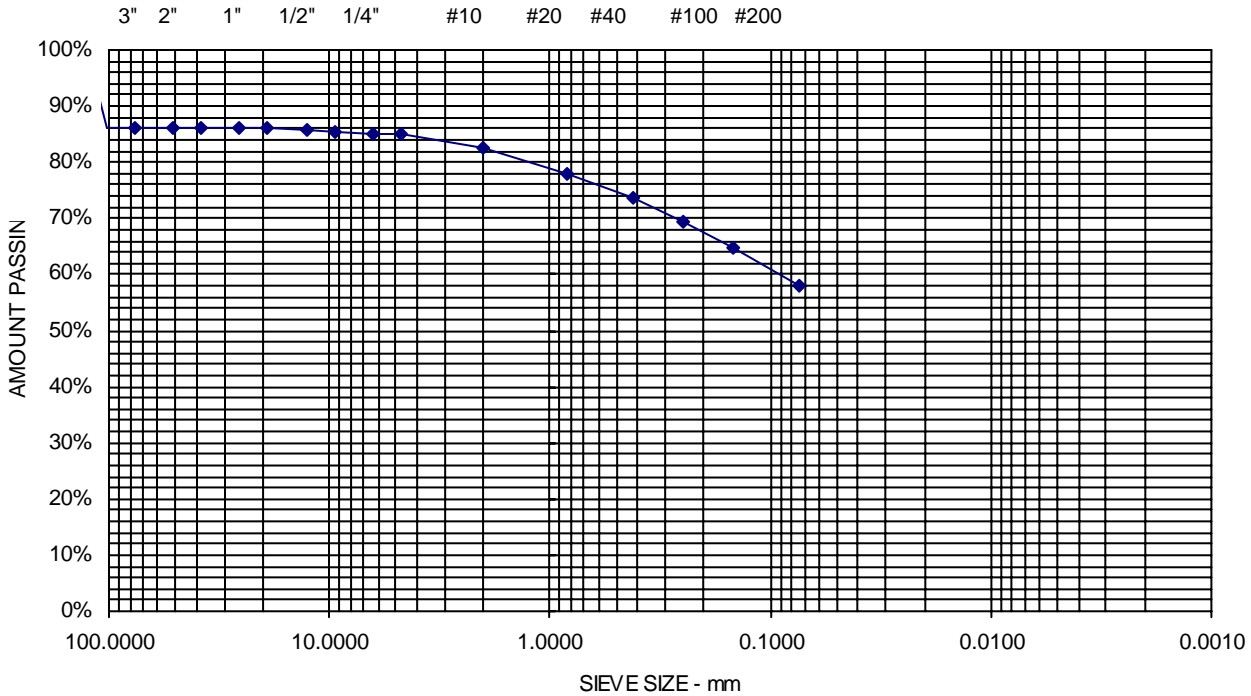
<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	96	
50 mm	2"	88	
38.1 mm	1-1/2"	86	
25.0 mm	1"	84	
19.0 mm	3/4"	84	
12.5 mm	1/2"	83	
9.5 mm	3/8"	82	
6.3 mm	1/4"	81	
4.75 mm	No. 4	79	20.5% Gravel
2.00 mm	No. 10	75	
850 μm	No. 20	69	
425 μm	No. 40	64	30.2% Sand
250 μm	No. 60	60	
150 μm	No. 100	56	
75 μm	No. 200	49.3	49.3% Fines



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Exploration **TP-109**
Material Source **4-4.5'**

Project Number 10-0014.3
Lab ID 8038A
Date Received 11/18/2013
Date Completed 11/26/2013
Tested By TRENTON LUETTICH

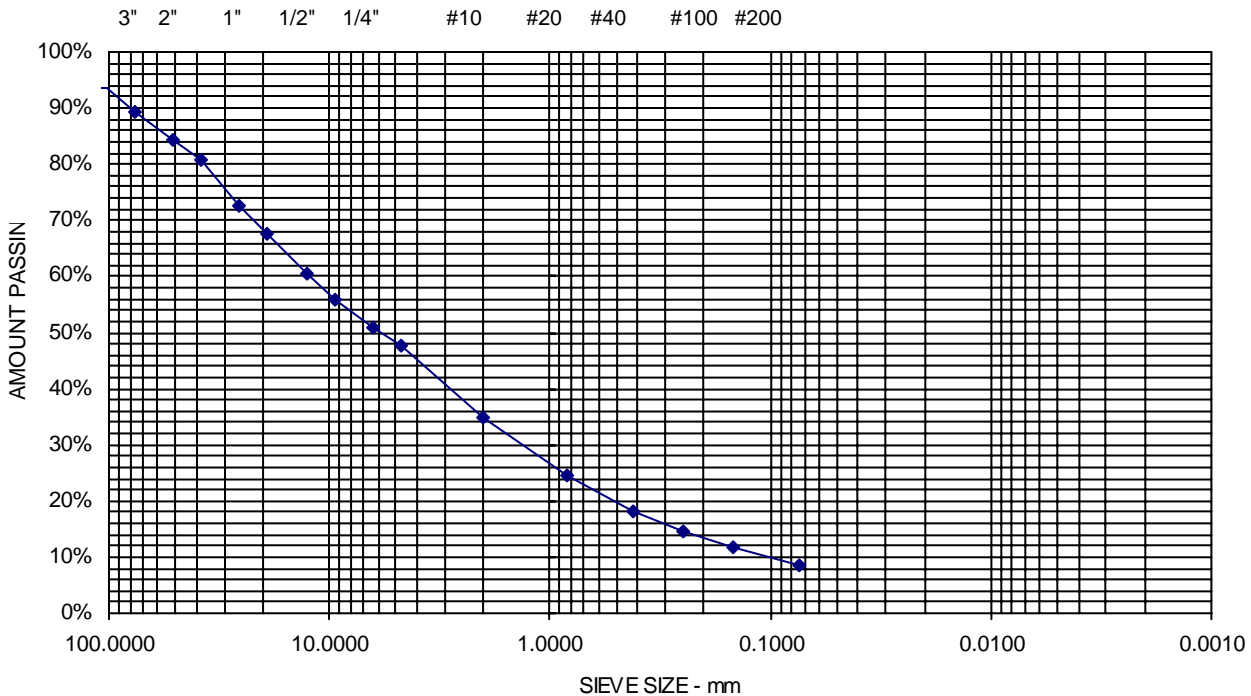
<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	86	
75 mm	3"	86	
50 mm	2"	86	
38.1 mm	1-1/2"	86	
25.0 mm	1"	86	
19.0 mm	3/4"	86	
12.5 mm	1/2"	86	
9.5 mm	3/8"	85	
6.3 mm	1/4"	85	
4.75 mm	No. 4	85	15.1% Gravel
2.00 mm	No. 10	82	
850 μm	No. 20	78	
425 μm	No. 40	74	27.1% Sand
250 μm	No. 60	69	
150 μm	No. 100	65	
75 μm	No. 200	57.8	57.8% Fines



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Exploration **TP-120**
Material Source **3-4'**

Project Number 10-0014.3
Lab ID 8039A
Date Received 11/18/2013
Date Completed 11/21/2013
Tested By TRENTON LUETTICH

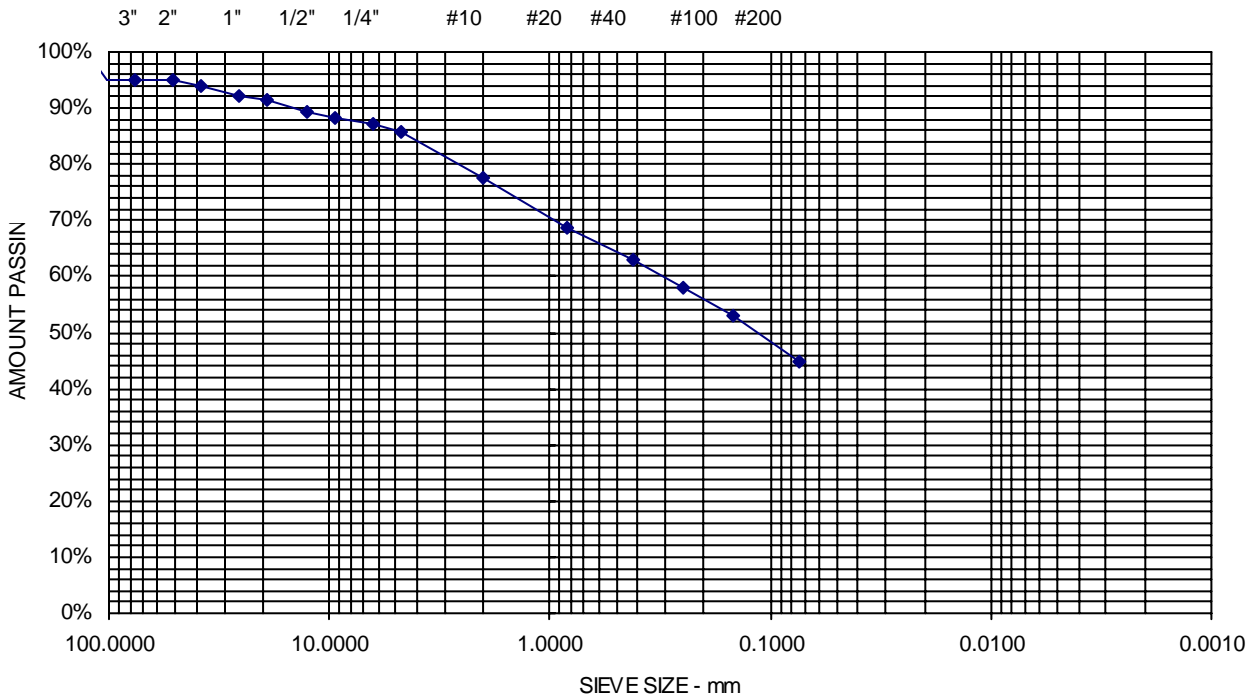
<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	94	
100 mm	4"	94	
75 mm	3"	89	
50 mm	2"	84	
38.1 mm	1-1/2"	81	
25.0 mm	1"	73	
19.0 mm	3/4"	68	
12.5 mm	1/2"	61	
9.5 mm	3/8"	56	
6.3 mm	1/4"	51	
4.75 mm	No. 4	48	52.5% Gravel
2.00 mm	No. 10	35	
850 μm	No. 20	24	
425 μm	No. 40	18	39% Sand
250 μm	No. 60	15	
150 μm	No. 100	12	
75 μm	No. 200	8.5	8.5% Fines



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Exploration **TP-128**
Material Source **3-4'**

Project Number 10-0014.3
Lab ID 8040A
Date Received 11/18/2013
Date Completed 11/22/2013
Tested By TAMMY HOPKINS

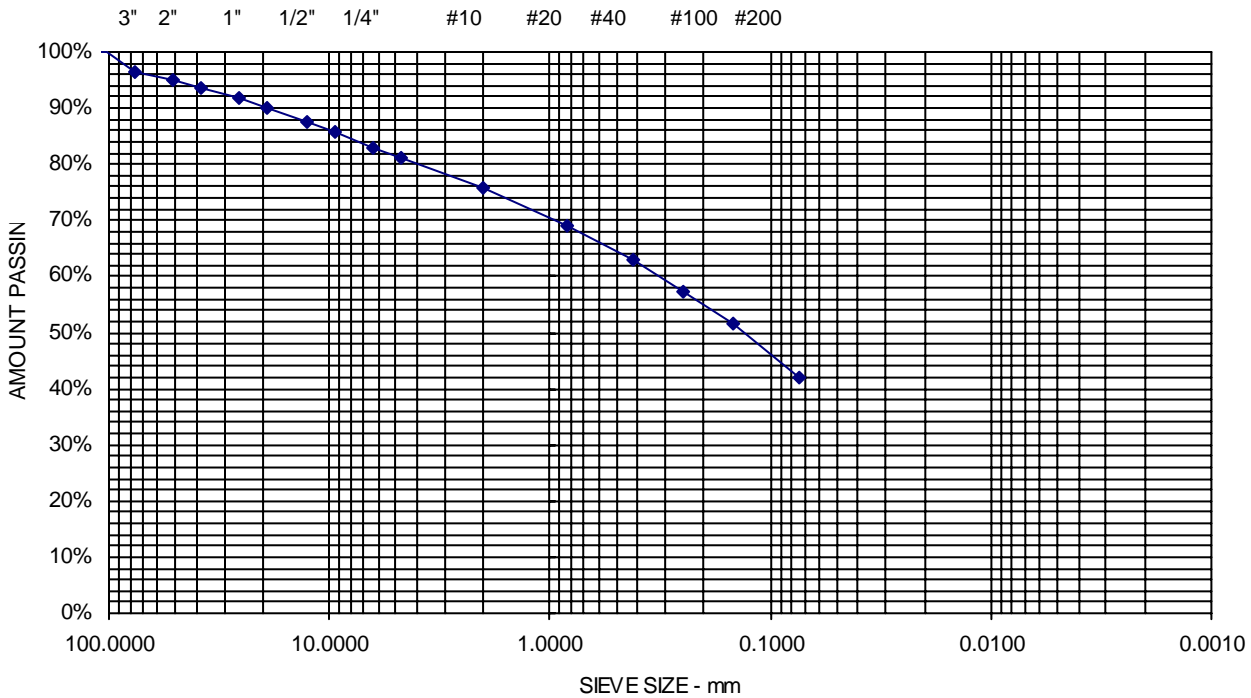
<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	95	
75 mm	3"	95	
50 mm	2"	95	
38.1 mm	1-1/2"	94	
25.0 mm	1"	92	
19.0 mm	3/4"	91	
12.5 mm	1/2"	89	
9.5 mm	3/8"	88	
6.3 mm	1/4"	87	
4.75 mm	No. 4	86	14.1% Gravel
2.00 mm	No. 10	78	
850 μm	No. 20	69	
425 μm	No. 40	63	41% Sand
250 μm	No. 60	58	
150 μm	No. 100	53	
75 μm	No. 200	44.8	44.8% Fines



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Exploration **TP-129**
Material Source **4-5'**

Project Number 10-0014.3
Lab ID 8041A
Date Received 11/18/2013
Date Completed 11/25/2013
Tested By JONATHAN MORGAN

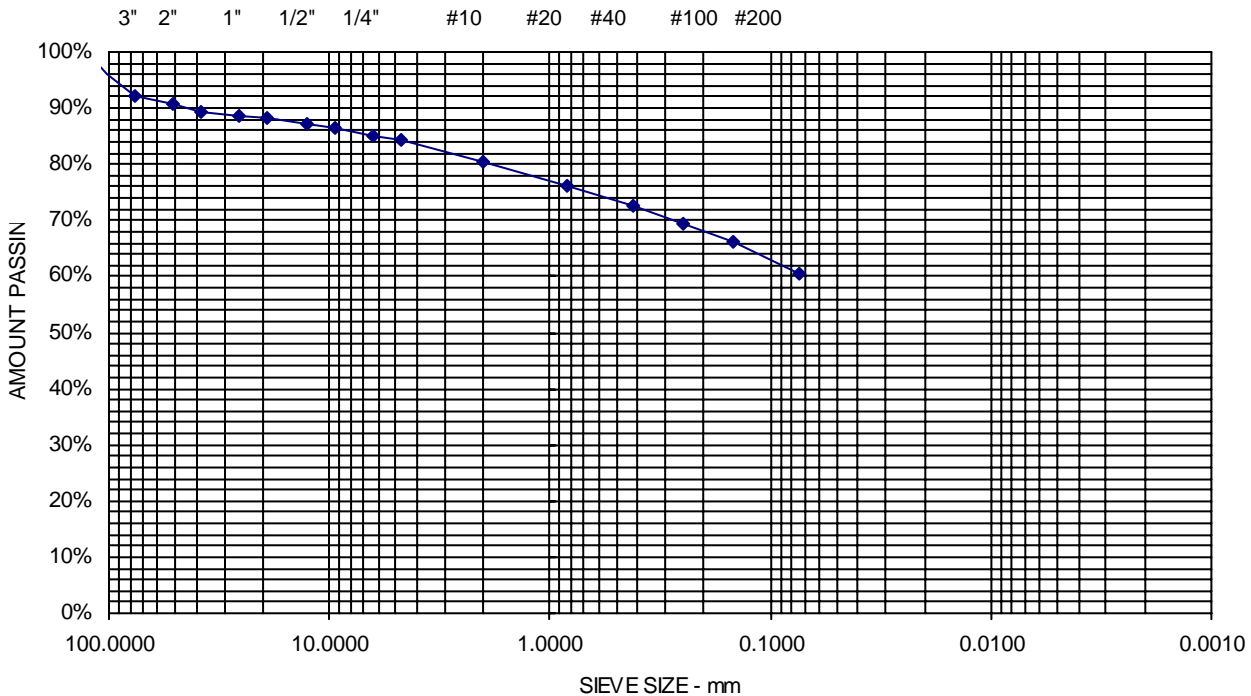
<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	96	
50 mm	2"	95	
38.1 mm	1-1/2"	94	
25.0 mm	1"	92	
19.0 mm	3/4"	90	
12.5 mm	1/2"	88	
9.5 mm	3/8"	86	
6.3 mm	1/4"	83	
4.75 mm	No. 4	81	18.7% Gravel
2.00 mm	No. 10	76	
850 μm	No. 20	69	
425 μm	No. 40	63	39.3% Sand
250 μm	No. 60	57	
150 μm	No. 100	51	
75 μm	No. 200	42.0	42% Fines



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Exploration **TP-141**
Material Source **6-8'**

Project Number 10-0014.3
Lab ID 8032A
Date Received 11/18/2013
Date Completed 11/25/2013
Tested By TAMMY HOPKINS

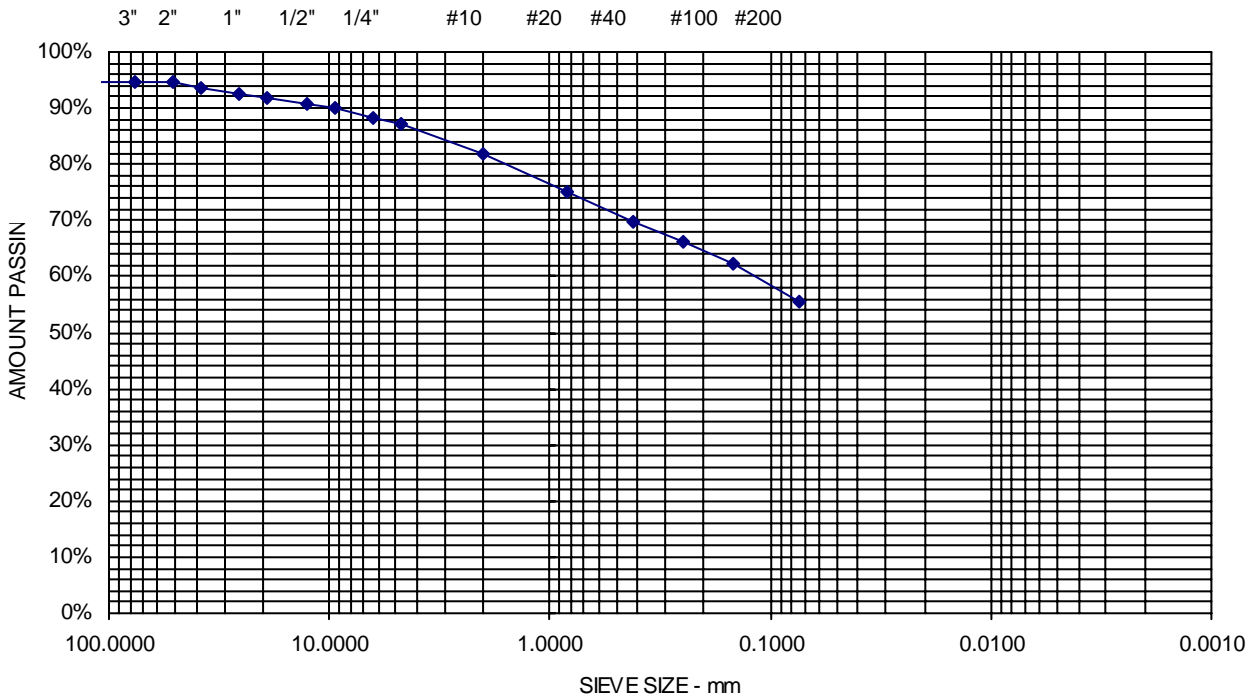
<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	96	
75 mm	3"	92	
50 mm	2"	91	
38.1 mm	1-1/2"	89	
25.0 mm	1"	89	
19.0 mm	3/4"	88	
12.5 mm	1/2"	87	
9.5 mm	3/8"	87	
6.3 mm	1/4"	85	
4.75 mm	No. 4	84	15.5% Gravel
2.00 mm	No. 10	81	
850 μm	No. 20	76	
425 μm	No. 40	73	23.9% Sand
250 μm	No. 60	70	
150 μm	No. 100	66	
75 μm	No. 200	60.5	60.5% Fines



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Exploration **TP-144**
Material Source **4-6'**

Project Number 10-0014.3
Lab ID 8033A
Date Received 11/18/2013
Date Completed 11/20/2013
Tested By TAMMY HOPKINS

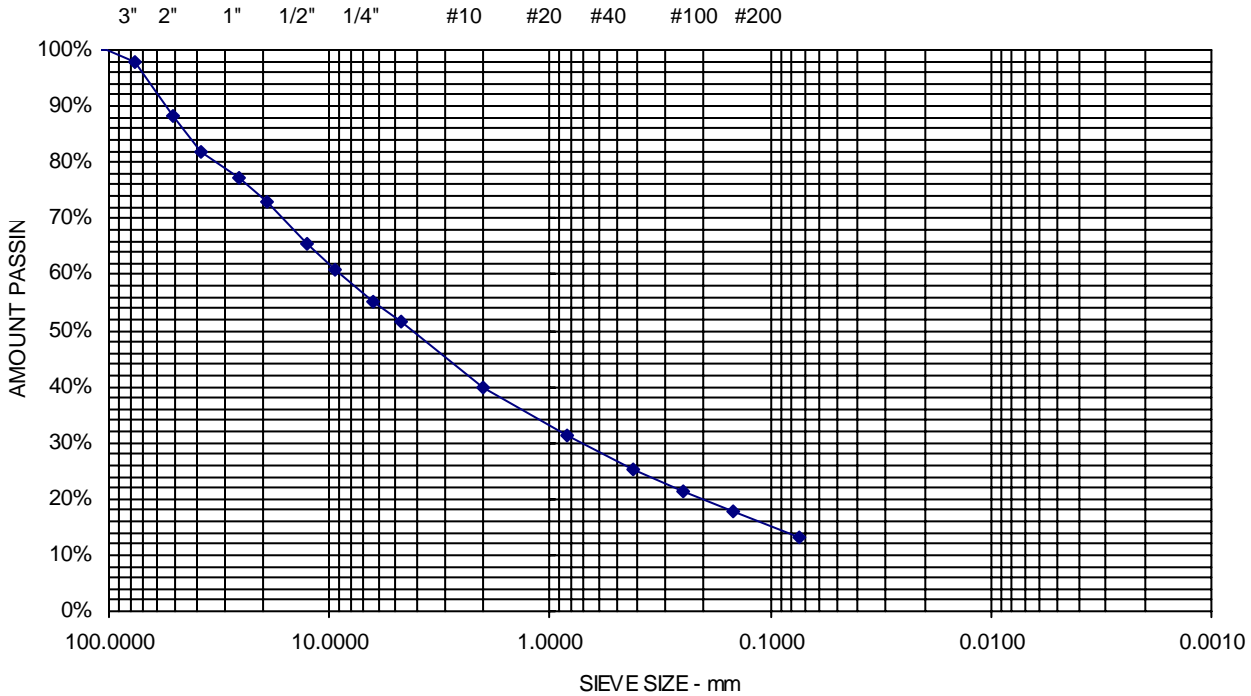
<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	95	
100 mm	4"	95	
75 mm	3"	95	
50 mm	2"	95	
38.1 mm	1-1/2"	94	
25.0 mm	1"	92	
19.0 mm	3/4"	92	
12.5 mm	1/2"	91	
9.5 mm	3/8"	90	
6.3 mm	1/4"	88	
4.75 mm	No. 4	87	12.7% Gravel
2.00 mm	No. 10	82	
850 μm	No. 20	75	
425 μm	No. 40	70	31.9% Sand
250 μm	No. 60	66	
150 μm	No. 100	62	
75 μm	No. 200	55.4	55.4% Fines



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Exploration **TP-154**
Material Source **5-6.5'**

Project Number 10-0014.3
Lab ID 8034A
Date Received 11/18/2013
Date Completed 11/25/2013
Tested By TAMMY HOPKINS

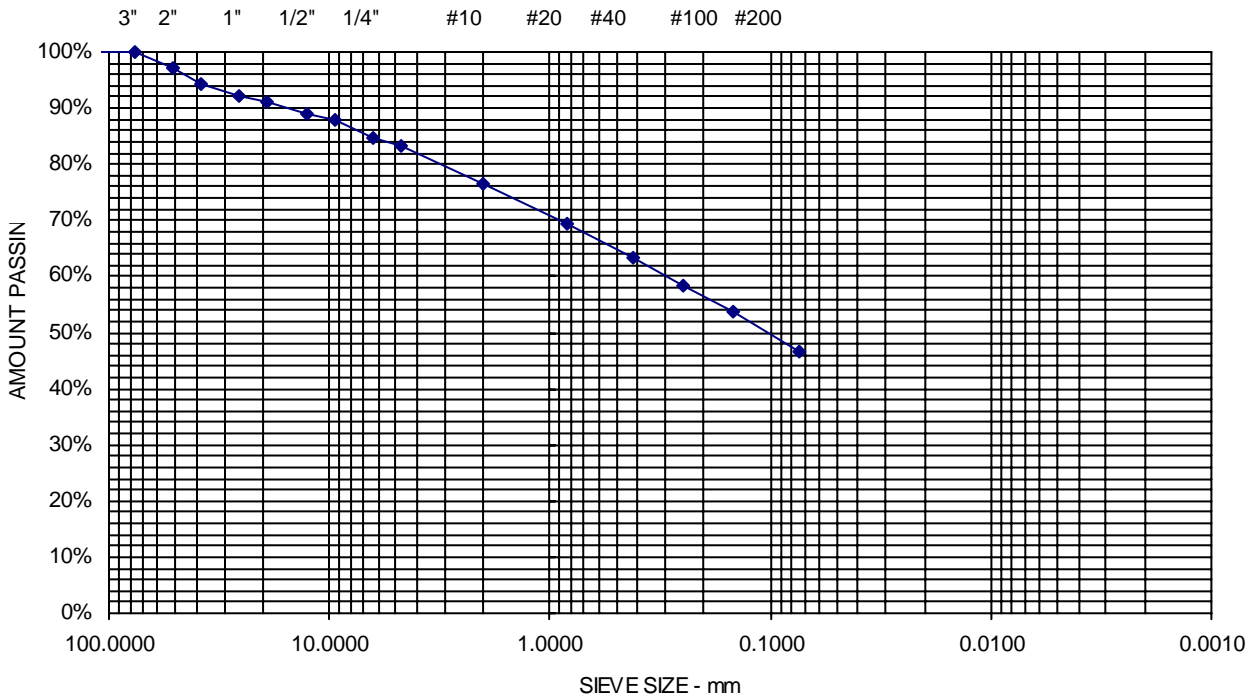
<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	98	
50 mm	2"	88	
38.1 mm	1-1/2"	82	
25.0 mm	1"	77	
19.0 mm	3/4"	73	
12.5 mm	1/2"	65	
9.5 mm	3/8"	61	
6.3 mm	1/4"	55	
4.75 mm	No. 4	51	48.6% Gravel
2.00 mm	No. 10	40	
850 μm	No. 20	31	
425 μm	No. 40	25	38.3% Sand
250 μm	No. 60	21	
150 μm	No. 100	18	
75 μm	No. 200	13.2	13.2% Fines



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Exploration **TP-159**
Material Source **5-6'**

Project Number 10-0014.3
Lab ID 8035A
Date Received 11/18/2013
Date Completed 11/20/2013
Tested By TAMMY HOPKINS

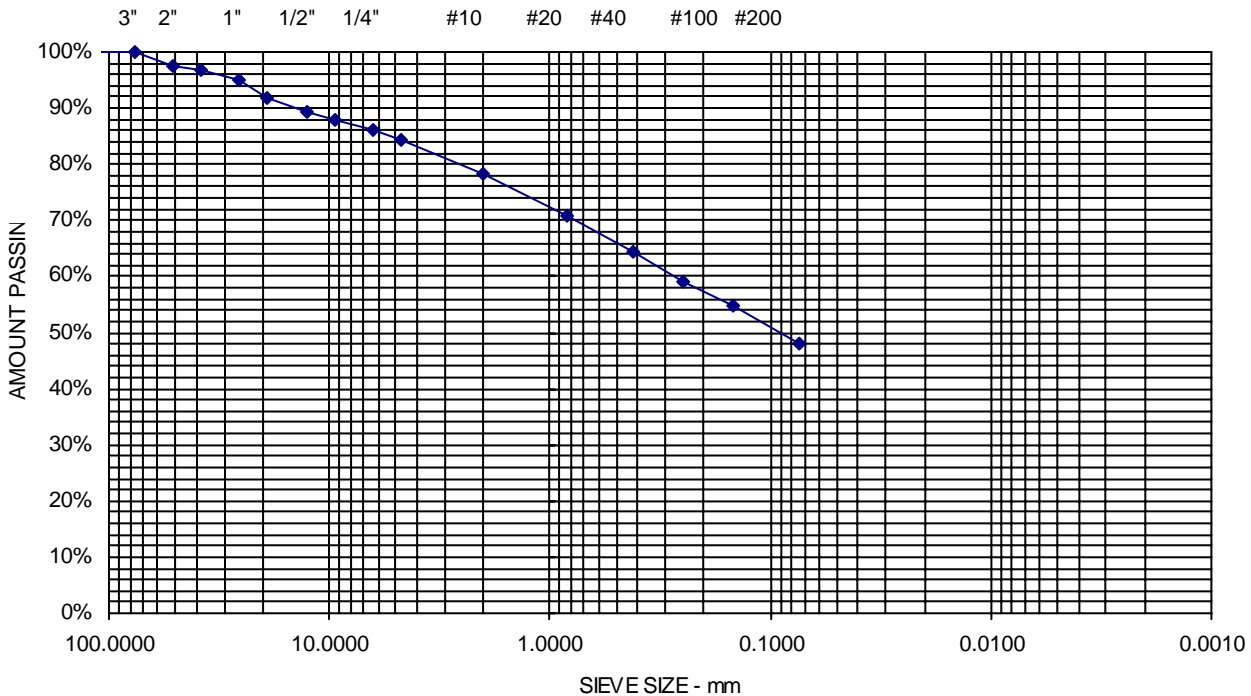
<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	97	
38.1 mm	1-1/2"	94	
25.0 mm	1"	92	
19.0 mm	3/4"	91	
12.5 mm	1/2"	89	
9.5 mm	3/8"	88	
6.3 mm	1/4"	85	
4.75 mm	No. 4	83	16.8% Gravel
2.00 mm	No. 10	76	
850 μm	No. 20	69	
425 μm	No. 40	63	36.7% Sand
250 μm	No. 60	58	
150 μm	No. 100	54	
75 μm	No. 200	46.5	46.5% Fines



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Exploration **TP-161**
Material Source **10-12'**

Project Number 10-0014.3
Lab ID 8036A
Date Received 11/18/2013
Date Completed 11/21/2013
Tested By TRENTON LUETTICH

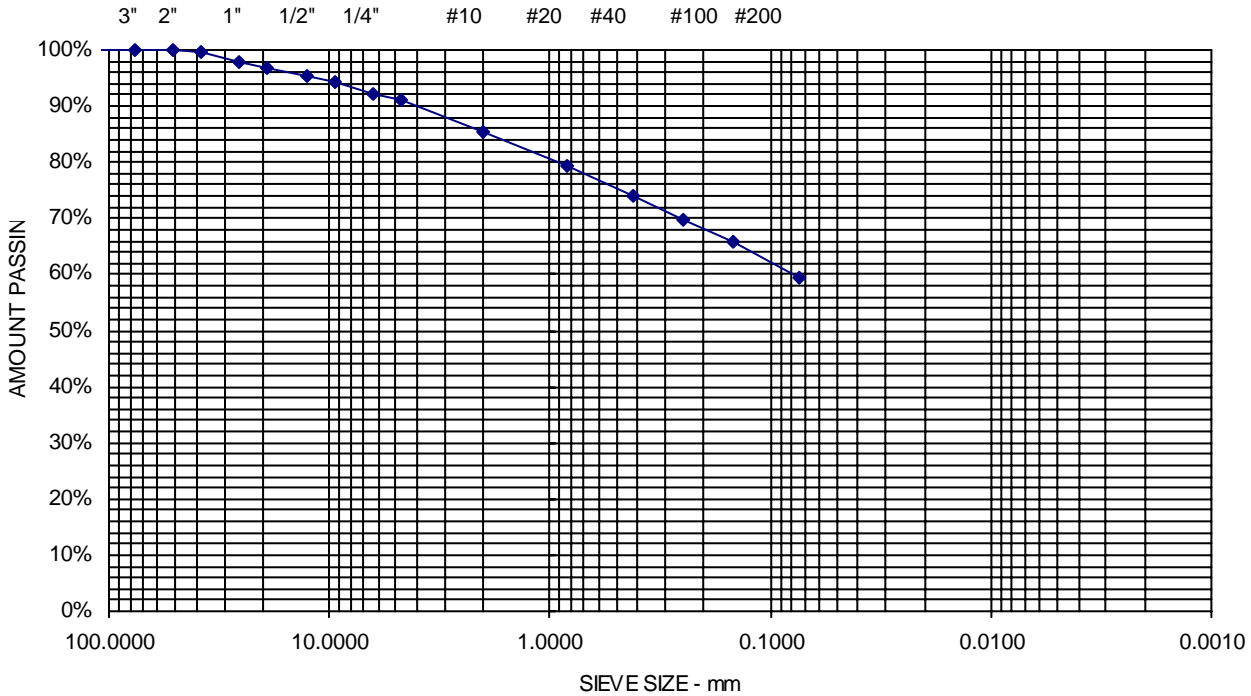
<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	97	
38.1 mm	1-1/2"	97	
25.0 mm	1"	95	
19.0 mm	3/4"	92	
12.5 mm	1/2"	89	
9.5 mm	3/8"	88	
6.3 mm	1/4"	86	
4.75 mm	No. 4	84	15.6% Gravel
2.00 mm	No. 10	78	
850 μm	No. 20	71	
425 μm	No. 40	64	36.2% Sand
250 μm	No. 60	59	
150 μm	No. 100	55	
75 μm	No. 200	48.2	48.2% Fines



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Exploration **TP-168**
Material Source **3.5' - 5.5'**

Project Number 10-0014.3
Lab ID 8059A
Date Received 12/3/2013
Date Completed 12/5/2013
Tested By BRANDON CHAPUT

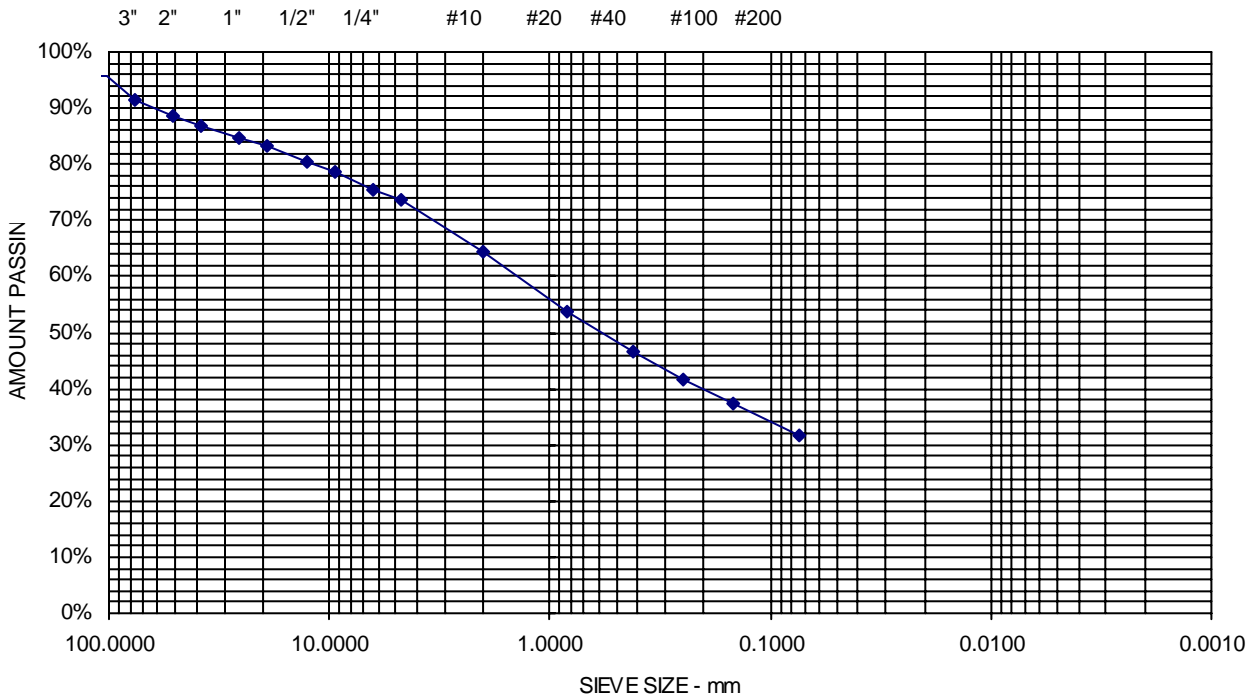
<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	98	
19.0 mm	3/4"	97	
12.5 mm	1/2"	95	
9.5 mm	3/8"	94	
6.3 mm	1/4"	92	
4.75 mm	No. 4	91	9% Gravel
2.00 mm	No. 10	85	
850 μm	No. 20	79	
425 μm	No. 40	74	31.5% Sand
250 μm	No. 60	70	
150 μm	No. 100	66	
75 μm	No. 200	59.5	59.5% Fines



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Exploration **TP-175**
Material Source **3' - 6.7'**

Project Number 10-0014.3
Lab ID 8060A
Date Received 12/3/2013
Date Completed 12/5/2013
Tested By JONATHAN MORGAN

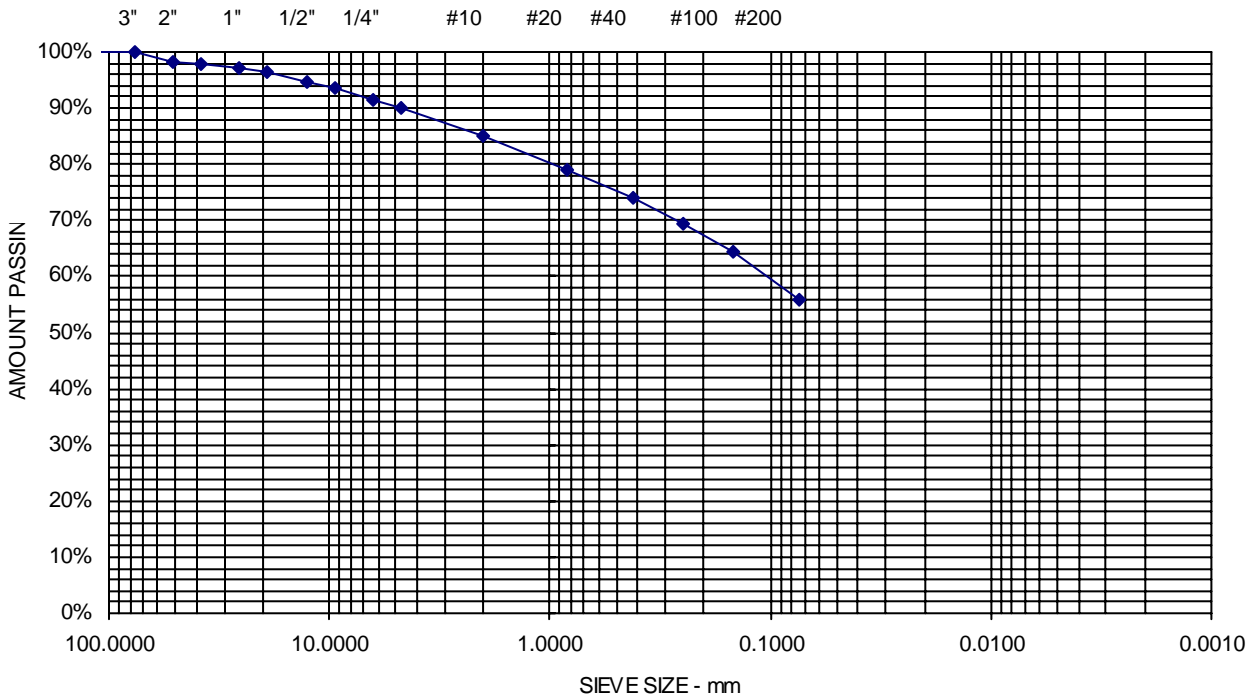
<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	96	
125 mm	5"	96	
100 mm	4"	96	
75 mm	3"	91	
50 mm	2"	89	
38.1 mm	1-1/2"	87	
25.0 mm	1"	85	
19.0 mm	3/4"	83	
12.5 mm	1/2"	81	
9.5 mm	3/8"	79	
6.3 mm	1/4"	76	
4.75 mm	No. 4	74	26.4% Gravel
2.00 mm	No. 10	64	
850 μm	No. 20	54	
425 μm	No. 40	47	41.9% Sand
250 μm	No. 60	42	
150 μm	No. 100	37	
75 μm	No. 200	31.7	31.7% Fines



Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Exploration **TP-178**
Material Source **4- 6'**

Project Number 10-0014.3
Lab ID 8061A
Date Received 12/3/2013
Date Completed 12/5/2013
Tested By BRANDON CHAPUT

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	98	
38.1 mm	1-1/2"	98	
25.0 mm	1"	97	
19.0 mm	3/4"	97	
12.5 mm	1/2"	95	
9.5 mm	3/8"	94	
6.3 mm	1/4"	91	
4.75 mm	No. 4	90	9.9% Gravel
2.00 mm	No. 10	85	
850 μm	No. 20	79	
425 μm	No. 40	74	34.4% Sand
250 μm	No. 60	69	
150 μm	No. 100	64	
75 μm	No. 200	55.8	55.8% Fines



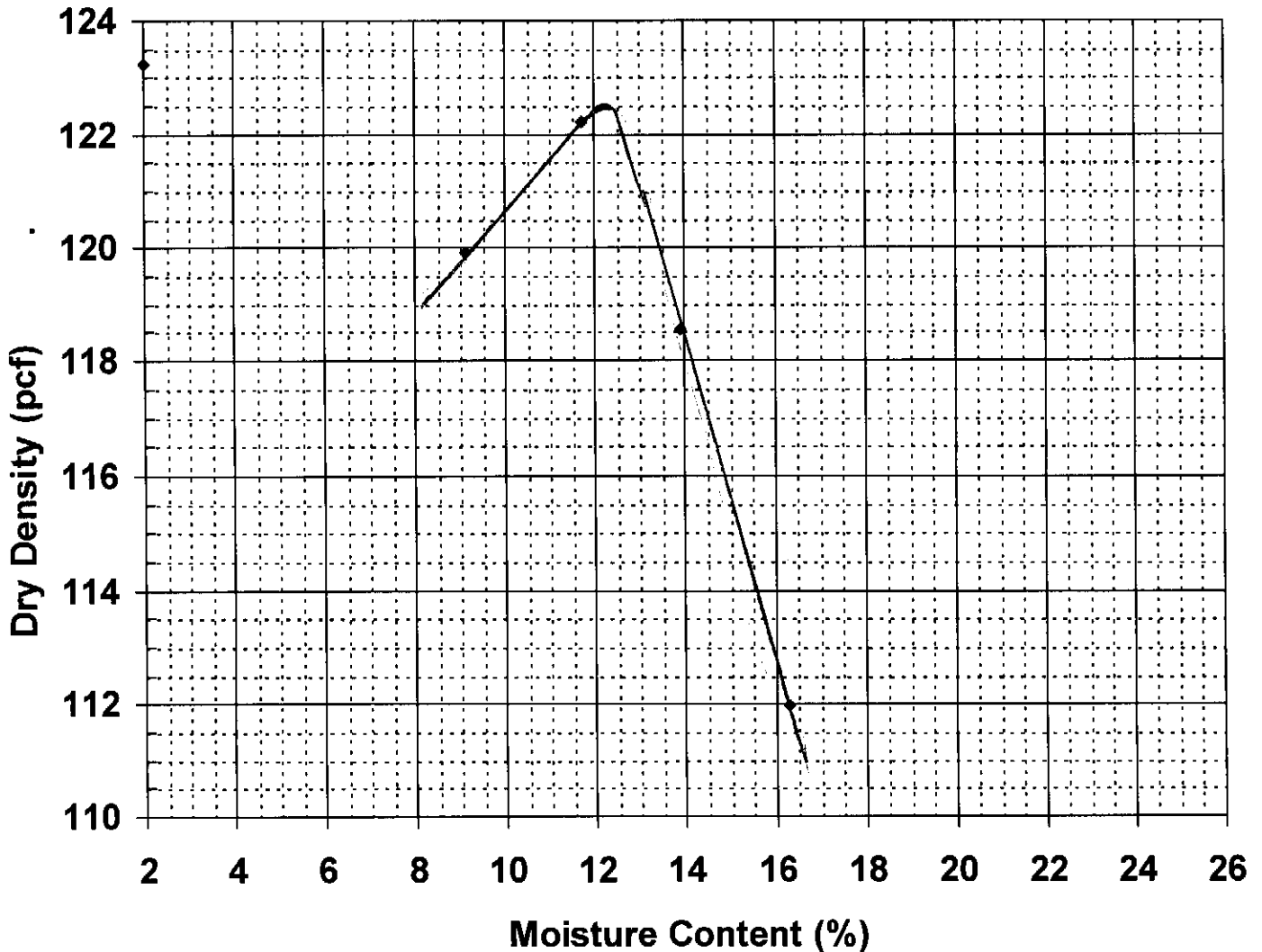
Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure A

Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER
PROJECT - PRELIMINARY GEOTECHNICAL SERVICES
Client REED & REED, INC.
Material Type
Material Source TP-1 S-1 TURBINE 28

Project Number 10-0014.2
Lab ID 16135G
Date Received 11/13/2012
Date Completed 11/20/2012
Tested By JUSTIN BROWN

Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 122.5
Optimum Moisture Content (%) 12.4
Percent Oversized 11.0%

Corrected Dry Density (pcf) **125.5**
Corrected Moisture Content (%) **11.3**

Comments


Roger E. Domingo

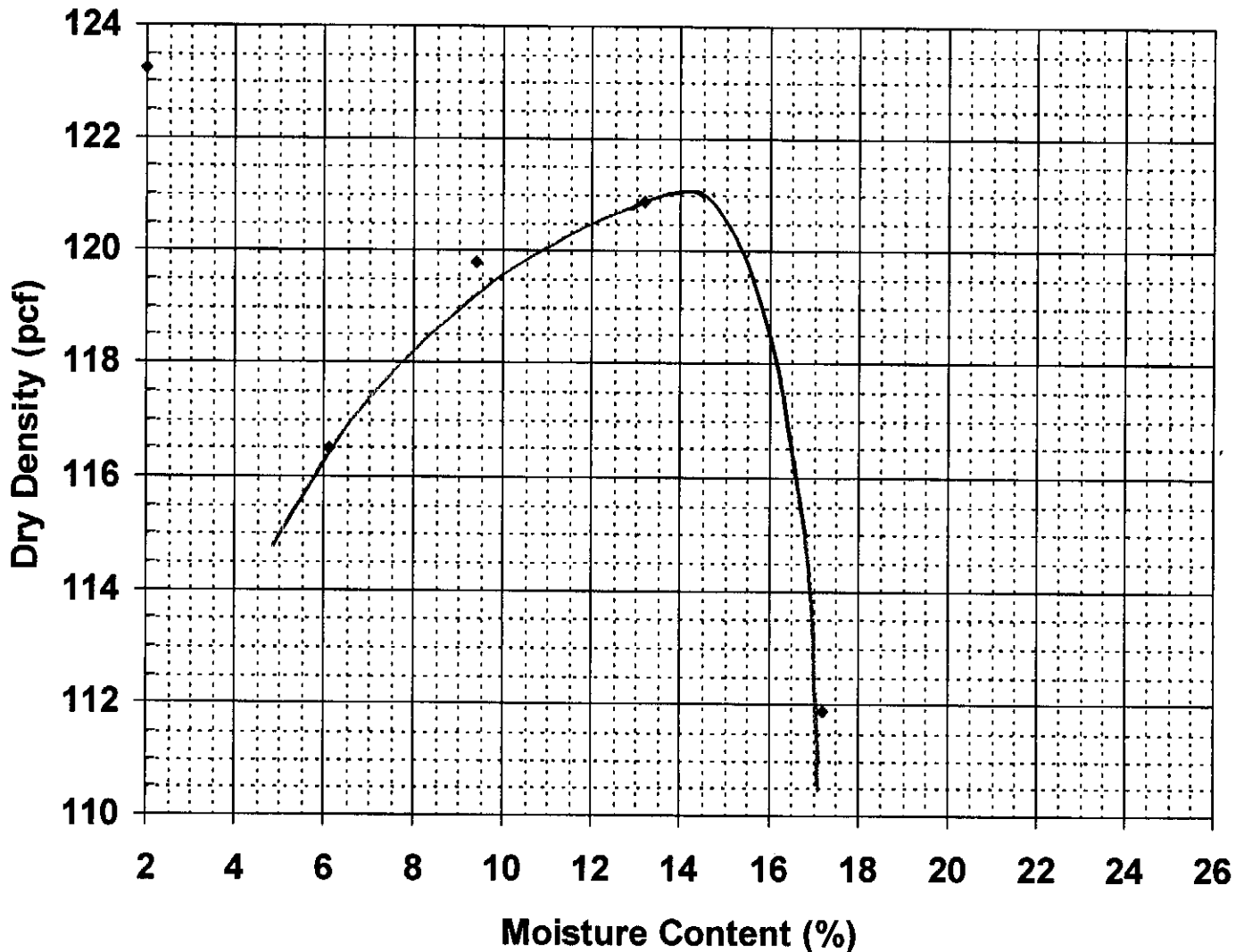
Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure A

Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER
PROJECT - PRELIMINARY GEOTECHNICAL SERVICES
Client REED & REED, INC.
Material Type
Material Source TP-2 S-1 SUBSTATION

Project Number 10-0014.2
Lab ID 16133G
Date Received 11/13/2012
Date Completed 11/16/2012
Tested By VAN TERRELL, JR.

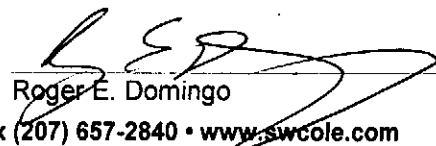
Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 121
Optimum Moisture Content (%) 14.5
Percent Oversized 8.2%

Corrected Dry Density (pcf) **123.3**
Corrected Moisture Content (%) **13.5**

Comments

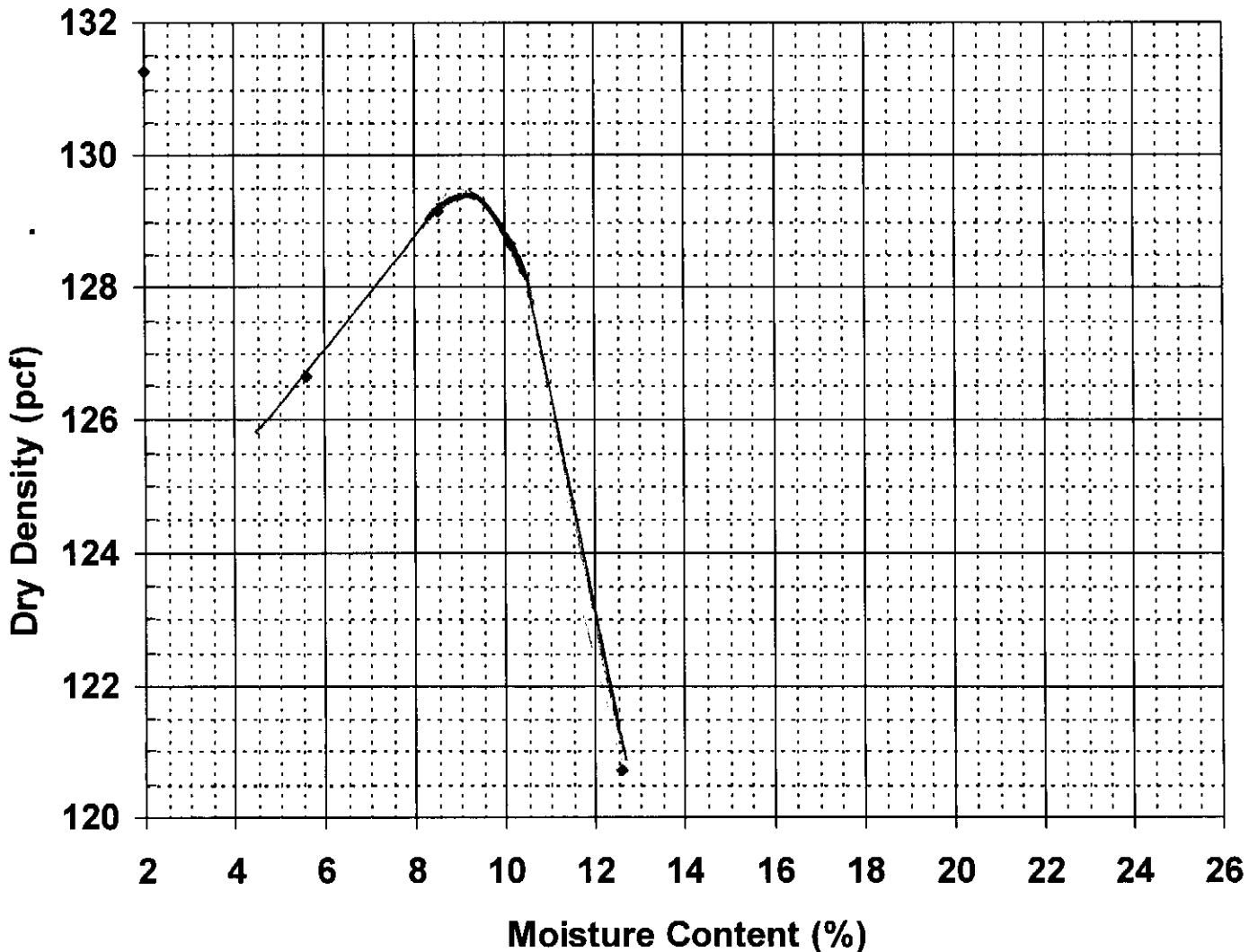


Roger E. Domingo

Project Name BINGHAM ME - PROPOSED BLUE SKY WEST POWER
PROJECT - PRELIMINARY GEOTECHNICAL SERVICES
Client REED & REED, INC.
Material Type
Material Source TP-9 S-1 TURBINE 14

Project Number 10-0014.2
Lab ID 16134G
Date Received 11/13/2012
Date Completed 11/20/2012
Tested By JUSTIN BROWN

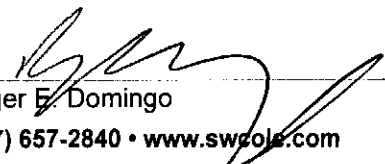
Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 129.5
Optimum Moisture Content (%) 9.2
Percent Oversized 12.0%

Corrected Dry Density (pcf) **132.3**
Corrected Moisture Content (%) **8.3**

Comments



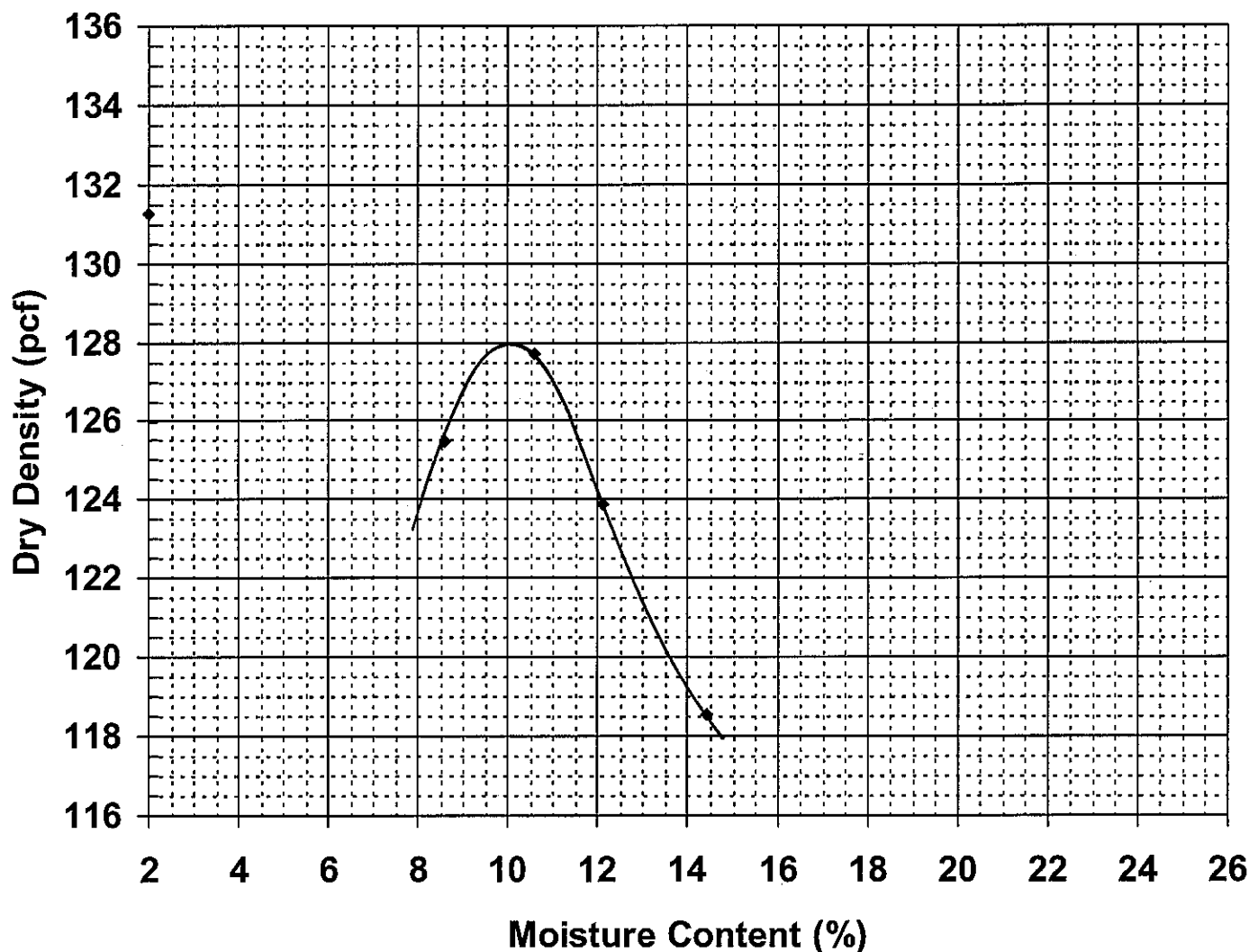
Roger E. Domingo

Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure B

Project Name	BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT - GEOTECHNICAL ENGINEERING SERVICES	Project Number	10-0014.3
Client	REED & REED, INC.	Lab ID	8037A
Material Type	TILL	Date Received	11/18/2013
Material Source	4-6' (TP-104 (5-6') & TP-105 (4-5'))	Date Completed	11/26/2013
		Tested By	TAMMY HOPKINS

Moisture-Density Relationship Curve



Maximum Dry Density (pcf)	128	<u>Corrected Dry Density (pcf)</u>	<u>132.5</u>
Optimum Moisture Content (%)	10	<u>Corrected Moisture Content (%)</u>	<u>8.5</u>
Percent Oversized	18.2%		

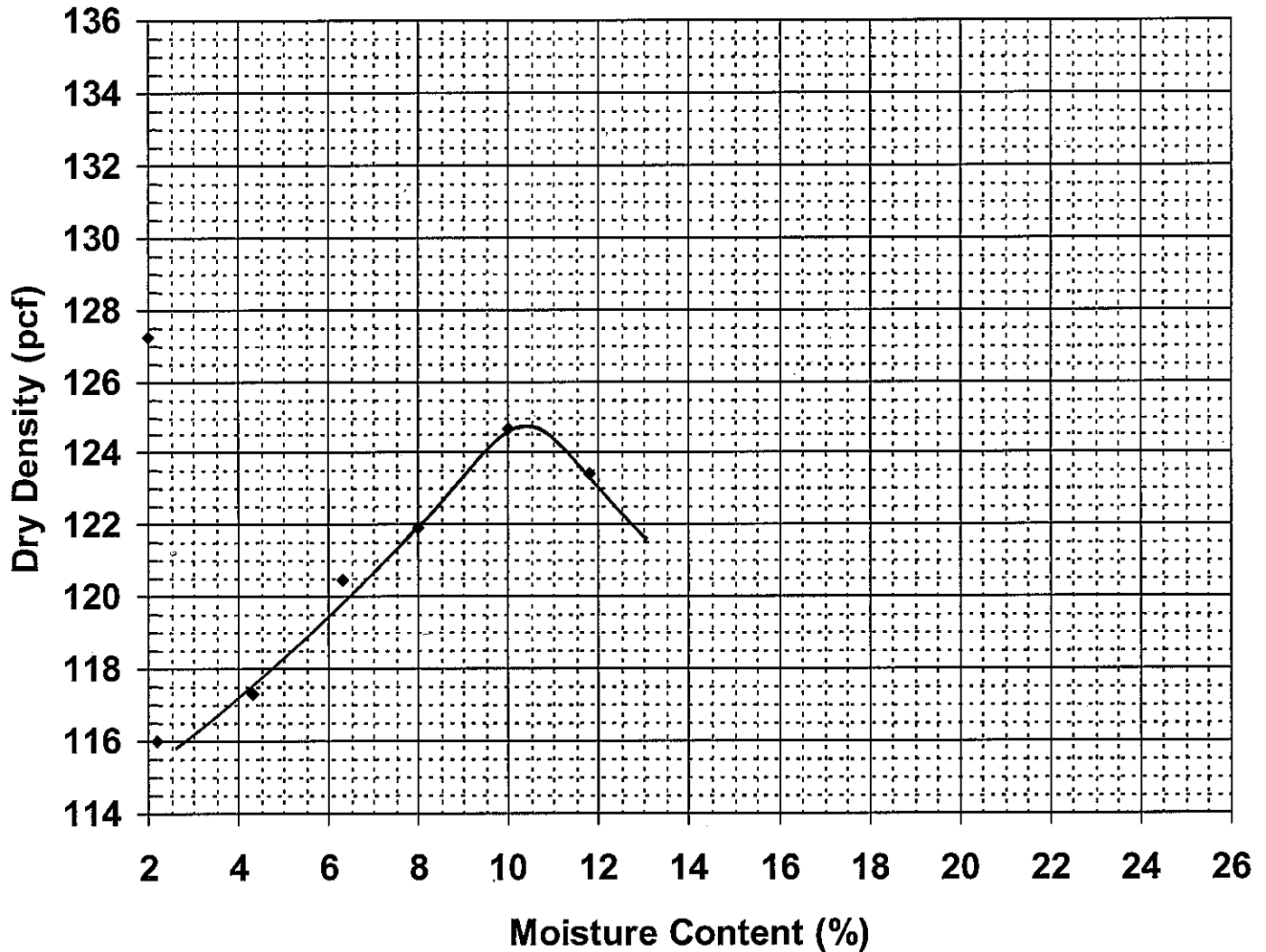
Comments

Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure A

Project Name	BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT - GEOTECHNICAL ENGINEERING SERVICES	Project Number	10-0014.3
Client	REED & REED, INC.	Lab ID	8038A
Material Type	TILL	Date Received	11/18/2013
Material Source	4-4.5' (TP-109)	Date Completed	12/4/2013
		Tested By	NEIL DAVIS

Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 124.7
 Optimum Moisture Content (%) 10.4
 Percent Oversized 15.1%

Corrected Dry Density (pcf) 128.7
Corrected Moisture Content (%) 9.1

Comments

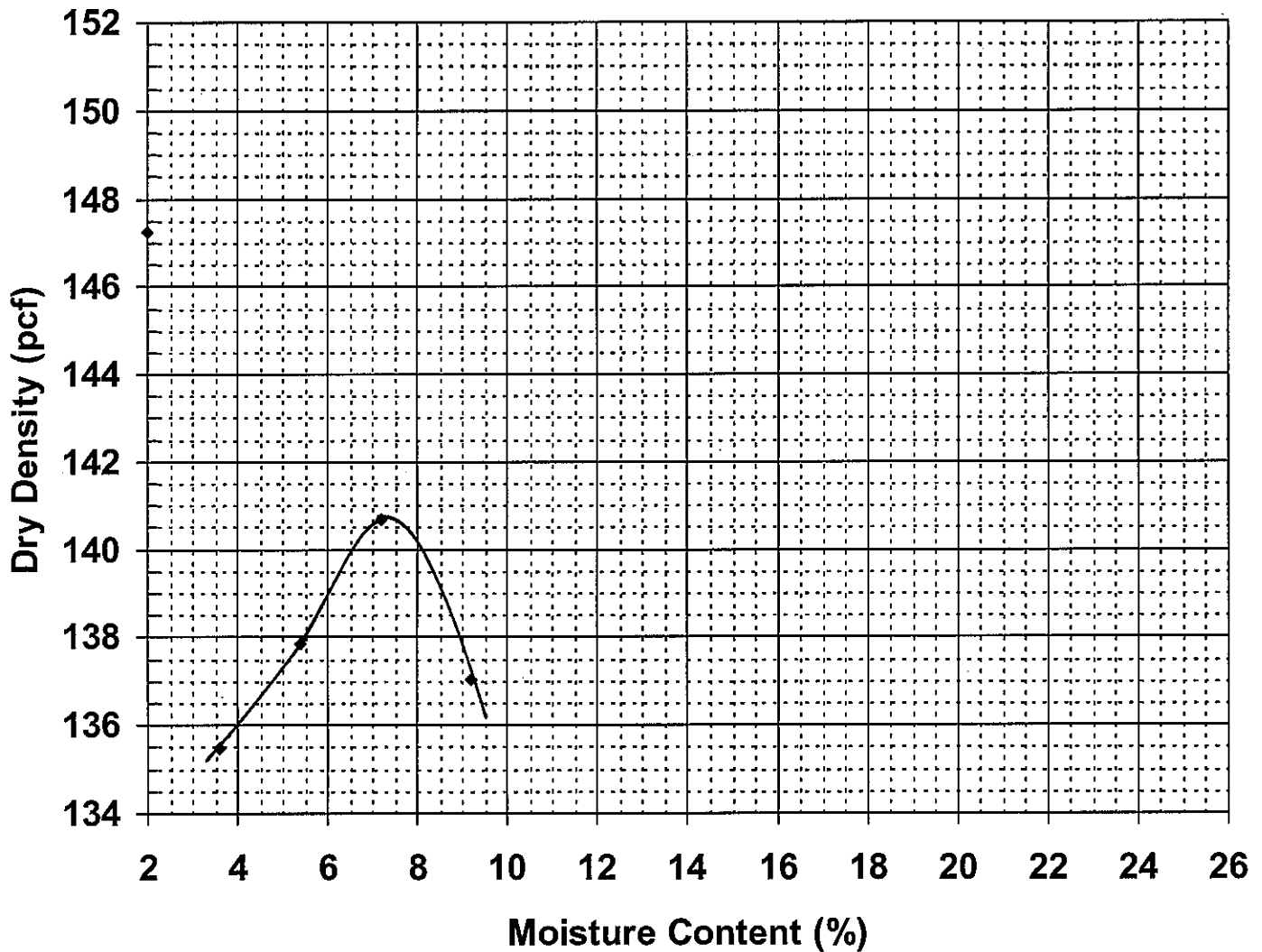
Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure C

Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Material Type SAND & GRAVEL
Material Source 3-4' (TP-120)

Project Number 10-0014.3
Lab ID 8039A
Date Received 11/18/2013
Date Completed 11/25/2013
Tested By TAMMY HOPKINS

Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 140.1
Optimum Moisture Content (%) 7.2
Percent Oversized 30.0%

Corrected Dry Density (pcf) **144.8**
Corrected Moisture Content (%) **5.6**

Comments

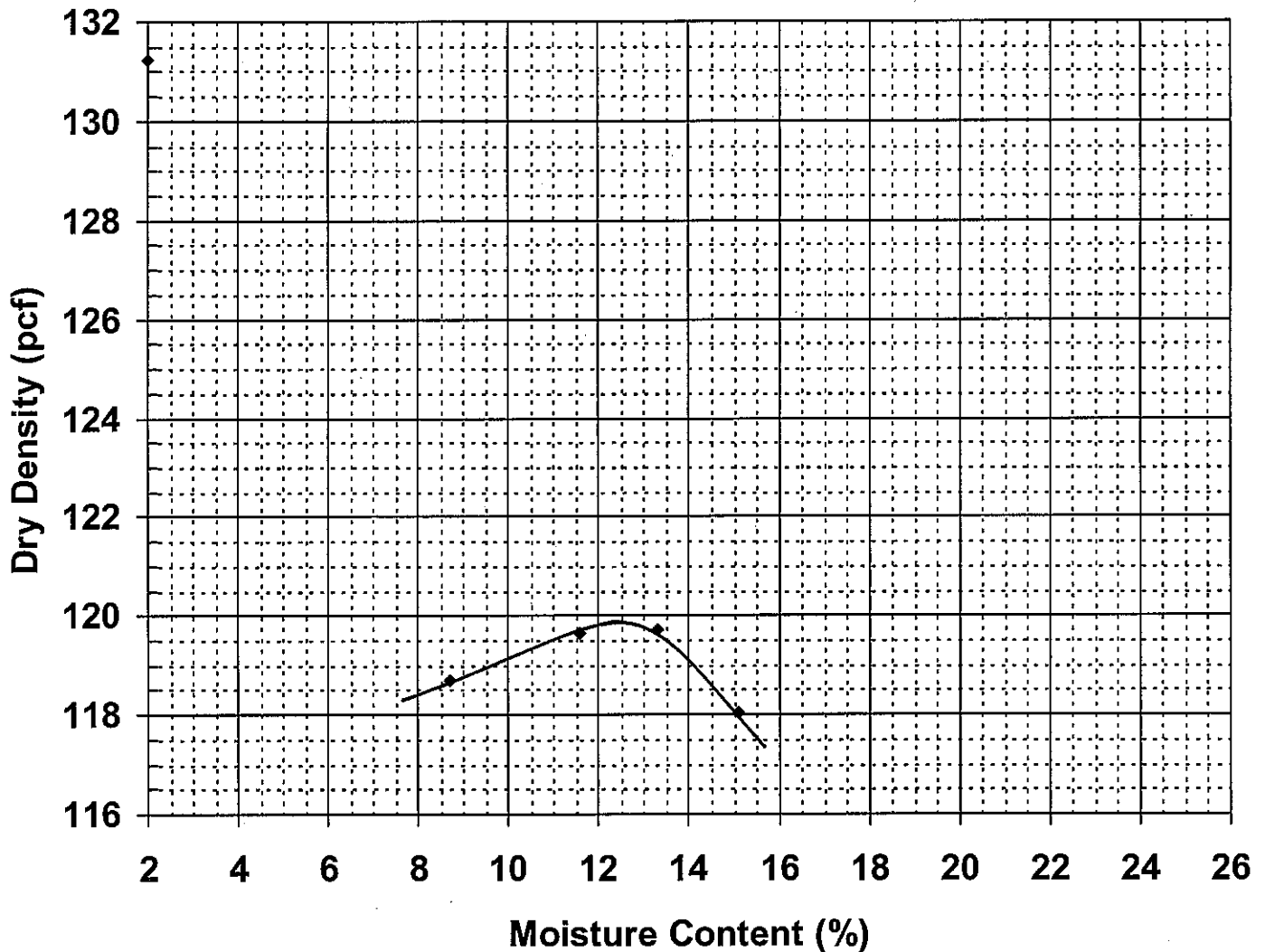
Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure A

Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Material Type TILL
Material Source 3-4' (TP-128)

Project Number 10-0014.3
Lab ID 8040A
Date Received 11/18/2013
Date Completed 12/2/2013
Tested By AARON HIGGINS

Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 119.8
Optimum Moisture Content (%) 12.5
Percent Oversized 14.1%

Corrected Dry Density (pcf) **124**
Corrected Moisture Content (%) **11.0**

Comments

Report of Moisture-Density

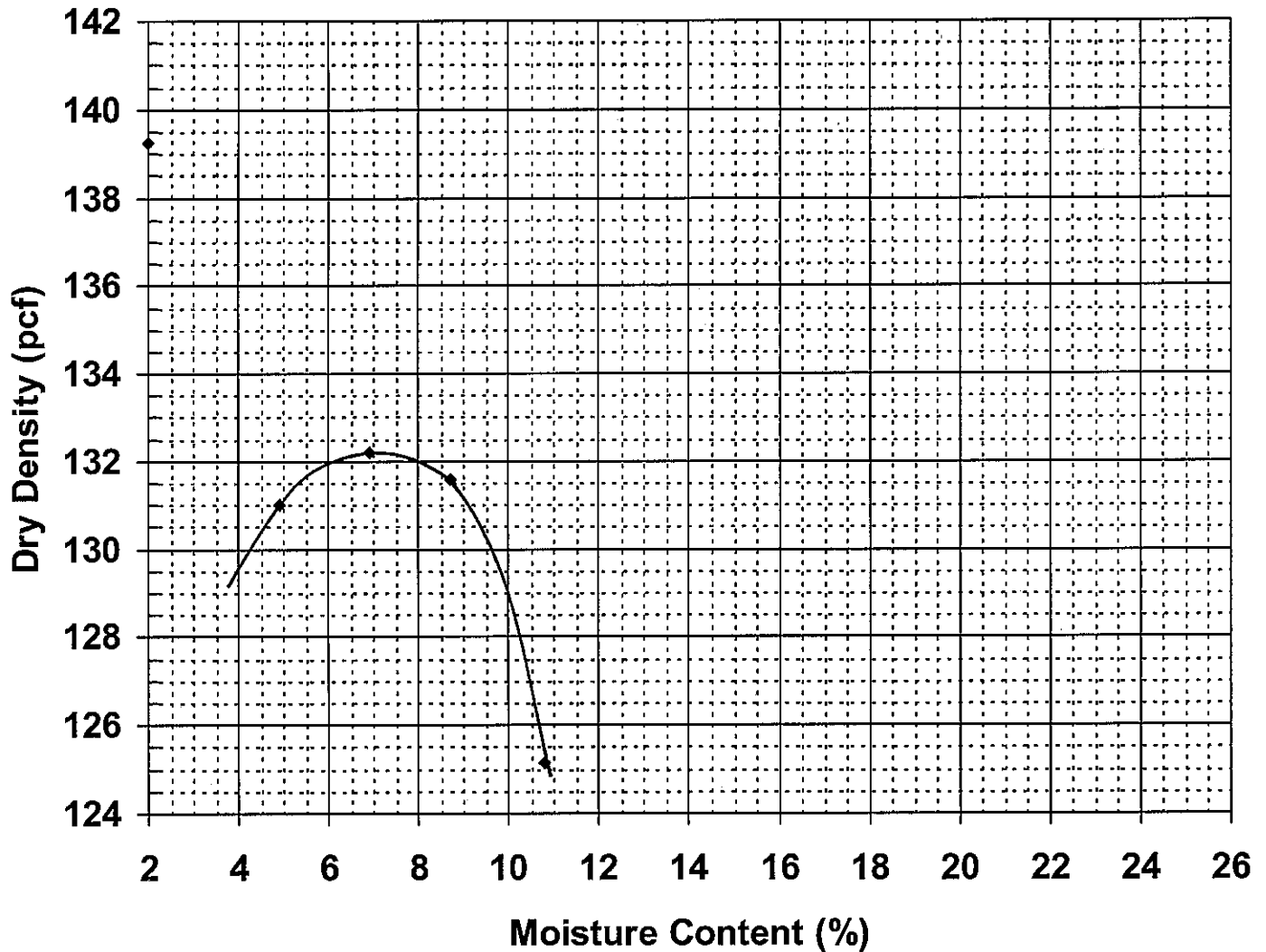
Method ASTM D-1557 MODIFIED

Procedure A

Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Material Type TILL
Material Source 4-5' (TP-129)

Project Number 10-0014.3
Lab ID 8041A
Date Received 11/18/2013
Date Completed 12/2/2013
Tested By TRENTON LUETTICH

Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 132.2
Optimum Moisture Content (%) 6.9
Percent Oversized 18.7%

Corrected Dry Density (pcf) **136.3**
Corrected Moisture Content (%) **6.0**

Comments

Report of Moisture-Density

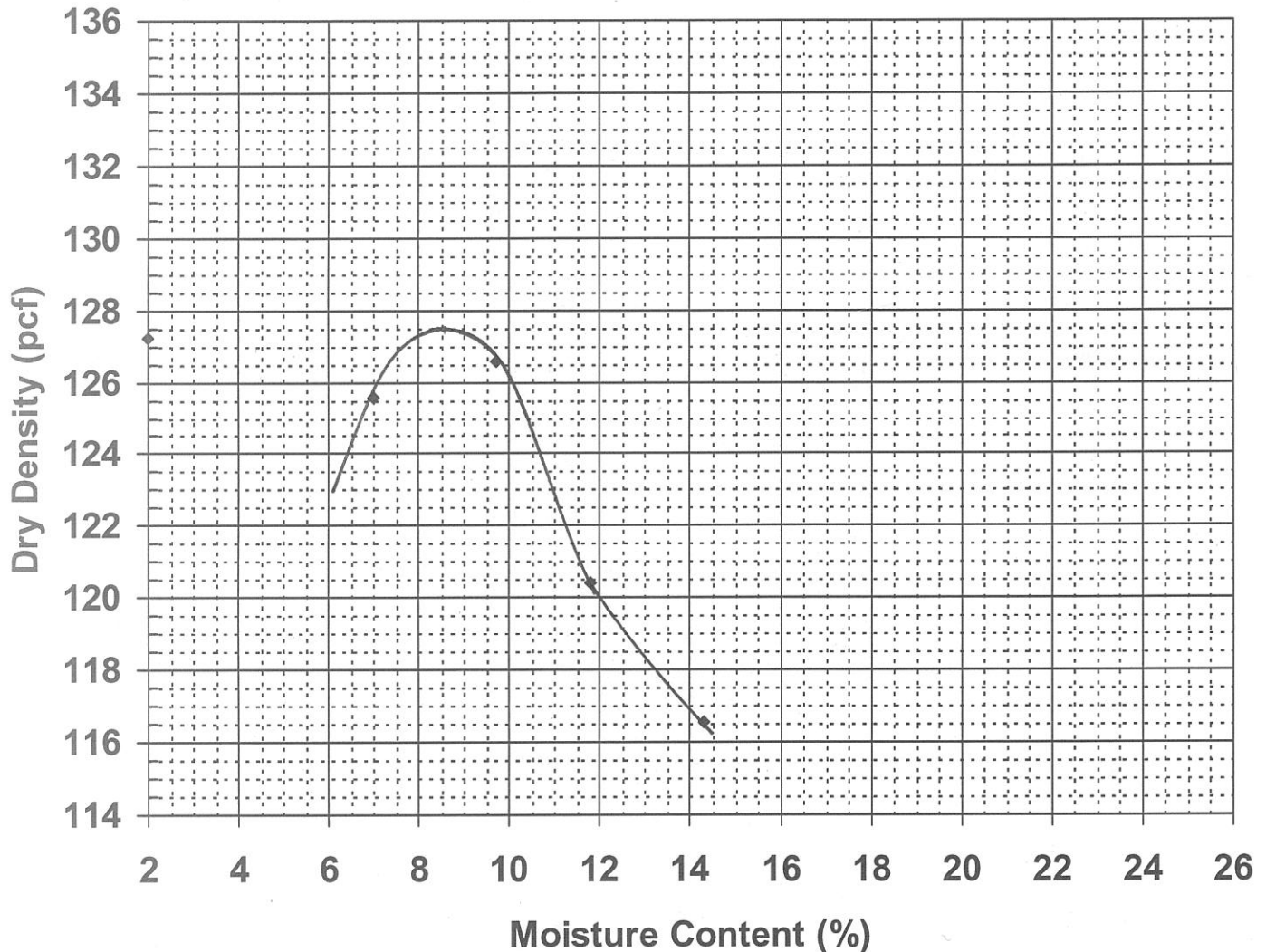
Method ASTM D-1557 MODIFIED

Procedure B

Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Material Type TILL
Material Source 3.5' - 4' (TP-137)

Project Number 10-0014.3
Lab ID 8076A
Date Received 12/13/2013
Date Completed 12/19/2013
Tested By BRANDON CHAPUT

Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 127.5
Optimum Moisture Content (%) 8.5
Percent Oversized 30.0%

Corrected Dry Density (pcf) **127.5**

Corrected Moisture Content (%) **8.5**

Comments



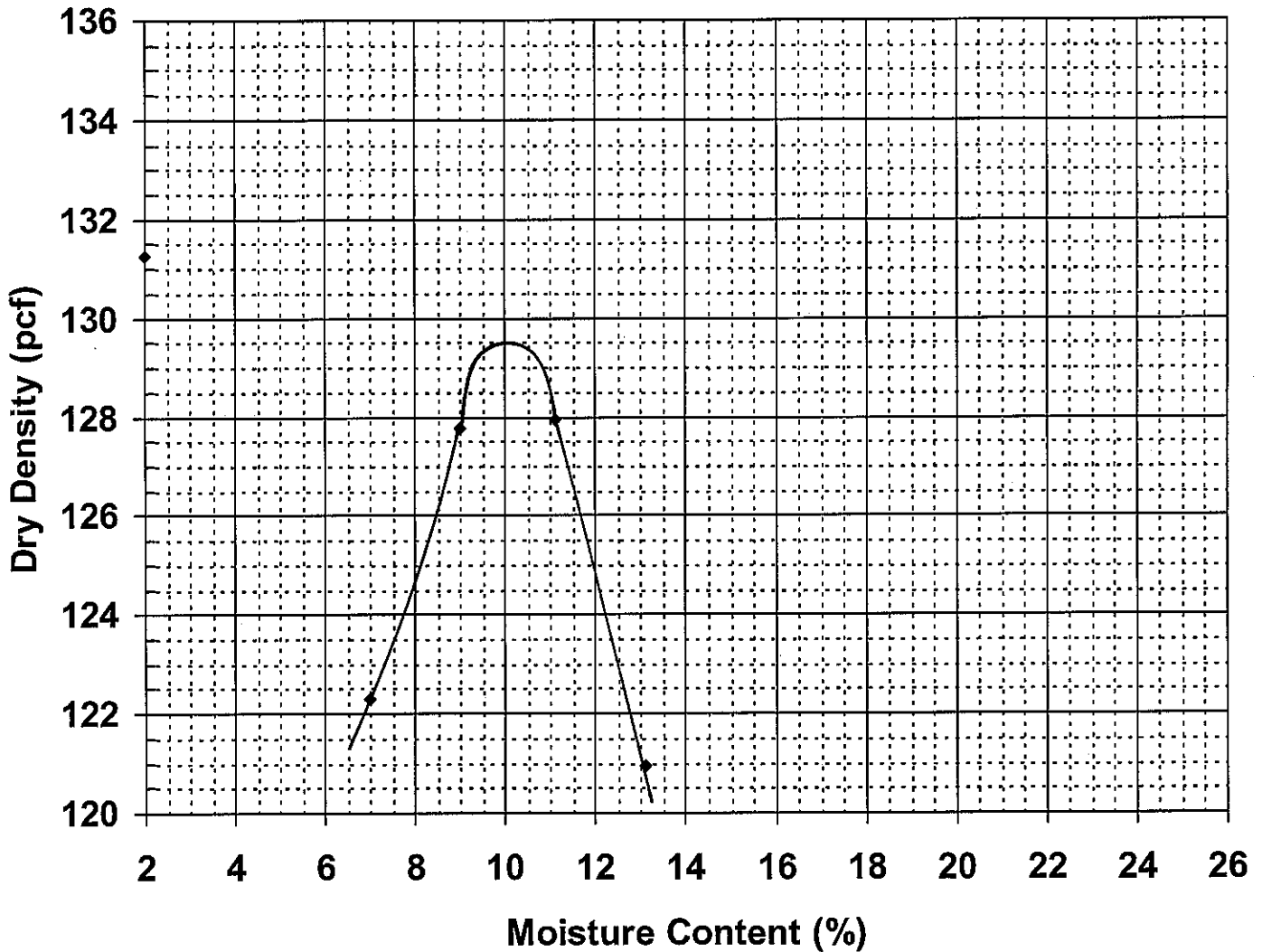
Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure A

Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
 GEOTECHNICAL ENGINEERING SERVICES
 Client REED & REED, INC.
 Material Type TILL
 Material Source 6-8' (TP-141)

Project Number 10-0014.3
 Lab ID 8032A
 Date Received 11/18/2013
 Date Completed 11/26/2013
 Tested By NEIL DAVIS

Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 129.5
 Optimum Moisture Content (%) 10
 Percent Oversized 15.5%

Corrected Dry Density (pcf) **133.1**
Corrected Moisture Content (%) **8.8**

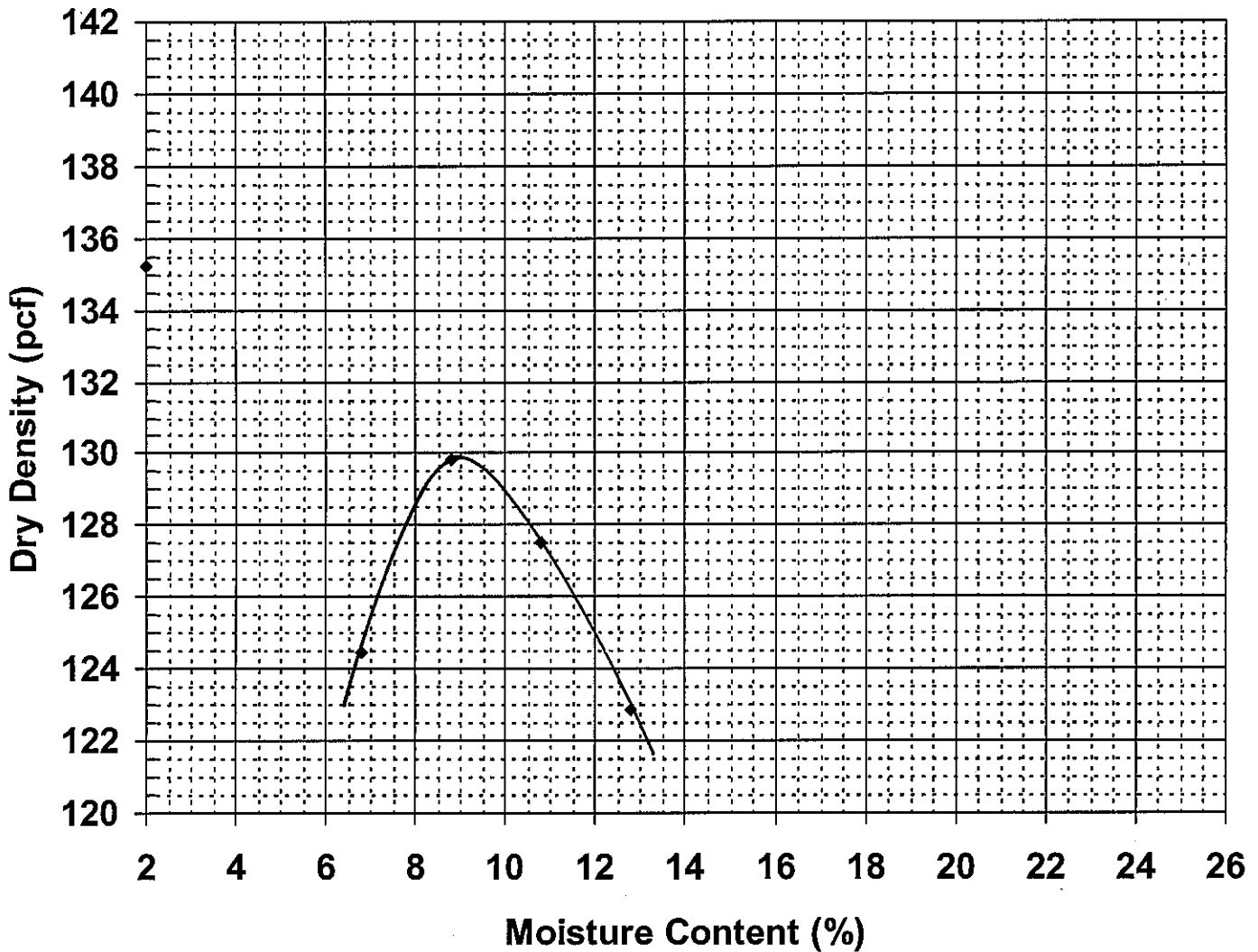
Comments

Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure A

Project Name	BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT - GEOTECHNICAL ENGINEERING SERVICES	Project Number	10-0014.3
Client	REED & REED, INC.	Lab ID	8033A
Material Type	TILL	Date Received	11/18/2013
Material Source	4-6' (TP-144)	Date Completed	11/26/2013
		Tested By	NEIL DAVIS

Moisture-Density Relationship Curve



Maximum Dry Density (pcf)	129.8
Optimum Moisture Content (%)	8.8
Percent Oversized	12.7%

<u>Corrected Dry Density (pcf)</u>	<u>132.8</u>
<u>Corrected Moisture Content (%)</u>	<u>7.9</u>

Comments

Report of Moisture-Density

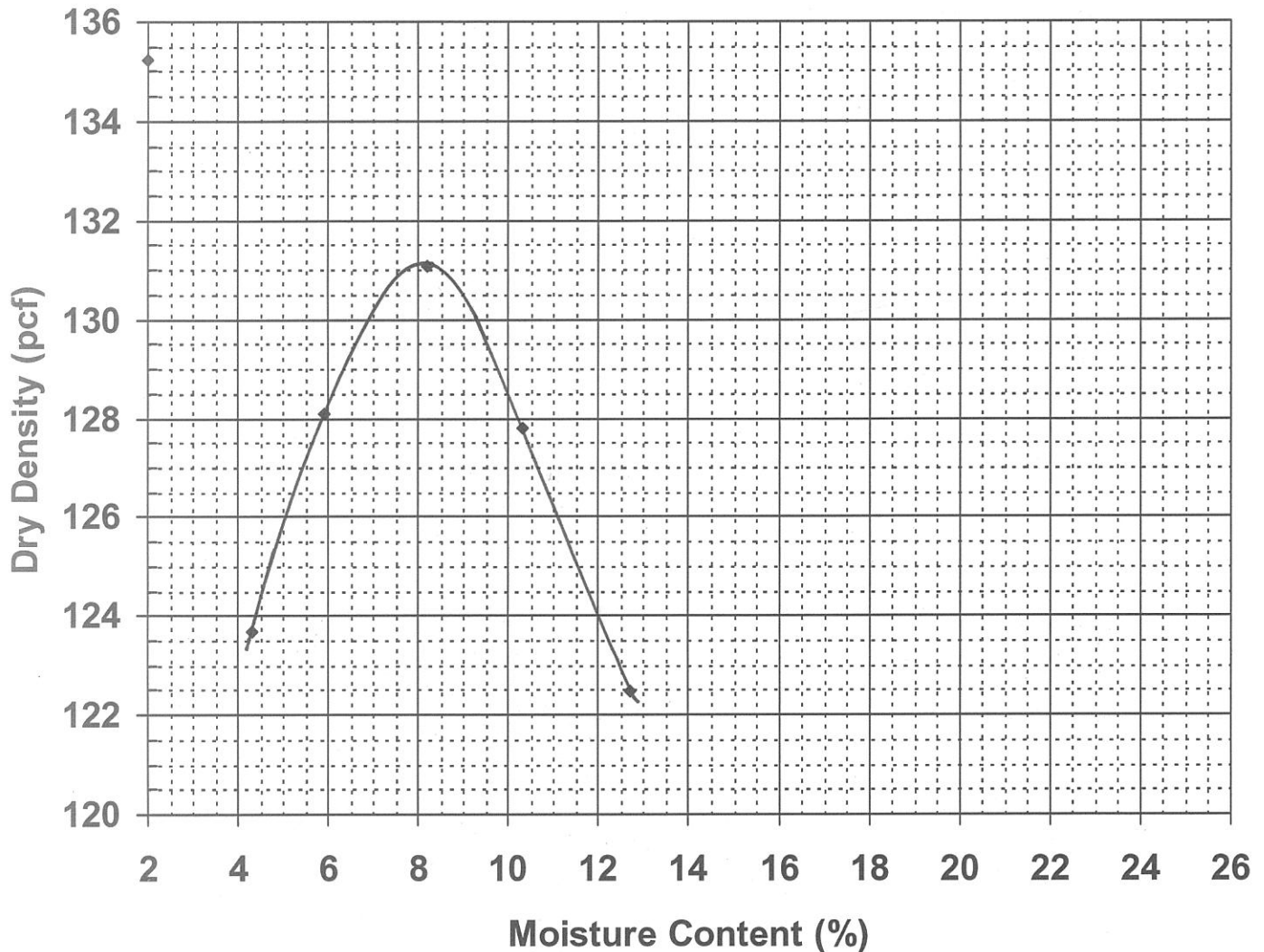
Method ASTM D-1557 MODIFIED

Procedure B

Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Material Type TILL
Material Source 4' - 6' (TP-148)

Project Number 10-0014.3
Lab ID 8077A
Date Received 12/13/2013
Date Completed 12/19/2013
Tested By BRANDON CHAPUT

Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 131.1
Optimum Moisture Content (%) 8.3
Percent Oversized 14.0%

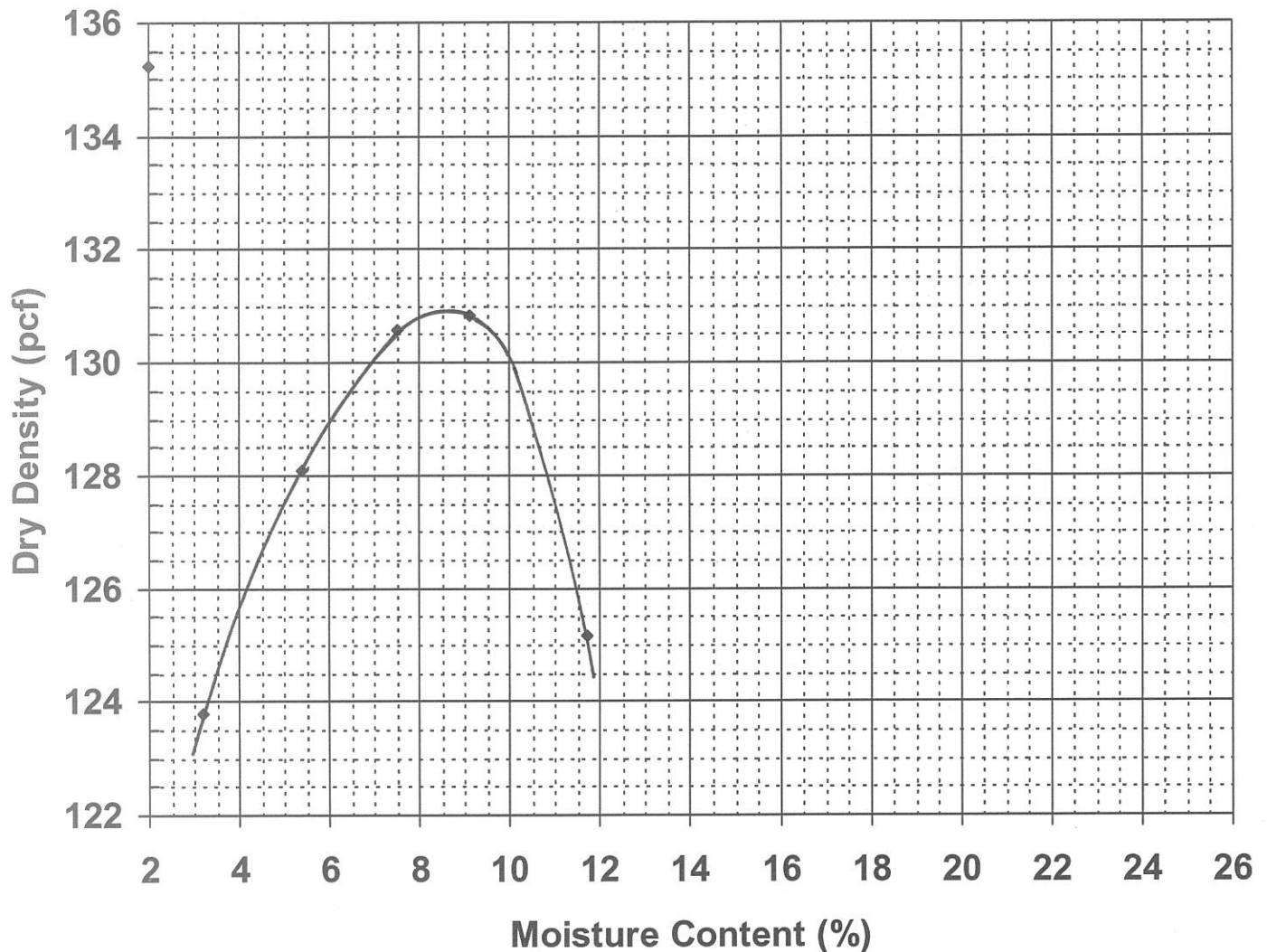
Corrected Dry Density (pcf) **134.2**
Corrected Moisture Content (%) **7.4**

Comments

Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Material Type TILL
Material Source 6' - 8' (TP-151)

Project Number 10-0014.3
Lab ID 8078A
Date Received 12/13/2013
Date Completed 12/19/2013
Tested By BRANDON CHAPUT

Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 130.6
Optimum Moisture Content (%) 7.5
Percent Oversized 17.9%

Corrected Dry Density (pcf) **134.7**
Corrected Moisture Content (%) **6.5**

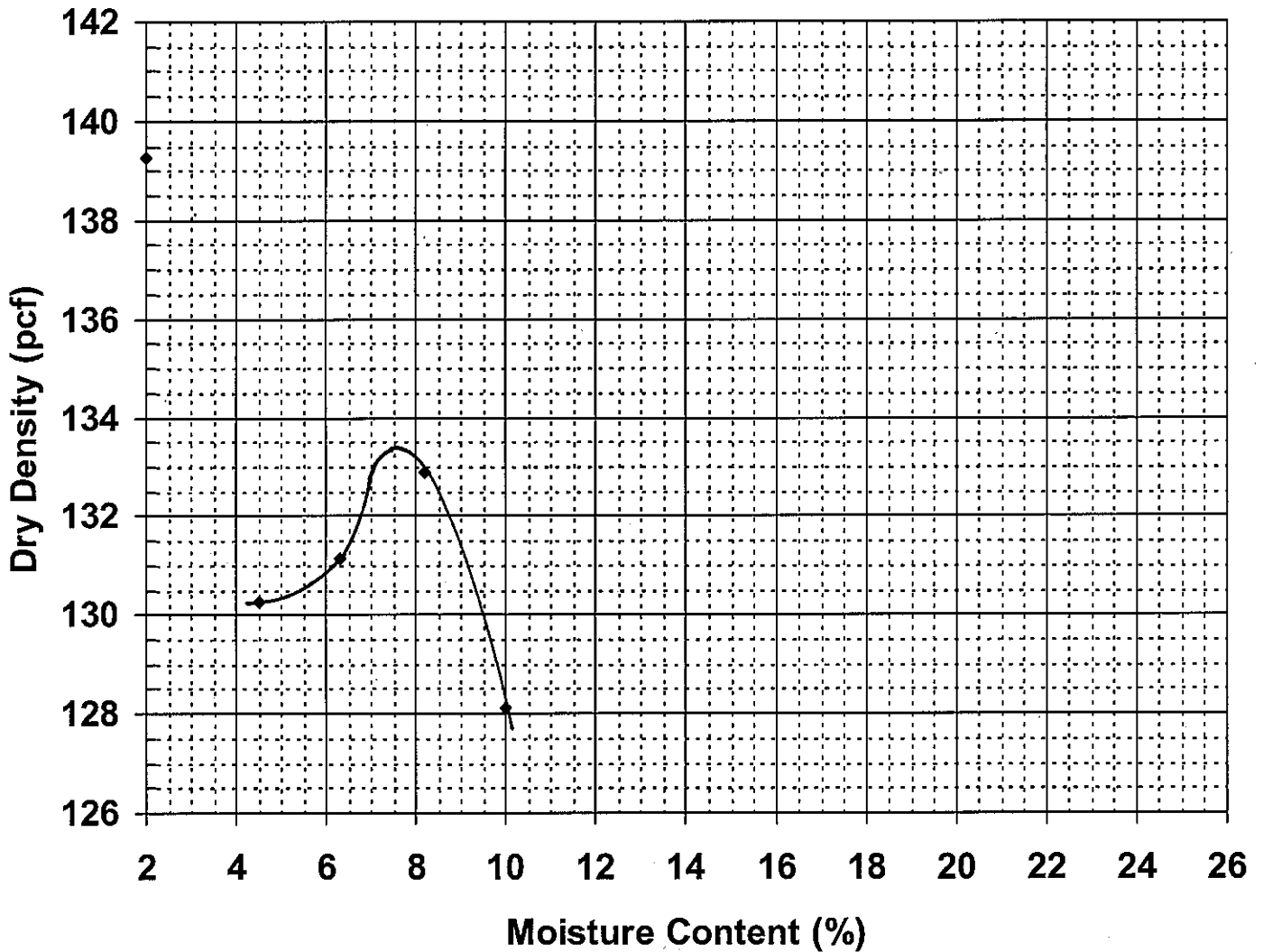
Comments

Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure C

Project Name	BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT - GEOTECHNICAL ENGINEERING SERVICES	Project Number	10-0014.3
Client	REED & REED, INC.	Lab ID	8034A
Material Type	SAND & GRAVEL	Date Received	11/18/2013
Material Source	5-6.5' (TP-154)	Date Completed	11/25/2013
		Tested By	NEIL DAVIS

Moisture-Density Relationship Curve



Maximum Dry Density (pcf)	133.4	<u>Corrected Dry Density (pcf)</u>	<u>139.1</u>
Optimum Moisture Content (%)	7.5	<u>Corrected Moisture Content (%)</u>	<u>6.0</u>
Percent Oversized	27.1%		

Comments

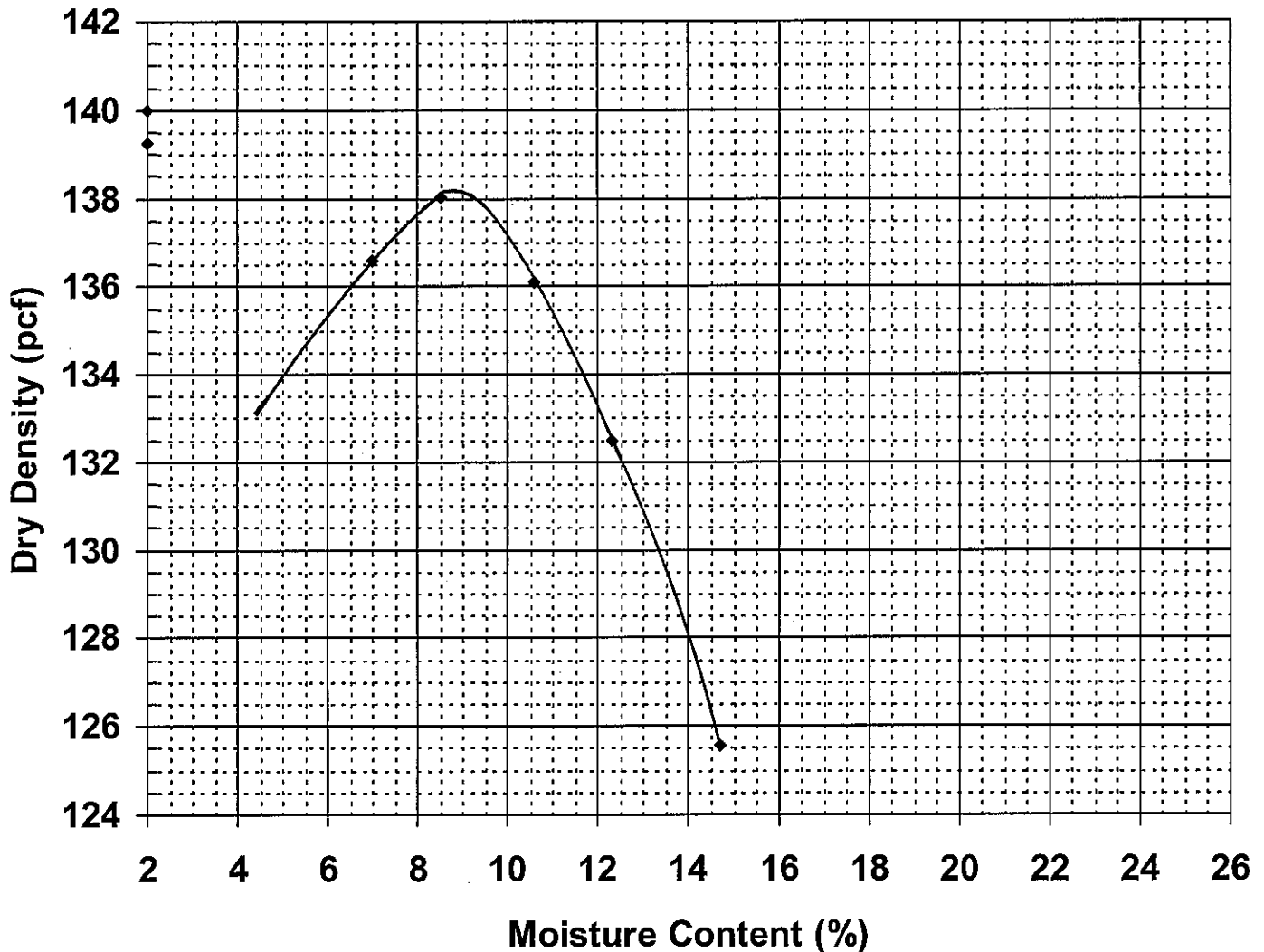
Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure A

Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Material Type TILL
Material Source 5-6' (TP-159)

Project Number 10-0014.3
Lab ID 8035A
Date Received 11/18/2013
Date Completed 11/21/2013
Tested By NEIL DAVIS

Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 138.3
Optimum Moisture Content (%) 8.8
Percent Oversized 16.8%

Corrected Dry Density (pcf) **141.2**
Corrected Moisture Content (%) **7.7**

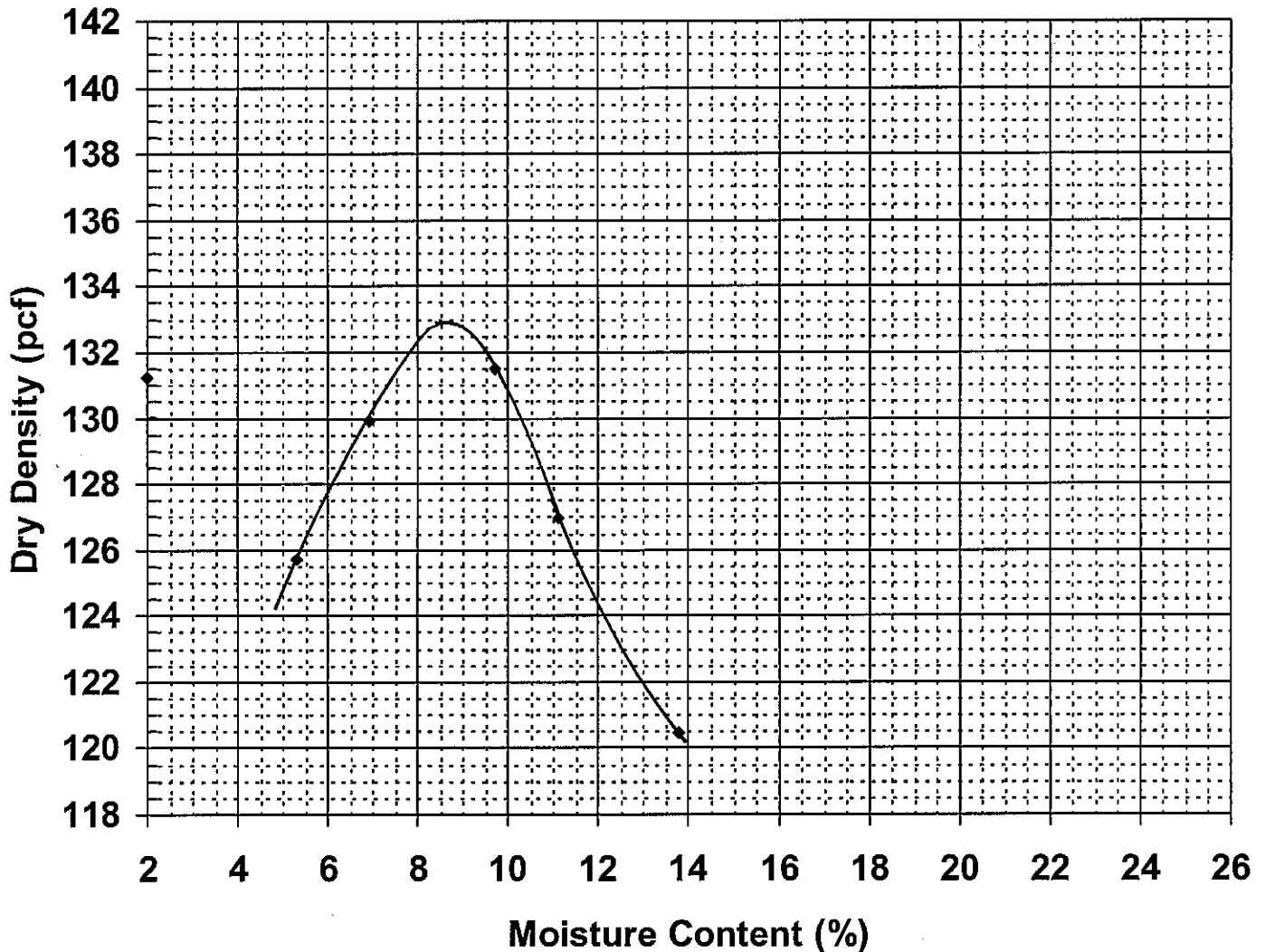
Comments

Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure A

Project Name	BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT - GEOTECHNICAL ENGINEERING SERVICES	Project Number	10-0014.3
Client	REED & REED, INC.	Lab ID	8036A
Material Type	TILL	Date Received	11/18/2013
Material Source	10-12' (TP-161)	Date Completed	11/22/2013
		Tested By	NEIL DAVIS

Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 133
 Optimum Moisture Content (%) 8.6
 Percent Oversized 15.6%

Corrected Dry Density (pcf) **136.3**
Corrected Moisture Content (%) **7.6**

Comments

Report of Moisture-Density

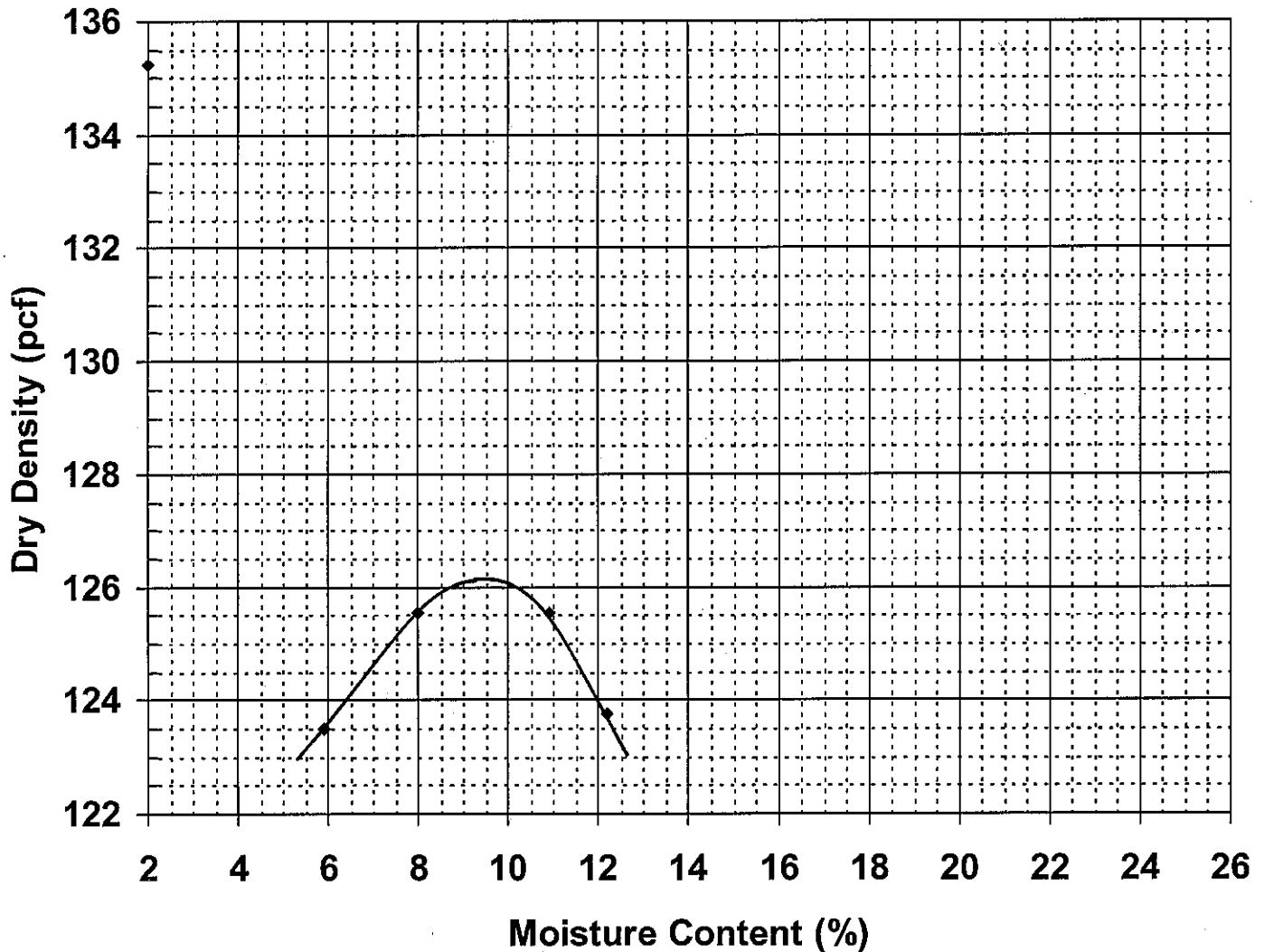
Method ASTM D-1557 MODIFIED

Procedure A

Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Material Type TILL
Material Source 3.5' - 5.5' (TP-168)

Project Number 10-0014.3
Lab ID 8059A
Date Received 12/3/2013
Date Completed 12/5/2013
Tested By AARON HIGGINS

Moisture-Density Relationship Curve



Maximum Dry Density (pcf) 126.2
Optimum Moisture Content (%) 9.4
Percent Oversized 9.0%

Corrected Dry Density (pcf) **128.5**
Corrected Moisture Content (%) **8.7**

Comments

Report of Moisture-Density

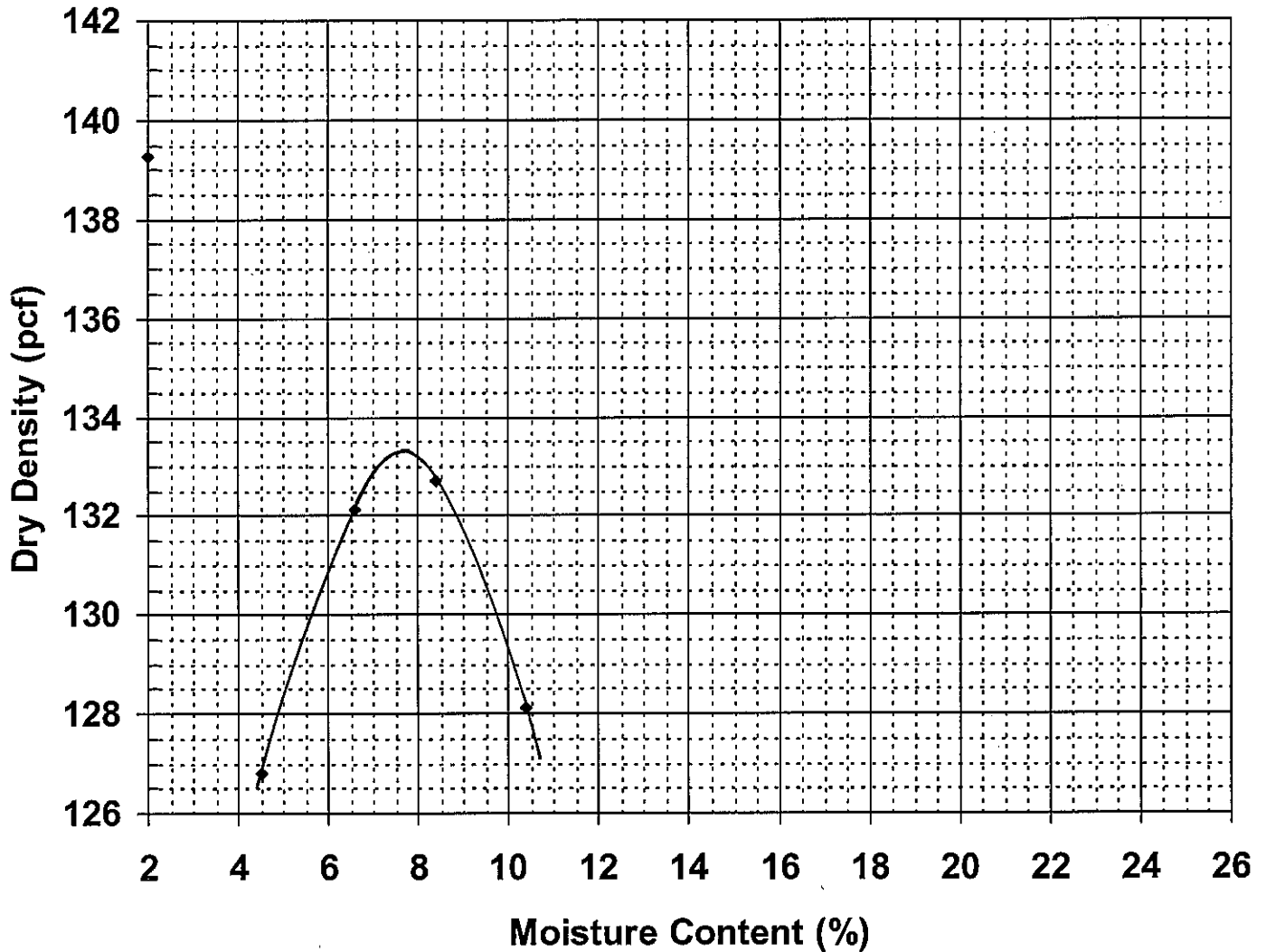
Method ASTM D-1557 MODIFIED

Procedure C

Project Name BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT -
GEOTECHNICAL ENGINEERING SERVICES
Client REED & REED, INC.
Material Type TILL
Material Source 3' - 6.7' (TP-175)

Project Number 10-0014.3
Lab ID 8060A
Date Received 12/3/2013
Date Completed 12/5/2013
Tested By BRANDON CHAPUT

Moisture-Density Relationship Curve



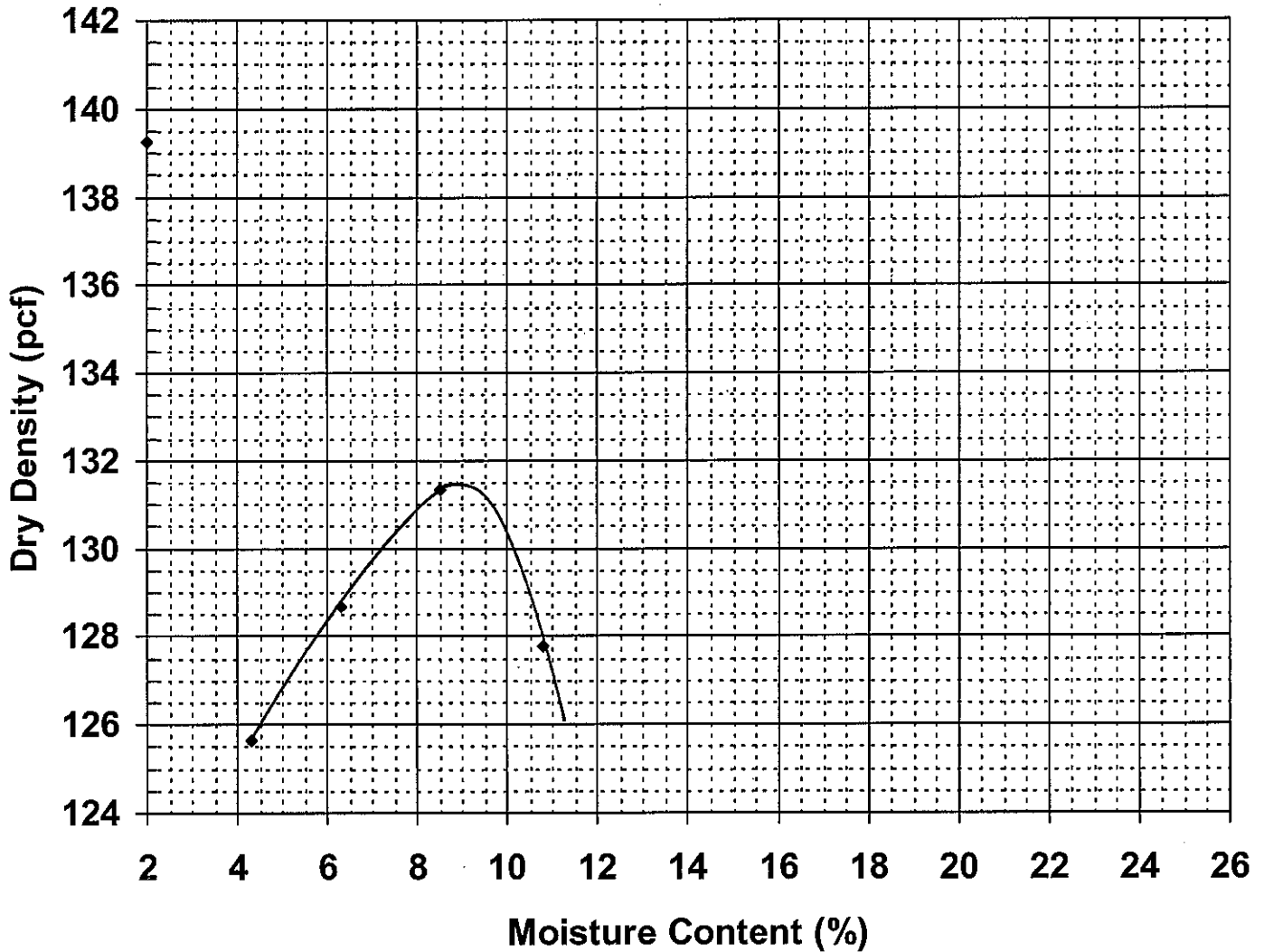
Maximum Dry Density (pcf) 133.4
Optimum Moisture Content (%) 7.8
Percent Oversized 16.6%

Corrected Dry Density (pcf) **136.8**
Corrected Moisture Content (%) **6.8**

Comments

Project Name	BINGHAM ME - BLUE SKY WEST WIND POWER PROJECT - GEOTECHNICAL ENGINEERING SERVICES	Project Number	10-0014.3
Client	REED & REED, INC.	Lab ID	8061A
Material Type	TILL	Date Received	12/3/2013
Material Source	4- 6' (TP-178)	Date Completed	12/5/2013
		Tested By	NEIL DAVIS

Moisture-Density Relationship Curve



Maximum Dry Density (pcf)	131.5
Optimum Moisture Content (%)	9.1
Percent Oversized	6.5%

<u>Corrected Dry Density (pcf)</u>	<u>132.9</u>
<u>Corrected Moisture Content (%)</u>	<u>8.6</u>

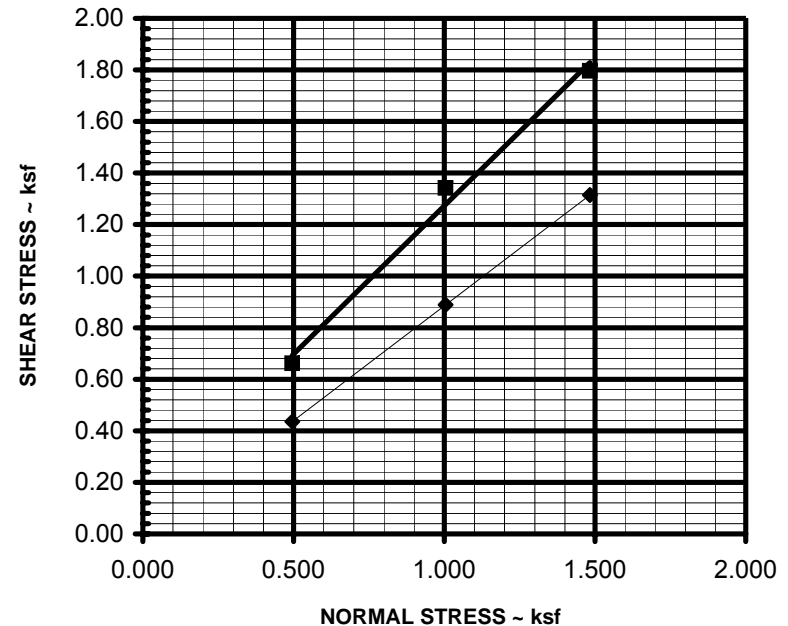
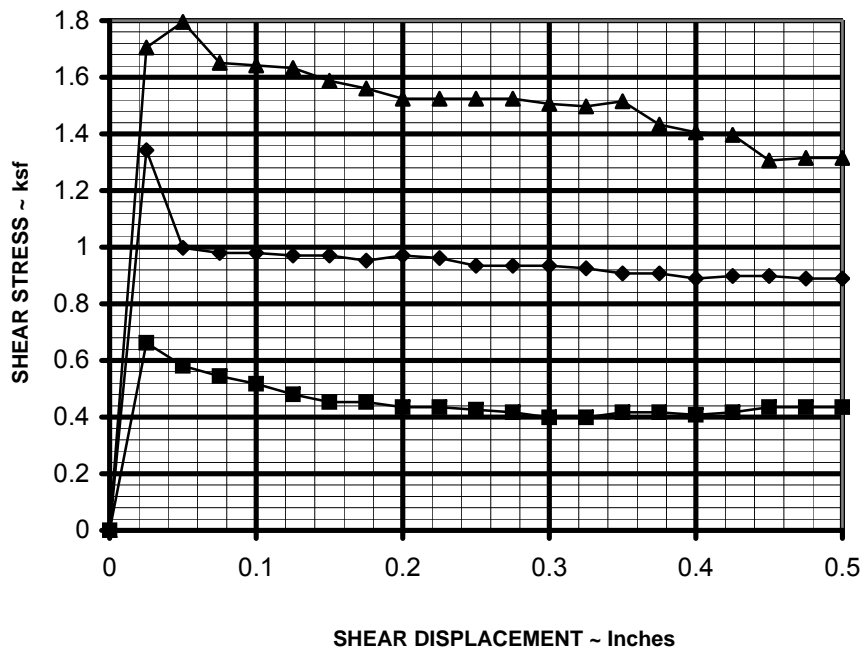
Comments

**REPORT OF DIRECT SHEAR
ASTM D3080**

Project Name: Bingham - Blue Sky West Power
Client Name: Reed & Reed, Inc.
Tested By: TH

Project No.: 10-0014.2
Lab ID No.: 16133G
Date: 11/21/12

Description: Till
Source: TP-2



Peak Angle = 49.01 °
Residual Angle = 41.71 °
Residual Cohesive Intercept = 0.0 ksf

Initial Dry Density = 114.95 pcf
Initial Moisture Content = 14.5 %
Final Moisture Content = 16.8 %
Initial Thickness = 1.0 "
Initial Diameter = 2.5 "

Plot	Confining Pressure (ksf)
■	0.5
◆	1.0
▲	1.5

Equipment: Soiltest Inc. Manual Direct Shear Apparatus

Laboratory Screened On The #5 Sieve

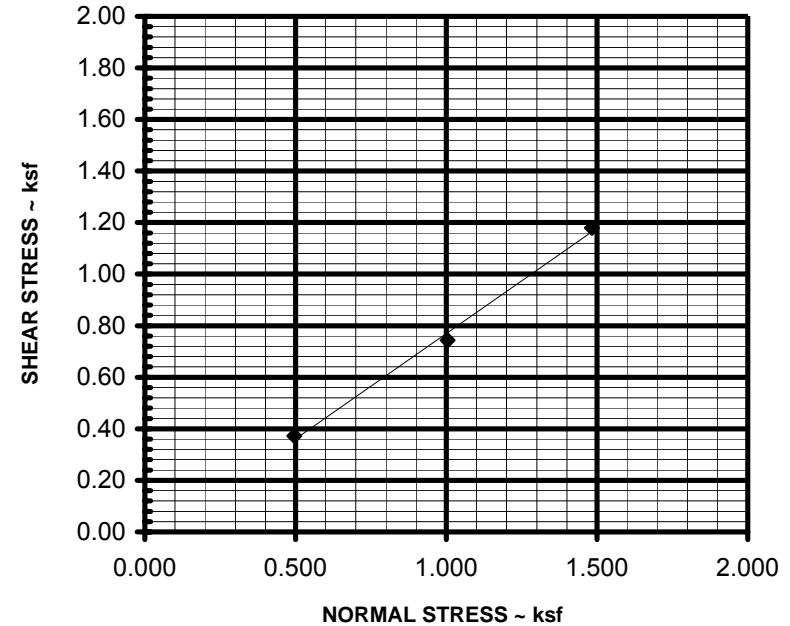
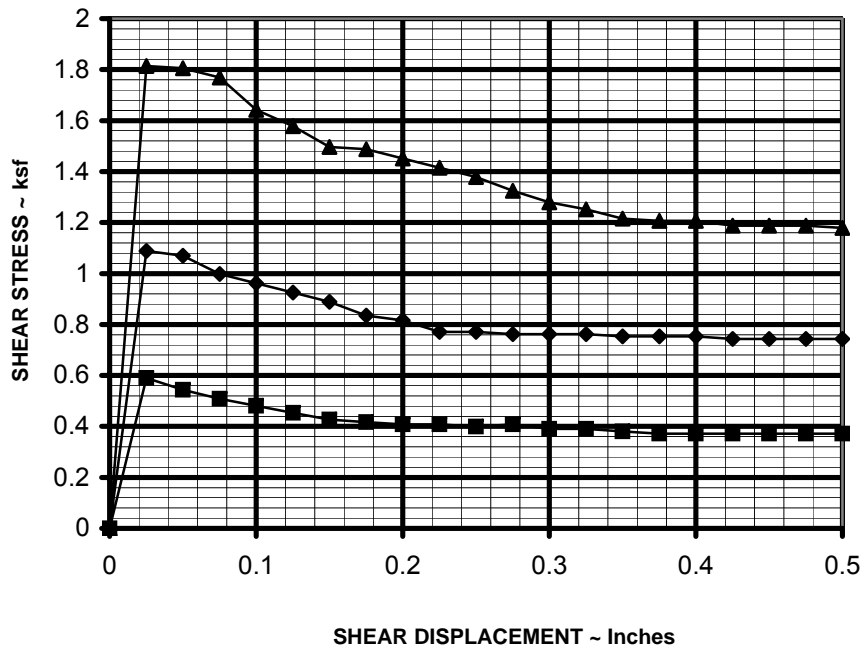
Disturbed, Recompacted, and Inundated Condition

f:\General Business\FORMS\Construction Services\Soil\Lab\Report of Direct Shear/Rev. 2/10/12

Project Name: Bingham - Wind Power
Client Name: Reed & Reed, Inc.
Tested By: TH

Project No.: 10-0014.3
Lab ID No.: 8040A
Date: 12/4/13

Description: Till 3'-4'
Source: TP-128



Residual Angle = 39.25 °
Residual Cohesive Intercept = 0.0 ksf

Initial Dry Density = 110.2 pcf
Initial Moisture Content = 12.5 %
Final Moisture Content = 12.2 %
Initial Thickness = 1.0 "
Initial Diameter = 2.5 "

Plot	Confining Pressure (ksf)
■	0.5
◆	1.0
▲	1.5

Equipment: Soiltest Inc. Manual Direct Shear Apparatus

Laboratory Screened On The #5 Sieve

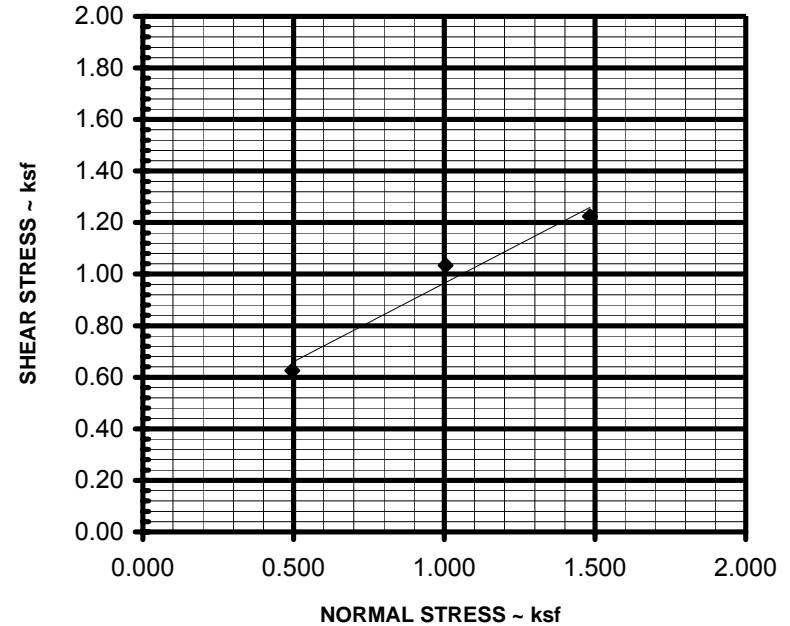
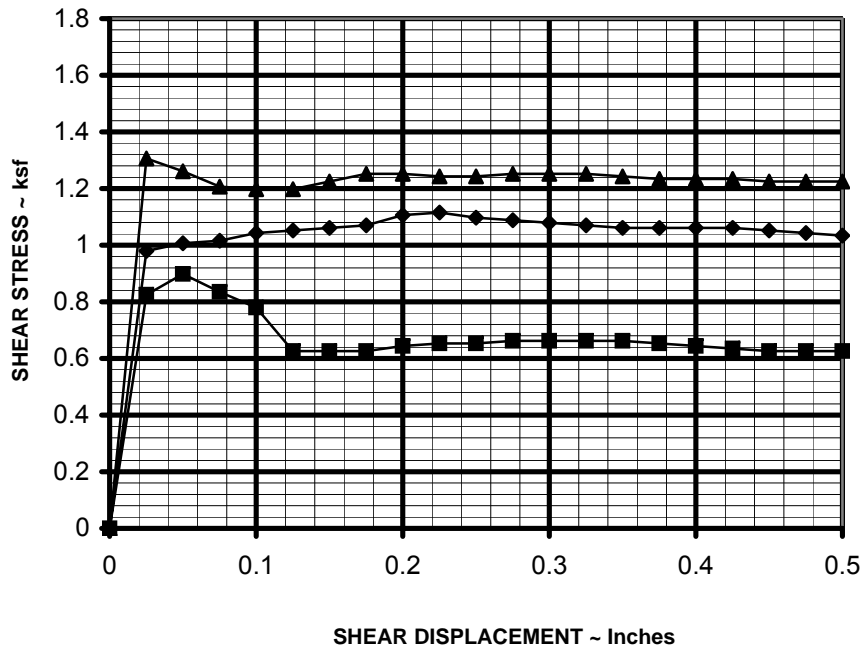
Disturbed, Recompact, and Inundated Condition

**REPORT OF DIRECT SHEAR
ASTM D3080**

Project Name: Bingham - Wind Power
Client Name: Reed & Reed, Inc.
Tested By: NS

Project No.: 10-0014.3
Lab ID No.: 8036A
Date: 12/4/13

Description: Till 10'-12'
Source: TP-161



Residual Angle = 31.32 °
Residual Cohesive Intercept = 0.4 ksf

Initial Dry Density = 122.36 pcf
Initial Moisture Content = 8.6 %
Final Moisture Content = 8.3 %
Initial Thickness = 1.0 "
Initial Diameter = 2.5 "

Plot	Confining Pressure (ksf)
■	0.5
◆	1.0
▲	1.5

Equipment: Soiltest Inc. Manual Direct Shear Apparatus

Laboratory Screened On The #5 Sieve

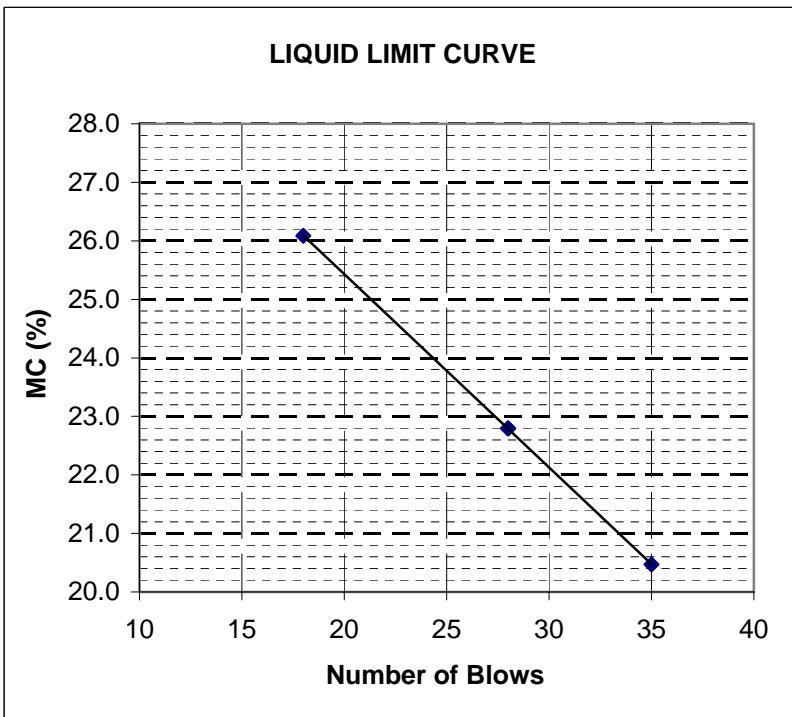
Disturbed, Recompact, and Inundated Condition

**Atterberg Limits
ASTM D4318**

Client Reed & Reed
Job Name Blue Sky West Power Project

Job Number 10-0014.2
Date 11/22/2012
Tested By CMT

Sample Number 16155G
Sample Identification TP-14 T-24



LIQUID LIMIT	24
PLASTIC LIMIT	17
PLASTICITY INDEX	7

Estimate of Retained Material
On The No. 40 Sieve 0.0%



Report of Atterberg Limits

ASTM D4318-10 - Method A

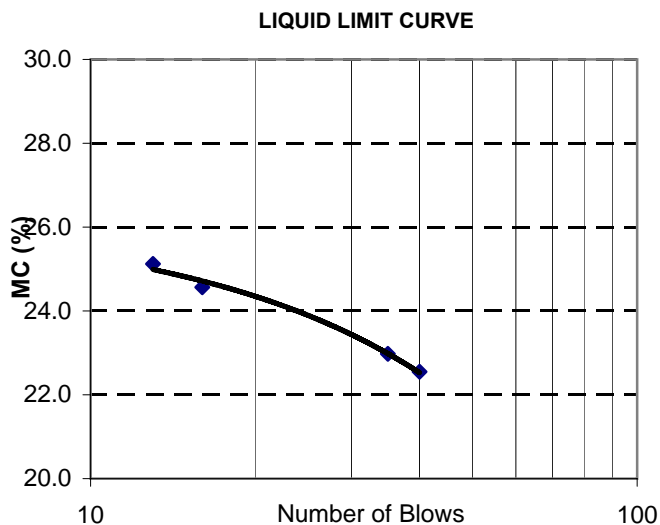
Project Name: Blue Sky West Wind Power
Project Location: Bingham, Maine
Client: Reed & Reed
Material Description: Till
Material Source: TP-104 & TP-105, 4-5'

Project Number: 10-0014.3
Lab ID: 8037A
Date Received: 11/15/13
Date Completed: 11/27/13
Tested By: Tammy Hopkins

Liquid Limit **24**

Plastic Limit **18**

Plasticity Index **6**



Material Retained On the No. 40 Sieve: 36%

As-received Moisture Content: 15%

Comments:

Reviewed By: _____

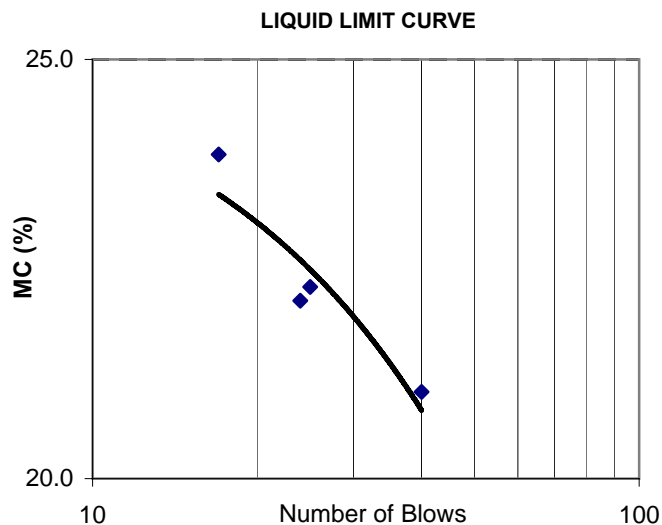
Report of Atterberg Limits

ASTM D4318-10 - Method A

Project Name: Blue Sky West Wind Power
Project Location: Bingham, Maine
Client: Reed & Reed
Material Description: Till
Material Source: TP-141, 6-8'

Project Number: 10-0014.3
Lab ID: 8032A
Date Received: 11/15/13
Date Completed: 11/25/13
Tested By: Tammy Hopkins

Liquid Limit **23**
Plastic Limit **16**
Plasticity Index **7**



Material Retained On the No. 40 Sieve: 27%

As-received Moisture Content: 14%

Comments:

Reviewed By: _____



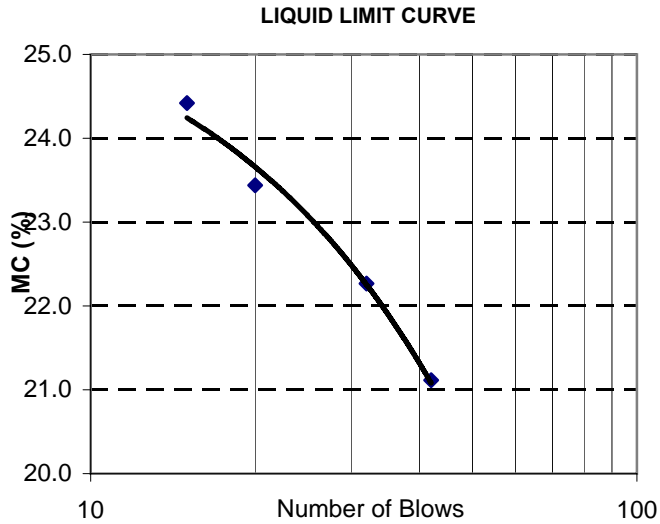
Report of Atterberg Limits

ASTM D4318-10 - Method A

Project Name: Blue Sky West Wind Power
Project Location: Bingham, Maine
Client: Reed & Reed
Material Description: Till
Material Source: TP-161, 10-12'

Project Number: 10-0014.3
Lab ID: 8036A
Date Received: 11/15/13
Date Completed: 11/27/13
Tested By: Tammy Hopkins

Liquid Limit **23**
Plastic Limit **16**
Plasticity Index **7**



Material Retained On the No. 40 Sieve: 36%
As-received Moisture Content: 11%

Comments:

Reviewed By: _____



Report of Atterberg Limits

ASTM D4318-10 - Method A

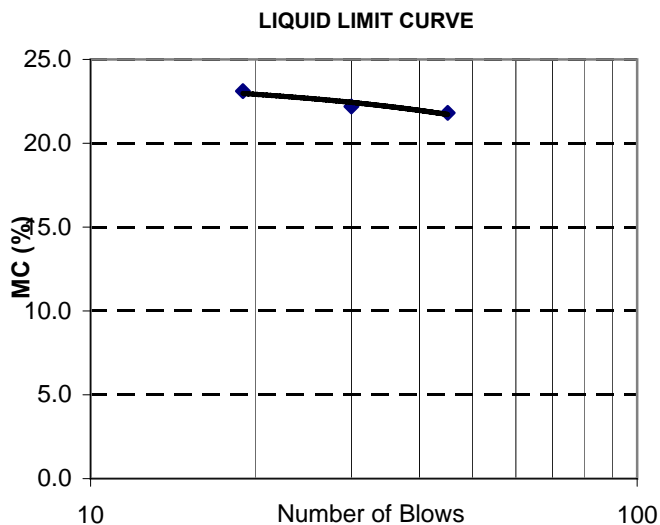
Project Name: Blue Sky West Wind Power
Project Location: Bingham, Maine
Client: Reed & Reed
Material Description: Till
Material Source: TP-168, 3.5' - 5.5'

Project Number: 10-0014.3
Lab ID: 8059A
Date Received: 12/03/13
Date Completed: 12/06/13
Tested By: Tammy Hopkins

Liquid Limit **23**

Plastic Limit **19**

Plasticity Index **4**



Material Retained On the No. 40 Sieve: 26%

As-received Moisture Content: 13%

Comments:

Reviewed By: _____



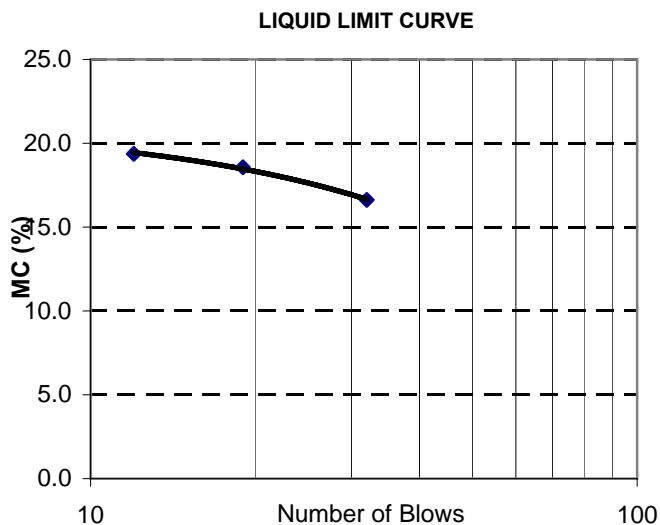
Report of Atterberg Limits

ASTM D4318-10 - Method A

Project Name: Blue Sky West Wind Power
Project Location: Bingham, Maine
Client: Reed & Reed
Material Description: Till
Material Source: TP-178, 4' - 6'

Project Number: 10-0014.3
Lab ID: 8061A
Date Received: 12/03/13
Date Completed: 12/06/13
Tested By: Tammy Hopkins

Liquid Limit **18**
Plastic Limit **17**
Plasticity Index **1**



Material Retained On the No. 40 Sieve: 26%

As-received Moisture Content: 13%

Comments:

Reviewed By: _____



**Report of Unconfined Compressive Strength
(ASTM D7012 Method C) and Specific Gravity
(ASTM C127) of Intact Rock Core Specimens**

SWCE Project No.: 10-0014.3
Project Location: Bingham, ME
Project Name: Blue Sky West Wind Power
Client: Reed & Reed

Laboratory ID Number.	Sample Location	Strength (psi)	Unit Weight (pcf)
17504G	B-T1 R1 0.5-1.2	3600	176.6
17489G	B-T1 R13 54.2-55.3	5830	180.5
17496G	B-T1 R7 25.0-26.5	7640	176.4
17495G	B-T2 R1 9.9-10.6	7200	173.9
17502G	B-T2 R10 53.2-53.9	7390	177.2
17494G	B-T2 R5 28.2-28.8	9430	173.3
17497G	B-T3 R1 4.5-5.6	6910	179.6
17490G	B-T3 R7 27.1-28.2	7450	177.4
17498G	B-T4 R12 52.0-53.4	9140	180.8
17491G	B-T4 R3 10.3-11.2	17420	172.7
17492G	B-T4 R7 31.1-32.0	7830	178.7
17499G	B-T6 R10 52.1-53.2	12290	178.3
17503G	B-T6 R4 14.7-15.8	2640	176.9
17493G	B-T6 R5 26.5-27.1	10700	176.0
17505G	B-T7 R11 30.0-30.8	5220	176.7
17506G	B-T7 R15 44.0-45.0	18570	176.5
17507G	B-T7 R6 15.5-16.1	4550	165.2
17500G	B-T8 R16 42.5-43.8	17960	177.1
17667G	B-T12 R2 52.0-52.7	2580	168.1
17549G	B-T14 R1 29.5-30.7	10320	172.7
17548G	B-T14 R6 54.7-55.2	12520	173.3
17531G	B-T15 R10 53.7-55.0	17480	170.5
17567G	B-T16 R12 52.6-54.4	5350	175.8
17634G	B-T16 R6 25.7-27.2	3410	176.8
17633G	B-T16 R9 38.5-39.5	3180	176.2
17565G	B-T17 R1 5.9-6.9	6340	177.6
17624G	B-T17 R10 41.7-42.8	8090	175.9
17623G	B-T17 R5 21.5-22.5	1370	175.0
17617G	B-T18 R13 43.1-43.7	6210	172.1
17616G	B-T18 R5 12.0-13.2	6180	173.1
17566G	B-T18 R7 25.0-26.3	7450	175.1
17564G	B-T19 R1 5.2-6.0	5130	172.3
17568G	B-T19 R13 47.3-48.0	7610	174.8
17563G	B-T19 R7 27.3-28.3	6880	172.0
17555G	B-T20 R1 21.0-22.2	3980	172.2
17557G	B-T20 R13 53.5-54.3	8820	172.5
17529G	B-T21 R11 49.9-51.2	17010	174.8
17528G	B-T21 R6 29.5-30.1	20890	171.3
17556G	B-T22 R16 51.8-52.4	8410	168.1
17524G	B-T22 R9 32.5-33.5	5450	169.0
17613G	B-T23 R12 48.2-49.0	3850	176.0
17562G	B-T23 R3 9.9-11.5	9810	177.1
17554G	B-T23 R9 33.5-34.8	10450	175.8



**Report of Unconfined Compressive Strength
(ASTM D7012 Method C) and Specific Gravity
(ASTM C127) of Intact Rock Core Specimens**

SWCE Project No.: 10-0014.3
Project Location: Bingham, ME
Project Name: Blue Sky West Wind Power
Client: Reed & Reed

Laboratory ID Number.	Sample Location	Strength (psi)	Unit Weight (pcf)
17615G	B-T25 R1 50.0-50.7	7740	168.2
17614G	B-T26 R10 51.7-52.5	3440	172.3
17618G	B-T26 R3 36.5-37.0	6020	168.8
17619G	B-T26 R7 43.7-44.4	3120	172.0
17622G	B-T27 R10 35.2-35.7	8630	167.3
17620G	B-T27 R14 44.5-45.0	8630	166.5
17621G	B-T27 R3 19.6-20.1	10700	166.8
17552G	B-T29 R10 33.8-34.6	2680	174.0
17553G	B-T29 R15 53.9-55.5	4940	173.7
17551G	B-T29 R5 17.4-18.0	3030	172.5
17611G	B-T30 R10 26.3-27.3	2580	173.3
17607G	B-T30 R15 43.0-44.0	3120	175.2
17606G	B-T31 R3 32.2-32.8	2520	175.1
17604G	B-T31 R5 41.3-42.0	1620	173.4
17605G	B-T31 R6 50.0-50.9	920	173.6
17612G	B-T32 R3 47.4-48.5	4650	171.7
17603G	B-T33 R1 51.5-52.3	6500	171.2
17602G	B-T34 R1 48.3-49.0	2100	170.1
17682G	B-T35 R3 34.7-35.4	4870	168.0
17685G	B-T35 R7 50.1-51.5	20920	168.0
17630G	B-T37 R1 15.0-16.2	3790	173.5
17631G	B-T37 R5 29.1-29.7	2640	174.6
17632G	B-T37 R8 43.5-44.1	7930	168.2
17629G	B-T38 R11 42.1-43.1	3180	175.8
17627G	B-T38 R4 14.7-15.7	2930	177.2
17628G	B-T38 R8 27.9-28.8	2260	175.4
17637G	B-T39 R10 41.5-42.1	3410	175.8
17635G	B-T39 R2 10.3-11.3	2960	174.5
17636G	B-T39 R4 20.0-20.9	3090	176.6
17647G	B-T40 R2 8.5-9.2	6850	172.1
17648G	B-T40 R6 21.5-22.3	7830	173.7
17649G	B-T40 R9 41.2-42.5	7640	176.7
17646G	B-T41 R10 45.7-46.7	16150	174.1
17644G	B-T41 R3 12.5-13.7	10510	174.8
17645G	B-T41 R6 29.9-31.5	15350	176.2
17683G	B-T42 R2 33.5-34.8	4460	172.9
17684G	B-T42 R5 46.6-47.2	3310	172.8
17681G	B-T43 R10 42.0-42.3	6590	173.3
17679G	B-T43 R3 11.0-11.7	8630	173.2
17680G	B-T43 R5 24.3-25.0	5700	173.5
17671G	B-T44 R1 7.6-9.2	4900	171.0
17672G	B-T44 R4 26.2-26.9	4970	172.4
17673G	B-T44 R9 45.7-46.3	5160	172.3

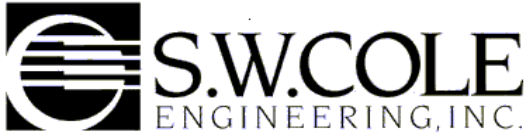


**Report of Unconfined Compressive Strength
(ASTM D7012 Method C) and Specific Gravity
(ASTM C127) of Intact Rock Core Specimens**

SWCE Project No.: 10-0014.3
Project Location: Bingham, ME
Project Name: Blue Sky West Wind Power
Client: Reed & Reed

Laboratory ID Number.	Sample Location	Strength (psi)	Unit Weight (pcf)
17676G	B-T46 R12 46.9-48.2	4040	172.7
17674G	B-T46 R4 13.3-14.5	13440	172.2
17675G	B-T46 R8 31.0-31.7	14710	172.8
17638G	B-T48 R1 10.0-11.2	6780	170.8
17639G	B-T48 R6 37.0-37.8	2930	171.2
17640G	B-T48 R9 47.9-48.5	3470	174.0
17670G	B-T49 R11 47.6-48.6	5160	173.5
17668G	B-T49 R4 17.7-18.2	2070	173.2
17669G	B-T49 R7 29.4-30.0	4520	173.0
17653G	B-T50 R1 16.7-17.5	4650	164.9
17654G	B-T50 R4 31.0-31.7	5000	164.1
17655G	B-T50 R7 44.3-45.3	5860	162.7
17664G	B-T53 R3 38.3-39.3	15828	172.1
17663G	B-T54 R2 12.4-13.2	10287	169.3
17665G	B-T54 R7 29.1-30.0	11720	170.4
17666G	B-T54 R9 43.3-44.3	15380	170.3
17610G	B-T57 R10 40.4-41.4	8280	174.9
17609G	B-T57 R3 6.8-8.1	16310	170.7
17608G	B-T57 R6 21.0-21.7	7040	177.0
17650G	B-T58 R1 10.0-10.6	43890	172.1
17651G	B-T58 R5 27.0-28.6	12580	171.1
17652G	B-T58 R8 45.8-46.5	22480	171.5
17523G	B-T73 R11 49.3-50.5	1820	173.2
17521G	B-T73 R4 14.9-16.0	5160	172.1
17527G	B-T73 R7 29.6-30.4	4390	173.3
17525G	B-T74 R13 33.4-34.5	2740	173.0
17530G	B-T74 R18 50.3-51.1	5250	171.2
17532G	B-T75 R12 41.2-42.6	4940	174.5
17550G	B-T75 R15 53.3-54.6	6400	173.1
17526G	B-T75 R5 18.3-19.2	3060	172.6
17522G	B-T76 R12 32.3-33.4	1370	170.1
17677G	B-T77 R4 39.5-40.1	3540	172.8
17678G	B-T77 R6 52.3-53.0	3180	173.5

Technician JRB
Reviewed By: MAS



**Report of Unconfined Compressive Strength
(ASTM D7012 Method C) and Specific Gravity
(ASTM C127) of Intact Rock Core Specimens**

SWCE Project No.: 10-0014.2
Project Location: Bingham, ME
Project Name: Blue Sky West Wind Power
Client: Reed & Reed

Laboratory ID Number.	Sample Location	Strength (psi)	Unit Weight (pcf)
16106G	B-T5 23.3-24.0	4360	166.1
16107G	B-T5 44.6-45.2	10100	165.9
16112G	B-T28 15.7-16.3	3380	168.0
16113G	B-T28 34.7-35.7	6150	172.6
16114G	B-T28 41.0-42.5	5190	175.9
16115G	B-T28 53.7-54.4	2800	172.8
16116G	B-T36 11.7-12.5	3630	171.5
16117G	B-T36 30.0-31.0	6850	171.0
16118G	B-T36 42.9-43.5	3150	171.7
16108G	B-T47 10.0-21.4	6370	171.0
16109G	B-T47 28.6-29.2	11210	169.4
16110G	B-T47 38.2-40.0	8310	169.7
16111G	B-T47 46.1-46.7	5700	169.2
16102G	B-T56 16.6-17.6	57830	169.5
16103G	B-T56 33.3-34.7	21500	169.7
16104G	B-T56 43.8-44.8	8060	169.2
16105G	B-T56 48.8-49.6	9940	169.8

Technician JRB
Reviewed By: MAS