

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OIL & HAZARDOUS MATERIALS REPORT

**Spill Number: P-561-2011**

**Report Status:** Final Report

**MCD Town:** LEWISTON  
**Local Name:** LEWISTON  
**Primary Responder:** STEPHEN G BREZINSKI  
**Primary Product:** #6 Fuel Oil {06} - 5,000 gals. ESTIMATE  
**Subject/Owner:** W. S. LIBBEY MILL (FORMER LINCOLN MILL) - -

**I. EVENT**

**Spill Info**

Type Oil Incident {O}  
Source Storage Unit - Underground Storage Tank {TU}  
Cause Other - Unknown {18}

**Spill Date/Time**

Date and Time Unknown

**Reporter Type/Detection Method**

Type DEP Personnel {1}  
Method Visual Product {L}

**Reported Date/Time**

07/11/2011 12:00

**Subject/Spiller (Potential Responsible Party)**

Contact --W. S. LIBBEY MILL (FORMER LINCOLN MILL)  
6 MILL STREET  
LEWISTON ME 04240 USA

Comment FACILITY OWNER/OPERATOR; NOW OUT OF BUSINESS.

**Reporter**

Contact --SUMMIT ENVIRONMENTAL  
640 MAIN ST  
LEWISTON ME 04240 USA  
207 795-6009

Comment CONSULTANT FOR CITY OF LEWISTON

**Other Contact (Potential Responsible Party)**

Contact --CITY OF LEWISITON  
27 PINE ST  
LEWISTON ME 04240 USA

Comment

**Primary Responder and Other Employees**

STEPHEN G BREZINSKI (Primary Responder)  
MARK R WOODRUFF  
BRIAN A BENESKI  
TROY T SMITH

No Further Response Action Expected

**II. SITE**

**Location**

Location Type Business - Industrial {ID}  
Name W. S. LIBBEY MILL (FORMER LINCOLN MILL)  
Street Address 7 MILL STREET  
MCD Town LEWISTON  
Local Name LEWISTON  
State/Province ME

**Spill Point**

UTM North 4,883,526.990000  
UTM East 402,282.870000

**Wells and Media Affected**

Wells Affected 0 Wells Impacted / 0 Wells At Risk  
Media Affected Land {L}  
Groundwater {G}  
Inland Surface Water {I}

**Tanks Involved**

Underground Tank(s) Involved-584  
Unknown/Unspecified  
Underground Tank(s) Involved-

**III. CLEANUP****Product Reported**

#6 Fuel Oil {06}

**Cleanup DTREE****Products Found/Amount Spilled**

#6 Fuel Oil {06}/ - 5,000 gals. ESTIMATE (Primary Product)

**Material Recovered**

Unspilled Product {VP} - 18 gals. ACTUAL

Contaminated Soil {CS} - 283.32 tons ACTUAL

Mixed Liquid Media {MM} - 1,619 gals. ACTUAL

**Recovery/Treatment Method:**

Vacuum Trucks {A}

Sorbents {C}

Excavation {G}

**Disposal Information**Soil disposed of at CPRC  
Group, Scarborough. Other  
materials disposed of by  
Environmental Projects, Inc.**IV. NARRATIVE**

## SUMMARY

This report covers the investigation of prohibited oil discharges associated with heavy heating oil underground storage tanks (USTs) associated with this former W. S. Libbey Mill industrial mill property. On 7/12/11, Maine Department of Environmental Protection (MDEP) was notified of a #6 oil discharge from a former Columbia Mill building retaining wall into the Androscoggin River (see P-534-2011). Known and suspected #6 oil storage facilities were investigated associated with the Libbey Mill (P-561-2011), Columbia Mill (P-534-2011) and Central Maine Power (P-541-2011). The area is on municipal water, borders the Androscoggin River and other former mill sites and has been industrial use. The W. S. Libbey Mill UST was located on land that appears part of the Columbia Mill property.

Goals of the investigation were to assess the presence and severity of discharges associated with known and suspected leak sources and to determine if they could be a source for the prohibited #6 oil discharge to the Androscoggin River covered in P-534-2011.

The discharge volume of 5,000 gallons of heavy heating oil is an estimate based on known and suspected contaminated areas, past experience and knowledge of the oil, but could be greater.

## LOCATION INFORMATION

The W. S. Libbey Mill had two confirmed oil USTs and several hazardous materials USTs (see spill report P-329-1996). In March 2000, a 5000-gallon #2 oil UST (T-2) was abandoned-by-removal by Fleet Environmental from its location next to the west side of the W. S. Libbey Mill under Mill Street; no UST closure assessment was required or submitted to MDEP for this unheated oil facility. I am unaware of any evidence of a discharge being reported from this #2 oil UST.

In March 2000, a 12,000-gallon, single-wall, bare steel construction #6 oil UST (T-1) was removed from its location southwest of Mill Street and on what appears to be the northeast side of the former Columbia Mill property. Being a heavy oil UST, Summit Environmental (Summit) had to return for an after-the-fact required Chapter 691 UST closure assessment in July 2000. Summit's assessment did not mention the terms free product and saturated soil but does describe "This soil was partially cemented together by the oil" which implies oil-saturated soil. The assessment states the oil contamination was reported to Sheryl Bernard of MDEP who did not respond to personally check and she stated that no further action was needed under a Baseline Clean-Up Goal. No spill report appears to have been written by Ms. Bernard.

Old, out-of-service fuel and return lines, and steam lines still remained protruding from the Mill St. retaining wall (see photos 1 and 2) on 7/12/11. A survey by Dig Smart on 7/27/11, found the fuel and return piping to run north along Mill St. to the north end of the W. S. Libbey Mill building and to what appears to be the location of a former interior day tank in the former boiler room (photo 9).

At the northeast edge of the Columbia Mill property, just west of the Central Maine Power Steam Plant "two tanks" are shown on a 1957 Sanborn Map that are in a position to be fuel tanks for the Columbia Mill or perhaps earlier tanks for the W. S. Libbey Mill replaced by the 12,000-gallon T-1. Later excavation found no clear evidence of former USTs in this location.

## DISCHARGE INVESTIGATION & ASSESSMENT

7/13/11: After noting oil seeping from a capped fuel line (photo 1) on 7/12/11, MDEP had Environmental Projects, Inc. (EPI) open the 2-inch steel fuel pipe and drain it of approximately 18 gallons of black #6 oil. A sample LS-1 of black free-product oil was taken for fingerprint comparison with spilled oil from nearby (photos 3 thru 5). This free oil did not match oil found in the ground at CMP's tank or in the river.

Before MDEP Response Division involvement, Summit had advanced Borings B1 through B4 in the Columbia Mill lot as part of a Brownfield Program study and found no evidence of oil discharges (see map).

8/11/11: Test pits TP-5 and TP-6A were excavated by EPI and Summit in the grassy slope area of the suspected

USTs on the 1957 Sanborn Map (see photo 10 et al.). In both test pits we found oil saturated soil and black free product on groundwater (gw). Excavating TP-6B toward the CMP property and alleged T-3 and T-4 UST facility I observed the volume of oil contamination to lessen. An old collapsed 15-inch clay drain pipe was uncovered in TP-6 coming west from the direction of the CMP facility.

TP-7, to the south of TP-6, was in the area of previous soil borings and found no oiled soil. Gerry Mirabile of CMP arrived and I showed him the test pits prior to their being filled in.

TP-8 was located in the vicinity of the 30-foot long 12,000-gallon #6 oil UST (T-1) abandoned in March 2000 and test pitted by Summit in July 2000. I noted black oil-saturated soil and free product, though not as severe a discharge as in TP-5 and TP-6.

TP-9 was west of the T-1 location between T-1 and the discharge to the river. We noted no oil-saturated or discolored soil or free oil on groundwater.

9/19/11: Under Maine DEP management Test Boring TB-1 was augured in the parking lot overburden near the river and found free product #6 oil atop bedrock at 14 feet below grade (bg). Bedrock well BR-1 in the Columbia Mill lot found no oil; BR-2 west by the CMP tank found oil atop the clay layer that we had found earlier but also found oil in a soil layer under the clay and atop bedrock.

10/17/11: Test borings TB-2 through TB-24 were augured to refusal and bedrock in the flat parking lot of the former Columbia Mill. The borings found a narrow plume of free product oil and saturated soil flowing from upgrade at TB-22 and TP-5 west to near the retaining wall then north to the oil seep into the river (see MDEP site maps and photos for details).

11/29/11 - 11/30/11: MDEP could not attain permission from the property owner of Mill Street to advance soil borings in Mill St. to try and ascertain if the oil discharge source was from the CMP UST (see P-541-2011) or from the former Libbey Mill UST, or both. The goal of the next alternative, Plan B, was to excavate adjacent to and downgrade of the Mill St. retaining wall which is on city property to see if oil could be confirmed coming from the upgrade CMP tank and flowing downhill onto the Columbia Mill site. Under MDEP management EPI excavated test pits.

TP-10 located just above TP-6 and against the wall had little visible oil contamination (see photos for details). Monitoring well MW-1 was installed. The wall here was all stone block with little mortar. There appeared to be a low bedrock ridge separating TP-10 from TP-11.

TP-11 extended about 40 feet northwest along the concrete retaining wall. An old concrete UST cradle was found, according to Cressey for the 30-foot long, 12,000-gallon #6 oil UST removed in 2000. Tan sand fill above the concrete cradle was largely free of oil contamination except for occasional oil-cemented soil boulders. South of the cradle and below the cradle we confirmed a 1 to 2 foot thick layer of black-oil-saturated soil the length of the cradle. During excavation black free product oil formed a slick on the groundwater. Groundwater flowing from under the wall had a sheen that formed a black oil slick on the gw, but the vast majority of the free oil was from under the concrete UST cradle. The most severe oil contamination was at the southeast end of TP-11, oiled soil at the northwest end was dry to bedrock below. The bedrock appeared to slope south-southeast which would herd most of the free oil at the southeast end of the tank grave. Monitoring wells MW-2 and MW-3 were installed on bedrock at either end of TP-11.

TP-12 was excavated southwest of TP-5 and TP-11, and east of TB-22. A 4 to 6 foot thick bed of oil saturated soil was found extending to the parking lot edge with free product on the gw. MW-4 was installed. See photos for details.

## AREA GEOLOGY

The flat Columbia Mill (Heritage Park) area appears to be nonnative fill varying greatly from sand to bricks, concrete and boulders. During the excavation of TP-10 through TP-12 and with the many soil borings I noted the bedrock surface to be very irregular and sloping west toward the river. Borings near the river found the bedrock

surface could vary by up to 10 feet in depth in just 10 feet horizontal distance. Bedrock exposed in TP-10 and TP-11 appeared irregular and smooth like the exposed bedrock around the falls, some of it appeared to be fractured (perhaps by historical blasting). The retaining walls may be of the local rock.

The oil plume appears to have followed bedrock lows toward the river and has been smeared vertically with fluctuating water tables. The fill material is often very permeable to oil and gw.

#### CLEAN-UP ACTIONS

11/29/11 - 12/1/11: from TP-10, TP-11 and TP-12 EPI and subcontractors excavated and transported 283.38 tons of oiled soil to CPRC Group for recycling; and EPI recovered 1,619 gallons of oil and groundwater. No gw or soil was removed or treated during excavation of TP-1 through TP-9. A significant volume of oiled soil appears to have been removed from a source area during the investigation which will contribute toward natural attenuation and reduction of the oil impacting the Androscoggin River.

#### CONCLUSION & RECOMMENDATIONS

- I) With the test pits on 11/29/11 and 11/30/11, oiled-groundwater was pumped off and oil contaminated soil was excavated and replaced by clean fill in an effort to see if oil could be clearly found coming from under Mill St. If a significant volume of oil could be clearly identified coming from upgrade than this discharge might be shown to be coming from the upgrade CMP property. In May 2012 MW-1 through MW-4 were checked and found clean of oil, suggesting the oil is not coming from the upgrade CMP facility, at this time.
- II) Based on the observations of TP-6 and TP-10 it appears that there were no UST(s) located in this area as shown on the 1957 Sanborn Map. Based on TP-10, the oil discharge in TP-5 was associated with the #6 oil UST (T-1) removed in year 2000 or an additional and previous UST there. TP-8 confirms oil saturated soil remaining under former T-1. A path of oil-saturated soil from test pit T-1 to the river was confirmed with the Test Borings.
- III) Fingerprint comparison analysis by the USCG Marine Safety Lab of spilled oil from the river (S-2), oil from the fuel pipe (LS-1) and TP-5 (SS-3) indicate that all the samples are not derived from a common source with differences not attributable to weathering or non-petroleum contamination. This conclusion can be unreliable since a leaking UST gets many oil deliveries originating from different oil reservoirs and refineries so the end of an oil plume can be very different from the beginning of a leak plume.
- IV) At this time oil discharges in the areas of T-1 remain on-site and are not fully clean to Department/state satisfaction. Considering future development, threat of the oil reaching the river, and minimum clean-up requirements: oil saturated soil and free product is required to be cleaned up to state satisfaction. I have informed CMP and Summit Env. (as agent for City of Lewiston) that further remediation may be delayed to be in conjunction with future Brownfields development unless the discharge is found to be the source of the river leak where it would need to be immediately remediated. At this time MDEP Response Division recommends further source removal through excavation in the hillside west of TP-10 and TP-11 which will be handled by the Brownfields Program.
- V) The non-compliant tank T-1 was not abandoned prior to 1998 and its piping was not properly abandoned as required.
- VI) As the apparent tanks T-3 and T-4 on the 1957 map were never registered with MDEP, any associated discharge (discharges) were not reported to MDEP, and the USTs appear to have been abandoned prior to 1986.
- VII) The buried #6 oil product and return piping from the 12,000-gallon #6 oil UST are still in need of proper abandonment by removal as required by MDEP rules Chapter 691.
- VIII) Further MDEP Response Division actions are possible. With the past demolition of the mill there may be unreported historical discharges, buried tanks, and drums that have not yet been found. Though some discharge sources are hundreds of feet from the river it is common for #6 oil to readily travel through voids in the old demolished mill, old drain pipes and permeable fill and debris with enough time.

IX) The W. S. Libbey Mill had three chemical storage USTs for Naphtha, Acetone and Varsol on-site by Building 22 and mentioned in W. S. Libbey Co. and MDEP letters from 1986 with alleged removal by Jetline Services. No UST Closure assessment was required at that time.

X) At this time it appears that the oil plume seeping into the river largely originates from the removed W. S. Libbey Mill #6 oil UST (T-1) though the CMP UST may have contributed a percentage of the plume. The presence of the oil saturated plume under the former 12,000-gallon tank and not in soil above it suggests to me that this saturated soil may have been from an earlier UST prior to the installation of T-2, or from oil that seeped down and under the cradle from under the wall, a less likely alternative. The oil-saturated plume lies under the UST location and down-gradient (west) of it.

XI) This spill report shall not be construed to be nor used as an environmental site assessment, nor to mean that the site is remediated to original or pristine condition. See also P-534-2011 for additional information on this discharge(s), the year 2000 Phase I assessment by Summit, and the year 2004 Phase II assessment by Aquarion Engineering. No further MDEP Response Division actions are expected unless additional discharges occur or are discovered.

XII) 12/5/11: MDEP staff Brezinski, Woodruff and Beneski met with Lincoln Jeffers, John Cressey, and other city staff, and we explained that the City of Lewiston appeared to be responsible party for the discharge and that MDEP would have to seek reimbursement for expenses. The city was to work out with MDEP regarding possible funding through an EPA grant.

XII) In May 2012, US Environmental Protection Agency, On Scene Coordinator, was brought in to assist with further investigation. Further investigation and non-emergency remediation to be managed by MDEP Brownfields and Uncontrolled Sites staff. Response Division may assist as needed with booming and remediation of oil reaching the river.

S Brezinski

MDEP, BRWM, Response Services

#### **V. ATTACHMENTS**

<b><u>Attachment Type</u></b>	<b><u>Description</u></b>	<b><u>File Name</u></b>
Paper Attach	MDEP Photolog 1	
Paper Attach	Response Spill location maps (2)	
Paper Attach	Summit Fig. 2 Map with MDEP notes	
Paper Attach	CPRC Group information	
Paper Attach	Spill Debris Form	
Paper Attach	Summit Env. borings location map	
Paper Attach	MDEP Photolog 2	
Paper Attach	MDEP Field Notes	
Electronic Form	Expense Tracking	
Electronic Form	Referral to BRIAN A BENESKI	

**Photo log 1: W. S. Libbey Mill area discharge, Mill St., Lewiston, ME. UST Reg. #584, Spill report P-561-2011**



1.

Tues. 7/12/11: Looking NE

up at the out-of-service #6 oil piping coming out of the hillside above the location of the Libbey Mill #6-oil UST T-1 removed in March, 2000. This piping was required to have been flushed and removed back prior to the 3/23/ 00 tank abandonment. Note the dark oil stain on the concrete wall below the pipe. The actual Libbey Mill was located at the top right area of the photo. The red rectangle represents the location of the UST and TP-11. The blue boxes represent to approximate locations of the uncontaminated TP-9 (@ left) and TP-8 (@ right) which did have #6 oil contamination..



2.

Wed. 7/13/11: Close-up

view of the out-of-service #6 oil product and return line. Old asbestos (ACM) insulation can be seen around the steam lines to the right which had no free oil.

**Photo log 1: W. S. Libbey Mill area discharge, Mill St., Lewiston, ME. UST Reg. #584, Spill report P-561-2011,**



3. Wed. 7/13/11: The 2" out-of-service, insulated, underground product pipe coming out of the retaining wall from the mill area, associated with an old UST or AST. Maine rules and statute required this piping to have been removed many years before.



4. Wed. 7/13/11: The 2" bare-steel product pipe has been uncapped and a oil-saturated rag stuffed behind the rag is slowly oozing out with black oil remaining in the pipe.



5. Wed. 7/13/11: About 5-gallons of free oil was collected in a 7-gallon bucket before oil was vacuumed strait out of the pipe. EPI estimated 15 to 20 gallons of free oil collected this day. The oil had the odor and feel of #5 or #6-oil. This product piping was required to have been properly abandoned before 1997, and in 2000 during the UST removal.

**Photo log 1: W. S. Libbey Mill area discharge, Mill St., Lewiston, ME. UST Reg. #584, Spill report P-561-2011**



6. Wed. 7/13/11: Looking west across Heritage Park (the former Columbia Mill) toward the Androskoggin River. At right is the former #6-oil UST location on the grassy knoll and area of test pits TP-8 and TP-9. The red shed sits over the brick penstock and outfall with the oil seep. The red arrows represent the path of the oil from the UST toward the river.



7. Wed. 7/13/11: Looking over the former #6- UST T-1 area toward the area of the oil leak to the river; the out-of-service #6-oil product piping is at far right. Summit's after-the-fact July of 2000, UST removal assessment stated oil staining and mild petroleum odors and groundwater at 10' bg, and bud did not specifically state "no free product".

**Photo log 1: W. S. Libbey Mill area discharge, Mill St., Lewiston, ME. UST Reg. #584, Spill report P-561-2011.**



8. Wed. 7/13/11: The former WS Libbey Mill area immediately above and behind the mystery piping. *Dig Smart* located the steam lines (blue arrow) going to the boiler room location; the fuel feed and return lines went to the building foundation and then turned north (right) along Mill Street and ran underground to what I believe to be a day-tank within the building (photo-9 below).



9. Wed. 7/27/11: At the NW corner of the former Libbey Mill is a concrete tank which I believe to be the location of the fuel day tank. The red arrows point to the #6-oil feed and return lines that *Dig Smart* found protruding from the ground (marked in green paint).

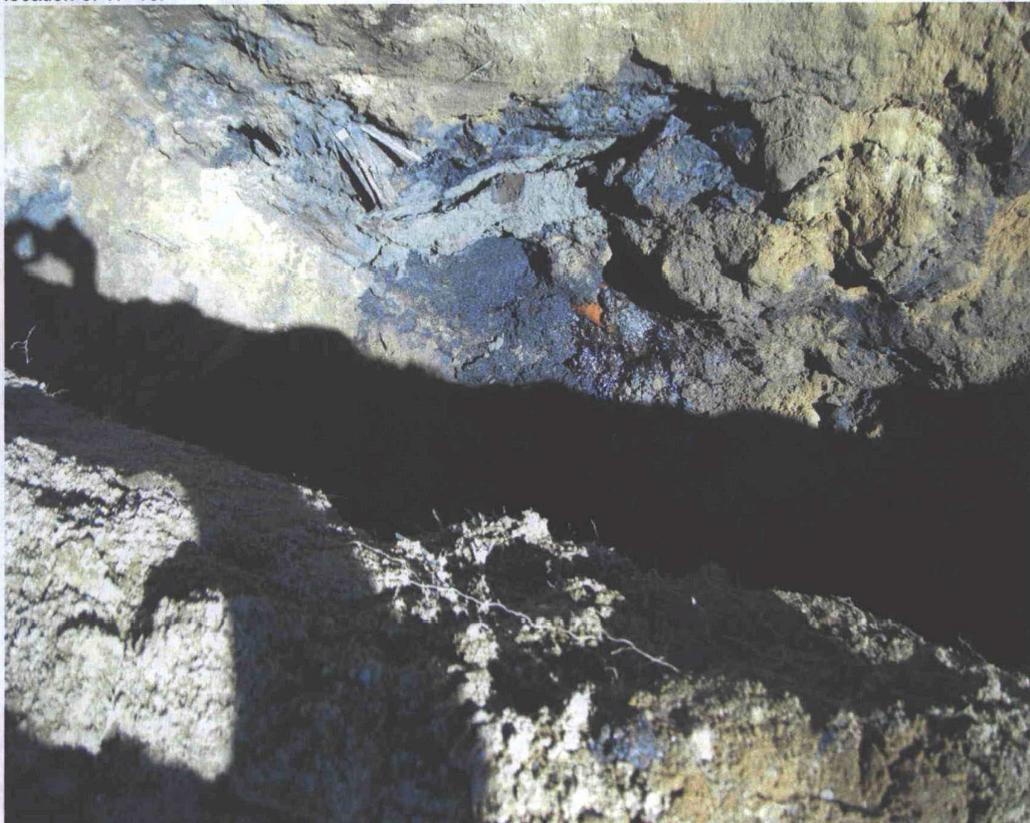
**Photo log 1: W. S. Libbey Mill area discharge, Mill St., Lewiston, ME. UST Reg. #584, Spill report P-561-2011**



**10. Test Pit TP-5**

Thurs.

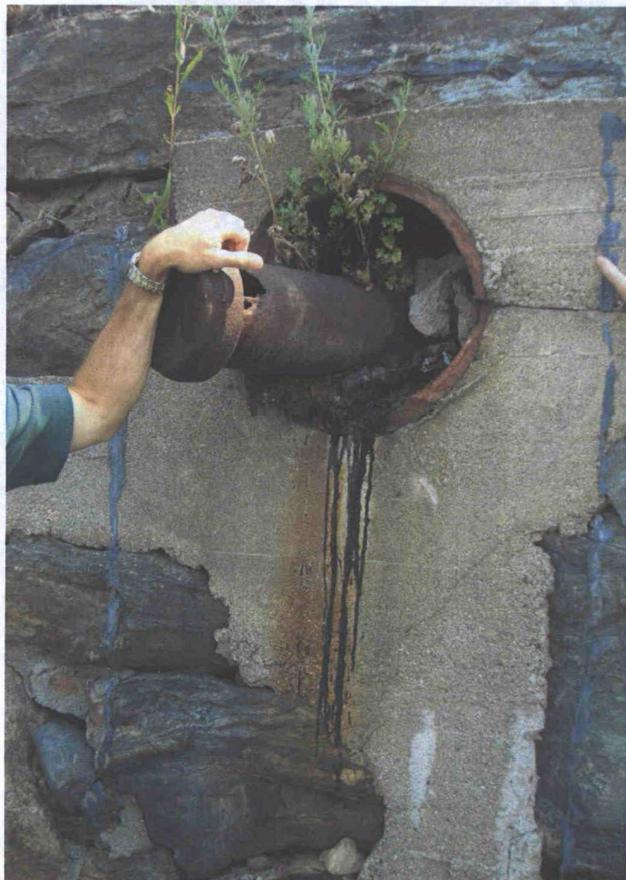
8/11/11: Nick Clark of EPI excavating TP-5 on the east side of the Columbia Mill downgrade of the CMP Lewiston Steam Plant building and the CMP #6 oil UST (see P-541-11) A 1957 *Sanborn Map* indicated two fuel tanks in this location. The red box at the top of the slope is the location of TP-10.



**11.**

Thurs. 8/11/11: Looking into

TP- 5 with black oil-saturated soil layers about 12" to 18" thick and 3' to 5' below grade of the hillside. Soil sample SS-3 acquired from here for fingerprinting and comparison at the USCG Marine Safety Lab



12. Upper left Photo: An 8" iron pipe within a 15" clay pipe protruding from the granite wall next to the location of Libbey Mill's UST T-1 and test pit TP-10. This piping was traced back to the CMP building in TP-2 and CMP's UST facility on the east side of Mill Street. Drumlin Env. found evidence that this was an offset #6-oil fill pipe that fed both the Libbey Mill UST and the and originated from Maine street to the south. This may explain the weathered tar-like oil stain running out of the clay pipe in the photo.
13. **Test Pit TP-5** Upper right photo, Thurs. 8/11/11: (Above right) TP-5 in the foreground with shadow preventing good view of the oil stained soil and groundwater and TP-6B at upper right. With oil contamination in TP-6B lessening further toward CMP's UST leak this implies that CMP may not be the source for this oil but perhaps the possible "fuel oil" tank on the 1957 Sanborn Map or the Libbey Mill UST? Note the granite block Mill Street retaining wall in the background.

**Photo log 1: W. S. Libbey Mill area discharge, Mill St., Lewiston, ME. UST Reg. #584, Spill report P-561-2011**



**14. Test Pit TP-6**

Thurs. 8/11/11: Black free-product #6 oil seeping into TP-6A on groundwater, located just downgrade e of the CMP building and old UST; also NW of the location of the apparent tanks (T-3 and T-4?) noted on the 1957 Sanborn Map. Fill in this area was sandy soil with brick and rocks. This soil matches that seen in TP-12.



**15.**

Thurs. 8/11/11 Looking west: Excavating TP-6B which as an extension of TP-6 further east toward the retaining wall with the drain pipes sticking out and the CMP property. Oiled soil was found but less free product on groundwater.

**Photo log 1: W. S. Libbey Mill area discharge, Mill St., Lewiston, ME. UST Reg. #584, Spill report P-561-2011.**



16.

Thurs. 8/11/11: TP-6B

located in the area of the "two tanks" listed on the 1957 Sanborn Map with blobs of black oil but not a continuous layer and not as visually severe as the oil-saturated soil in TP-6A and TP-5.



17. **Test Pit TP-7**

Thurs. 8/11/11: Looking into TP-7 located south of TP-6 closer the balloon launching area. No oil contamination noted in the test pit. This is in the area of several BRWM Sample Locations (soil borings) on the MDEP Response Spill maps.

**Photo log 1: W. S. Libbey Mill area discharge, Mill St., Lewiston, ME. UST Reg. #584, Spill report P-561-2011**



18. TP-8

Thurs. 8/11/11: Going to the west, TP-8 beneath the Libbey Mill 12,000-gallon UST removed in year 2000 by Fleet Env. 6-oil contamination was confirmed at the bottom but not as severe as in TP-5 and TP-6. Summit's July 2000 UST closure assessment documented oil-cemented soil but no free product; this is in the area of Summit's TP-3 in year 2000.



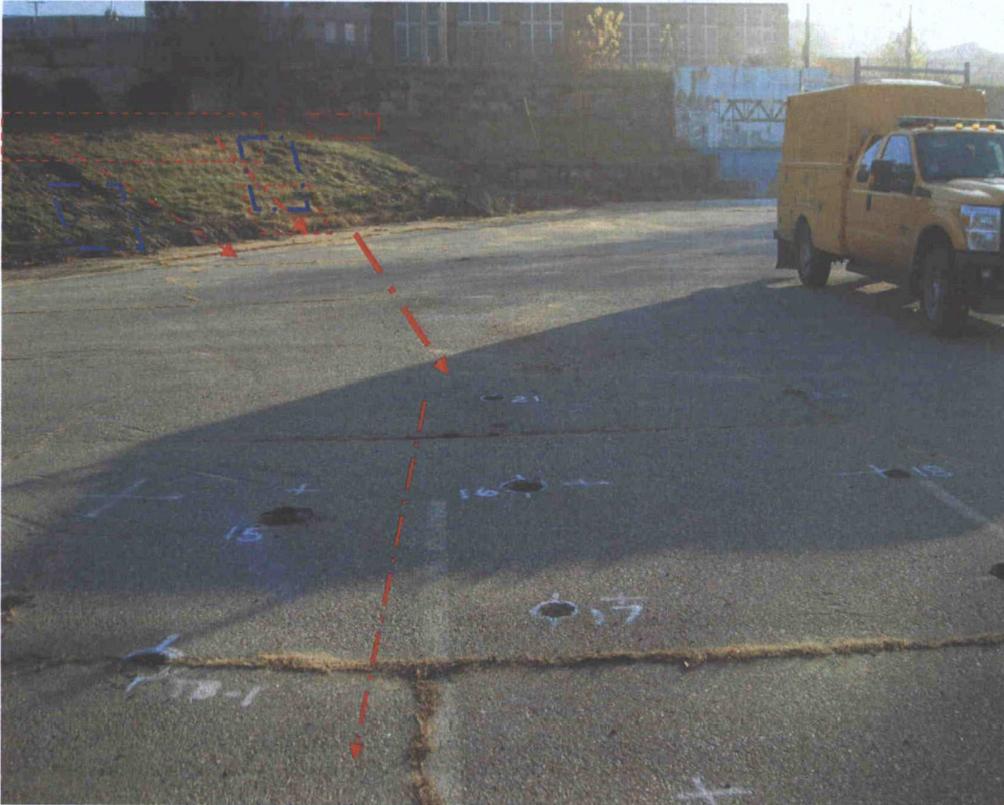
19.

**TP-9** Thurs. 8/11/11: (Above left) TP-9 into the grassy slope further west of the Libbey Mill UST location and near the power pole and red shed building. No oil contamination noted.

**Photo log 1: W. S. Libbey Mill area discharge, Mill St., Lewiston, ME. UST Reg. #584, Spill report P-561-2011 .**



20. Thurs. 8/11/11: Looking SE toward the CMP steam plant substation over TP-9 in the foreground in front of Garth of Summit Env.; to the rear is TP-8 (with pile of dark oiled soil), then TP-5, TP-6 and TP-



21. Looking east toward the CMP building. From left to right the approximate locations of TP- 5 and TP-6 are the blue boxes, TP-11 and TP-10 are the red boxes up by the wall and TP-12 location is down near the pavement. TP-11 is also the location of the 12,000-gallon #6-oil UST removed in year 2000; this UST was noted further SE than first thought. The dashed red arrow denotes the apparent flow of the #6-oil plume west from the UST across the parking lot to the river. This interpretation is based on the test pits, soil borings and bedrock wells. The CMP station is visible at the far background and the 140,000 concrete oil UST is to the building's left (north).

TEST PIT TP-10, located directly east and downgrade of the CMP UST facilities.



20. Tues. 11/29/11, Upper left: Excavating TP-10 located upgrade (east) of TP-6. Engineer Bill Peterlien of Summit Engineering is examining the integrity of the stone wall.
21. 11/29/11: The stone wall exposed, at about 6' bg the wall was buttressed by compacted boulders so bedrock could not be uncovered up against the wall. Groundwater at 10' bg had no visible oil slick. I noted no evidence that UST's had been buried in this area or that it had suffered a surface discharge or shallow underground discharge.



22. 11/29/11: Soils in TP-10 were gray with boulders and cobbles, buried plastic sheet; very different from soil in TP-11. Soil had an anaerobic odor but we noted no oil-saturated layer on the bedrock like in other test pits. Several independent blobs of hard oil-cemented sand, up to several feet in diameter, were excavated out.



23.

11/29/11: The excavation of MW-1 in

TP-10 down to about 10' bg from the head of the grassy slope. No oil saturation or LNAPL. At left is the soil island between TP-10 and TP-11. The bottom of the monitoring well pipe broke off and lies in the excavation. The excavation was pumped off before backfilling TP-10; little dark LNAPL in TP-10.



24.

11/29/11: MW-1 in TP-10 was slotted

up 5' from the bottom and backfilled with  $\frac{3}{4}$ " clean crushed stone to just above the diagonal slots. The stone wall is exposed at the top of the photo.



25.

to prevent the sandy fill from clogging the interstices between the stone.

11/29/11: Poly sheet laid over the crushed stone for MW-1

**Photo Log 2:** W. S. Libbey Mill, 6 Mill St., Lewiston, ME 04240, UST Reg. #584. MDEP Report P-561-2011

**Test Pit TP-11**, located north of and adjacent to TP-10, upgrade of TP-5 encompassing the length of the removed Libbey Mill UST..



26.

out with tank clean sand fill.

11/29/11: Note pieces of black, oil-cemented sand coming



27.

that in the nearby TP-10.

11/29/11: Clean sand fill in TP-11, different fill material than



28.

11/29/11: TP-11 was excavated to uncover the seam between the stone wall and the concrete wall to its left (north) and to check for evidence of oil seeping under the wall from Mill St. and the CMP UST. At lower right is oil-contaminated soil being piled on poly.



29.

11/29/11: At about 9' bg in TP-11 was found a coherent layer of black oil-saturated soil, not mixed in such it would be during excavation in a UST area suggesting the oil was below the UST bottom or moving west from under the wall. The orange arrow shows a soil island left between TP-10 and TP-11, separating one test pit from the other.



30.

11/29/11: Oil-saturated soil and rocks being excavated from up against the base of the wall at left.



31.

11/29/11: dark oil-saturated soil in the south end of TP-11



32.

11/29/11, Looking east: The vertical orange arrow denotes the irregular interface between the stone wall at right and concrete wall at left. The circle denotes a bedrock ridge in between TP-10 and TP-11. Black oil and oil sheen is on the groundwater (gw).



33.

11/29/11: Just before the south end of the concrete wall we found a horizontal, concrete tank cradle for the 30' long 8' diameter, 12,000 gallon, Libbey Mill UST removed in year 2000. The concrete had the curved impression of the horizontal tank. At center right is a large piece of the cradle broken by EPI's excavator and flipped upside down showing a black oil coated underside. At upper left is the interface between the stone and concrete walls.



34.

11/29/11: Black oil saturated soil exposed below the concrete cradle. The sand fill above the cradle was uncontaminated. There was about 1' to 1.5' of oil-saturated soil between the underside of the cradle and irregular bedrock below. Note the dark LNAPL (Light Non-Aqueous Phase Liquid) flowing in.

**Photo Log 2: W. S. Libbey Mill, 6 Mill St., Lewiston, ME 04240, UST Reg. #584. MDEP Report P-561-2011**



35.

11/29/11, looking SE: The orange circle represents the approximate location of the former 12,000-gallon UST sitting in the curved concrete cradle. In this view we again see end ridge of the cradle and the bottom broken away to reveal the #6-oil saturated soil below the concrete.



36.

11/29/11: Another view looking SE while EPI excavates oiled soil, in the foreground is the tank cradle area. Left of center is exposed bedrock with gw flowing down it.



37.

11/29/11 Looking NE: Exposed oiled bedrock surface under the broken tank cradle. The white marks are scrapes from the backhoe teeth. Note the clean sand fill at left. The heavy red arrows denote the direction of a greater volume of LNAPL coming in with gw.

**Photo Log 2: W. S. Libbey Mill, 6 Mill St., Lewiston, ME 04240, UST Reg. #584. MDEP Report P-561-2011**



38. 11/29/11: At above left is the excavation to bedrock down to 18' bg with a dark oil slick on the gw. Note the horizontal edge of the broken tank cradle at left, the vertical interface of the concrete and stone walls and the exposed bedrock sloping steeply to the west.
39. 11/29/11: At above right MW-2 has been placed prior to backfilling, located at the SE end of TP-11. Gw with an oil sheen was seeping from under the retaining wall but most of the LNAPL was coming from the left (NW) where the 12,000-gal. UST #584 had been installed.



40. 11/29/11: EPI pumping off TP-11 and the location of MW-2 prior to installing the well pipe and backfilling. Note the dark brown LNAPL layer. The Mill St. retaining wall is to the left (east). From the wall at left the bedrock surface is exposed sloping steeply down to the right.



41. with a skim of LNAPL.

Wed.11/30/11: Rain had brought up gw table around MW-2



42. oil contaminated soil for transport to CPRC Group in Scarborough, ME..

Wed.11/30/11: Two trailer dumps being loaded with the #6-



43. and MW-1 with Mill Street at the left and the CMP substation building in the far background. The SE end of TP-11 lies open; the concrete cradle for the former UST is within the dashed box. In the background the blue concrete platform is part of the former Columbia Mill building. The crushed stone around MW-2 is covered with poly and is being covered by sand clean fill.

Wed.11/30/11: Looking SE over MW-2



44.

Wed. 11/30/11, At 10:55 AM: the excavation of TP-11 being carried further NW along the base of the concrete wall exposing more black oil-saturated soil and LNAPL between the underside of the concrete cradle and the bedrock below. A large chunk of the cradle has been broken off and flipped over at far right.



45.

Wed. 11/30/11: EPI pumping off groundwater and slick of LNAPL to help make the excavated soil less soupy and not run across the parking lot.



46.

Wed. 11/30/11: Excavating further NW the bedrock surface came up and the black oil-contaminated soil was drier, no groundwater. At this point we found the NW end of the concrete tank cradle.



47.

11/30/11: Installation

of MW-3 at the NW end of TP-11 in the dry soil. TP-11 was extended NW to just below the underground oil piping to the Libbey Mill (to the upper right out of the photo). The red box shows the approximate location of the UST removed in year 2000.



48.

11/30/11: Looking west over

the parking lot and TB-23 and TB-24. From left to right are MW-3, Mw-2 and MW-3. At left in front of MW-3 is the second pile of oil-contaminated soil. Circled at left is the underground UST piping coming out of the wall.

**Photo Log 2: W. S. Libbey Mill, 6 Mill St., Lewiston, ME 04240, UST Reg. #584. MDEP Report P-561-2011  
TEST PIT TP-12, located near TP-5 and just east of TB-22.**



49. 11/30/11: Black, #6-oil contaminated soil exposed about 5' bg on the uphill side; located downgrade of the 12,000-gallon #6-oil UST location.



50. 11/30/11: An unattached steel pipe about 8" diameter pulled out of the east face with liquid oil that came out from around the pipe. The soil is dark and shiny with #6-oil contamination.



51. 11/30/11: Expanding TP-12 to the south and north. Dark oil saturated soil found below the clean sand fill. This area is downgrade of the former UST location.

**Photo Log 2: W. S. Libbey Mill, 6 Mill St., Lewiston, ME 04240, UST Reg. #584. MDEP Report P-561-2011**



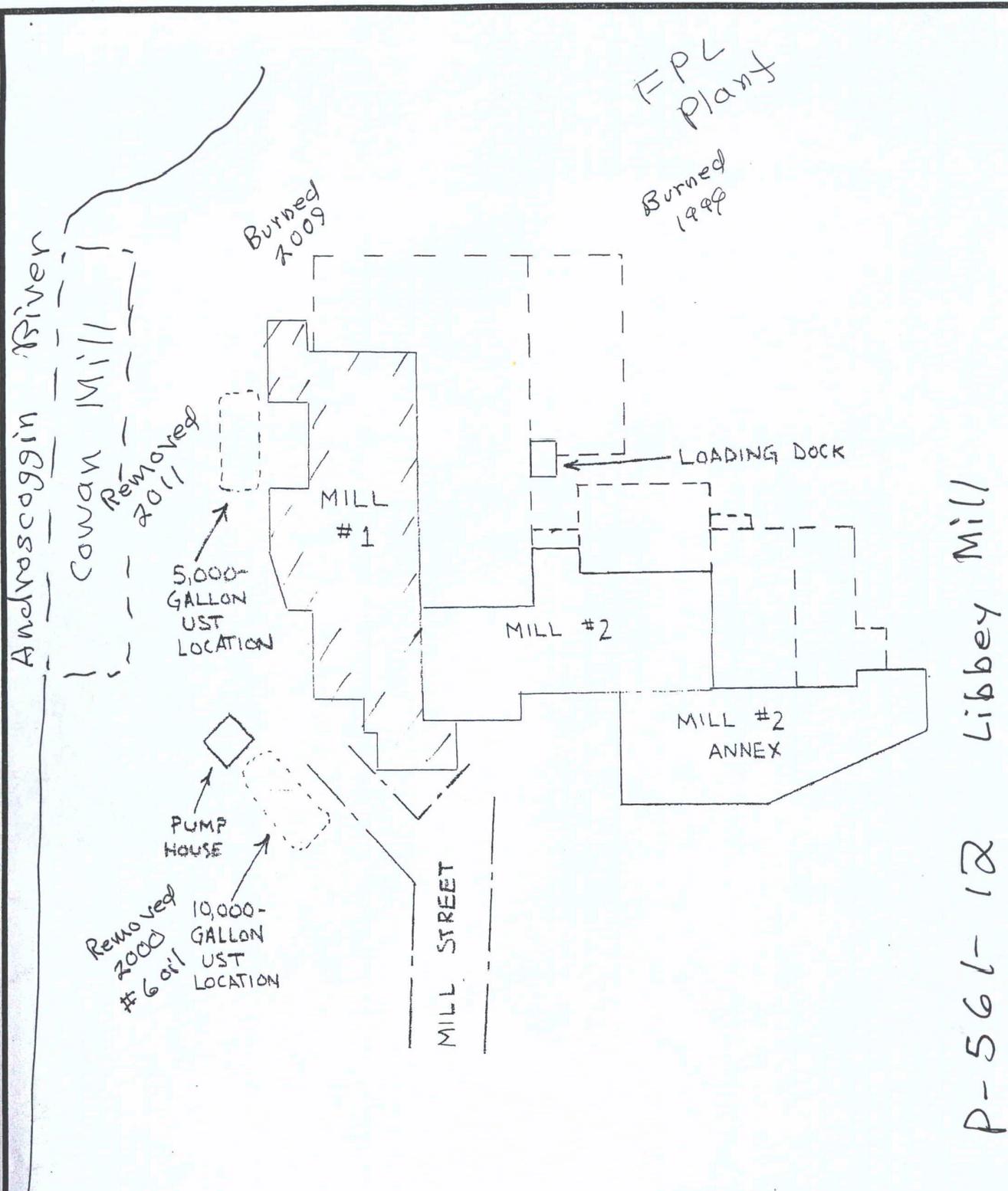
52. 11/30/11, Looking west: Matt Renolds of Drumlin Env. (at left and representing CMP) and Garth Armstrong of Summit Env. (at right and representing the city of Lewiston) overseeing install of MW-4.



53. 11/30/11: Looking south into TP-12 while the 8" diameter MW-4 is being set. The red arrows denote oily water and LNAPL seeping down into the excavation on the south, west and east sides but not the north side. The permeable  $\frac{3}{4}$ " stone base was covered with poly before being backfilled



54. 12/16/11: Looking NW over the re-landscaped area of the removed soil and #6-oil UST. Visible are monitoring wells MW-1 in foreground, MW-2, MW-4 at center left and MW-3 in right background.



Source:  
Sebago Technics, 1991

LEGEND	
---	Footprint of former building



CLIENT: <b>City of Lewiston</b>		PROJECT: <b>Phase I ESA</b>	
<p><b>SUMMIT</b> ENVIRONMENTAL CONSULTANTS INC. 95 Main Street Auburn, Maine 04210</p>		TITLE: <b>SITE PLAN</b>	
		DRAWN: -----	SCALE: <b>N.T.S.</b>
PROJECT NO.: <b>3253</b>	DESIGN: <b>J.K.C.</b>	DATE: <b>1/28/00</b>	FIGURE: <b>2</b>
	APPROVED: <b>K.R.T.</b>	FILE NO.:	

11/29 - 11/30/11  
Field notes and markings  
not to scale



(Summit's Barms)  
Locations

φ B1

φ B2

φ B4

φ B3

7 Mill St, Lewiston, ME 04240

© 2011 Google

208 ft

7, 2010

19 T 402292 19 m E 4883479 98 m N elev 138 ft

© 2011

Spill Number: P-561-2011

Referral Date: 6/5/2012 12:00:00AM

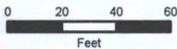
Referral Type: Technical Services

To: BRIAN A. BENESKI

From: STEPHEN G. BREZINSKI

Referral:

# Response Spill Map



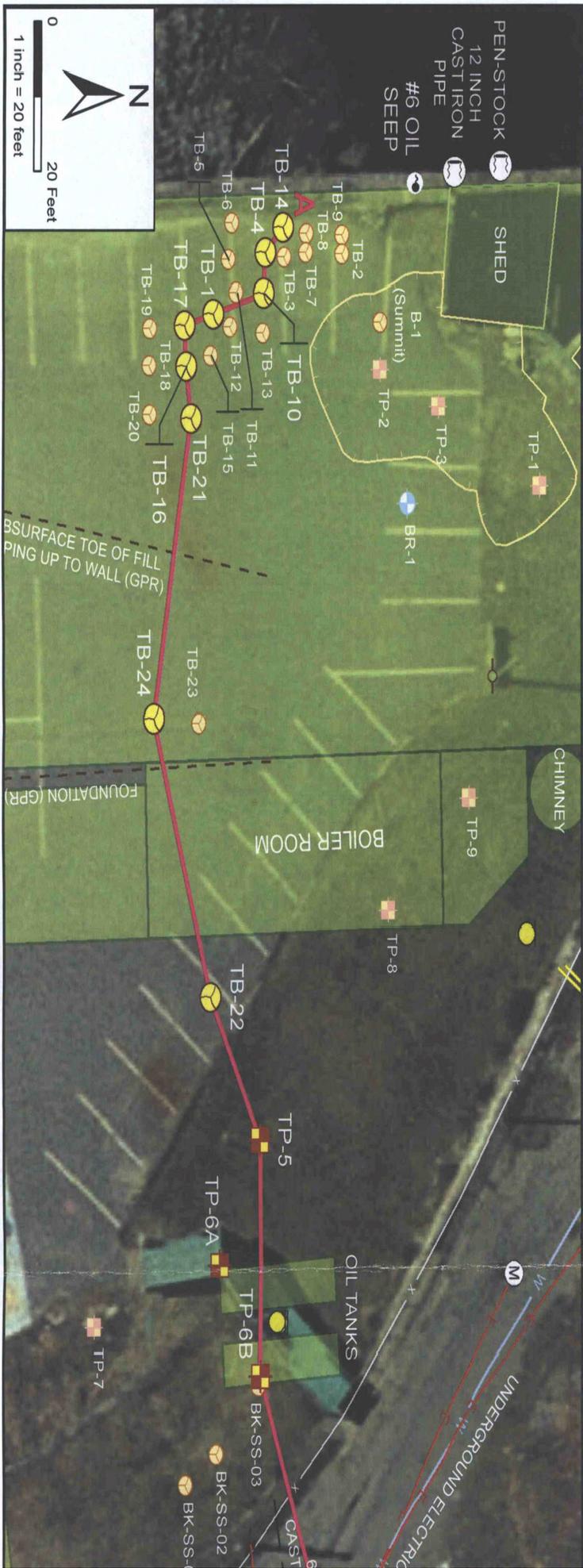
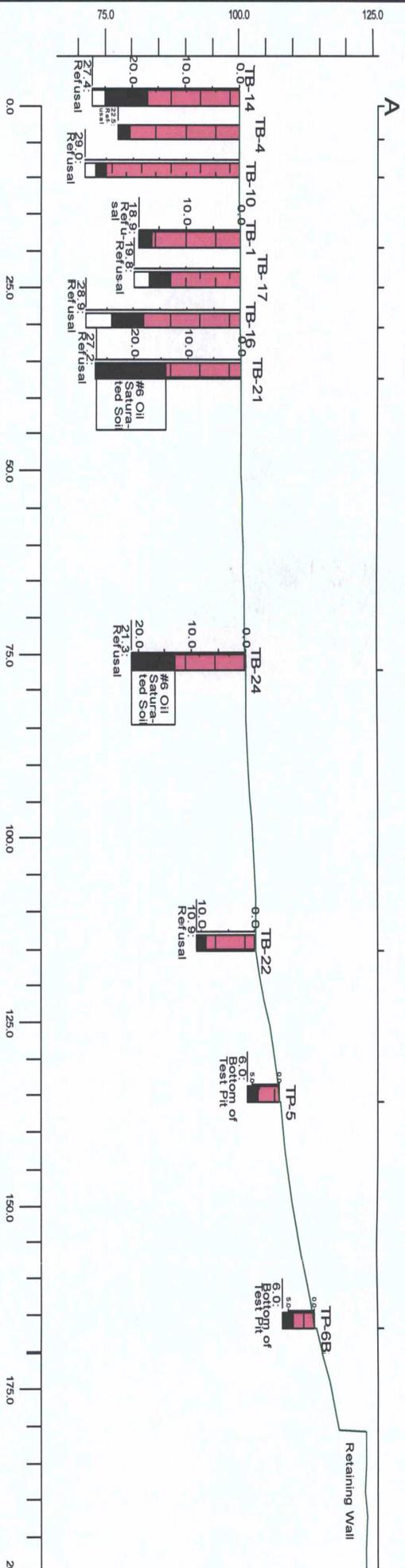
1 inch = 66.67 feet



- Response\_Spill\_Points
- AST Tank
- UST Tank
- Tank\_BRWM
- Sample\_Location\_BRV
- Roads\_E911
- Public Drinking Water S
- Public Drinking Water S
- Public Drinking Water 1
- Public Drinking Water 2
- Public Drinking W
- Sand and gravel aquifer
- Sand and gravel aquifer
- bedrock-MODERATE p

P-561-12

Cross-Section A-A'





① 0800: Troy S., Mark W., John C, Garth Armstrong, Matt Reynolds, Tim of EPJ. WX overcast, cool.

② 0815 begin digging, under Bill Peterlien, Summit. Boney soil next to wall. Area above TP-6

③ 0830: Ray Kaster, onsite. John C. left. Bill P. atop wall watching for disturbance. Found some gray blobs of #6 oil soil. Widening excav. on Bills recommendation. Finding buried plastic indicating site disturbed earlier.

TP-70

At 7' bg no gw yet.

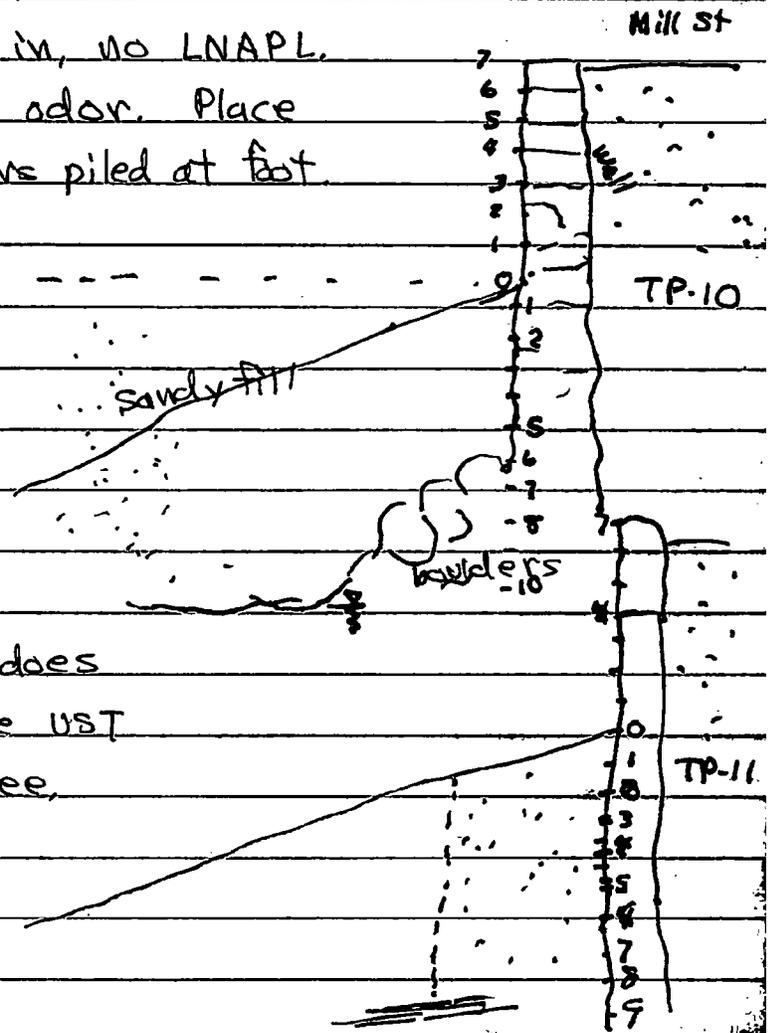
Gw @ 10' bg trickling in, no LNAPL.

Gray soil w/ anaerobic odor. Place for Monit. well. Boulders piled at foot.

④ Moving N to dig a TP above TP-5

TP-11 ⑤ Upgrade of TP-5, Sandy clean fill on top, About 9' to black layer.

Black layer coherent, does not look mixed in like UST backfill. Removed tree.



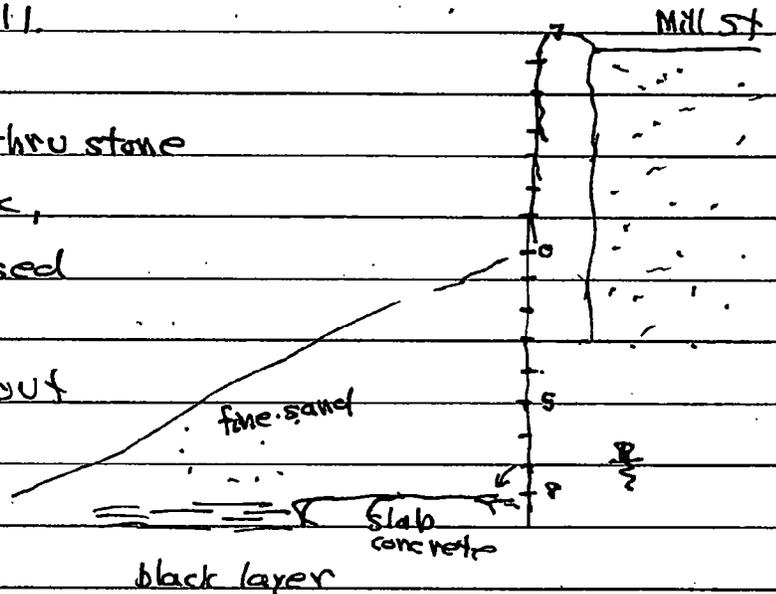


Dates: thru:

⑥ - 0945 Significant black saturated zone, dug up to wall but not intersect other TP. LNAPL on gw. Distinct separation between soil type and contam. between TP-10 and TP-11.

⑦ - 1000: SW flowing in thru stone wall, a little oil slick, Bedrock knob exposed under wall.

Tim didn't know about backfilling today.



pored concrete with wood form, looks like UST in ground and conc. pad pored around bottom,

Black oil underneath concrete clean water above. Cressey stated this concrete bed was for a UST removed in 2000.

⑧ 1200 hrs: TP-11 cleaned out to  $\approx 18'$  bg.; bedrock sloping down steeply. Much LNAPL and sat. soil below concrete.

EPI to vacuum excav's then backfill with stone; chase oiled soil west later?



- ⑨ Much oil coming in from N under Libbey's UST and some from E from CMP direction.
- ⑩ 1300: Put in 8" MW in TP-10, slotted up to 5' ~~high~~. One pipe broke as slots too big. 5' to 6' crush stone at bottom, poly on top.  
TP-10 and TP-11 both pumped off. Not much dark LNAPL forming in TP-10 from multiple directions. Much oil coming into TP-11 from E and from N. ~~the~~ Much LNAPL looks from Libbey Mill UST(s).
- ⑪ Troy related that Tim said Nick C. removed two UST's in 2000, not just one UST.
- ⑫ 1430 hrs: Backfilling stone in TP-11 monitoring well, slotted to about 7' from bottom. Pumped out @ 1400 hrs but oil slick returned, coming from under concrete wall and from under Libbey Mill UST. Difficult cleaning out area of oiled soil.
- ⑬ 1530 EPI cleaning up, covering soil, meet onsite to continue, first uncover overburden then dig out oiled soil going north. No oil sheen in river today.

11/30/11 Wed. WX: rain overnight, now clearing.

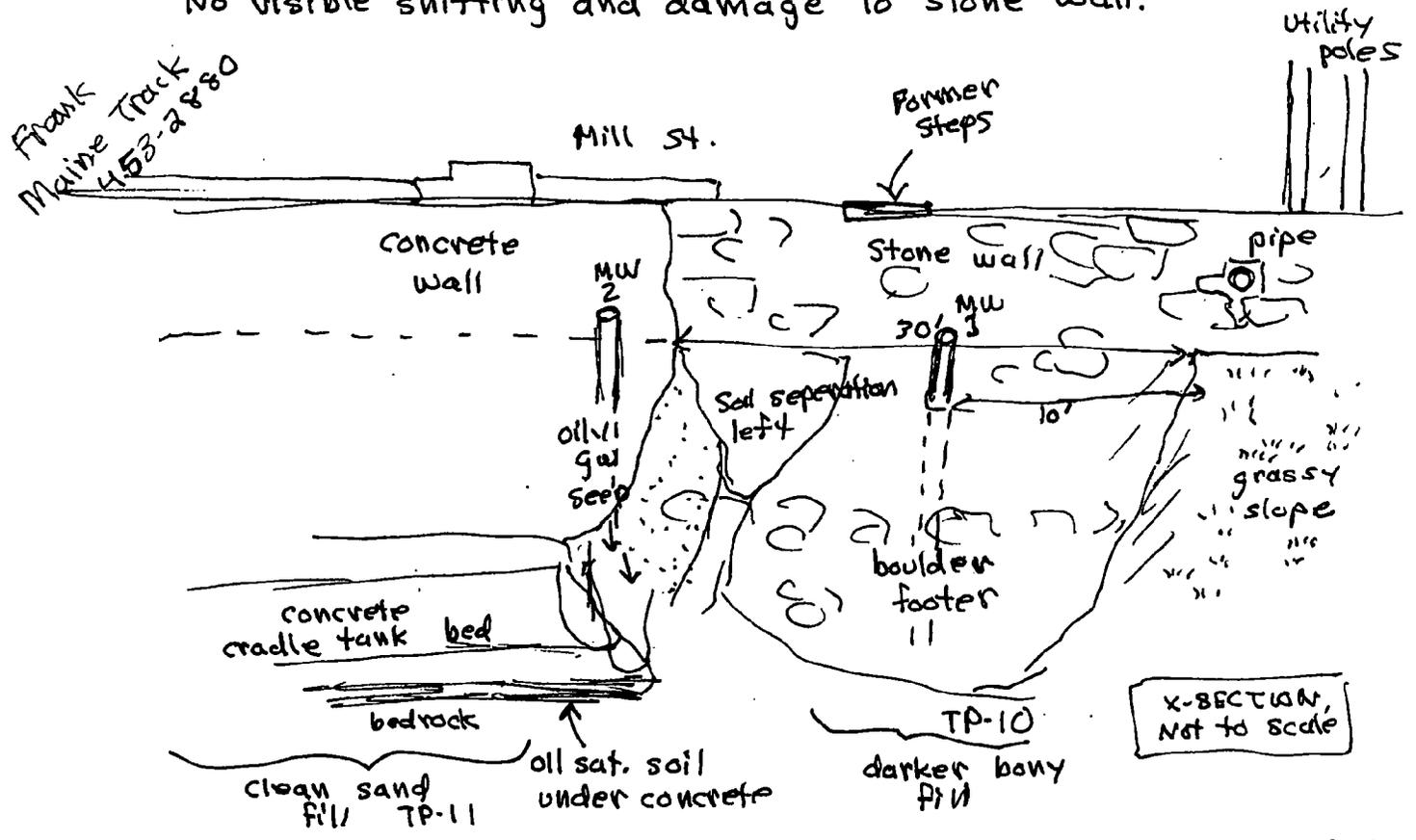
- ① Onsite about 0845. Nick and Steve of EPI onsite. Loading Perry Trans. and Splash Inc. trailer dumps first. I called CPRC and told Marcia soil coming in under P-561-11.

Columbia - Libbey Mills

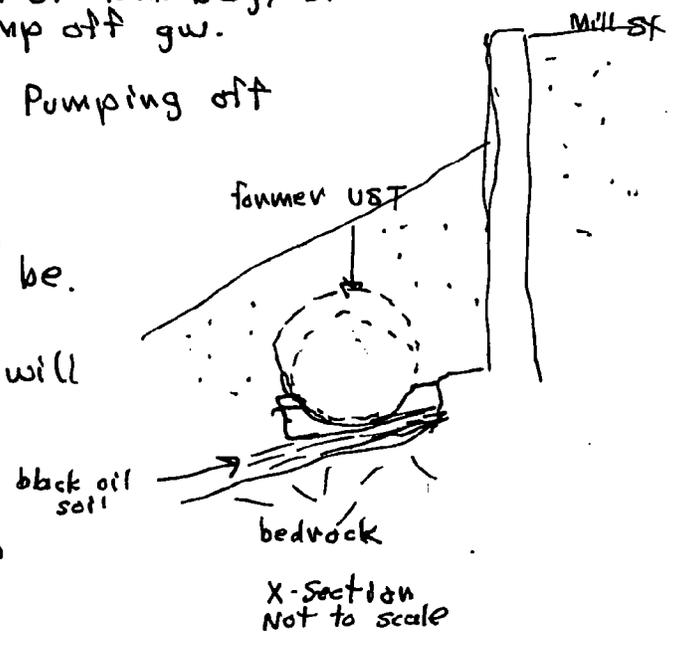
11/30/11, Wed. cont.

Matt R. onsite.

- a) GW visible in excavation, dark oil slick visible. No visible shifting and damage to stone wall.

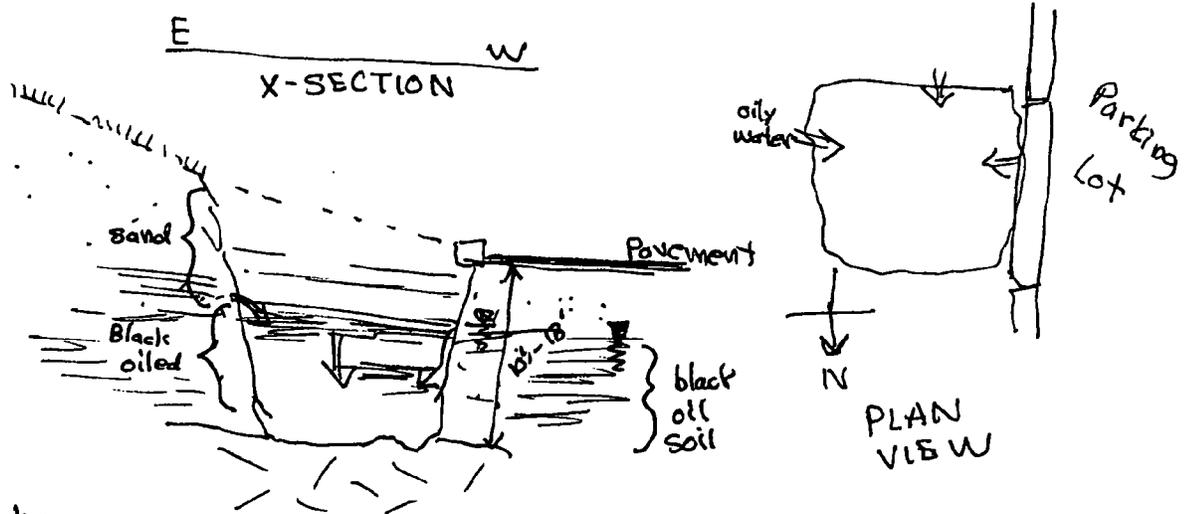


- ③ 0900: Poly atop stone around MW, then covering with clean fill. 1000: uncovered another section of tank beg, black oil-sat soil below, NAPL on gw. Having pump off gw.
- ④ 1000: pulled up more tank pad. Pumping off gw from MW peastone too.
- ⑤ 1030: Excav. NW toward piping where pumphouse used to be. Dave Jones of LPWD onsite, I briefed him on plans. We will fill in sunken area by shed; EPI will grade slope area and put down erosion control, let settle over winter, loam and mulch in spring.



11/30/11, Wed

- ⑧ Test Pit TP-12 dug @ edge of parking lot below MW-2



About 4' bg noted thick black oil saturated area down to bedrock, oily gw. oozing in from S, E and W sides but not from N side of TP-12. (photos).

Dug to bedrock @ 10' to 13' bg matching bedrock in TB-22 in parking lot. The oiled soil was thicker and shallower than in TB-22.

- ⑨ EPI will grade hillside tomorrow and lay mulch net. Garth relayed to Dave Jones that we'll let soil self-compact over winter then topsoil and seed in spring 2012? Ask city PWD landscape as they may be liable for costs as an RP?
- ⑩ MW and I discussed pumping wells ~~tomorrow (Thursday)~~ next week then have meeting w/ Lewiston city, CMP, DEP and consultants following week.

**Brezinski, Stephen G**

**From:** Nick Clark [nclark@envprojects.com]  
**Sent:** Wednesday, November 23, 2011 3:12 PM  
**To:** Brezinski, Stephen G  
**Subject:** Fwd: Mill Site Lewiston

Steve, This is Dig Smart's letter explaining that they did not find anything in the area to be excavated.

**Nicholas W. Clark**  
Environmental Projects Inc.  
PO Box 1417  
Auburn ME 04211  
Tel: (207)786-7390  
Fax: (207)786-7396  
Cell: (207)899-9973  
<http://www.envprojects.com/>

----- Forwarded message -----  
**From:** Shawn's Email <shawn@digsmartofmaine.com>  
**Date:** Wed, Nov 23, 2011 at 3:00 PM  
**Subject:** Mill Site Lewiston  
**To:** nclark@envprojects.com

This is an email report explaining that I have been to the mill site in Lewiston on the hillside and scanned the area passively using Radiodetection. This is a scan that intersects and detects objects of metal, or electrical wiring that would have an induced magnetic field around it. I did not find anything of this sort, or any noise that was of any concern. If you have any questions or concerns please feel free to call or email me.

Shawn Paradis  
Dig Smart of Maine  
[shawn@digsmartofmaine.com](mailto:shawn@digsmartofmaine.com)  
207-615-4699

P-561-11  
P-534-11

Pg 6

11/30/11, Wed. cont.

- ⑥ 1100 UST cradle ended about 10' SE of the underground oil pipes. Oily soil under cradle black but dryer, ± 1' thick to bedrock. Bedrock irregular (perhaps sloping to SW which is why this area dryer. At this point oil contam. largely from Libbey Mill UST?
- ⑦ JLW and Cressey onsite after lunch. Installed MW-3 near UST piping area, water pissing in from hole in wall. Oiled soil but dry.



70 Pleasant Hill Road, Scarborough, Maine 04074  
(207) 883-3325 (207) 883-1121 fax www.cprcgroup.com

**GENERATOR SPECIAL WASTE PROCESSING INFORMATION**

**I GENERATOR INFORMATION:**

a) Generator Libbey Mill - Dity of Lewiston Property Contact \_\_\_\_\_  
 Address 7 Mill Street, Lewiston, ME Phone \_\_\_\_\_

b) Process Generating the Waste leak from UST Facility

c) Site of Generation Former Libbey Mill Facility, Lewiston, ME

d) Contracting Firm ME DEP - Portland Contact Steve Brezinski  
 Address 312 Canco Rd., Portland, ME 04103 Phone 822-6300

e) DEP On-Site Representative Steve Brezinski Spill # P-561-2011

**II PROCESSING INFORMATION:**

a) Type of Waste Material Processed Virgin Petroleum Containing Soil

b) Amount of Waste Received \_\_\_\_\_ Cu Yds. 283.32 Tons  
 Date Waste Received 11/30 & 12/1/11

c) Amount of Additional Material Needed \_\_\_\_\_ Cu Yds. \_\_\_\_\_ Tons

d) Amount of Material Processed \_\_\_\_\_ Cu Yds. 283.32 Tons

e) Date Processed 12/2 & 12/5/11

f) Processing Site CPRC Group, LLC Scarborough, ME

g) Stockpile Site for Processed Materials CPRC Scarborough, ME  
 Amount of Waste Material Stockpiled \_\_\_\_\_ Cu Yds. 283.32 Tons  
 Date Waste Amount Stockpiled 12/2 & 12/5/11

h) Final Disposition of Processed Material Stockpiled  
 Amount of Processed Material \_\_\_\_\_ Cu Yds. 283.32 Tons  
 Date of Final Disposition 12/2 & 12/5/11

i) CPRC Job # 3502106

P-561-12

**III WASTE CHARACTERIZATION:**

Stockpiled material to be beneficially reused as a paving or construction fill product

Marcia Montague  
(Signature)

Compliance Coordinator  
(Title)

Attach a Copy of MEDEP Spill Letter



OIL SPILL DEBRIS FORM

DATE: 11/28/11 DEP SPILL # P-561-2011
GENERATOR: Libbey Mill, 7 Mill St., City of Lewiston property
TRANSPORTER: EPI or subcontractors
BILL TO: Maine DEP c/o P-561-2011

REFERENCE: SHIPMENT OF OIL SPILL DEBRIS

On 11/29/11, S Brezinski authorized the clean up of oil spill debris at
former Libbey Mill facility, Lewiston Maine

which resulted from leak from consumptive-use heating oil
UST facility

This shipment consists of 50 (fifty) tons contaminated with Virgin #6 heating oil.

Solids consist of: (check as appropriate)

- Sand, gravel or soil
Sorbent
Speedy-dri
Other (specify):

Facility is: (check one)

- Landfill
Asphalt Plant
Asphalt Pug Mill
Land Spreading Site
Other (specify):

Signature - DEP Representative: S Brezinski

Signature - Facility Representative: Maria Martignone

Total Tonnage Received: 283.32

Please mail this form after signature to S Brezinski at regional office below:

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, ME 04333-0017
(207) 287-7800 FAX: (207) 287-7839

BANGOR
106 HOGAN ROAD
MAINE DEP, SUITE #6
BANGOR, ME 04401
(207) 941-4670 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, ME 04103
(207) 822-6200 FAX: (207) 822-6300

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, ME 04769-2094
(207) 764-0477 FAX: (207) 760-3143

P-561-12