ATTACHMENT A.

RESUME OF ANTHONY T. GODFREY

ANTHONY TROY GODFREY

EDUCATION

- Florida Institute of Technology, Melbourne FL – 1983 to 1985
  - Electronics Technology
- Temple University, Philadelphia, PA – 1987 to 1991
  - Bachelor of Science in Electrical Engineering
  - *Dean's List, 6 out of 9 trimesters*
  - *Graduated upper classman*

EXPERIENCE

2005 to Present — **Caldwell Marine International, LLC** — Farmingdale, NJ

Director, Submarine Cable Division / Engineering Manager / Project Manager

Responsible for bidding and initial planning of al projects, work in conjunction with the operations manager to oversee all projects, management of the survey department, design of highly specialized underwater electronics, surface and subsurface positioning, development of software and hardware interfacing, involved in corporate planning.

1999 to 2005 — **International Telecom USA / Caldwell Cable Ventures (General Dynamic)** — Toms River, NJ

Engineering Manager, Chief Estimator, Project Manager

International Telecom USA Inc. : Responsible for bidding and initial planning of al projects, work in conjunction with the operations manager to oversee all projects, management of the survey department, design of highly specialized underwater electronics, surface and subsurface positioning, development of software and hardware interfacing, involved in corporate planning.

Caldwell Cable Ventures: Assist in bidding and initial planning of projects, responsible for all field personnel and on site management of projects.

1993 to 1999 — **Caldwell Diving** — Toms River, NJ

Chief Survey Engineer

Employed as hydrographic survey engineer, responsibilities include planning and designing of submarine cable routes, precision navigation of ships, monitoring of computerized cable embedment plow, involved in the design of highly specialized underwater electronics, surface and subsurface positioning, development of software and hardware interfacing, perform bathymetric sidescan imagery, and subbottom profiling surveys for feasibly of proposed submarine cable installations, other duties include ROV pilot, land surveying, draftsman electronically locate submarine cables and pipelines, underwater video, dive tender, boat pilot, and fabricator.

HIGHLIGHTED EXPERIENCE

- Installation, San Juan Islands, WA, 69kv Submarine Cable
- Installation, Rockland, ME, 35kv Submarine Cable
- Installation, Great South Bay, NY, 35 kV Submarine Cable
- Repair, Vineyard Haven Sound, MA, 35 kV Submarine Cable
- Repair, Long Island Sound, NY, 138kV Submarine Cable
- Repair, Vineyard Haven Sound, MA, 35 kV Submarine Cable
- Installation, Destin, FL, 138kV Submarine Cable
- Installation, Rikers Island, NY, 27kV Submarine Cable
- Installation, Baldwin County, Alabama, 25kV Submarine Cable

HIGHLIGHTED EXPERIENCE cont. _____

- Repair, Vineyard Haven Sound, MA, 35 kV Submarine Cable
- Installation, Lake Sakawea, ND, 69kV Submarine Cable
- Installation, Newport, RI, 23kV Submarine Cable
- Installation, Vineyard Haven Sound, MA, 35 kV Submarine Cable
- Installation, Portland, Maine, 35 kV Submarine Cable
- Installation, Susquehanna River, PA- MD, 35 kV Submarine Cable
- Installation, Piney Island, NC, 35 kV Submarine Cable
- Installation, Sandusky Bay, OH, Submarine Power Cable
- Installation, Beaufort County, SC, 23 kV Submarine Cable
- Installation, US Navy, 15 kV Submarine Cable
- Installation, Mississippi River, 115 kV Submarine Cable
- Installation, Vineyard Haven Sound, MA, 37 kV Submarine Cable

SPECIALIZATION_____

- Software Proficiency;
  - Microsoft Office Suite
  - Auto Cad
  - P3/P6 – Primavera / Expedition Project Management
  - HCSS Heavy Bid/Heavy Job

LANGUAGE _____

- English

CERTIFICATIONS _____

- OSHA / 40 Hour Training
- DP (Dynamic Positioning) Certificate
- Heartsaver First Aid CPR AED
- Licensed Captain
- National Safety Council – 6 Hour Defensive Driving Course

ATTACHMENT B.

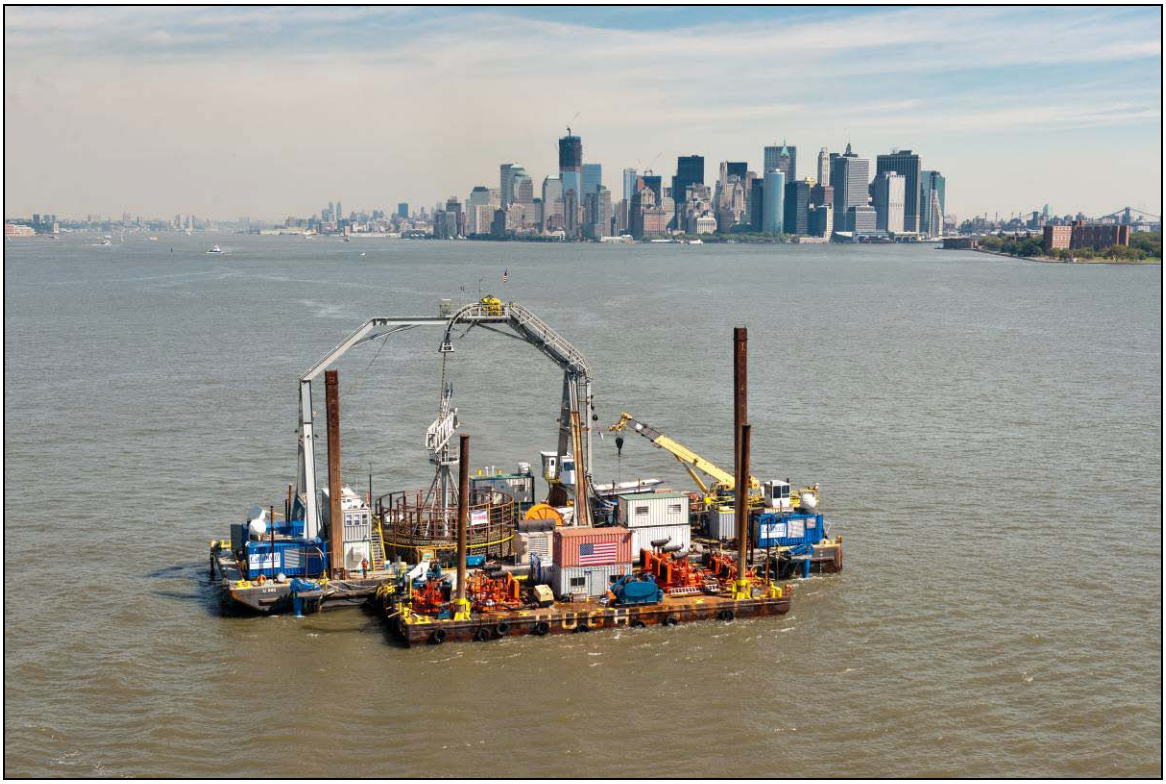
CMI HISTORY, STRUCTURE, KEY PROJECTS, AND PERSONNEL

2014

Caldwell
Marine International, LLC.

JAG COMPANIES

CALDWELL MARINE INTERNATIONAL, LLC



Marine Construction Operations

Capabilities & Experience to Meet Project Requirements

1. Introduction

Caldwell Marine International is pleased to provide the following Capabilities and Experience documentation. *Caldwell Marine International* is a marine contractor that covers the total spectrum of marine construction operations. These operations fall into two broad categories: Marine Civil Construction and Submarine Utility Operations. The utility operations further split into the two areas of submarine cable and submarine pipeline. The core group of past & present personnel at Caldwell Marine has been in the marine industry since the mid 1960s and has completed a multitude of operations covering all facets of marine construction. This group has enjoyed an excellent working relationship over a long period with many of the key players in the industry and we look forward to furthering our relationships with new clients.

Based upon our 30 years of marine construction and submarine utility experience *Caldwell Marine International* can provide a highly effective team of professionals experienced with all aspects of marine operations. In addition to our experienced personnel, *Caldwell Marine International* maintains an impressive array of specialized marine equipment, vessels, and marine facilities. *Caldwell Marine International* has all the resources required to begin operations immediately along with the ability to complete projects on time and on budget.

Based in New Jersey *Caldwell Marine International* has worked on both a national and international basis. Operations have been completed throughout North America, Central America, The Caribbean, Europe, the Middle East and the Far East. Our specialist equipment is modular and can be easily transported via open top Conex containers. Our personnel have the experience to conduct operations in remote locations and provide the necessary logistic and supply support.

All work performed by *Caldwell Marine International* shall be done in a safe and expedient manner. **No work is so important that safety becomes a secondary issue.**

2 Company Overview

2.1 Company History & Profile

The Caldwell name has been synonymous with marine operations for over 40 years. The Caldwell Group (Caldwell Diving, Caldwell Ventures etc) operated as a marine construction group from 1963 to 1998. In 1998 the General Dynamics (GD) Corporation purchased the company. GD renamed the company International Telecom USA, Inc. as part of its International Telecom Group. Under the corporate ownership of GD, the company concentrated on submarine utility work (cable & pipeline) on both the national and international scale for over 4 years. In early 2003 GD announced that it was exiting the submarine utility business. The Former Caldwell Group operation was sold to the management of Northeast Construction of Lakewood New Jersey. The new company was named Caldwell Marine International and has continued to provide clients with marine construction support reverting back to its base of both marine civil construction and submarine utility work.

Northeast Construction is a terrestrial utility contractor that operates in New York, New Jersey and throughout the United States, the Caribbean & Central America. Northeast recently celebrated its 25th year in business and has successfully completed over $500,000,000.00 in utility construction contracts. The performance-bonding limit at Northeast is $450,000,000.00 reflecting their ability to complete projects within schedule and on budget. This gives Caldwell Marine a solid bonding capability for their operations.

Caldwell Marine International (CMI) is now part of the JAG portfolio of companies, along with the Northeast companies, and Huxted Tunneling, LLC, which was acquired in 2011.

In partnership with the JAG Companies, CMI provides strength and a common goal of delivering excellence to its customers, from start to finish.

2.2 Titles and Locations of Principal Officers

Rolando Acosta
President and CEO *Caldwell Marine International*
Farmingdale, NJ

John Gutierrez
Corporate Vice President *Caldwell Marine International*
Farmingdale, NJ

James B. Yuille
Executive Vice President *Caldwell Marine International*
Farmingdale, NJ

2.3 Corporate Structure

COMPANY	NORTHEAST REMSCO CONSTRUCTION, INC.	CALDWELL MARINE INTERNATIONAL, LLC	HUXTED TUNNELING, LLC	JAG COMPANIES, INC.
ADDRESS	1433 ROUTE 34 SOUTH BUILDING B	1433 ROUTE 34 SOUTH BUILDING B	3208 17TH STREET EAST	1433 ROUTE 34 SOUTH BUILDING B
CITY, STATE & ZIP CODE	FARMINGDALE, NJ 07727	FARMINGDALE, NJ 07727	PALMETTO, FL 34221	FARMINGDALE, NJ 07727
TELEPHONE NUMBER FAX NUMBER	732-557-6100 732-736-8904	732-557-6100 732-736-8910	941-722-6613 941-722-6615	732-557-6100
TAX ID NUMBER DUNS NUMBER	22-3131714 79-6894392	05-0567167 13-3336441	27-3335452 ~	27-2394975 ~
"INC" DATE ORGANIZED AS	SEPTEMBER 18, 1991 *NEW JERSEY CORPORATION*	MAY 13, 2003 *NJ – SINGLE MEMBER LLC*	AUGUST 25, 2010 *DE – SINGLE MEMBER LLC*	MARCH 19, 2010 *NJ – SINGLE MEMBER OWNER*
CHAIRMAN OF BOARD PRESIDENT & CEO VICE PRESIDENT SECRETARY	JUAN A. GUTIERREZ ROLANDO E. ACOSTA JOHN S. GUTIERREZ MARCELO R. AFONSO	JUAN A. GUTIERREZ ROLANDO E. ACOSTA JOHN S. GUTIERREZ MARCELO R. AFONSO	CEO – ROLY STEVE CANEEN JOHN S. GUTIERREZ MARCELO R. AFONSO	*MG FAMILY TRUST (90%)* *JUAN GUTIERREZ (10%)*
REGISTERED AGENT	JUAN A. GUTIERREZ 1433 RT. 34 S – BLDG. B FARMINGDALE, NJ 07727	JUAN A. GUTIERREZ 1433 RT. 34 S – BLDG. B FARMINGDALE, NJ 07727		
EEO /AA OFFICER	MARCELO R. AFONSO	MARCELLO R. AFONSO		
CONTRACTS ADMINISTRATOR	JODI BUCKMAN CHRISTINE CHARCALLA	CATHERINE BENDER		
SIGNING OF PAPERWORK	ROLANDO E. ACOSTA	ROLANDO E. ACOSTA		
EMAIL ADDRESS	engineering@ northeastremsco.com	engineering@ caldwellmarine.com		

2.4 Number of Full Time Employees

Caldwell Marine International and Northeast Construction has a total of 200 full time employees.

2.5 Dollar Value of Contracts per Year

Caldwell Marine International is part of the JAG portfolio of companies and is supported by strong financial resources. To date, *Caldwell Marine International* and the Northeast portfolio of Companies have completed over $1,000,000,000.00 in terrestrial and marine construction projects.

2.6 Bonding & Insurance

Caldwell Marine International maintains a solid performance bonding capability with a total bonding capacity of over $450M and a substantial marine insurance package.

3 Quality Management Systems

Caldwell Marine International follows the direction and guidelines of the ISO 9002 quality system. *Caldwell Marine International* recently passed the International Safety Management (ISM) audit for vessel operation and is subsequently qualified for ISM. Our entire offshore vessel crews are STCW (Standard Training Certification and Watch keeping for Seafarers) qualified.

3.1 Caldwell Marine International Safety Manual

Our Environmental Health & Safety Manual is available for review.

3.2 Caldwell Marine International Safe Diving Practices

Our Diving Safe Practices Manual is available for review.

3.3 Caldwell Marine International Quality Plan

A typical project Quality Plan is available for review.

3.4 Caldwell Marine International CFR Parts 195 & 192

In response to the Federal DOT “Operator Qualification” (OQ) rules *Caldwell Marine* maintains an industry standard OQ training program to qualify field personnel.

3.5 Caldwell Marine International Drug & Alcohol Plan

In response to the various oil & gas industry pre-qualification requirements the Caldwell Marine Drug & Alcohol abuse program is audited on a regular basis by the National Compliance Management Service.

4 Typical Project Work Undertaken

Caldwell Marine has the in-house personnel & resources as a prime contractor to complete any of the following:

Marine Civil Construction Operations

- Pier & Dock Construction
- Underwater Inspection, Maintenance & Repair (IMR)
- Bulkhead Construction & Restoration
- Bridge & Fender System Construction
- Marine Foundation & Piling Operations – Mono-piles, Utility Towers
- Marine Platform Construction & Maintenance
- Diving Operations
- Marine Heavy Lift & Salvage Operations
- Pile Wrapping & Rehabilitation
- Amphibious Vehicle Operations

Submarine Utility Operations

- Prime Contractor on Turnkey Submarine Cable or Pipeline supply Projects
- Submarine cable or pipeline repairs
- Marine Route Survey for submarine cable & pipeline systems
- Marine Outfall Installation
- Submarine Cable/Pipeline embedment and burial, via Jet Plowing
- Diver inspection and burial to ~40m water depth

- Horizontal Directional Drilling

- Offshore Renewable Power Projects (Windfarm Installation Support and Wave and Tidal Power Generation Projects)

Terrestrial Operations (with Northeast Construction)

- Prime Contractor on Underground Cable or Pipeline Projects where civil work is a large component
- Underground Duct and Conduit installation
- Micro-Tunneling and Jack & Bore operations
- Open cut trenching
- Complete civil works associated with underground utility installation
- Site Paving and Restoration works.
- Horizontal Directional Drilling (HDD)

4.1 Experience / Work References

The following table is a brief listing of some of Caldwell Marine International's previous clients from the commercial, industrial and municipal fields and the project work under taken on the project:

CLIENT	PROJECT WORK
Prysmian Group	Falmouth to Martha's Vineyard Cable
ABB, Inc.	BEC Project: Brooklyn – Bayonne Submarine Power Cable System – 20 miles 345kV XLPE, NY Harbor
Bayonne Energy Center, LLC	High voltage Duct Bank – 2,000 lf
BC Hydro / Mitsubishi International	VITR Project: Submarine power cable installation
City of Ketchikan, Alaska	Gravina Island Electrical and Telecom Submarine Cable
ConocoPhillips Pipeline	IRPL Project: Submarine pipeline operations NY Harbor
New Jersey Transit	Bridge re-construction & submarine utility work
NYC DOS/NE Construction	Pier, Piling & Wharf rehabilitation
Fox Island Co-op	Submarine Cable Installation - ME
ConocoPhillips Terminals	Offshore Platform construction including mono-piles
Alcatel Submarine Networks	Submarine Cable operations world-wide
Colonial Pipeline Corporation	Submarine pipeline operations

Conectiv (Atlantic City Electric)	Transmission tower construction in river estuary site
Conectiv (Delmarva Power)	Artificial Island re-construction, Delaware River site
US Army Corps of Engineers	Submarine Pipeline Operations
Tyco Telecom	Submarine Cable operations world-wide
Con-Edison/Miller Environmental	Diving Services
Verizon	Submarine Utility Work
Public Service Electric & Gas	Submarine Utility Work

5 Marine Civil Project Operations

5.1 Marine Civil Construction & Maintenance

Caldwell marine provides marine civil construction services either on a turnkey basis whereby we take the role of prime or General Contractor (GC) or on a sub-contract basis whereby we supply the required services to the prime/GC.

Caldwell recently completed a major construction project as GC for Conoco-Phillips at their loading platform offshore Long Island NY. This project included removal of old fuel loading arms, installation of new fuel loading arms and installation of 170’ long mono-piles with an outer diameter of 72” and a weight of 80 tons.

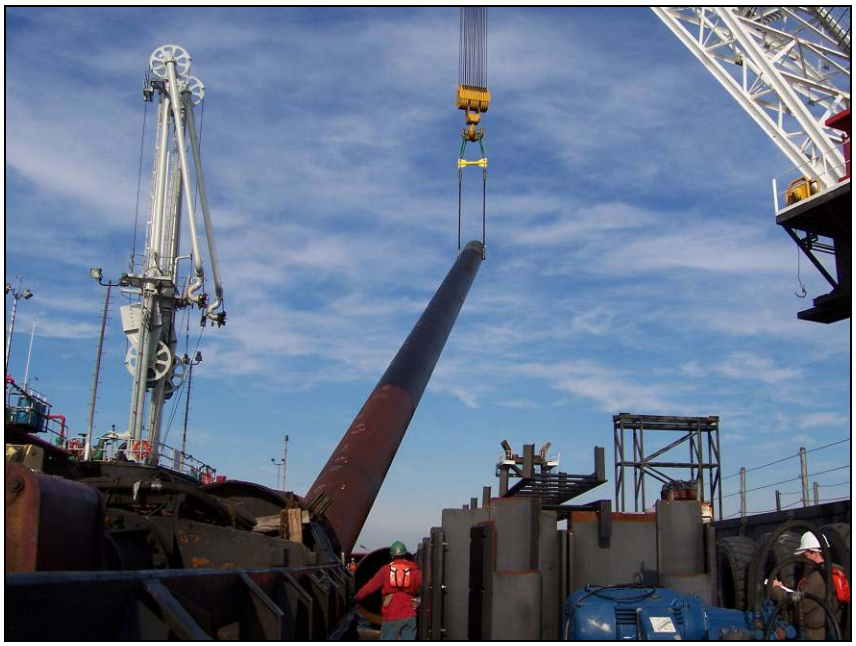
5.2 Recent Project Review

The following is a brief review of recent Caldwell marine construction projects:

Marine Pile driving at a River Estuary site

Marine Cofferdam Construction

Loading Arm installation at offshore platform



170 Foot Mono-Pile Installation at Offshore Platform

Fender Installation at Offshore Platform

Transmission Tower Installation

6 Submarine Utility Project Operations

6.1 Submarine Utility Installation

Caldwell marine provides submarine cable & pipeline installation services either on a turnkey basis whereby we supply cable & installation or on a sub-contract basis whereby we supply just the installation services.

6.2 Submarine Utility Repair

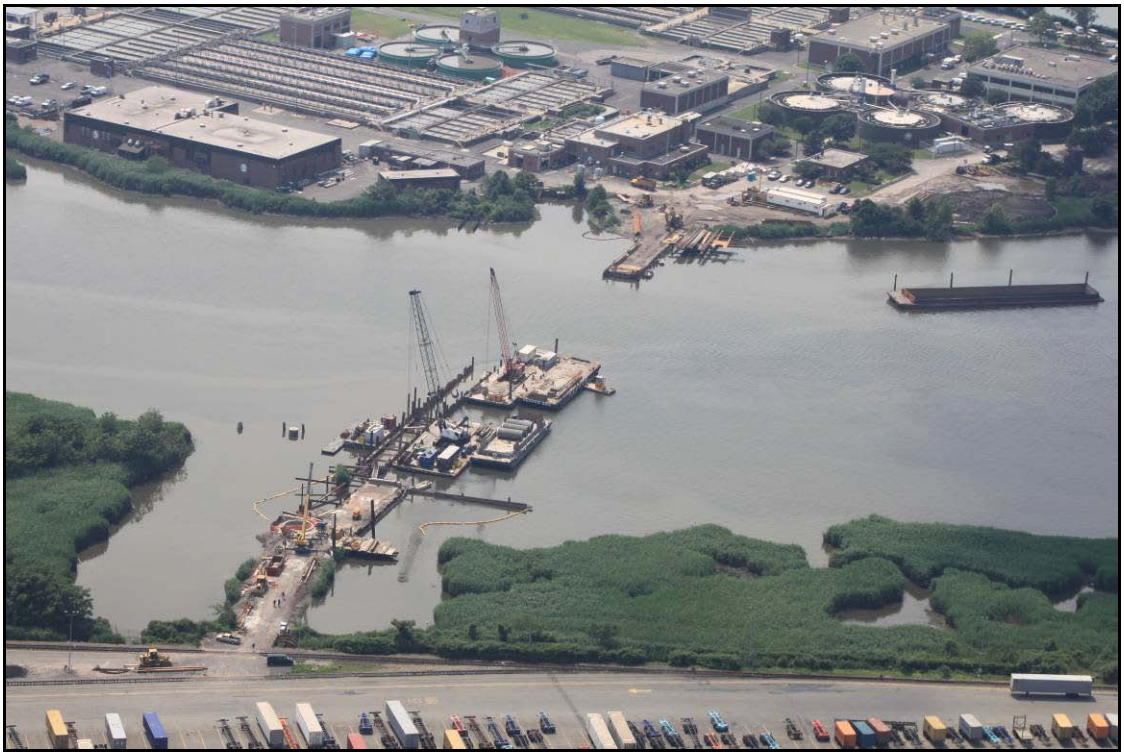
Caldwell marine provides submarine cable & pipeline repair services either on a turnkey basis whereby we supply spare cable, splicing and the marine repair or on a sub-contract basis whereby we supply just the marine services and the owner provides the spare cable and splicing. We currently have on-going standby repair contracts with various utility owners for emergency repair services such as Cross Sound Cable LLC.

6.3 Recent Project Review

The following is a brief review of recent Caldwell submarine utility projects:

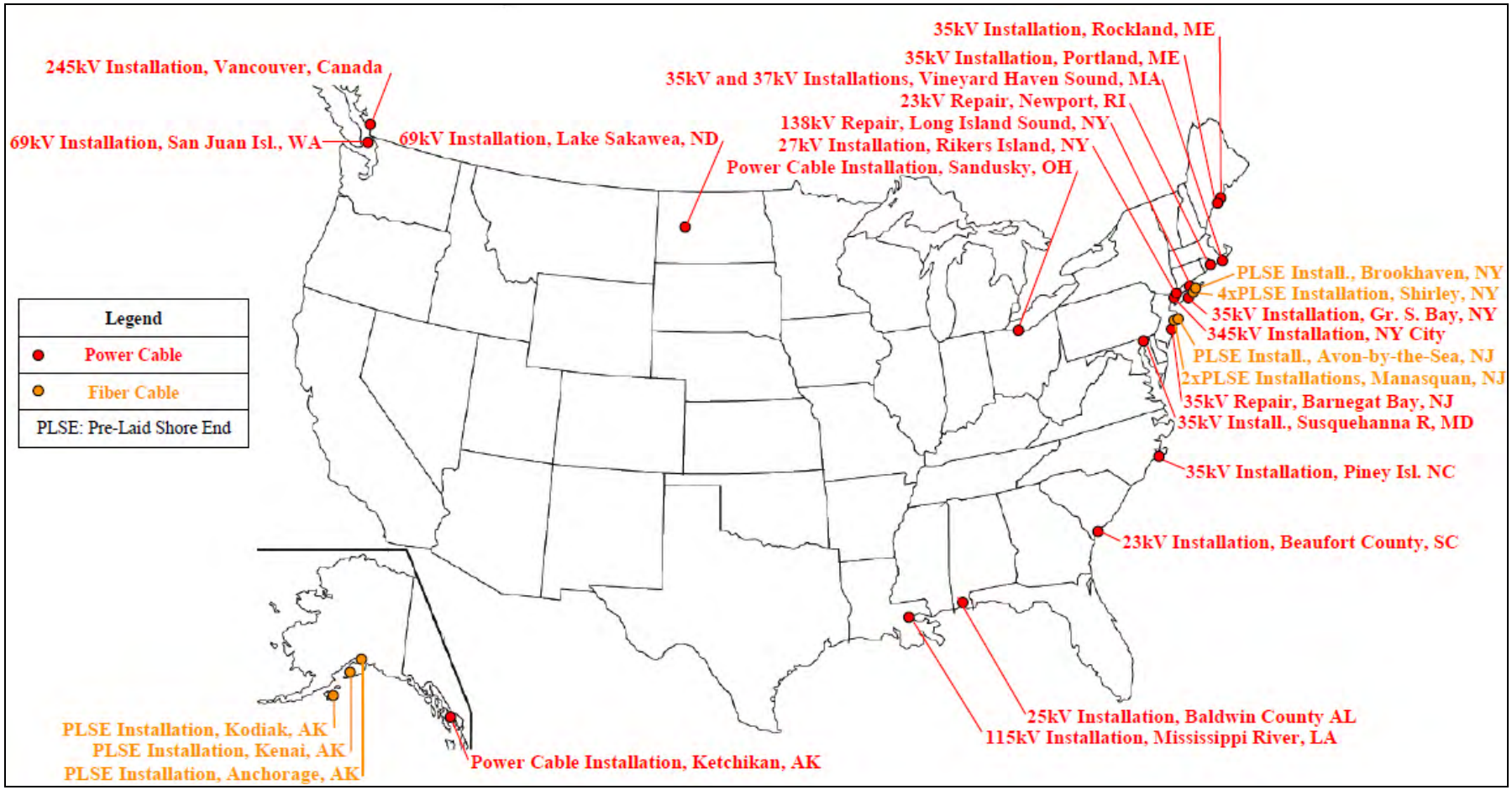
Turnkey Submarine Power Cable Installation Fox Island ME

HDD Tie-in of existing 12” Submarine product line



Submarine Pipeline Installation

7 Submarine Utility Projects; Abbreviated Map of Completed Operations



7.1 Submarine Utility Projects; Abbreviated List of Completed Operations

Submarine Power Cable Experience

- 35kV Submarine Cable — Installation Vineyard Haven, MA
- 345kv Submarine Cable — Installation, New York, NY
- 245kv Submarine Cable — Installation, Vancouver, CA
- 69kv Submarine Cable — Installation, San Juan Islands, WA
- 35kv Submarine Cable — Installation, Rockland, MA
- 35kV Submarine Cable — Repair, Barnegat Bay, NJ
- 35 kV Submarine Cable — Installation, Great South Bay, NY
- 35 kV Submarine Cable — Repair, Vineyard Haven Sound, MA
- 138kV Submarine Cable — Repair, Long Island Sound, NY
- 27kV Submarine Cable — Installation, Rikers Island, NY
- 25kV Submarine Cable — Installation, Baldwin County, Alabama
- 35 kV Submarine Cable — Repair, Vineyard Haven Sound, MA
- 69kV Submarine Cable — Installation, Lake Sakawea, ND
- 23kV Submarine Cable — Installation, Newport, RI
- 35 kV Submarine Cable — Install, Vineyard Haven Sound, MA
- 35 kV Submarine Cable — Installation, Portland, Maine
- 35 kV Submarine Cable — Install, Susquehanna River, PA- MD
- 35 kV Submarine Cable — Installation, Piney Island, NC
- Submarine Power Cable — Installation, Sandusky Bay, OH
- 23 kV Submarine Cable — Installation, Beaufort County, SC
- 15 kV Submarine Cable — Installation, US Navy
- 115 kV Submarine Cable — Installation, Mississippi River
- 37 kV Submarine Cable — Install, Vineyard Haven Sound, MA

Submarine Fiber Optic Systems

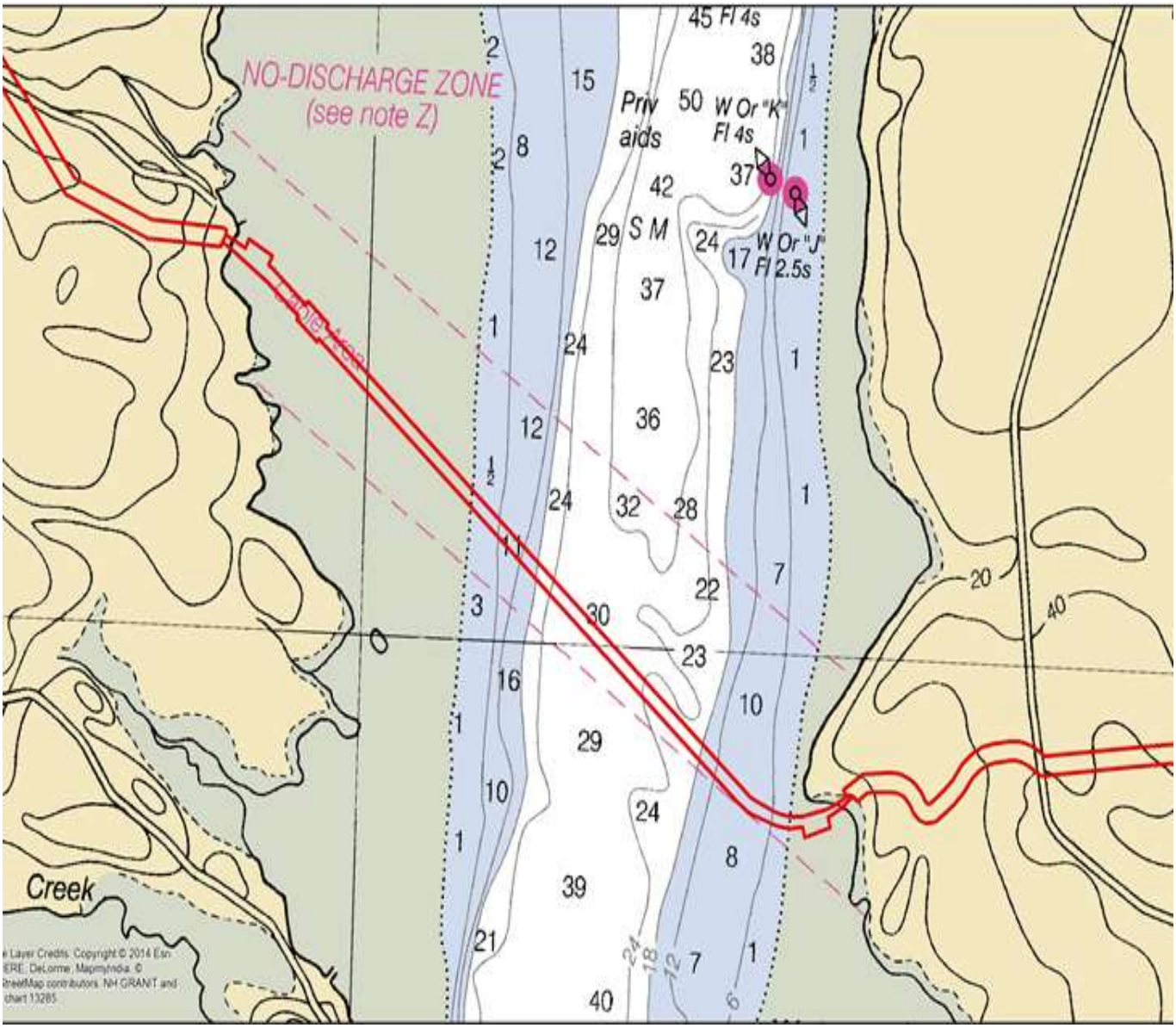
• Gemini	Repair, Manasquan, NJ
• BP-GOM	PLSE, Gulf of Mexico
• Kodiak-Kenai	PLSE, Alaska
• Apollo	PLSE, Lannion France
• Apollo	2 PLSE, Shirley NY, Manasquan NJ
• TGN Atlantic	2 PLSE, Manasquan & Avon By the Sea
• TAT 12/13 Interlink	PLSE, Shirley
• TAT 13	PLSE, Shirley
• MAC	2 PLSE, Brookhaven (Shirley)
• Gemini	Route Clearance, Manasquan
• Gemini	PLGR, Manasquan
• Gemini	Main Lay Support, Manasquan
• TAT-14	Landing Assistance, Manasquan
• TAT -14	Terrestrial Fiber Cable Installation, Manasquan
• TAT -14	Terrestrial Power Cable Installation, Manasquan

8 List of Construction Experience of Principal Personnel – Cable Experience

Name	Present Position	Years at CMI	Years Overall	Magnitude & Type of Work	In What Capacity
Juan Gutierrez	Chairman of the Board	-	45	Up to $100,000,000.00 Submarine Cable and Marine Construction	COB, President, CEO, Owner, Project Manager, Project Engineer, Estimator
Rolando Acosta	President	10	13	Up to $25,000,000.00 Submarine Cable and Marine Construction	President, Project Engineer, Project Manager & Executive Management
James Yuille	Vice President	10	45	Up to $100,000,000.00 Submarine Cable and Marine Construction	GM, Superintendent, Estimator, Field Supervisor, and Foreman
Alfonso Perez	Chief Estimator, EPM	4	29	Up to $95,000,000.00 Marine Construction	Chief Estimator, Exec. P.M. Superintendant, Project Engineer
Troy Godfrey	Director, Engineering Division	10	22	Up to $100,000,000.00 Submarine Cable and Marine Construction	Project Engineer, Estimator, General Superintendent, and Supervisor
Marc Dodeman	Director, Business Development	7	24	Up to $450,000,000.00 Submarine Cable and Marine Construction	Business Development Project Manager, Survey Supervisor
Paul Larrabee	Superintendent	10	27	Up to $50,000,000.00 Submarine Cable and Marine Construction	Superintendent, Estimator, Field Supervisor, and Foreman
Brett Bryant	Superintendent	10	18	Up to $50,000,000.00 Submarine Cable and Marine Construction	Superintendent, Field Supervior Foreman, Diving Superintendant
Adam Brown	Superintendent (Diver)	10	32	Up to $50,000,000.00 Submarine Cable and Marine Construction	Superintendent, Estimator, Field Supervisor, and Foreman
Robert Breininger	Superintendent	10	32	Up to $50,000,000.00 Submarine Cable and Marine Construction	Superintendent, Estimator, Field Supervisor, and Foreman
Brett Bailey	Project Manager & Engineer	4	10	Up to $50,000,000.00 Marine Construction	Project Administrator, Project Manager, Project Engineer & Estimator
Gregory Gashlin	Project Engineer	4	4	Up to $50,000,000.00 Marine Construction	Project Administrator & Project Engineer
Robert Botsford	Project Administrator	9	38	Up to $50,000,000.00 Submarine Cable and Marine Construction	Project Administrator, Project Manager & Superintendent
Kenneth Peters	Surveyor	10	35	Up to $25,000,000.00 Submarine Cable and Marine Construction	Senior Surveyor, Estimator, Superintendent, Supervisor

ATTACHMENT C.

NOAA CHARTLET LITTLE BAY CROSSING

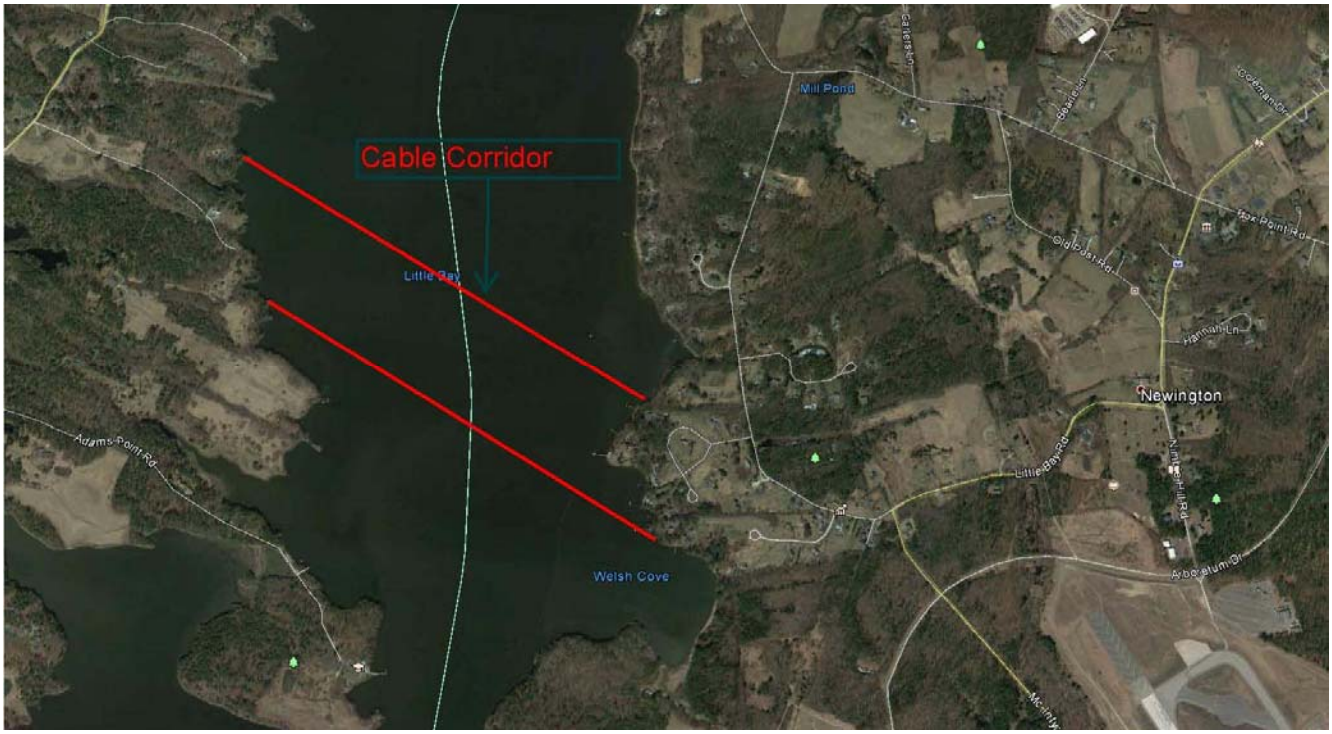

NO-DISCHARGE ZONE
(see note Z)
45 Fl 4s
38
15
Priv aids
50
W Or "K"
Fl 4s
42
37
29
S M
24
17
W Or "J"
Fl 2.5s
12
37
24
23
36
32
28
22
30
16
29
10
24
39
21
8
7
1
40
20
40
Creek

ATTACHMENT D.

F107 CABLE SURVEY FINAL REPORT

Caldwell
Marine International, LLC

PSNH – F107 CABLE SURVEY
FINAL REPORT



Presented to Public Service New Hampshire / Northeast Utilities

31 July, 2014

Presented to:
Gary O'Kula
Transmissions Projects
PSNH/NU
Legends Dr
Hookset, NH 03106

Prepared by:
Marc A. Dodeman
Director of Survey Operations
Caldwell Marine International, LLC
1433 Hwy 34 South, B1
Farmingdale, NJ 07727
P: 732-557-6100
F: 732-736-8910

Introduction and Project Background

In May 2014, Public Service New Hampshire following their review of bids received for the supply and installation of the F107 cable system, invited bid teams (submarine cable manufacturers / installers) to provide technical presentations of their installation proposals. During the review of Caldwell Marine's installation pricing and methodologies, the requirement to clear the submarine cable corridor (see **Figure 1**) in Little Bay (West of Newington, NH) was discussed.

Since this cable corridor is populated by four existing out-of-service PSNH cables, the section of the corridor being considered for the new F-107 cables must be cleared of existing utilities to allow unhindered cable plow burial during installation operations. Public Service New Hampshire contracted Caldwell Marine International, LLC to conduct a dive investigation of the four existing out-of-service cables that cross Little Bay.

During the week of July 14, 2014, Caldwell Marine conducted a diver investigation and hydrographic sounding survey within the Public Service of New Hampshire cable corridor spanning Little Bay.

Project Area (from NOAA Chart 13285)

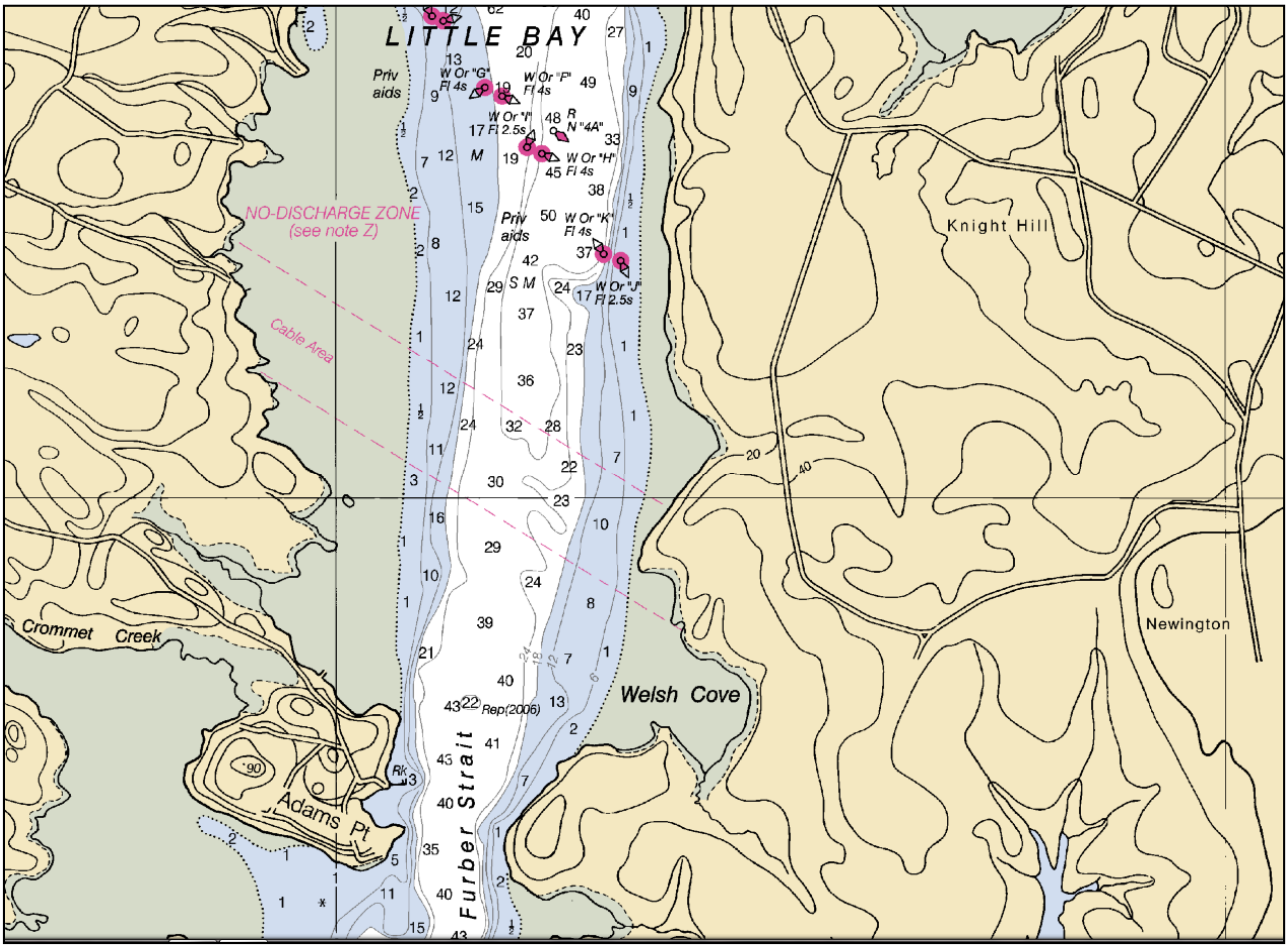


Figure 1. Little Bay Cable Corridor

The primary focus of this survey was to determine existing out of service as-laid cable locations and cable conditions for consideration of recovery operations in preparation of the route design of the future F107 transmission project.

Owner Supplied Areal Information

In April 2013, Ocean Survey, Inc (OSI) conducted a full scale hydrographic survey, which included side scan, magnetometer, and sub bottom profile data collection within the cable corridor (**Figure 2**).

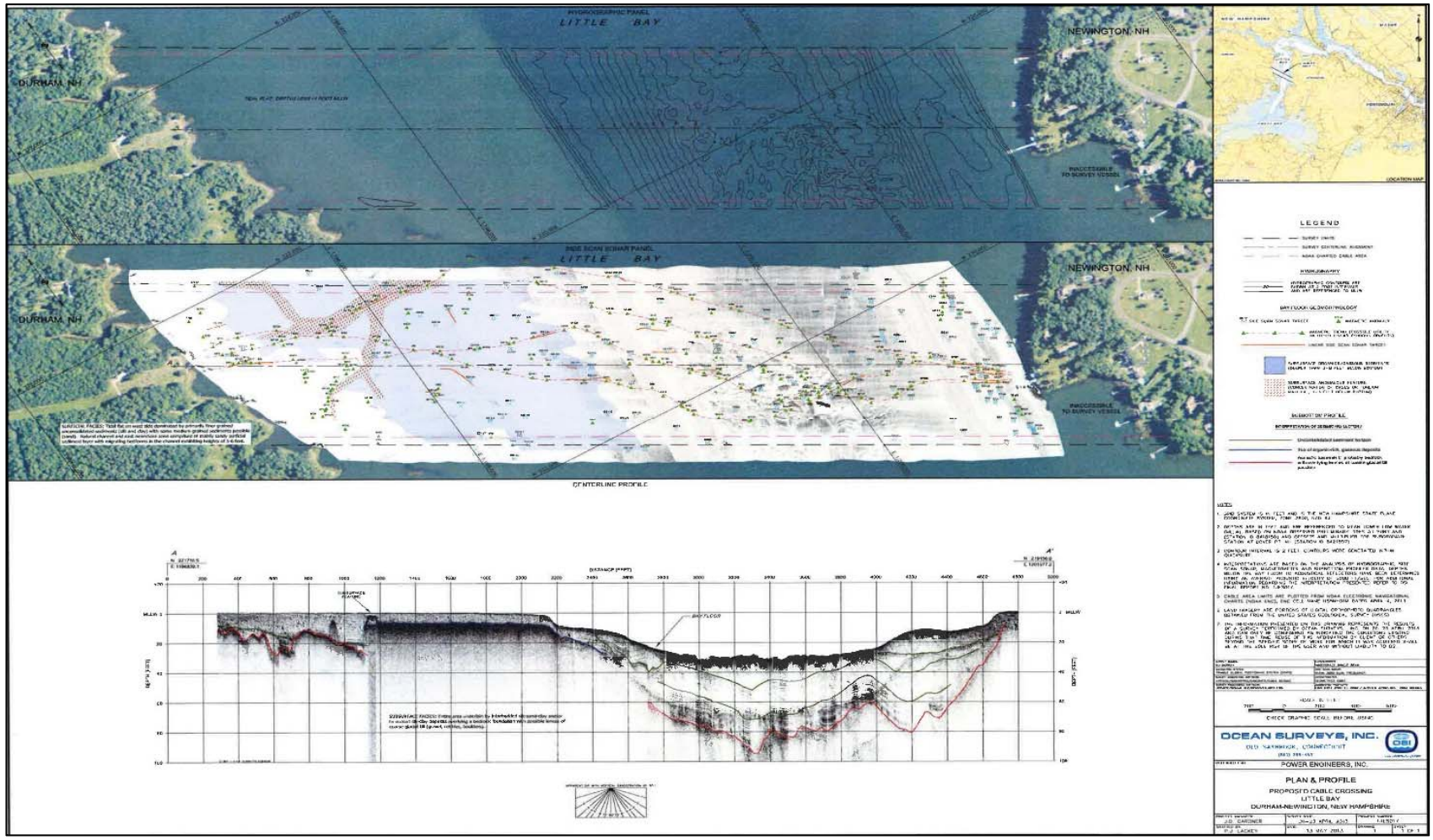


Figure 2: OSI Survey Drawing

This survey identified the four (4) existing out of service cables, as well as other anomalies, within the corridor. Due to the existing cables being located mostly in the northern half of the cable corridor, CMI advised PSNH that the most feasible route for a new cable would be in the southern part of the corridor (**Figure 3**.)

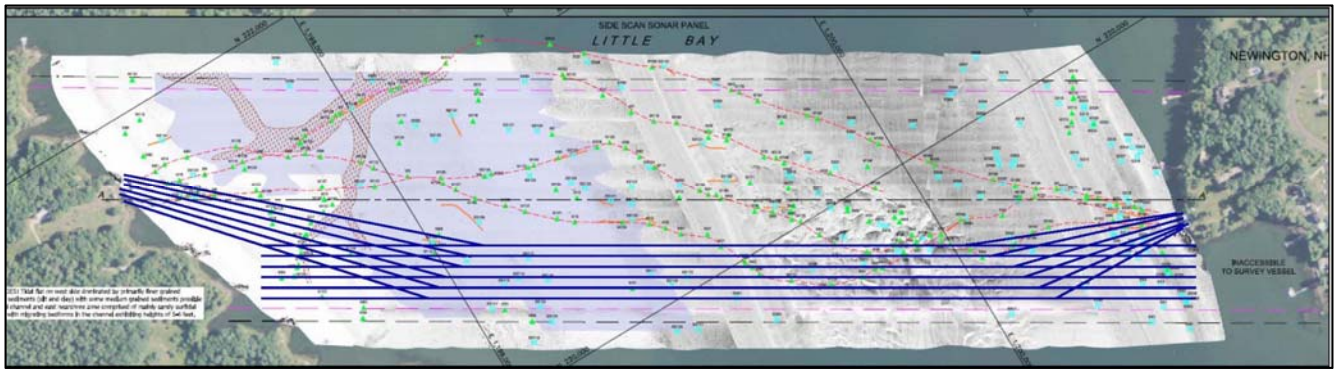


Figure 3

CMI divers first inspected the cable corridor where the new system would most likely be obstructed by the existing cable segments. CMI divers then proceeded along the proposed cable route inspecting for any other possible obstructions. Finally, divers searched for the other existing cables in the northern half of the corridor to verify the as-laid position of the remaining out of service cable segments, and determine their condition and depth.

Surface supplied dive operations were conducted from the *Little Johnny*, a 26' aluminum hulled work vessel. Survey operations were conducted from the *Little Lexi*, a 25' aluminum hulled shallow water survey vessel.

Upon arrival at the work site, utilizing a Differential Global Positioning System (DGPS,) the CMI team located the position of the existing four cables at the approach to the Eastern shore (**Figure 4.**) These locations were consistent with the OSI drawings provided. Over the next four days, divers followed the cables westerly across Little Bay marking as-laid position, overall cable condition, and depth of burial. Divers also investigated the various anomalies identified in the OSI as-found survey drawing and found them to be sunken trees and light debris covered by sand overburden.

Figure 4: View of the work area at the Eastern Shore landing approach; floats were affixed to the as-found cables by divers.

Caldwell
Marine International, LLC

Summary of Field Investigation Operations

Public Service New Hampshire
As-Found Cable Dive Investigation and Sounding Survey

Coordinate System Ref: State Plane
Datum: NAD 83
Zone: 2800-New Hampshire
Units: U.S. Survey Foot

Cables numbered 1-4 from South to North
Soundings Referenced to MLLW in feet

			Geoid		NAD 83		Water	Burial	
Date	Dive #	Cable #	Latitude	Longitude	Northing	Easting	Depth (ft)	Depth (in)	Cable Condition and Bottom Notes
15-Jul-2014	1	1	43° 05.9263' N	70° 51.3857' W	219269.20	1200652.47	11.9	0	Pt. 5873. 3"Cable in good condition. Recoverable. Compact gravel bottom.
15-Jul-2014	1	1	43° 05.9233' N	70° 51.3763' W	219251.06	1200694.60	11.6	0	Pt. 5875. 3"Cable in good condition. Recoverable. Compact gravel bottom. SS126, M71
15-Jul-2014	1	2	43° 05.9249' N	70° 51.3745' W	219260.88	1200702.54	11.3	0	Pt.5876. 1" cable in good condition. Recoverable. Compact gravel bottom.
15-Jul-2014	1	3	43° 05.9326' N	70° 51.3707' W	219307.81	1200719.00	11.0	0	Pt.5877. 1" cable in good condition. Recoverable. Compact gravel bottom.
15-Jul-2014	1	4	43° 05.9357' N	70° 51.3660' W	219326.85	1200739.74	10.6	0	Pt. 5878. 1" Cable in good condition. Gravel bottom.
15-Jul-2014	1	1	43° 05.9368' N	70° 51.4027' W	219331.96	1200576.10	12.0	0	Pt. 5879. 3"Cable in good condition. Recoverable. Compact gravel bottom.
15-Jul-2014	2	1	43° 05.9523' N	70° 51.4482' W	219424.15	1200372.86	15.0	3-6	Pt. 5880. 3"Cable in good condition. Recoverable. Compact gravel bottom.
16-Jul-2014	1	1	43° 05.9401' N	70° 51.4081' W	219351.81	1200551.89	12.0	0-3	Pt. 5883. 3"Cable in good condition. Recoverable. Compact gravel bottom.
16-Jul-2014	1	1	43° 05.9473' N	70° 51.4280' W	219394.69	1200462.88	12.0	0-3	Pt. 5925. 3"Cable in good condition. Recoverable. Compact gravel bottom.
16-Jul-2014	1	1	43° 05.9524' N	70° 51.4491' W	219424.77	1200368.66	15.2	3-6	Pt. 5926. 3"Cable in good condition. Recoverable. Compact gravel bottom.
16-Jul-2014	1	1	43° 05.9536' N	70° 51.4617' W	219431.51	1200312.50	19.0	3-6	Pt. 5929. 3"Cable in good condition. Recoverable. Compact gravel bottom. M167, M192
16-Jul-2014	1	1	43° 05.9543' N	70° 51.4767' W	219435.12	1200245.69	24.0	12	Pt. 5931. 3"Cable in good condition. Recoverable. Compact gravel bottom. M35, M188
16-Jul-2014	1	2	43° 05.9342' N	70° 51.3903' W	219316.69	1200631.66	12.0	0-4	Pt. 5932. 1"Cable in good condition. Recoverable. Compact gravel bottom. M153.
16-Jul-2014	1	2	43° 05.9430' N	70° 51.4076' W	219369.40	1200554.13	12.0	0-4	Pt. 5933. 1"Cable in good condition. Recoverable. Compact gravel bottom.
16-Jul-2014	1	2	43° 05.9486' N	70° 51.4245' W	219402.69	1200478.58	12.0	0-4	Pt. 5937. 1"Cable in good condition. Recoverable. Compact gravel bottom.
16-Jul-2014	1	2	43° 05.9602' N	70° 51.4447' W	219472.29	1200387.98	14.6	1-5	Pt. 5939. 1"Cable in good condition. Recoverable. Compact gravel bottom.
16-Jul-2014	1	2	43° 05.9708' N	70° 51.4665' W	219535.74	1200290.32	22.0	1-6	Pt. 5941. 1"Cable in good condition. Recoverable. Compact gravel bottom. M44
17-Jul-2014	1	2	43° 05.9708' N	70° 51.4665' W	219535.74	1200290.32	27.9	10	Pt. 5942. 1"Cable in good condition. Recoverable. Compact gravel bottom.

1433 Highway 34 South
Building B
Farmingdale, NJ 07727
Tel: 732-557-6100
Fax: 732-736-8910 www.caldwellmarine.com

JAG COMPANIES

Caldwell
Marine International, LLC

Public Service New Hampshire
As-Found Cable Dive Investigation and Sounding Survey

Coordinate System Ref: State Plane
Datum: NAD 83
Zone: 2800-New Hampshire
Units: U.S. Survey Foot

Cables numbered 1-4 from South to North
Soundings Referenced to MLLW in feet

			Geoid		NAD 83		Water	Burial	
Date	Dive #	Cable #	Latitude	Longitude	Northing	Easting	Depth (ft)	Depth (in)	Cable Condition and Bottom Notes
16-Jul-2014	1	2	43° 05.9761' N	70° 51.4788' W	219567.46	1200235.06	25.3	4-6	Pt. 5943. 1"Cable in good condition. Recoverable. Compact gravel bottom. M44
16-Jul-2014	1	2	43° 05.9877' N	70° 51.5010' W	219636.92	1200135.75	27.4	0	Pt. 5944. 1"Cable in good condition. Recoverable. Compact gravel bottom. Cable on surface. SS52, M165
16-Jul-2014	1	2	43° 06.0008' N	70° 51.5227' W	219715.57	1200038.39	28.0	6-8	Pt. 5945. 1"Cable in good condition. Recoverable. Compact gravel bottom. SS52, M166
16-Jul-2014	1	2	43° 06.0065' N	70° 51.5309' W	219749.84	1200001.56	30.0	12	Pt. 5946. 1"Cable in good condition. Recoverable. Compact gravel bottom. SS52, M167
16-Jul-2014	2	1	43° 06.1121' N	70° 51.7867' W	220380.38	1198856.76	10.9	0-3	Pt. 5950. 3"Cable in good condition. Recoverable. Compact gravel bottom. M15, SS132
16-Jul-2014	2	1	43° 06.0928' N	70° 51.7586' W	220264.34	1198982.96	14.0	3	Pt. 5951. 3"Cable in good condition. Recoverable. Compact gravel bottom. M97
16-Jul-2014	2	1	43° 06.0800' N	70° 51.7404' W	220187.36	1199064.72	18.3	5	Pt. 5952. 3"Cable in good condition. Recoverable. Compact gravel bottom. M67
16-Jul-2014	2	1	43° 06.0719' N	70° 51.7335' W	220138.45	1199095.90	20.5	0	Pt. 5953. 3"Cable in good condition. Recoverable. Compact gravel bottom. M67, M21
16-Jul-2014	2	1	43° 06.0512' N	70° 51.7236' W	220013.13	1199141.18	23.7	0-4	Pt. 5954. 3"Cable in good condition. Recoverable. Compact gravel bottom. M187, M20
17-Jul-2014	1	1	43° 06.0018' N	70° 51.6624' W	219715.71	1199416.29	32.0	0-12	Pt. 5958. 3"Cable in good condition. Recoverable. Compact gravel bottom. Southern most point of cable route. M40
17-Jul-2014	1	NA	43° 06.0162' N	70° 51.6629' W	219803.10	1199413.46	32.0	NA	Pt. 5960. Investigation of SS69. Found sand and gravel bank piled against tree.
17-Jul-2014	1	1	43° 06.0069' N	70° 51.6637' W	219746.45	1199410.35	32.0	24+	Pt. 5961. 3"Cable in good condition. Recoverable, but with 2' of burial. Compact gravel bottom. M40
17-Jul-2014	1	1	43° 05.9999' N	70° 51.6519' W	219704.29	1199463.24	32.0	18	Pt. 5963. 3"Cable in good condition. Recoverable, but with 1.5' of burial. Large anchor hooked on cable. Compact gravel bottom. M175
17-Jul-2014	1	1	43° 05.9999' N	70° 51.6519' W	219704.29	1199463.24	28.0	NA	Pt. 5964. 100' Circle search for Cable1, SS73, M180, M57. Tree with sand piled against it found.
17-Jul-2014	2	NA	43° 05.9926' N	70° 51.5796' W	219663.11	1199785.44	28.0	NA	Pt. 5965. Search for SS73, M180, M57. Sand and Gravel bank against tree.
17-Jul-2014	2	NA	43° 05.9589' N	70° 51.4781' W	219463.19	1200239.52	22.0	NA	Pt.5968. 50' circle search for SS50. Tree with sand piled against it.
18-Jul-2014	1	4	43° 05.9725' N	70° 51.4113' W	219548.44	1200535.93	12.0	0-6	Pt. 5972. 1" cable followed from Pt. 5878. A 2' square cinder mooring block SS12.
18-Jul-2014	1	3	43° 05.9686' N	70° 51.4236' W	219524.22	1200481.41	12.0	4-6	Pt. 5973. 1" cable followed from Pt. 5878. A 2' square cinder mooring block SS12.

1433 Highway 34 South
Building B
Farmingdale, NJ 07727
Tel: 732-557-6100
Fax: 732-736-8910 www.caldwellmarine.com

JAG COMPANIES

Conclusions

Having made positive contact with all of the existing cables identified by the OSI survey within the PSNH charted cable corridor in a non-invasive visual dive survey, critically obstructive existing cable positions have been verified. In all diver reported accounts, the physical condition of all existing out of service cables were found to be structurally sound. The sediment found covering the cables in the inspection area trended toward soft, non-cohesive fine sands and soft mud with burial depths ranging from a maximum of 24" to areas of full exposure. Finally, divers reported that in none of the inspection sites were any of the cables found to be cemented in place by stiff sediment overburden or silt/clay accretion, which means that any of the cables within the corridor would be suitable for removal. It should be noted that the sections of the approach areas nearest to the landings areas are very shallow and inaccessible by boat. Should permitting or regulatory agencies require PSNH / NU to remove all existing cables identified during the survey within the corridor, it is probable that this could be achieved.

As per the originally anticipated design of the F-107 cable route, the new cables should be routed towards the Southern half of the charted cable corridor. Using an assumed minimum 10m separation between each new phase cable and a safety buffer zone on either side of each of the extend cables, it is recommended that at least 150-200m (~500-660 feet) from the southern edge of the cable route be cleared of existing cables and debris. Caldwell also recommends a route clearance swath towards the existing cable vaults being performed as needed where the cable route turns northerly towards the vaults at the landing approaches. This translates effectively to removing the two cable sections at a minimum:

1) The southernmost cable (identified as Cable #1) should be removed from the area of recorded data point 5876 across Little Bay to at least the area of recorded data point 5950.
2) Cable #2 (immediately north of Cable #1) should be removed from the area of recorded data point 5876 to ~500 feet west of recorded data point 5965.

An as-found drawing overview of data points collected by Caldwell Marine is shown in figure 5.

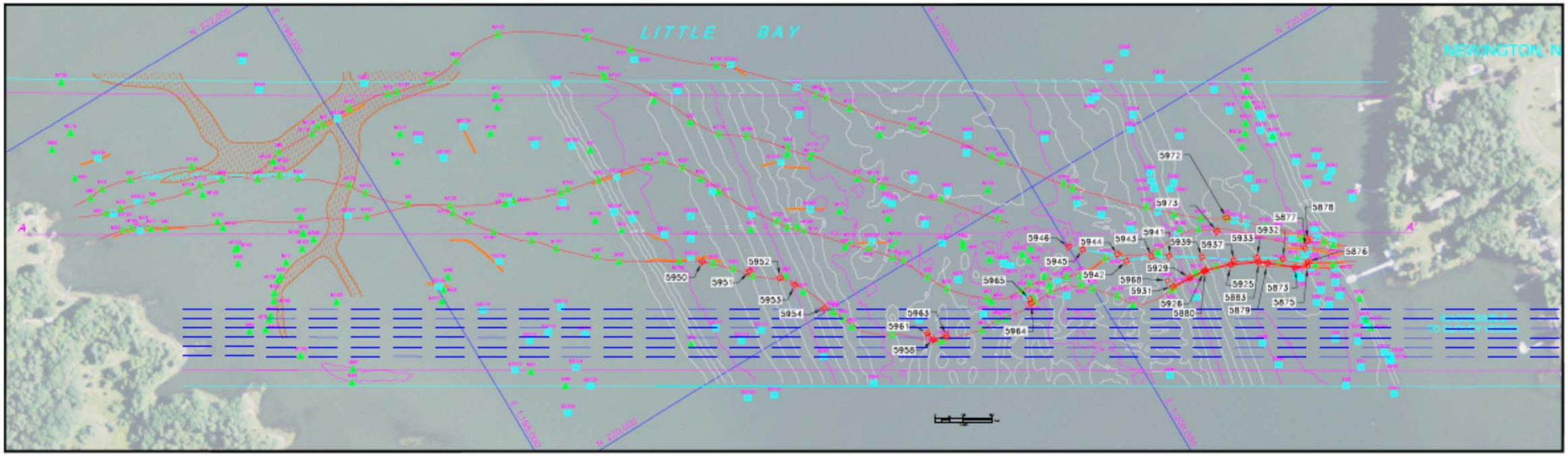

LITTLE BAY
NEWINGTON, N
A
A'
5950
5951
5952
5953
5954
5955
5956
5957
5958
5959
5960
5961
5962
5963
5964
5965
5966
5967
5968
5969
5970
5971
5972
5973
5974
5975
5976
5877
5878
5879
5880
5881
5882
5883
5884
5885
5886
5887
5888
5889
5890
5891
5892
5893
5894
5895
5896
5897
5898
5899
5900
5901
5902
5903
5904
5905
5906
5907
5908
5909
5910
5911
5912
5913
5914
5915
5916
5917
5918
5919
5920
5921
5922
5923
5924
5925
5926
5927
5928
5929
5930
5931
5932
5933
5934
5935
5936
5937
5938
5939
5940
5941
5942
5943
5944
5945
5946
5947
5948
5949

Figure 5.