STAFF USE ONLY
Complaint No._____
Date Received_____
Date mailed to LSP/Subject _____

Board of Registration of Hazardous Waste Site Cleanup Professionals

Please complete this complaint form as fully as possible.
Please type or print legibly.

COMPLAINT MADE BY:

Haugh	Rebecca	A
Last Name	First Name	M.I.

Town Councilor - Town of Weymouth
Business Name

34 Evans Street		781 - 205 - 4644
Number Street		Daytime Phone
Weymouth	MA	02191 -
City	State	Zip Code

LSP OR OTHER PERSON WHO IS THE SUBJECT OF THE COMPLAINT:

Race	Kelley	
Last Name	First Name	M.I.

TRC
Business Name

6 Ashley Drive Floor 1			207 - 274 - 2630
Number Street			Daytime Phone
Scarborough	ME	04074 -	3180
City	State	Zip Code	LSP License Number (if applicable)

SITE OR LOCATION:

If the conduct that is the subject of your Complaint took place at or in connection with a particular property or site, please identify that property/site by either providing its address (street address and city/town) or by otherwise identifying its location.

6-50 Bridge Street, Weymouth, MA 02191

If the property or site has a Release Tracking Number ("RTN") assigned by the Massachusetts Department of Environmental Protection, please provide this number if you know it.

RTN No.: 4-0026230/4-0026243

Allegations:

Describe the incidents that led to your Complaint and note the times and dates that events occurred. List the names of all individuals involved.

See attached.

USE ADDITIONAL PAGES IF NECESSARY TO DESCRIBE YOUR COMPLAINT.

Attach any additional information or documents needed to explain the details of your Complaint. **Send copies, not the originals**, of any related documents.

AUTHORIZATION FOR RELEASE OF RECORDS AND REFERRAL OF COMPLAINT.

When you sign this form (or a photocopy thereof), you authorize the Board of Registration to: (1) conduct its own investigation and (2) possibly refer your Complaint to other law enforcement authorities to investigate or prosecute your Complaint. Please be aware that your Complaint will probably be shown to the LSP/person whose conduct is being investigated.

Please note that all Complaints will be carefully considered; however, the act of filing a Complaint does not assure or imply that disciplinary action will necessarily be taken against the licensee.

I certify that the above information is true, correct and complete to the best of my knowledge.

Your Signature _____ **Date** 12-27-2017

Mail this form to:
Board of Registration of
Hazardous Waste Site Cleanup Professionals
One Winter St., 3rd Floor
Boston, MA 02108

On September 25, 2017, a Petition for the PIP Designation for Disposal Site #4-0026243 was sent to MassDEP, Algonquin Gas Transmission and TRC Environmental, Inc. by Margaret Bellafiore on behalf of 16 residents from Weymouth, Quincy, Braintree and Hingham. Kelley Race of TRC presented the draft PIP to residents on November 13, 2017. Comments on the draft PIP are directed to be mailed to her attention until January 5, 2018. In a follow-up email from Ms. Race on December 18, 2017, she confirmed that she at TRC will be collecting the public's comments and will be preparing the finalized PIP plan after the comment period has been exhausted.

The property in which this PIP is part of - 6-50 Bridge Street in Weymouth - also has a controversial natural gas compressor station proposal assigned to it. Ms. Race has been contracted by Algonquin/Spectra/Enbridge for numerous years and has spoken on behalf of the Enbridge/Spectra at various meetings to forward advance the compressor station proposal (meeting minutes attached).

The Massachusetts Regulations of the Board of Registration of Hazardous Waste Site Cleanup Professionals (309 CMR) clearly lay out Conflict of Interest standards in Section 4.04. It specifically states in article 2 of that section, "In the event a licensed site professional has, develops or acquires any business association, direct or indirect financial interest, or *other circumstance which is substantial enough to create an impression of influencing his or her judgement in connection with his or her performance of professional services pertaining to any site, the licensed site professional shall fully disclose in writing to his or her client the nature of the business association, financial interest or circumstance.*" The group of 16 residents who filed the Petition did not receive a letter stating that the same LSP who has been working to promote the proposed compressor station would also be the same LSP who is supposed to be providing an unbiased opinion of the contamination located at 6-50 Bridge Street in Weymouth.

Lastly, the Draft PIP states on page 2-2, "Evidence of a release of fuel oil was discovered in April 2016, during geotechnical drilling." Additionally, because of this discovery, additional borings and samples were collected on the property from May 10-12, 2016. All of this information can be found in the Phase I Initial Site Investigation Report prepared for Enbridge by TRC in July 2017.

On May 25, 2016, Kelley Race was before our Conservation Commission in Weymouth and gave a run down over historical contaminates and any recent developments. This was the meeting in which the Weymouth Conservation Commission was voting on whether or not to issue the Wetlands Permit for the compressor station. At no point did Ms. Race or anyone who was there on behalf of Algonquin/Spectra/Enbridge disclose about the evidence of a release of fuel oil which was discovered just a month prior to this meeting. The exact amount of the newly discovered contamination may have not fallen under certain thresholds to require an immediate notification to the Town of Weymouth, but not disclosing the recent contamination while our board was considering a wetlands permit is unethical to those residents and the Conservation Commission who are all working to protect the health and welfare of the citizens of Weymouth. This latest discovery should have been mentioned at this meeting and because it wasn't, the public does not have any faith or trust that Ms. Race and TRC will give unbiased feedback to their comments in this petition.

Given just the illusion of a potential conflict of interest in this incredibly complex situation, MassDEP should be more heavily involved with this case and require a third party LSP which has no past relations with the compressor station proposal. Ms. Race's reports will always be questioned on whether or not they are truly what is in the best interest for the general public's health or Algonquin/Spectra/Enbridge's future goals for the property in question. I strongly recommend Kelley Race be removed as LSP from the Public Involvement Plan

Thank you for your consideration in this matter.

WEYMOUTH CONSERVATION COMMISSION
RECORD OF MINUTES AND PROCEEDINGS

Wednesday, April 6, 2016, 6:00PM
Mary Jo Livingstone Humanities Center
1 Wildcat Way, Weymouth, MA

PRESENT:	Steve DeGabriele, Chairman Tom Tanner, Vice Chairman Scott Dowd, Commissioner and Clerk George Loring, Commissioner John Reilly, Commissioner
ALSO PRESENT:	Mary Ellen Schloss, Conservation Administrator

The following is part of the hearing held on April 6, 2016. A full-length video recording of this meeting can be found at http://weymouth.tv/wetc-11-full-tv-schedule, under Video on Demand/Other Government, for one year from date of meeting.

ALGONQUIN GAS TRANSMISSION, LLC – Notice of Intent, Public Hearing
6 Bridge Street
Map 6, Block 63, Lot 1
DEP File #81-1170
Natural Gas Compressor Station

Chairman DeGabriele called the meeting to order at 6:00PM and stated before he opened the Public Hearing he wanted to lay down some ground rules regarding the meeting format for this evening:

- there will be a sign-in sheet for people that want to ask questions or make comments
- following the presentation from the applicant, the Chairman and Commission members will raise questions
- following the Commission's initial questions, the Chairman will open the meeting up to questions from the public (to go through the Chairman)
- Following questions, the Chairman will open up the meeting to public comments
- All statements will be limited to three minutes or less
- The Commission will decide to continue the meeting or close the public hearing
- If the Commission decides to continue the meeting, the Commission will need to decide on a date certain.

Cmmr. Reilly made a MOTION to OPEN the PUBLIC HEARING and to WAIVE THE READING OF THE LEGAL NOTICE. Cmmr. Dowd SECONDED the MOTION. It was UNANIMOUSLY VOTED.

Present for the applicant were:

Jon N. Bonsall, Attorney with Keegan Werlin LLP
John Hynes, Spectra Energy
Terry Doyle, Spectra Energy
Bill Welch, Spectra Energy
Mike Tyrell, Spectra Energy
Rick Paquette, TRC
Mark Costa, PE, Vanasse Hangen Brustlin, Inc. (VHB)
Kelly Race, TRC

Mr. Bonsall stated Algonquin has determined a compressor station is needed in North Weymouth. The Atlantic Bridge Project is not designed for the export of LNG from the U.S. or Canada. The Atlantic Bridge Project is not designed for use in electric generation.

Atlantic Northeast is primarily for electric generators - in service 2018-2020; Atlantic Bridge scheduled for 2017. Second turbine in Weymouth for Atlantic Northeast, construction would be 2019. An environmental assessment will be issued by FERC May 2, 2016. There was an Energy Facility Siting Board (EFSB) Hearing on May 27, 2015. The HubLine is 29 miles. The overall site is approximately 16 acres; 4 acres for the compressor station site. There are 3 acres of filled tidelands. Algonquin would take responsibility for maintenance of the Conservation Restriction and parking area. The proximity to the HubLine is why the site is ideal.

Mr. Tyrell gave an overview of the wetland resource areas.

2.3 acres of temporary construction workspace in buffer zone
- Permanent access road
- Revegetation plan

4.2 acres riverfront within construction staging area
- Previously disturbed site
- Vegetated with Grasses

Land subject to coastal storm flowage (LSCSF)
- No flood zone within fenced compressor station area

Designated Port Area
- Plans fit with adjacent port area usage

Work Schedule
- Grading and foundation 3/17
- Buildings erected 8/17
- In service 11/17
- Site restoration following construction

Elevation/potential for sea-level rise

- 100-year base flood elevation of 17.67 feet using USACE "high curve" model for sea-level rise for 50-year period

Soil Management During Construction

- Site has regulatory closure without an Activity and Use Limitation (AUL)
- 1,000 cubic yd. excavation will be used on site
- 12,000 cubic yd. imported fill will be brought on site
- Will have soil management plan and operate under a Utility Release Abatement Measure (URAM)
- Some staging in LSCSF

Marc Costa, VHB, discussed the proposed stormwater management plan and existing conditions. The proposed stormwater management plan and Best Management Practices (BMP's) comply with and exceed MA DEP Stormwater standards. The proposed drainage system includes six catch basins and an infiltration basin with two forebays. The system will be maintained and inspected.

Chairman DeGabriele opened the hearing for Public Comments:

Representative James Murphy
Representing Weymouth and Hingham
The following statement was read by Representative Murphy.

> Good Evening, I am State Representative James Murphy. I represent the citizens of the Towns of Weymouth and Hingham. I am opposed to the Notice of Intent Application filed by Spectra Energy. This application would allow Algonquin Gas Transmission to construct and maintain a natural gas compressor station in the Designated Port Area of the Weymouth Fore River and on the filled tidelands of the Fore River at 9 Bridge Street (Route 3A). This proposal affects areas regulated under the Massachusetts Wetlands Protection Act and the Town of Weymouth Wetlands Protection Ordinance.
>
> The Massachusetts Wetlands Protection Act was established by the legislature to create a public review and decision making process that evaluates projects which impact environmentally sensitive areas. The primary goal is to protect our environment and wetlands for the greater public good. To strengthen that process, we allow communities to establish their own by-laws, so they can better protect their local resources. Here in Weymouth, we have a Wetlands Protection Ordinance. As many of you know, the purpose of the ordinance is to protect our wetlands, related water resources, and adjoining land areas.
>
> We have a storied history of environmental protection and preservation in our community. As you look around the room this evening, you can see that the spirit of people like Mary Toomey still remains strong today. It's in that spirit that I stand here tonight and ask you to deny the application filed by Spectra Energy. This proposal is not an acceptable use of our coastal resources, and would add pollution to this environmentally sensitive area.

Under state regulations (3.10 CMR 10.03) the developer has to show us two things: the first is that this project will not significantly impact public interest in matters like the protection of fisheries, flood control, and the prevention of pollution. The second is the proposed work must actually contribute to those activities. In two separate incidents in 2009, while an operator was shutting down a compressor station in Bedford County, PA natural gas vented into the atmosphere. The Pennsylvania DEP report states "Malfunctions allowed lubricating oil to mix with the natural gas as it was vented and the oil was atomized into the atmosphere. The oil emissions reached surrounding properties and a nearby pond."

Not only did these alarming incidents occur, but the company operating the station waited two days to report one of the incidents. The DEP concluded "the company failed to act in a responsible manner protective of the public's health, safety and the environment." According to Spectra's website, they are the operator and 50% owner of this station. These are not the only incidents. In December 2013 cold weather froze a valve at Spectra's Searsmont, ME compressor station. This frozen valve caused methane and hydrocarbons to be released into the atmosphere. Spectra received a $34,500 civil fine, which amounts to a slap on the wrist.

This project brings with it legitimate and critical concerns about environmental impacts. These concerns are not just about today, or tomorrow, they are about the future of our community 40 to 50 years from now. Under the Weymouth code of ordinances, the commission IS allowed to deny an applicant's permit. These conditions include "failure to avoid or prevent unacceptable significant or cumulative effects upon the resource area values protected by this ordinance; AND where no conditions are adequate to protect those values."

Our town has limited coastal land that can be developed. This should be preserved for true water dependent uses that will benefit the community as a whole. It is my hope that this permit is denied, and that we can continue to protect Weymouth's environmental resources. As State Representative, I have stood with the community every step of the way. You can rest assured we will continue to work together as a united front, and stand strong in our voice against this proposal.

Ms. Schloss stated the Notice of Intent was filed for work on 6 and 9 Bridge Street. The project is only for work on 6 Bridge Street, north of the 3A bridge. There is no proposed work at 9 Bridge Street, which is south of Route 3A and the site of the power plant. Ms. Schloss stated she received written comments from the Town Council and from Councilor Haugh.

Rebecca Haugh
District One Councilor
The following statement was read by Councilor Haugh:

I am in opposition to Spectra Energy's proposed Atlantic Bridge Project which is currently before you as Spectra filed their Notice of Intent in February 2016. It is the duty of the Conservation Commission to protect our aquatic natural resources.

The proposal by Spectra Energy is irresponsible and detrimental to not only the health and welfare of the citizens of Weymouth, but also to our Wetlands Protected area. There is absolutely no local benefit from hosting a compressor station in heavily residential Weymouth. There are no jobs created from this project. This project does not enhance the neighborhood. This project does not produce a product that is beneficial to our citizens, nor will it impact our gas or electric costs.

The total area of Riverfront Area this compressor station will take up is 4.17 acres (181,840 sq. ft.). It should be noted that the average compressor station in our country sits on 50-60 acres of land. Additionally, more than half of these 4.17 acres are within the 100 ft. buffer zone (2.1 acres or 92,180 sq. ft.) which the Conservation Commission has jurisdiction over.

The project need is not sufficient enough for the Town of Weymouth to reap any benefits from. Spectra has proposed six alternate locations for this compressor station and should consider the two alternate locations which have much more land and much less people impacted by a compressor station. At no time in Spectra's application does it mention how a compressor station will benefit our Wetlands Protected Area. The only benefit from constructing a compressor station in Weymouth is to the applicant.

Spectra filed their NOI and they did not include any information in regard to Access Northeast. Access Northeast is a second project that Spectra has in the works and was pre-filed with FERC on November 17, 2015. Atlantic Bridge's application was submitted to FERC on November 5, 2015. Spectra has known expansion plans for this compressor station and these 4.17 acres of protected Wetlands Area. For instance, Atlantic Bridge will build the compressor with 7,700 hp but Access Northeast will add 10,915 hp for a total of an 18,615 hp compressor station. Furthermore, Access Northeast will be expanding this building and requiring more construction in this protected land. Although this application is for the Atlantic Bridge project, I think it is adamant that the Conservation Commission ask for all relative information known to date for Access Northeast before further entertaining this request.

I thank you for your time and resources you have put into this matter and respectfully ask that you require Spectra Energy to provide you with more information about future known projects for this area before you take any action on this project.

Mr. Bonsall stated Access Northeast is not an actual project; it is a proposed project in the foreseeable future. No permit applications have been filed; they will be filed at the end of 2016. Mr. Welch stated that the proposed building for Atlantic Bridge (dimensions of 60x90) would become 100x90.

Mr. Bonsall stated he can get details about Access Northeast Project only if it goes forward with permitting.

Cmmr. Dowd asked if Atlantic Bridge gets denied will Algonquin go forward with the Access Northeast project. Mr. Welch stated yes it is very likely they will proceed forward with the second phase.

Ms. Schloss asked about FEMA flood zone mapping and asked about the assumptions made for sea level rise. Mr. Costa explained the velocity (VE) and base flood (AE) elevations in the project vicinity.

Cmmr. Reilly stated FEMA maps are incorrect. He asked if they have looked at waves from the oil tankers coming up the river.

Mr. Costa stated the FEMA maps are from 2014 and should be good. To compensate for sea-level rise, they used the Army Corps of Engineer's highest prediction, then added an additional two feet.

JANE HACKETT
Councilor-at-Large

Councilor Hackett stated that she is opposed to Algonquin LLC's Notice of Intent request to construct a compressor station in the heavily populated, waterfront section of North Weymouth.

She said she has joined her town council colleagues in unanimously opposing this project; written comments have been submitted to FERC and EFSB, and will be to DEP, expressing opposition. She concluded by saying that after attending many meetings it is clear that the public is also opposed to this project, as Weymouth gets no benefit from it but assumes significant risk.

Cmmr. DeGabriele asked the applicants what problems there might be with the operation of the compressor if it were inundated with water.

With regard to flood impacts, Mr. Welch stated the design elevation is higher than required by standards. The electrical equipment and gas turbine are elevated a few feet above the floor. The system is programmed for emergency shutdown; gas would be vented. The building is not occupied 24/7; at night the building would be remotely controlled from Texas.

Mr. Tyrell stated the soil management plan can be done as soon as they like. All soil will be kept on site.

Chairman DeGabriele asked about the contaminated site cleanup process ("21E"), noting that there isn't a discussion of it in the NOI.

Ms. Kelly Race, TRC, Licensed Site Professional (LSP), stated that soil samples were collected from the three test pits dug in the vicinity of the proposed infiltration basin. They found low levels of metals and polycyclic aromatic hydrocarbons (PAHs), consistent with coal ash. Ms. Schloss asked if the fill was coal ash. Ms. Race stated it's a conglomerate of everything (coal

ash, "clinkers", brick). She also said the contaminants aren't leachable and the soil is the same soil that is out there now. She then confirmed for Chairman DeGabriele that the pier foundations would not contribute to groundwater contamination.

Chairman DeGabriele asked for most recent test pit data, soil boring samples, and ground water quality data.

Ms. Schloss stated lets discuss proposed hazardous material use and storage; what type, how much, where and contingency plan for spills and emergencies.

Mr. Welch stated that the gas turbine has lubrication oil self-contained, spare volume of oil on site in the auxiliary building in a drum or two. Glycol would be used in the generator. There is no planned flare stack. Waste generated from filter separators would be taken off site. No floor drains – sealed sumps.

Chairman DeGabriele asked about gas in the pipeline. Mr. Welch stated, they don't own the gas they only own the pipeline, so they only want to deal with the pipeline. The system is extremely sensitive to vibrations and if it senses an issue (vibration) it will automatically shut down. Gas could be vented under an emergency situation. The turbine control system is sensitive to vibration and in case of an emergency the valves are shut down and the gas would be vented in less than three minutes.

Cmmr. Tanner asked about the odor generated during a gas release.

Mr. Welch stated that mercaptan is heavier than air and will remain closer to the ground.

Ms. Schloss asked if the emissions are harmful to marine fisheries and shellfish and what is the worst case scenario. Will contaminants enter the water column through wet deposition?

Mr. Doyle stated the proposed facility is categorized by DEP as a minor source of pollution for critical pollutants and air toxics.

Ms. Schloss stated that she talked to Tom Cushing at DEP's Southeast Regional Office, who is reviewing date for the DEP air quality permit for the facility. Mr. Cushing stated that wet deposition issues would not be considered in the modeling done for the DEP permit.

Mr. Doyle stated that he did not think wet deposition was an issue of concern.

Chairman DeGabriele stated that the Conservation Commission would like to formally request that the applicant provide proof of this assertion. Mr. Doyle stated he will be happy to provide further detail.

Chairman DeGabriele stated that the Commission will want to continue the hearing for receipt of this information.

Cmmr. Dowd stated that, given the volume of gas flowing through the turbines, he is concerned about transfer of vibrations into the water. This is an entrance to a migratory area for fish.

Mr. Doyle stated that there are two pipelines existing here now and he doesn't think there is any impact.

Ms. Schloss asked whether the conservation restriction area adjacent to the site will remain open during construction and after construction. Mr. Bonsall stated it will be open during construction and post construction, Algonquin will be responsible for maintenance of the walkway and parking area.

Cmmr. Dowd stated that he is concerned about the noise and vibrations because the increase in gas volume will change what is happening here now. He stated that the proposed facility is at the mouth of the river and the fish populations that migrate through the mouth here are critical to the base of the ecosystem for the entire Gulf of Maine. He asked if the proposed project would change noise and vibrations as experienced now.

Mr. Welch stated you cannot feel vibrations if you put your hand on the pipe.

Mr. Doyle stated they would look at this issue more closely and get back to the Commission with more information. He added that the HubLine is located about 80 to 100 feet below the river bottom.

Cmmr. Loring stated methane dissolves in water. Methane and fish don't get along; it could kill them depending upon the amount of gas.

Mr. Doyle stated that the applicant would provide additional information about potential impacts from methane.

Ms. Schloss asked how hydrostatic test water would be handled following testing of the pipes and was told that hydrostatic test water will be removed from the site.

Ms. Schloss asked about the outfall pipe for the storm water management system. Mr. Costa stated they have looked at MWRA's current and Algonquin's proposed use of the pipe. They have checked the valve on the pipe; water cannot come in during the high tides. Mr. Costa stated the system is capable of handling the worst storm event and high tide at the same time. Ms. Schloss stated there should be inspection of catch basins four times per year.

Chairman DeGabriele asked about the alternative locations investigated; was the main reason Weymouth was chosen economics? He asked why the other locations were not chosen. Mr. Bonsall stated there are many reasons North Weymouth was chosen: environmental impact, economic component, and discharge line has to connect to HubLine in North Weymouth.

Cmmr. Tanner asked did you look for alternative sites. Mr. Bonsall stated yes, there are alternative sites in Quincy and Marblehead.

Chairman DeGabriele asked when FERC will have their answers. Mr. Bonsall stated decisions will be made in September on the Environmental Assessment.

Ms. Schloss asked about old, expired Orders of Condition (OOC) that have been issued to Algonquin Gas and that have not been closed out.

Mr. Doyle stated he is working on the outstanding OOCs and will give the Conservation Commission a schedule in the next few weeks.

PUBLIC COMMENT

Mark Burns, Local 133
265 Washington Street, Quincy
Mr. Burns has worked in the Fore River basin for 30 years. It is an Industrial Zoned Area and is supposed to be used for industrial use only.

Councilor Becky Haugh
74 Evans Street
Councilor Haugh asked staff and Conservation Commission if the project submittal form was submitted within 14 days. Councilor Haugh wants all of the other departments/boards in town to have received a copy of the Notice of Intent and the opportunity to weigh in given the magnitude of this project prior to closing this public hearing. Councilor Haugh asks this board to please keep the public hearing open so that other departments can be notified and get their comments heard.

Councilor Haugh stated this is the 9th public meeting for this project. She said the Notice of Intent does not mention Access Northeast one time. Councilor Haugh asked whether the Commission had seen the resource reports for Access Northeast, particularly Resource Report #1. It shows the layout of Access Northeast. Councilor Haugh asked that the Conservation Commission continue the public hearing to get additional information on Access Northeast and additionally to request information from Spectra.

Michael S. Lang, East Braintree Civic Association
74 Cotton Avenue, Braintree
Mr. Lang asked why the boring samples were considered confidential. Why can't the public see them? He commented that supertankers could create waves that would affect the site. He noted that arsenic in groundwater at the site is higher than state standards.

Chairman DeGabriele asked the applicant to clarify what is known about the arsenic contamination.

Kelly Race, LSP, stated that arsenic is present on the site at levels above state standards, but that because it originates from coal ash, there are specific exemptions in the Massachusetts Contingency Plan (MCP).

Terrence J. Gibbons
49 Bradmere Way
Mr. Gibbons expressed a concern about earthquakes, saying the Boston basin is riddled with faults. Have there been any seismic studies?

Mr. Doyle stated that the applicant submitted an earthquake/seismic study; it is included in the FERC materials, on CD. It is a carbon steel pipeline but has elasticity and is flexible.

Susan Harden
500 Falls Boulevard, Quincy
Ms. Harden stated her question is regarding Chapter 91. Aren't we supposed to be preserving and protecting the rights of the public to access the waterfront?
Regarding the Designated Port Area (DPA), aren't we supposed to be preserving the site for water-dependent uses?

Cecelia Grace
9 Lantern Lane, Weymouth
Ms. Grace suggested all people look at the Attorney General's website; they have submitted comments regarding FERC. The FERC decision may be more imminent than September 1st.

Jon Bonsall stated that the AG's report does not address the Algonquin Bridge project.

Margaret Bellafiore
49 Caldwell Street, Weymouth
Ms. Bellafiore would like to hear from the Health Department on this project. The NOI should have been sent to all departments. Ms. Schloss stated all departments are aware of this project and the NOI.

Ms. Bellafiore stated that there is all this information on line about how bad it is to live near a compressor station. Ms. Schloss suggested Ms. Bellafiore contact the Health Department and speak to them about it.

Chris Primiano
83 Ridge Street, Weymouth
Chris Primiano asked whether the Conservation Commission would keep the public comment period open or whether they would deny the project.

Chet Clem
73 David's Island Road, North Weymouth
Mr. Clem stated he will send his comments directly to the Conservation Commission. There's a difference between Access Northeast and Atlantic Bridge; he's a stockholder of this company. Access Northeast has been in the planning stages for 18 months. Access Northeast has been on their books since 2014 and should be considered a "foreseeable future activity" under the local ordinance.

Neil Deery
31 Blackstone Road, Weymouth
Mr. Deery made the following comments:

- I am in opposition to the Weymouth Compressor station.
- The North Weymouth compressor station is clearly a violation of Chapter 91 of the DEP Mass Waterways Regulations and the cornerstone for environmental and economic disaster in New England and must be stopped.
- This river is commercially fished for lobster, schools of herring and pogies reside here and is home to our long neck and razor clams that have been protected for several years.
- Water dependency for the compressor station at the Fore River Basin in Weymouth is a lie; they operate easily over distances of up to 100 miles.
- The compressor is not needed for delivery to Canada - there is a much more direct pipeline running through Dracut that would not be subject to corrosive effects of ocean water.
- This compressor station will be the final refinery in a chain of existing and proposed refining compressors from the shale deposits of New Jersey to a proposed offshore export facility.
- This is dirty toxic gas. The Weymouth Compressor station will be required to remove all non-condensable and non-product gasses before transport, including radioactive Radon gas and volatile organic compounds (VOC's) such as benzene, toluene and formaldehyde and MTBE (methyl tert-butyl ether).
- Weymouth is the key to granting this pollution distribution system ocean access and the proposed Neptune facility will enable this industry to emit their pollution upwind of the Stellwagen Bank fishing sanctuary at a location outside state waters with no environmental restrictions or monitoring, thus destroying our fishing industry stocks.
- This process is controlled remotely. Temperatures and pressures are monitored carefully to release toxins, radioactive gas and VOCs with minimum loss of product. Local monitoring of wind speed and direction can be taken into consideration when blowing down VOCs and toxins in order to avoid sampling stations or to relocate pollution near innocent facilities.
- This is a refining station that uses basic refrigeration principals. The gas is pressurized and cooled to its saturation point to condense into liquid removing impurities before being released for purchase. Product is not liquefied at the source because a release of the non-product gasses in any single location would be deadly to the inhabitants. This is a toxin and pollution distribution and dilution scheme.

- The Fore River is a healthy river because of the industry located on it. The MWRA has done an incredible job of removing all solids from sewage effluent and pelletizes it for use as fertilizer. Twin Rivers Technologies creates bio-diesel from restaurant waste, and Clean Harbors responds to all hazmat spills to provide the proper removal and disposal techniques.

- The compressor station has no right to be located anywhere near this river, and the DEP is obligated to enforce emergency actions where swift and immediate action is essential to avoid and eliminate a serious and immediate threat to health, safety, and the environment.

Julie Berberan
14 Riverview Street, Quincy
Ms. Berberan stated Massachusetts citizens are paying for the pipeline to be installed. If we had damage to the waterways who pays to fix it? Who insures the pipe? Who insures the gas? Who responds in case of an emergency, is it Weymouth emergency personnel? What safeguards will be taken? Will there be any monitoring of the stack emissions? Of the waterway?

Chairman DeGabriele stated he doesn't know who is responsible for insurance. Mr. Welch stated his company has insurance to cover the nature of its business; he cannot list what it does not cover.

Chairman DeGabriele asked what the potential impacts of emissions are and will there be monitoring of the stack emissions? Mr. Doyle stated this is a minor source and they would probably not be doing continual emissions monitoring.

Chairman DeGabriele stated currently there is no plan to test the water quality on a regular basis; however, DEP will decide if the water quality needs to be tested or monitored on a regular basis.

Susan Greene
26 Holbrook Road, North Weymouth
Ms. Greene stated she comes from a proud union family. There are documents stating numerous health impacts near compressor stations. NOX and VOC combine to form smog; smog will sit in the basin and create wet deposition. Fracked gas is a problem. This is different and deserves a different amount of scrutiny.

Scott Gustafson
30 Dyer Pass, Plymouth, MA
Mr. Gustafson stated he has worked on pipelines and there is not a more regulated union.

Christa Dunn
North Weymouth Civic Association
56 Holbrook Road, North Weymouth
Ms. Dunn is very concerned about impacts on existing compromised air and water quality, and is concerned about population density. On behalf of the North Weymouth Civic Association's 200 members, she strongly urges the Conservation Commission to deny this application. Currently

this area is used for nature walks and dog walks and she is concerned that the Conservation Restriction area won't be used if the project is constructed.

Jodi Purdy-Quinlan
Fore River Watershed Association (FRWA) Director
152 Middle Street, Weymouth
Ms. Quinlan said the FRWA was part of the process on preservation of open space here, they wanted the entire north parcel to be open space and to restore at least one corner of the river.

She stated that, historically, rainbow smelt that ran in Smelt Brook and out into Fore River, was the largest smelt producing resource in the northeast, and asked how impacts on fisheries and recreation can be mitigated.

Tricia Pries, Whitman's Pond Association
Back River Watershed Association (BRWA)
15 Woodbine Road, Weymouth
Ms. Pries asked how the Conservation Commission can proceed without the study. How do we understand the impacts? There will be new pipelines from Franklin up to Weymouth.

Councilor Becky Haugh
Councilor Haugh stated that compared to the Burrillville, RI compressor station on 80 acres, the proposed Weymouth Compressor station is on 4.7 acres with 964 landowners within a half mile. The average compressor station is on 50 to 60 acres of land. The alternative location, in Franklin, MA is located on 60 acres. She asked if there is any compressor station in American in such a densely populated area,

Chairman DeGabriele reviewed the Commission's requests for additional information, particularly regarding the assessment of historic contamination and the potential for wet deposition of airborne contaminants. He stated the Commission would leave the public comment period open until the information was obtained.

Cmmr. Reilly made a MOTION to CONTINUE the PUBLIC HEARING to May 25, 2016. Cmmr. Loring SECONDED the MOTION. It was UNANIMOUSLY VOTED.

CHAPTER 91 APPLICATION TO MASS DEP, ALGONQUIN GAS TRANSMISSION, LLC – DISCUSSION

Ms. Schloss stated the Conservation Commission may want to write a comment letter regarding the Chapter 91 permit and could continue the discussion to April 13, 2016; what is the rationale behind being a water-dependent use?

Ralph Childs, attorney for Spectra, stated that the HubLine was considered by the state to be a water-dependent use because the pipeline had to cross a water body. He noted that the adjacent MWRA pumping station was permitted as being ancillary to a water-dependent use.

NEXT MEETING

The next meeting of the Conservation Commission will be held on April 13, 2016 at 7:00pm; location is to be determined.

ADJOURNMENT

Cmmr. Loring made a MOTION to ADJOURN at 10:15PM. Cmmr. Tanner SECONDED the MOTION. It was UNANIMOUSLY VOTED.

Respectfully submitted,

Christine Malloy
Recording Secretary

Approved:

Scott Dowd — 07/13/2016

Commissioner Scott Dowd, Clerk — Date

WEYMOUTH CONSERVATION COMMISSION
RECORD OF MINUTES AND PROCEEDINGS

Wednesday, May 25, 2016, 6:00 p.m.
Weymouth High School, Mary Jo Livingstone Humanities Center
1 Wildcat Way, Weymouth, MA

Present: Steve DeGabriele, Chairman
Tom Tanner, Vice Chairman
George Loring, Commissioner
John Reilly, Commissioner
Scott Dowd, Commissioner and Clerk

Also Present: Mary Ellen Schloss, Conservation Administrator

The following is part of the hearing held on May 25, 2016. A full-length video recording of this meeting can be found at http://weymouth.tv/wetc-11-full-tv-schedule, under Video on Demand/Other Government, for one year from date of meeting.

Chairman DeGabriele called the May 25, 2016 Commission meeting to order at 6:00 p.m. in the Weymouth High School Humanities Center. He introduced the members and administrator and informed those present of the procedures for the hearing. He stated that, as the applicant has declined to make an initial presentation regarding additional information requested since the April 6th meeting, the Commission would proceed.

Algonquin Gas Transmission, LLC – Notice of Intent, Public Hearing – Continued
6 Bridge Street
Map 6, Block 63, Lot 1
DEP File # 81-1170
Natural Gas Compressor Station

On a motion made by Commissioner Tanner, seconded by Commissioner Loring, the Commission voted 5-0-0 to re-open the public hearing.

Rob Stevens, a Principal Planner with the City of Quincy appeared before the Commission saying the City of Quincy has a lot of concerns regarding this proposal. He said there is a small piece of Quincy in North Weymouth (00 Washington St., ID number 2001-A-3) at the tip of the peninsula. Tax and water bills are being paid by Calpine, owner of the property, to the City of Quincy. He said the Quincy Conservation Commission (Con Comm) was not notified as an abutter, as section (H)(2) of the Weymouth Wetlands Protection Ordinance requires, and therefore asked that the project be denied. He also said two neighborhoods in Quincy will be affected and they have not been notified; he feels Quincy Con Comm should have an NOI submitted to them.

Later during the hearing, Atty. Jon Bonsall, attorney for Spectra Energy, rose to say that he has receipts for both the NOI and the abutter notification letter for the April 6, 2016 meeting signed by the Quincy Mayor's office and the Quincy Conservation Commission.

Mike Tyrell, of Algonquin Gas, said all land to be acquired is in Weymouth and no Quincy land will be impacted, but he will confirm if an NOI was sent to Quincy.

Cmmr. DeGabriele said he feels impact to Quincy should be determined by the City of Quincy and not Weymouth Con Comm.

Ms. Schloss reviewed the applicant's response of May 10, 2016 which responded to the Weymouth Conservation Commission's April 13, 2016 request for information.

Question 1, 4/6/16 Power Point Presentation: was provided by email.

Question 2, Soil and Groundwater Contamination:

Ms. Schloss asked for a summary of data from Resource Report 8 (regarding contaminants and contaminant levels) which was considered 'confidential'.

Kelly Race, TRC, is the Licensed Site Professional (LSP) for the project; she is also a geologist. She has been an LSP since the early 90's and has been on the LSP board "since the early days".

Metals & PAHs:

- Arsenic: Ms. Race explained that arsenic is associated with site fill material. Arsenic concentrations in the fill are above Reportable Concentrations (RC). The Dept. of Environmental Protection (DEP) has some exemptions for arsenic associated with coal ash fill, dating back to the 90's, because it is so widespread. Regulatory closure for the site was achieved even though there were some levels of contamination.
- Beryllium was found to be 2-3 ppm in 1997 when the standard at the time was 0.7 ppm; today's standard is 90 ppm (well above levels found).
- Total petroleum hydrocarbons (TPH): concentrations were at a non-detect level, 40-49 ppb (well below the standard at the time, 500 ppb). This was in the May 10 submittal.
- Polycyclic aromatic hydrocarbons (PAH) - (a product that results from particles falling from the sky as a result of smoke stacks): low levels were found throughout the site. This data was included in the May 10th submittal.
- Volatile organic compounds (VOCs): in field they use a photo ionization detector (PID); they measured for this during geotech borings and did not find any VOCs.
- Leachability of metals: they tested pH in the stormwater basin areas and found a normal pH (a low pH could possibly leach, but this is normal).

Ms. Race explained the obligation for DEP notification if they find something different than what was historically identified at the site.

Soil and Groundwater Management Plan:

- Groundwater elevation averages around 10 ft. below grade, but it might be higher in higher tides (but they are not expecting shallower than 8 ft.).
- Stormwater and pipeline are the two areas of excavation; these areas are proposed to be at 7 ft. below grade.

- Plan shows how they will handle contaminated and non-contaminated groundwater, if encountered.

Cmmr. Tanner asked what the tide level was when the measurements were taken.

Ms. Race stated that the Massachusetts Contingency Plan (MCP) would allow the groundwater to be infiltrated back into the ground near where it was removed, provided there is no visible contamination. She said they could manage construction in these areas outside the high tides. If they can't recharge it, they will put it in a "frac tank", have it tested and taken off-site; this applies to fresh and sea water.

Question 3, Potential Wet Deposition of Airborne Contaminates:

David Cotter, Trinity Consultants, (air quality consultant for the project) said that because methane wants to be a gas, it wouldn't be found in water, so they wouldn't be including methane in the air modeling. He said methane is different than BTEX (benzene, toluene, ethyl-benzene and xylene) and is highly volatile.

He said, regarding a blowdown, they assumed a 3 minute release event and a 15 minute exposure.

<u>Compressor station vs. pipeline blowdowns</u>

Bill Welch, of Spectra Energy, said it would only be a station blowdown, not a pipeline blowdown, and the worst case would be 3 minutes to vent the gas. He said there are valves to isolate the pipeline.

Terry Doyle, of Spectra, said that if the existing pipeline needs to be worked on, there could be a pipeline blowdown but only for maintenance and it is planned. He said the last time there was one was about 7 years ago and they are very infrequent.

Mr. Tyrell said "We are only looking at the compressor."

Mr. Doyle said they didn't address pipeline emissions because they hadn't been asked to.

Mr. Cotter referred to the estimated 21% projected increase in the wet deposition rate of BTEX compounds due to construction of Access Northeast. He said that he didn't do the modeling so it may not be a direct comparison, but 21% of very small numbers, is still extremely small numbers.

Question 4, Noise and Vibration:

Ms. Schloss said there were no follow-up questions to Question 4.

Question 5, Environmental Assessment (EA):

Mr. Tyrell responded to question 5(a)(i) regarding the project's proximity to coastal resource areas:

- They have pulled back activity from the river and are not near the river in terms of sedimentation potential.
- They have designed a state-of-the-art stormwater control procedure in respect to water quality.
- They feel there will be no impact to Fore River or resources in the Fore River.

Cmmr. Dowd said he is concerned about vibration from the pipeline in regards to migratory fish and whether they determine to enter (the area) or not. Mr. Tyrell said he feels vibrations can't go beyond the rock that encloses the pipeline (at a depth of 80+ feet below river bottom) to reach the surface of the water.

Mr. Cotter responded to the Air Quality questions: *5(a)(ii)(a) "What levels are predicted if the additional compressor for the ANE project is constructed? How close to exceeding air quality standards?"*

- He said the project has a much smaller portion of the impact than the ambient background levels. (They use DEP monitoring data for the background level comparisons.)
- They won't know about the impact of the Access Northeast Project (ANE) until they model it.

He also responded to *5(b) "Why aren't (CO or SO2) levels shown for the Weymouth compressor station and will these numbers be provided?"*

- He said Weymouth levels were compared to a Significant Impact Level (SIL). If the results are below the SIL then further analysis is not required, per the Environmental Protection Agency (EPA).

Question 6, Site Selection and Alternatives:
No discussion.

Question 7, Schedule for Filing of Outstanding Certificates of Compliance (COC):
Cmmr. DeGabriele said he thought the schedule for filing for COC's was reasonable.

Safety Issues
Cmmr. DeGabriele asked:

- What systems are in place for emergencies?
- What information is available regarding the 4/29 Salem Township, PA explosion?
- For additional information on remote monitoring.

Jim Luskay, Algonquin Gas, told the Commission that in regards to response and remote monitoring in an emergency shutdown:

For the compressor station:

- There is an emergency shutdown system consisting of gas detection equipment and flame detection equipment.
- The station is isolated with valves that are automatically operated.

- Gas in the station and in connecting pipes is vented to atmosphere and evacuation occurs within 3 minutes of blowdown.
- This system is tested regularly.
- A physical test is done once per year at the facility.

For the existing pipeline:

- Has meter station and valves.
- There are also remotely controlled valves on the pipeline.
- If they see a sudden or significant drop in pressure, they will get an alarm and will be able to remotely isolate that section of pipe.
- About 8/10 of a mile of pipe would be isolated if there was an issue.
- Would send personnel located in the area to the site, typically ½ hour response time to get there, but this would be after the valves were automatically closed.

Regarding 4/29 Salem Township Mr. Luskay said:

- Incident is under investigation by Federal DOT.
- Initial assessment implies corrosion on the welds. Possible flaw in coating material. Pipe has been sent to lab for analysis.
- So far, air quality samples have not detected any contaminants related to the incident.

Cmmr. DeGabriele read from a news report and discussed his concerns. He said the media reported that the explosion:

- Created a 12-foot deep, 1500 square foot hole and scorched 40 acres.
- Caused a 24.5 ft. section of 30" diameter pipe to land 100 ft. away.
- Left a 26 year old man with 3rd degree burns over 75% of his body.

He then said:

- The original NOI proposed property that is a Conservation Restriction (CR) area and if one were to extrapolate the PA incident to the Weymouth CR nearby, it would have scorched the entire area that people are encouraged to use as a public open space.
- Pipeline monitoring inspections do not seem to have been adequate.
- He reviewed a comment letter from Chet Clem which had links to locations of compressor station accidents. It showed there has been at least one explosion every year from 2012 to the present.
- All this causes him great pause. Can we impose sufficient conditions to make this project safe enough, especially as it is next to a public CR area?

Cmmr. Dowd asked in what type of area was the PA explosion? Mr. Luskay replied that it was in rural farm land.

Cmmr. Dowd responded that, in contrast, the Weymouth location has salt spray all over the place and commented that this area would be more conducive, and particularly vulnerable, to this type of corrosion.

Mr. Luskay stated that off-shore gas rigs with similar equipment have a coating for salt water corrosion.

Cmmr. Loring asked what happens if there is a gas tanker coming into the river and traffic is tied up at the bridge; Mr. Luskay said he wasn't going to speculate.

Atty. Bonsall said a single incident is unacceptable adding that USDOT has jurisdiction over the interstate pipeline and safety of the facility doesn't not fall under the jurisdiction of the Conservation Commission.

Cmmr. DeGabriele stated that he didn't agree with that statement saying that the facility was clearly within Con Comm jurisdiction in regards to consequences to the environment. He cited a pending case regarding a proposed fine of $239,200 from May 2014 where it is alleged that Spectra failed to administer alcohol and drug testing following a fire and accidental leak of 1000 cubic ft. of gas caused $186,437.00 worth of property damage.

Cmmr. DeGabriele asked about impacts to the adjacent CR area. He stated that aesthetics and recreation are relevant to the Weymouth Ordinance and are relevant to the King's Cove parcel. He asked about noise and odor (mercaptan) impacts to the CR area.

Mr. Luskay said the station is designed for a noise limit of 55 dB at the nearest receptor. He said a 3-4 minute period of blowdown would not create "a thunderous noise" and the mercaptan may linger, depending upon the weather. He said they have done a noise analysis and they comply with state and FERC regulations.

Mr. Tyrell said there is a noise section in the EA.

Ms. Schloss asked if they know what the peak noise level would be; Mr. Tyrell responded that they do not know, that it would need to be checked.

Mr. Welch said they are below the background ambient noise. The blowdown silencer would reduce the noise to 55-60 dB at 300 feet.

Public comments:

- Weymouth's Mayor Hedlund spoke about his letter of 5/25/16 and material submitted:
  - 200 pages of material and comments have been provided.
  - Copies of letters written to regulatory entities.
  - Highlights of the mayor's and constituents' opposition to the siting of the natural gas compressor station and their urging for denial of the OOC.
  - Legal resources are being expended to support Con Comm's decision and to protect the citizens of Weymouth.
  - Has asked for FERC to extend comment period for ANE at least 45 days.

Cmmr. DeGabriele said that the Mayor's May 25th letter discusses Land Subject to Coastal Storm Flowage. He then asked about severe weather causing total facility inundation; what would prompt a shutdown and would a shutdown be done remotely?

Mr. Luskay said that they monitor the weather and, if there should be an event, they would be able to shut it down remotely and vent the gas. He said a response team comprised of the regional office in Waltham and members from the Houston office has been established.

Cmmr. Tanner asked about rapidity of response; Mr. Luskay said they have local personnel to address facility issues before storms arrive.

Mayor Hedlund's letter raised the point that the project would be exempt from Riverfront standards. Cmmr. DeGabriele asked if the project would be exempt if the Chapter 91 license is issued.

Ralph Child, attorney handling Chapter 91 licensing, said it is common for permitting to proceed concurrently. He said normally Con Comm acts first, conditional on the waterways license being obtained. DEP doesn't want to issue a Chapter 91 license until Con Comm has issued the Order of Conditions (OOC) and they know if there will be an appeal.

Cmmr. DeGabriele then read from testimony given at the 4/06/2016 hearing:

Rep. James Murphy's statement points out that Weymouth's ordinance permits Con Comm the ability to deny a permit based on "failure to avoid or prevent unacceptable significant or cumulative effects upon the resource area protected by this ordinance and where no conditions are adequate to protect those values".

Public comments from the audience continued:

°Margaret Bellafiore, 49 Caldwell Street:

- Sec. 2.10.3 states "no wetlands will be affected".
- Concerned about soil make-up and the Edgar Power Plant PCBs, arsenic (a carcinogenic) and lead. She said the soil shouldn't be disturbed.
- Cites Dr. Curt Nordgaard's comments on arsenic, worker and resident protection, and the need for a detailed protection plan for toxic and carcinogenic waste.

°John Sullivan, 17 Tilden Road, So. Weymouth:

- Proposed project is adjacent to estuary, a sensitive biome.
- He cited Colburn (a researcher) in 2011 said toxic VOC's can escape and mix with nitrogen oxides from the exhaust of diesel fueled equipment to produce ground level ozone which can damage the lungs. Ozone plus particulate matter less than 2.5 micrometers produces smog, asthma, COPD - damaging to humans, and presumably other mammals.
- Silencer and cap on stack can make emissions linger lower to the ground.
- Compressor station noise has an adverse effect on birds.
- Concerned cumulative impacts will lead to a tipping point.

°Rev. Betsy Sowers, 48 Sandtrap Circle, So. Weymouth:

- Concerned about greenhouse gas – methane is 20 times more potent than CO_2.
- Ice melt is putting us in very real danger of 9 feet of sea rise by 2050, and 20 feet by end of the century.

- Concerned compressor station is at the shore and the fish will suffer.
- Compressor is part of a bigger picture and problem that affects Weymouth and others.

°Susan Harden, 500 E. Falls Blvd., Quincy:

- She refers to Mass. Environmental Justice Policy – concerned about alternatives analysis for pipeline.
- She challenged Atty. Bonsall to explain why, when asked why alternative sites were not deemed feasible, he said that the environmental impact of miles of underground pipeline is greater than the environmental impact of a compressor station at the mouth of a river.

°Sandra Peters, 57 Webosset St., North Weymouth ("half mile zone"):

- DCP compressor *is* a Spectra compressor, per the Spectra website.
- Regarding wet depositions: formaldehyde, which has a very long dispersal rate, is a component of gas and blowdowns – was it included in the depositions Con Comm looked at? Cmmr. DeGabriele said he didn't think so.
- Blowdown decibel level is 55-60 dB, within 300 ft.; how close is the conservation area to the 300 ft.? Less than 300 ft. would be louder than 55-60 dB. What about with the ANE project?
- Are any PID monitors operating at any of Spectra's compressors 24 hours per day?
- How long did the Searsmont compressor station vent gas during the incident on New Year's Eve?
- Will there be more blowdowns for longer periods of time with ANE?
- Invasive species – who is responsible for mitigation of invasive species as a result of their disruption of the land?
- What is the minimum distance between fireworks and compressor blowdown before an explosion or ignition would occur?
- Herons and cranes are back and piping plovers *do* forage at this site.

°Judy Roberts, 30 Curtis Ave, Quincy:

Ms. Roberts stated she was relating questions and comments from Weymouth resident Chet Clem (Davids Island Road).

- Soil report is from 1997; have there been no advancements in soil science?
- Spectra's information states that "There will be no change from the construction of the compressor on the pipeline operations." If so, then the compressor is not ancillary to the operation of the HubLine and the applicant's Chapter 91 application before DEP is inaccurate and they must apply for a variance to build a non-water dependent facility.
- Spectra has nine (9) open Orders of Condition (OOC); can we consider this new application when they haven't closed out other applications?
- There is no current analysis of oil or hazardous materials so we don't know what impact contaminants may have on construction activities.
- At past incidents, first responders have been told to wait for a Spectra company representative to arrive on the scene before responding to emergencies, is this correct?

Ms. Roberts added that regarding the air quality being 'fine' scientific evidence refutes that, as Dr. Nordgaard's information shows. She stated that she has lung cancer and is being told by doctors that it is due in part to her environment (she grew up in Quincy Point).

°Alice Arena, 6 Blueberry Street, Weymouth concerned about:

- What contaminants are being treated before being drained from the building? She would like to see an oil separator and maintenance schedule on these drains requested.
- Gas heater next to pedestrian walkway; what's the impact on passing pedestrians? Can it prevent walkway usage?
- Impact of noise on park.
- Potential for clay on the site – it could impact groundwater movement.
- Local PA press says it took over 1 ½ hours to shut off the gas.
- 24 hours to report leak of 3.9 million cubic feet of gas into pond in Arkansas (a drinking water source).
- Blowdown in Searsmont, Maine lasted 45 minutes and was not reported until Bangor News informed the public; they were fined for not reporting.
- Fined for using unqualified welders.
- Fined for using substandard material to line pipes.

°Debbie Brown, 5 Tara Drive, Weymouth, regarding Pennsylvania explosion:

- Spectra's statement that there were no contaminants revealed during their air quality test; local media reported their testing wasn't done until 20 days after the explosion.
- Pennsylvania DEP sampling data was for 24 hours (results not in yet), but was done much closer to the incident date (May 2nd). How long was Spectra's test duration?
- She observed the pipe being floated down when it was installed so she's not sure how it could have been drilled into rock.

°Kathy Bevans, 28 Aspinwall Avenue, No. Weymouth:

- She said, basically, the 16 acre peninsula is a coal ash landfill (the top 25 feet is coal ash and contaminants) held up by a seawall. She feels this would qualify this area as unstable which would require assessments, on an ongoing basis, on the part of owners and operators to reduce the risk of structural failure.
- Are we in sync with the state in terms of coal ash?
- Concerned about blowing dust in the area.
- What happens if there is an explosion and coal ash is released into the environment and retaining seawalls are damaged?

°Becky Haugh, 34 Evans Street, Weymouth District 1 Councilor:

- The Environmental Assessment (EA) pages 2-22 through 2-28 talks about wetlands; it does not mention any Weymouth wetlands. The October Research report also does not mention Weymouth wetlands.

Cmmr. DeGabriele responded that, in fact, there are no wetlands on this particular site. Ms. Schloss explained there are other wetland *resources* present that Con Comm has jurisdiction over.

- She asked why the 1992 EA sampling shows 228 mg per kg of arsenic, but 2015 soil samples found 2.3 mg – 80 mg per kg of arsenic; 100 times the amount.

Kelly Race from TRC responded that:

- The EA sampling was from the 1990's and is done by looking at public record data, not actually collecting it.
- 2015 data was reported in the May 10th submittal. This was based on a very small pocket of soil and results depend on what is in that sampling, then they look at samplings across the site.
- Ash they are finding is intermixed with sand, silt and a little clay, it's not just ash.

Cmmr. DeGabriele recapped by saying the lower numbers were an average from across the site and the higher number was from DEP. He added that one of the reasons why arsenic is exempt is because it occurs naturally at high levels, and, unfortunately, coal ash is not treated like other toxins.

°Councilor Haugh continued:

- Ambient air samples were not done in Weymouth, there were done in Boston, Roxbury and Long Island.

°Cecelia Grace, 9 Lantern Lane, Weymouth:

- Moved here to help with family member who died from cancer related to arsenic exposure.
- She mentioned a lot of history surrounding the water, and the positive affect the wildlife in the area has had on her.

°Robert Kearns, 200 Pilgrim Road, Braintree:

- Mentioned that, as of 6/7/16, UMass has divested itself of all direct holdings in fossil fuel companies.
- The proposed project site peninsula is filled tideland, but was expanded with coal ash and other fill from the Edison Plant. This is where the coal was stored.
- Concerned about sea level rise and storm surge; asked what the 100-year plan is.
- Concerned about excavated toxic material being blown into the air.
- Concerned about herring and the money invested into their expansion.

°Julie Berberan, 14 Riverview Street, Hough's Neck, Quincy:

- Concerned about health and impacts from this site.
- Concerned about chemical components of fracked gas, and that we don't know what is in the gas, asking, what poisons are coming out?
- Concerned about project segmentation – will a new NOI be required for the full project?
- Would Spectra be responsible for damage to waterway?

Cmmr. DeGabriele said government's role is to hold people responsible for damages. It wouldn't just be under the Conservation Commission's jurisdiction.

- Have we asked who their insurance carrier is and how much coverage they carry?

Cmmr. DeGabriele said it was not relevant to Con Comm's responsibility.

- Asked about earthquake study; has one been done?

Cmmr. DeGabriele said he did not think so

°Susan Green, 26 Holbrook Road, Weymouth:

- Regarding the 4/29/16 Pennsylvania explosion, recent reports say four parallel pipes were involved; one exploded and another one was worked on by a Spectra employee one week prior to the incident, so there is a question regarding manipulation of gas pressure.
- Please confirm that a blowdown hasn't been done in seven (7) years.
- Please confirm typical number of blowdowns. Are they typically done twice a month and at night?
- Acute surface water quality benchmarks were used instead of chronic benchmarks because worst-case scenario for blowdown is of short duration and rare or infrequent; she doesn't think twice a month is rare or infrequent.
- Will VOC's coming from the stacks affect VOC levels in soil, thereby increasing the leachability of arsenic into the groundwater?
- Why didn't TRC collect groundwater samples?

°Laura West, 77 Lovell Street, Weymouth:

- Regarding allowable levels, can Con Comm make their own determination as to what is safe or need it be based on government levels?
- Stated air quality readings should be done in Weymouth.
- Hurricane Katrina flattened a compressor station in Louisiana; how was it responded to, what was the damage to, and long term effects on, the environment?

°Peter Lapchak, 58 Saning Road, Weymouth:

- He said he would refute the geologist's claim regarding a pH of 1 being needed to leach out metals.

°Fay Strigler, 94 West Elm Avenue, Quincy:

- Bloomberg News reported Spectra attributed the PA explosion to 'force majeure" and asked if corrosion is an act of God.

Cmmr. Reilly made a motion to close the public hearing but then withdrew the motion.

°Lori Hayden, 10 Prescott Terrace, Quincy, regarding Spectra's responses to the Commission's request for information:

- Request #3: BTEX did not look at formaldehyde – why?

Mr. Doyle said formaldehyde is a product of combustion, not natural gas, so it wouldn't be part of a blowdown event. Cmmr. DeGabriele said that is something DEP would review as part of their air quality permit.

- Request #4: Remarked that Spectra's response on noise did not include impacts from ANE.

- Request #6: Alternative sites did not look at cumulative environmental impacts of Atlantic Bridge and ANE.
- Resource Report 11: Impact radius of 786 feet includes Fore River Bridge, the MWRA pumping station and the Fore River.

Terry Gibbons, 49 Bradmere Way, Weymouth

- The meteorological cycle is very complex. In hazy, hot, humid weather when toxins are released, how would that affect water? Along with thunderstorms, the toxins will come back down into our water and the estuary.
- Spectra should look at whole spectrum of weather, not cherry-pick days.
- Regarding seismic activity: Eastern MA is in a moderate earthquake zone; a 6.0 would do devastating damage, a 2.0 would cause enough damage.

Cindy Lydon, 73 Church St., Weymouth

- Page 2-8 of EA: 1992 data is insufficient and she is concerned about contamination.
- Noise frequency: Wants to know how low frequency noise affects humans, mammals and fish. She thinks a health analysis should be completed.
- Dredging and no silt fence: she thinks erosion protection should be used.

On a motion made by Commissioner Reilly, seconded by Commissioner Tanner, the Commission voted 5-0-0 to close the public hearing.

Cmmr. DeGabriele listed the interests in the State Act and the Local Ordinance at which Con Comm is looking. He then explained what conditions can be imposed to provide adequate protection:

The instances where Con Comm can condition sufficiently:

- Stormwater protection.
- Soil and groundwater contamination.

The instances where Con Comm cannot condition to protect interest of the Act and the Ordinance:

- Potential for explosion: even if they are only a low probability, they are still a high impact event, and he is worried that they cannot adequately protect the interest of, for example, the adjacent CR area.
- Concerned about recreation aesthetics values – noise and odors.
- Troubled by findings about inspection and oversight deficiencies, lack of training at some locations and remoteness of monitoring.

For these reasons he stated he is inclined to vote for a denial.

Cmmr. Tanner said the area is too dense to risk disaster and is not convinced it can run well in severe weather. He is also uncomfortable with the history of accidents as it regards to safety. He confirmed that the environment was a significant factor in his decision that he is not in favor of this project.

Cmmr. Reilly spoke about explosion impact and that toxic releases would impact the water and the fish, saying the herring are a major part of the food chain throughout the North Atlantic. He is also concerned about monitoring from Houston during severe weather like nor'easters and blizzards. He is inclined to vote to deny the application.

Cmmr. Dowd said he had no new points that hadn't already been expressed.

Cmmr. Loring said he is concerned with the report that the BTEX only affects the top 6" on the water column. He stated that during in and out migration the adult herring and the juveniles are located at the surface. He is concerned about devastating effects on herring and smelt and feels that there is an impact over time from low level frequency noise. He also does not feel other locations were fully addressed. He will also vote to deny it.

On a motion made by Commissioner Tanner, seconded by Commissioner Reilly, the Commission voted 5-0-0 to deny Algonquin Gas Transmission, LLC's Notice of Intent application for a proposed compressor station.

Adjournment:

On a motion made by Commissioner Reilly, seconded by Commissioner Tanner, the Commission voted 5-0-0 to adjourn at 10:15 p.m.

Respectfully submitted by,

Patricia Fitzgerald
Recording Secretary

Approved by:

Scott Dowd, Clerk — 07/13/2016 Date

Gmail

Becky Haugh <rebecca.a.haugh@gmail.com>

PIP meeting in Weymouth

Race, Kelley <KRace@trcsolutions.com> Mon, Dec 18, 2017 at 5:39 PM
To: Margaret Bellafiore <margaret@mobius.org>
Cc: "Gerard.Martin@state.ma.us" <Gerard.Martin@state.ma.us>, "Jaime.Goncalves@state.ma.us" <Jaime.Goncalves@state.ma.us>, "james.murphy@mahouse.gov" <james.murphy@mahouse.gov>, Becky Haugh <rebecca.a.haugh@gmail.com>, "Race, Kelley" <KRace@trcsolutions.com>

Hello-

Thank you for your email. As you know, the PIP Comment period was extended at the request of the PIP Group and is open until January 5, 2018. Comments, questions, and concerns received during the PIP comment period will be addressed as part of the Final PIP Plan. As identified in the Draft PIP Plan, petitioners and or community members who have submitted written comments during the PIP comment period will be provided a copy of the responses to comments by US Mail or email based on the method of comment communication received. The response to comments will include responses to comments received at the public meeting held on November 13, 2017. The Draft PIP Plan will be finalized after the close of the comment period and provided to the PIP information repositories and eDEP.

Thanks,

Kelley

Kelley Race, P.G., LSP

TRC

From: Margaret Bellafiore [mailto:margaret@mobius.org]
Sent: Tuesday, November 14, 2017 11:30 AM
To: Race, Kelley
Cc: Gerard.Martin@state.ma.us; Jaime.Goncalves@state.ma.us; james.murphy@mahouse.gov; Becky Haugh
Subject: PIP meeting in Weymouth

Hello Kelley,

At the meeting last night in Weymouth, you indicated that the questions from the audience were being recorded by note takers.

Would it be possible for you to send me a record of the meeting as this is important information for our PIP group?

I appreciate receiving this information that I can then transmit to the other petitioners.

Thank you,

Margaret Bellafiore

Weymouth

3.0 DISPOSAL SITE HISTORY (310 CMR 40.0483[1][c])

3.1 Owner/Operator and Operations History

3.1.1 Current Site Owner and Use(s)

The Disposal Site and Property are currently owned by Algonquin, who acquired the Property in December 2016 from Calpine Fore River Energy Center, LLC. The Property is developed with asphalt paved and unpaved access roads, storage areas, and the Algonquin meter station on the southwest portion.

3.1.2 Previous Owner and Operator Information

Based on the Town of Weymouth's Property Card, the Norfolk County Registry of Deeds (Book 34,726, Page 482) and the Norfolk Registry District of the Land Court (Doc No. 1,368,107) information reviewed during the historical record review, current and historical Site ownership and operator information is provided in **Table 1**.

3.1.3 Historical and Current Uses of the Disposal Site

To evaluate historical uses of the Site TRC reviewed historical Sanborn fire insurance maps and topographic maps prepared for the area. A summary of site use is included in Table 2. Historical maps are included in Appendix A.

Based on the information reviewed, topographic contours in the Site area have significantly changed during the time period reviewed, as the Site has been used for the storage of several materials over a number of years, most significantly soil backfill in the northeast portions of the Site. Currently, the Site consists of an open field with monitoring wells, surrounded by a locked chain-link fence. A crushed rock/dirt access road at the Site.

3.2 Release History

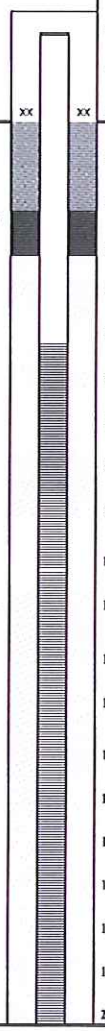
The topography of the Site indicates that grades were raised above natural, pre-existing conditions. Historical documents, including topographic maps, indicate the Site was filled sometime between 1920 and 1936. Historically, the Site included an AST which contained approximately 11,256,000 gallons of number #2 fuel oil. The date of the removal of the AST is unknown but is believed to have been present until approximately 1996. The exact date(s) and volume(s) of release(s) of No. 2 fuel oil from the 11,256,000 gallon AST are unknown. Evidence of a release was discovered in April 2016, during geotechnical drilling. TRC observed contaminated soils within the subsurface from approximately 14 to 19 feet below ground surface (bgs) at one location (boring B-105) within the approximate footprint of an 11,256,000 gallon #2 fuel oil AST. Soil samples collected on Site contained petroleum hydrocarbons in excess of MCP RCS-1. This resulted in a 120-day reporting condition. A release notification was electronically reported to the MassDEP on July 29, 2016 and tracked under 4-0026230.

Boring & Well Construction Log

TRC

Project: 6 Bridge Street Weymouth, MA		Boring ID No.:	**B-201**
		Monitor Well ID No.:	**MW-201**
		Sheet 1 of 1	
Boring Location:	N: 15350345.3936 E: 1108827.8344	Project Number:	140143.0000.7478
Ground Elevation:	13.2 feet	Project Manager:	Ryan Niles
Depth to First Water:	Approximately 10.0 feet below ground surface	Dated Drilled:	5/12/2016
Depth to Static Water:		Drill Type:	Hollow Stem Auger
Stabilization Time:		Sampling Method:	Continuous
Blow Count Info	**Notes:**	Drill Rig and Model Number:	Truck / Diedrich D 120
Type: SPT	HS = Headspace PID reading with a MiniRAE 3000 (10.6 eV Lamp and RF = 1.0)	Drilling Company:	New England Boring Contractors
Hammer: 140 lbs		Driller's Name:	Norm and Shawn
Fall: 30 inches		TRC Representative:	C. Ragnelli / L. Hopp

Depth (feet)	Sample I.D.	Blow Counts	PID HS (ppm/v)	Split Spoon	Pen/Rec (In.)	Description of Sample	Well Construction (Flush Mount)
-3							
-2							
-1							
0							
1	NA					0 - 6": Topsoil (grass)	Native Fill 0.0-2.0'
2							
3	NA					Advanced vac-rig to 6' below ground surface	Bentonite -2.0-3.0' (1' thickness)
4							
5	NA						Seven (7) Feet 2" Schedule 40 PVC Riser (-)2-5'
6							
7	B/MW 201 (6-8') Submitted for Total Metals, Dissolved Metals, EPH-10, hold SPLP	5,5,7,6	0.5	S-1	24/7	6-8': Dry black f-c SAND, trace f gravel, fill (brick 5%, coal slag 5%)	Filter Sand Pack 3-20' (17' thickness)
8							
9	NA	4,3,2,4	0.0	S-2	24/9	8-10': Moist, brown f-c SAND, trace f gravel, fill (klinkers 40%)	
10							Fifteen (15) Feet 2" Schedule 40 0.01 Slotted Screen 5-20'
11	B/MW 201 (10-12') Submitted for Total Metals, Dissolved Metals, EPH-10, hold SPLP, Collected DUP-1	4,6,15,13	7.0	S-3	24/11	10-12': Moist to wet black f-c SAND, some f gravels, fill (brick 20%, klinkers 20%)	
12							
13	NA	23,13,14,10	47.7	S-4	24/16	12-14': Wet black f-c SAND (50%) and FILL (klinkers 3%, brick 20%) trace f gravel Staining and odor	
14							
15	NA	5,4,3,4	54.4	S-5	24/8	14-16': Wet black f-c SAND and FILL (brick 20%, klinkers 30%), trace f gravel, trace silt Staining and odor	
16							
17	NA	6,3,4,4		S-6	24/9	16-18': Wet black f-c SAND and FILL (brick 20%, klinkers 30%), trace f gravel Staining and odor	
18							
19	NA		60.3 20.8	S-7	24/13	18-20': 7": Wet brown to grey f-c SAND, trace f gravel, little silt 6": Wet black f-c SAND and SILT	
20							



Proportions Used
0-10% Trace
10-20% Little
20-35% Some
35-50% And

Change in Material Type
Change in Deposit Type

Penetration Resistance ("Blow Counts")

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50+	Very Dense	16-30	Very Soft
		31+	Hard

Concrete
Silica Sand Pack
Native Fill
Bentonite Seal
Riser
Screen

Boring & Well Construction Log

TRC

Project: 6 Bridge Street
Weymouth, MA

Boring ID No.: **B-202**
Monitor Well ID No.: **MW-202**
Sheet 1 of 1

Boring Location:	N: 15350438.4477 E: 1108914.0582	Project Number:	140143.0000.7478
Ground Elevation:	12.0 feet	Project Manager:	Ryan Niles
Depth to First Water:	Approximately 10.0 feet below ground surface	Dated Drilled:	5/11/2016
Depth to Static Water:		Drill Type:	Hollow Stem Auger
Stabilization Time:		Sampling Method:	Continuous
Blow Count Info	**Notes:**	Drill Rig and Model Number:	Truck / Diedrich D 120
Type: SPT	HS = Headspace PID reading with a MiniRAE 3000 (10.6 eV Lamp and RF = 1.0)	Drilling Company:	New England Boring Contractors
Hammer: 140 lbs		Driller's Name:	Norm and Shawn
Fall: 30 inches		TRC Representative:	C. Ragnelli / L. Hopp

Depth (feet)	Sample I.D.	Blow Counts	PID HS (ppm/v)	Split Spoon	Pen/Rec (In.)	Description of Sample	Well Construction (Flush Mount)
-3, -2, -1, 0							
1						0-6": Topsoil (grass, dirt)	Native Fill 0.0-2.0'
2, 3	NA	8,8,10,22	2.6	S-1	24/20	1-3' 4": Dry, topsoil (roots) 6": Dry brown to black f-c SAND, little f gravel, little fill (bricks 10%, very f coal slag 5%)	Bentonite -2.0.-3.0' (1' thickness)
4, 5	NA	20,19,20,22	0.3 0.0	S-2	24/22	3-5' Dry, organics, roots Dry black f-m SAND, trace f gravel, FILL (very f coal slag 80%) Dry tan very f SAND, trace silt, trace f gravel	Six (6) Feet 2" Schedule 40 PVC Riser (-)2-4'
6, 7	B/MW 202 (5-7') Submitted for Total Metals, Dissolved Metals, EPH-10, SPLP Metals	9,9,6,4	0.2	S-3	24/15	5-7': 3": Dry black f-c SAND, trace FILL (very f coal slag 5%) 3": Dry brown to grey f-c SAND, trace f gravel 3": Dry grey CLAY, little f-m sand 6": Dry brown reddish f-c SAND	
8, 9	NA	5,4,5,4	2.7	S-4	24/13	7-9': Dry brown f-c SAND, trace f gravel	Filter Sand Pack 3-19' (16' thickness)
10, 11	B/MW 202 (9-11') Submitted for Total Metals, Dissolved Metals, EPH-10, SPLP Metals	4,4,5,5	0.2	S-5	24/12	9-11': Moist, wet brown f-c SAND	Fifteen (15) Feet 2" Schedule 40 0.01 Slotted Screen 4-19'
12, 13	NA	2,4,4,5	3.2	S-6	24/15	11-13': Wet brown f-c SAND, trace f gravel	
14, 15	NA	4,10,38,43	0.2	S-7	24/17	13-15': Wet brown f-c SAND, trace f gravel, trace silt	
16, 17	NA	5,3,7,18	0.5 0.8	S-8	24/20	15-17' 10": Wet brown f-c SAND 5": Wet grey f SILTY SAND	
18, 19	NA	1/12",3,4		S-9	24/12	17-19': Wet brown f-c SAND, trace silt	
20, 21	NA	6,21,61,66	0.8 0.4	S-10	24/24	19-21' 18": Wet brown f-c SAND, trace f gravel 4": Wet CLAY with some silt 2": Wet brown f-c SAND	

Proportions Used
0-10% Trace
10-20% Little
20-35% Some
35-50% And

Change in Material Type
Change in Deposit Type

Penetration Resistance ("Blow Counts")

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50+	Very Dense	16-30	Very Soft
		31+	Hard

Concrete
Silica Sand Pack
Native Fill
Bentonite Seal
Riser
Screen

Boring & Well Construction Log

TRC

Project: 6 Bridge Street Weymouth, MA		Boring ID No.:	B-203
		Monitor Well ID No.:	MW-203
		Sheet 1 of 1	
Boring Location:	N: 15350425.3168 E: 1108966.7489	Project Number:	140143.0000.7478
Ground Elevation:	12.2 feet	Project Manager:	Ryan Niles
Depth to First Water:	Approximately 10.0 feet below ground surface	Dated Drilled:	5/11-12/2016
Depth to Static Water:		Drill Type:	Hollow Stem Auger
Stabilization Time:		Sampling Method:	Continuous
Blow Count Info	**Notes:**	Drill Rig and Model Number:	Truck / Diedrich D 120
Type: SPT	HS = Headspace PID reading with a MiniRAE 3000 (10.6 eV Lamp and RF = 1.0)	Drilling Company:	New England Boring Contractors
Hammer: 140 lbs		Driller's Name:	Norm and Shawn
Fall: 30 inches		TRC Representative:	C. Ragnelli / L. Hopp

Depth (feet)	Sample I.D.	Blow Counts	PID HS (ppm/v)	Split Spoon	Pen/Rec (In.)	Description of Sample	Well Construction (Flush Mount)
-3, -2, -1, 0							
1						0-4": Topsoil (grass, dirt)	Native Fill 0.0-2.0'
2, 3	NA	8,26,29,26	0.2 0.1	S-1	24/18	1-3' 14": Dry black f-c SAND, trace f gravel FILL (brick 10%, coal slag 5%) 4": Dry SILTY SAND, trace f gravel	Bentonite -2.0.-3.0' (1' thickness)
4, 5	NA	9,8,12,9	0.2	S-2	24/15	3-5': Dry black f-c SAND, FILL (brick 10%, kinkers 10%)	Six (6) Feet 2" Schedule 40 PVC Riser (-)2-4'
6, 7	B/MW 203 (5-7') Submitted for Total Metals, Dissolved Metals, EPH-10, SPLP Metals	7,6,5,4	0.2	S-3	24/7	5-7': Dry brown to black f-c SAND, trace f gravel, fill (coal slag 20%)	
8, 9	NA	8,4,5,5	0.4	S-4	24/7	7-9': Dry brown to black f-c SAND, trace f gravel, fill (klinkers 20%, brick 20%)	Filter Sand Pack 3-19' (16' thickness)
10, 11	B/MW 203 (5-7') Submitted for Total Metals, Dissolved Metals, EPH-10, SPLP Metals	9,14,10,9	0.1 0.1	S-5	24/12	9-11' 10": Wet black f-c SAND, trace f gravel, fill (brick 5%, klinkers 10%) 2": Wet fine GRAVEL	Fifteen (15) Feet 2" Schedule 40 0.01 Slotted Screen 4-19'
12, 13	NA	2,10,6,7	6.7 4.5	S-6	24/9	11-13' 7": Wet black f-c SAND, trace f gravel, trace silt, FILL (brick 5%, klinker 5%) 2": Wet f SAND, trace silt	
14, 15	NA	1,1/12,1	0.5	S-7	24/2	13-15': Wet black f-m SAND	
16, 17	NA	4,3,2,4	0.6	S-8	24/8	15-17': Wet black grey f-c SAND, trace f gravel, trace silt	
18, 19	NA	6-100/5	6.1	S-9	24/12	17-19': Wet black-grey f-c SAND, trace f gravel, trace silt	
20, 21	NA	14-10-5-7	8 36.7	S-10	24/13	19-21' 3": Wet black f-c SAND, trace silt, trace f gravel 5": Wet black f-c SAND, some f gravel (30%), some wood (organics) 5": Wet brown f- SAND, little silt	

Proportions Used

0-10% Trace
10-20% Little
20-35% Some
35-50% And

Change in Material Type
Change in Deposit Type

Penetration Resistance ("Blow Counts")

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M.Stiff
30-49	Dense	9-15	Stiff
50+	Very Dense	16-30	Very Soft
		31+	Hard

Concrete
Silica Sand Pack
Native Fill
Bentonite Seal
Riser
Screen

Boring & Well Construction Log

TRC

Project: 6 Bridge Street Weymouth, MA		Boring ID No.:	B-204
		Monitor Well ID No.:	MW-204
		Sheet 1 of 1	
Boring Location:	N: 15350381.9915 E: 1109125.3309	Project Number:	140143.0000.7478
Ground Elevation:	12.9 feet	Project Manager:	Ryan Niles
Depth to First Water:	Approximately 10.0 feet below ground surface	Dated Drilled:	5/10/2016
Depth to Static Water:		Drill Type:	Hollow Stem Auger
Stabilization Time:		Sampling Method:	Continuous
Blow Count Info	**Notes:**	Drill Rig and Model Number:	Truck / Diedrich D 120
Type: SPT	HS = Headspace PID reading with a MiniRAE 3000 (10.6 eV Lamp and RF = 1.0)	Drilling Company:	New England Boring Contractors
Hammer: 140 lbs		Driller's Name:	Norm and Shawn
Fall: 30 inches		TRC Representative:	C. Ragnelli / L. Hopp

Depth (feet)	Sample I.D.	Blow Counts	PID HS (ppm/v)	Split Spoon	Pen/Rec (In.)	Description of Sample	Well Construction (Flush Mount)
-3, -2, -1, 0							
1, 2	NA					0 - 4": Topsoil (grass)	Native Fill 0.0-2.0'
3, 4	NA					Advanced vac-rig to 6' below ground surface	Bentonite -2.0-3.0' (1' thickness)
5, 6	NA						Seven (7) Feet 2" Schedule 40 PVC Riser (-)2-5'
7, 8	B/MW 204 (6-8') Submitted for Total Metals, Dissolved Metals, EPH-10, hold SPLP	12,9,13,16	0.6	S-1	24/16	6-8': 8": Dry dark f-m SAND, little f gravel, trace silt 8": FILL (coal slag 75%, brick 25%)	Filter Sand Pack 3-20' (17' thickness)
9, 10	B/MW 204 (8-10') Submitted for Total Metals, Dissolved Metals, EPH-10, hold SPLP	6,5,7,6	0.1	S-2	24/24	8-10': 6": Moist brown f SAND, trace silt 18": Wet dark brown f SAND	
11, 12	NA	2,1,1,3	0.1	S-3	24/24	10-12': Wet dark brown f SILTY SAND	Fifteen (15) Feet 2" Schedule 40 0.01 Slotted Screen 5-20'
13, 14	NA	2,1,1,1	0.6, 0.4	S-4	24/18	12-14' 5": Wet black m-c SAND, trace silt 13": Wet dark brown SILTY SAND	
15, 16	NA	1,5,3,4	10.0, 21.5	S-5	24/14	14-16': 7": Wet dark brown f-c SAND and SILT, trace fill (brick 5%) 7": Wet dark brown f-c SAND and f GRAVEL, and FILL (coal slag, 20%, bricks 40%)	
17, 18	NA	4,4,3,4	0.5	S-6	24/10	16-18': Wet dark brown f-c SAND, fill (klinkers 5-10%), trace silt	
19, 20	NA	5,3,5,17	26.2	S-7	24/8	18-20': Wet dark brown f-c SAND, little silt	

Proportions Used
- 0-10% Trace
- 10-20% Little
- 20-35% Some
- 35-50% And

Change in Material Type
Change in Deposit Type

Penetration Resistance ("Blow Counts")

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M Stiff
30-49	Dense	9-15	Stiff
50+	Very Dense	16-30	Very Soft
		31+	Hard

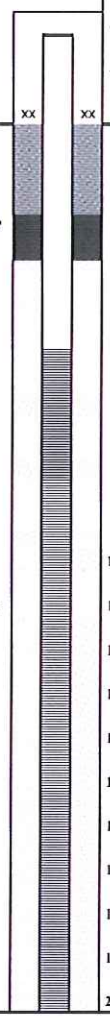
Concrete
Silica Sand Pack
Native Fill
Bentonite Seal
Riser
Screen

Boring & Well Construction Log

TRC

Project: 6 Bridge Street Weymouth, MA		Boring ID No.:	B-205
		Monitor Well ID No.:	MW-205
		Sheet 1 of 1	
Boring Location:	N: 15350260.6793 E: 1109014.1582	Project Number:	140143.0000.7478
Ground Elevation:	14.4 feet	Project Manager:	Ryan Niles
Depth to First Water:	Approximately 10.0 feet below ground surface	Dated Drilled:	5/12/2016
Depth to Static Water:		Drill Type:	Hollow Stem Auger
Stabilization Time:		Sampling Method:	Continuous
Blow Count Info	**Notes:**	Drill Rig and Model Number:	Truck / Diedrich D 120
Type: SPT	HS = Headspace PID reading with a MiniRAE 3000 (10.6 eV Lamp and RF = 1.0)	Drilling Company:	New England Boring Contractors
Hammer: 140 lbs		Driller's Name:	Norm and Shawn
Fall: 30 inches		TRC Representative:	C. Ragnelli / L. Hopp

Depth (feet)	Sample I.D.	Blow Counts	PID HS (ppm/v)	Split Spoon	Pen/Rec (In.)	Description of Sample	Well Construction (Flush Mount)
-3, -2, -1, 0							
1, 2	NA					0 - 6": Topsoil (grass)	Native Fill 0.0-2.0'
3, 4	NA					Advanced vac-rig to 6' below ground surface	Bentonite -2.0-3.0' (1' thickness)
5, 6	NA						Seven (7) Feet 2" Schedule 40 PVC Riser (-)2-5'
7, 8	B/MW 205 (6-8)' Submitted for Total Metals, Dissolved Metals, EPH-10, hold SPLP	12,12,18,16	0.6 0.0	S-1	24/15	6-8' 3": Dry black f-m SAND 12": Dry light brown f-m SAND, trace f gravel	Filter Sand Pack 3-20' (17' thickness)
9, 10	NA	8,14,13,13	0.0	S-2	24/20	8-10": Dry black-brown f-m SAND and SILT, fill (brick 5%, coal salg 5%	
11, 12	B/MW 205 (10-12)' Submitted for Total Metals, Dissolved Metals, EPH-10, hold SPLP	7,6,7,6	0.0	S-3	24/22	10-12': Moist to wet black SILTY SAND	Fifteen (15) Feet 2" Schedule 40 0.01 Slotted Screen 5-20'
13, 14	NA	8,9,6,6	2.1 0.8	S-4	24/12	12-14' 4": Wet grey-black f-m SAND and SILT 8": Wet brown f-c SAND, trace silt, trace f gravel	
15, 16	NA	11,4,4,5	0.0 0.2	S-5	24/15	14-16' 2": Wet brown f-c SAND and SILT 13": Wet brown f-c SAND, little f gravel	
17, 18	NA	5,4,410	1.2	S-6	24/13	16-18': Wet grey f-c SAND and SILT, trace f gravel	
19, 20	NA	2,2,3,3	0.4	S-7	24/8	18-20': Wet grey f-c SAND and f SILT, trace f gravel	



Proportions Used
- 0-10% Trace
- 10-20% Little
- 20-35% Some
- 35-50% And

Change in Material Type
Change in Deposit Type

Penetration Resistance ("Blow Counts")

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M Stiff
30-49	Dense	9-15	Stiff
50+	Very Dense	16-30	Very Soft
		31+	Hard

Concrete
Silica Sand Pack
Native Fill
Bentonite Seal
Riser
Screen