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August 21, 2015
Project No: 120980-02.03
Invoice No: 43647

Willard Potter
demaximis, inc
186 Center Street, Suite 290
Clinton, NJ 08809

Project 120980-02.03 Lower Passaic River RI/FS

Professional Services from July 01, 2015 to July 31, 2015

Task 01.01 CPG Technical Committee (Meetings/Prep)

Professional Personnel

		Hours	Rate	Amount
Connolly, John	7/6/2015	4.00	379.00	1,516.00
Prep for TC meeting - spatial patterns of concentration - high density sampling/ mapping response				
Connolly, John	7/7/2015	1.50	379.00	568.50
develop charts for TC meeting - mapping response				
Connolly, John	7/8/2015	8.00	379.00	3,032.00
TC meeting Newark				
Connolly, John	7/10/2015	1.50	379.00	568.50
call with DMI on high density sampling				
Connolly, John	7/17/2015	.50	379.00	189.50
TC call on BERA RTCs				
Connolly, John	7/30/2015	.50	379.00	189.50
prep for TC meeting				
Connolly, John	7/31/2015	1.50	379.00	568.50
develop charts for TC meeting				
Israelsson, Peter	7/6/2015	1.25	205.00	256.25
TC prep on mapping slides				
Israelsson, Peter	7/7/2015	4.25	205.00	871.25
TC prep, slides, logistics				
Israelsson, Peter	7/8/2015	8.00	205.00	1,640.00
TC meeting				
Israelsson, Peter	7/9/2015	.75	205.00	153.75
Followup on TC meeting items (budgets; mapping response)				
Israelsson, Peter	7/25/2015	.25	205.00	51.25
Expenses for TC meeting				
Miyasaka, Shuhei	7/1/2015	2.00	83.00	166.00
Helped put together mapping response presentation				
Oates, Peter	7/7/2015	1.00	144.00	144.00

TC slide review

Totals	35.00	9,915.00	
Total Labor			**9,915.00**

Reimbursable Expenses

Meals	71.89	
Parking	62.00	
Transportation	456.69	
Total Reimbursables	**590.58**	**590.58**

Total this Task **$10,505.58**

Task 01.02 Response to TC Requests

Professional Personnel

		Hours	Rate	Amount	
Connolly, John	7/29/2015	1.00	379.00	379.00	
edit memo on high density sampling for CPG review					
Israelsson, Peter	7/24/2015	.75	205.00	153.75	
dmi requests; EPA supplemental info					
Totals		1.75		532.75	
Total Labor					**532.75**

Total this Task **$532.75**

Task 01.04 Project Management

Professional Personnel

		Hours	Rate	Amount
Connolly, John	7/2/2015	.25	379.00	94.75
review invoices				
Connolly, John	7/17/2015	.75	379.00	284.25
call with DMI on scope				
Connolly, John	7/24/2015	.50	379.00	189.50
Process check				
Israelsson, Peter	7/1/2015	.75	205.00	153.75
Finalize billing structure with W.Ku; progress report for dmi				
Israelsson, Peter	7/2/2015	3.25	205.00	666.25
Finalize May invoice with transmittals and explanations to accompany invoices for B.Potter; Finalize progress report for B.Potter; staff coordination				
Israelsson, Peter	7/10/2015	1.50	205.00	307.50
Process check; followup on budgets per B.Potter feedback				
Israelsson, Peter	7/15/2015	1.00	205.00	205.00
May invoice followup; June invoice draft; staffing				
Israelsson, Peter	7/16/2015	1.00	205.00	205.00
Submit May invoices; coordinate with dmi				
Israelsson, Peter	7/17/2015	1.50	205.00	307.50
Call with dmi on Newark Bay and project priorities; Newark Bay status update for dmi				
Israelsson, Peter	7/21/2015	.75	205.00	153.75
Invoice draft review and discussion				

FOIA_001406_0006517

Israelsson, Peter	7/24/2015	1.00	205.00	205.00
Internal process check and related followup; Passaic project staffing				
Israelsson, Peter	7/27/2015	1.50	205.00	307.50
June final invoice review and transmittal notes; Passaic project staffing				
Ku, Wen	7/1/2015	4.50	165.00	742.50
draft emails about new billing structure; progress report; finalize May billing				
Ku, Wen	7/2/2015	.50	165.00	82.50
update budget tracking sheet; review progress report				
Ku, Wen	7/9/2015	.25	165.00	41.25
clarify billing issues				
Ku, Wen	7/10/2015	3.00	165.00	495.00
process check; burn rate analysis				
Ku, Wen	7/13/2015	1.00	165.00	165.00
review June invoice				
Ku, Wen	7/14/2015	3.00	165.00	495.00
review June invoice; cost estimate on exposure depth response				
Ku, Wen	7/17/2015	2.50	165.00	412.50
update/review budget tracking; review June invoice (2nd round); call with DMI				
Ku, Wen	7/21/2015	.75	165.00	123.75
finalize June invoice				
Ku, Wen	7/24/2015	1.50	165.00	247.50
process check; finalize June invoice; forecast July invoice				
Ku, Wen	7/27/2015	.50	165.00	82.50
finalize June invoice				
Meyers, Mark	7/24/2015	.50	206.00	103.00
Status check				
Narayanan, Raghav	7/10/2015	.50	128.00	64.00
Process check				
Narayanan, Raghav	7/24/2015	.50	128.00	64.00
team pc				
Quadrini, James	7/2/2015	.75	267.00	200.25
Review and respond to project emails.				
Quadrini, James	7/10/2015	.50	267.00	133.50
Process check.				
Quadrini, James	7/24/2015	.50	267.00	133.50
Biweekly process check.				
Quadrini, James	7/27/2015	.25	267.00	66.75
RI topic discussion with Narayanan.				
Salvador, Toni	7/10/2015	.50	94.00	47.00
Passaic process check.				
Salvador, Toni	7/24/2015	.75	94.00	70.50
Passaic Process Check				
Thorvaldsen, Alyssa	7/10/2015	.50	150.00	75.00
Passaic process check				
Thorvaldsen, Alyssa	7/24/2015	.50	150.00	75.00

process check

Totals	37.00	6,999.75	
Total Labor			**6,999.75**
		Total this Task	**$6,999.75**

Task 02.02 Response to EPA Comments/RI Report Revision

Professional Personnel

		Hours	Rate	Amount
Connolly, John	7/2/2015	4.75	379.00	1,800.25
review analyses responding to mapping white paper; develop outline of detailed response				
Connolly, John	7/9/2015	4.25	379.00	1,610.75
Outline response to COPC mapping white paper				
Connolly, John	7/10/2015	1.00	379.00	379.00
outline dispute statement on exposure depth				
Connolly, John	7/13/2015	5.00	379.00	1,895.00
develop approaches to develop detailed responses on exposure depth and mapping				
Connolly, John	7/15/2015	1.00	379.00	379.00
develop exposure depth dispute statement				
Connolly, John	7/16/2015	4.00	379.00	1,516.00
draft intro text for exposure depth dispute statement				
Connolly, John	7/17/2015	1.25	379.00	473.75
draft text for exposure depth dispute statement				
Connolly, John	7/21/2015	3.00	379.00	1,137.00
review analysis supporting exposure depth dispute and internal meeting to develop strategy for dispute statement				
Connolly, John	7/22/2015	3.50	379.00	1,326.50
Develop text for exposure depth dispute statement				
Connolly, John	7/23/2015	4.25	379.00	1,610.75
Develop text for exposure depth dispute statement				
Connolly, John	7/24/2015	5.50	379.00	2,084.50
Develop text for exposure depth dispute statement				
Connolly, John	7/25/2015	3.00	379.00	1,137.00
edit dispute statement				
Connolly, John	7/29/2015	6.75	379.00	2,558.25
edit exposure depth dispute statement/finalize outline for COPC mapping white paper response				
Connolly, John	7/30/2015	2.25	379.00	852.75
edit dispute statement				
Connolly, John	7/31/2015	1.00	379.00	379.00
finalize dispute statement				
Dang, George	7/6/2015	4.75	96.00	456.00
EPA mapping paper response, explore high concentration core parameters				
Dang, George	7/7/2015	8.25	96.00	792.00
EPA mapping response plots, Prob plots by peak location				
Dang, George	7/8/2015	8.25	96.00	792.00
EPA mapping response plots, prob plots, MPA				
Dang, George	7/9/2015	5.00	96.00	480.00
EPA mapping response MPA prob plot				
Dang, George	7/10/2015	2.75	96.00	264.00
EPA mapping response sediment type prob plots				

FOIA_001406_0006519

Dang, George	7/13/2015	7.50	96.00	720.00
1.5 hours mapping paper response prob plots, 6 hours exposure depth analysis profiles and tables				
Dang, George	7/13/2015	1.00	96.00	96.00
EPA mapping response meeting				
Dang, George	7/14/2015	7.75	96.00	744.00
Exposure depth analysis profiles and tables				
Dang, George	7/15/2015	8.00	96.00	768.00
Maps for EPA mapping response paper				
Dang, George	7/16/2015	5.50	96.00	528.00
Mapping response figures and maps				
Dang, George	7/17/2015	5.75	96.00	552.00
Mapping response figures and maps				
Dang, George	7/20/2015	7.50	96.00	720.00
Mapping response figures and maps				
Dang, George	7/21/2015	7.50	96.00	720.00
Mapping response figures and maps				
Dang, George	7/22/2015	6.75	96.00	648.00
Mapping response figures and maps				
Dang, George	7/23/2015	7.00	96.00	672.00
Mapping response figures and maps				
Dang, George	7/27/2015	1.00	96.00	96.00
Mapping repsonse task organization, Answering questions about exposure depth analysis				
Dang, George	7/30/2015	4.50	96.00	432.00
SSP2 DUO analysis				
Dang, George	7/31/2015	6.50	96.00	624.00
Concentration difference map, task organization				
Forrest, Casey	7/10/2015	3.00	108.00	324.00
plots for Wen				
Forrest, Casey	7/13/2015	3.00	108.00	324.00
plots for Wen, probplots				
Forrest, Casey	7/14/2015	3.75	108.00	405.00
processing and plotting EPA runs for exposure depth assessment				
Forrest, Casey	7/15/2015	3.00	108.00	324.00
Depth exposure analysus				
Forrest, Casey	7/16/2015	.50	108.00	54.00
exposure depth probplots				
Forrest, Casey	7/17/2015	.25	108.00	27.00
exposure depth probplots				
Forrest, Casey	7/20/2015	2.50	108.00	270.00

exposure depth analysis and plots				
Forrest, Casey	7/21/2015	1.75	108.00	189.00
restart files, calls				
Forrest, Casey	7/22/2015	2.75	108.00	297.00
Exposure depth analysis				
Forrest, Casey	7/23/2015	3.00	108.00	324.00
Exposure depth analysis				
Forrest, Casey	7/24/2015	2.00	108.00	216.00
Exposure depth analysis				
Forrest, Casey	7/24/2015	.50	108.00	54.00
mixing depth				
Forrest, Casey	7/27/2015	.50	108.00	54.00
end of calibration profiles				
Forrest, Casey	7/28/2015	1.00	108.00	108.00
Exposure depth figures				
Forrest, Casey	7/29/2015	1.25	108.00	135.00
Exposure depth plots				
Forrest, Casey	7/30/2015	.75	108.00	81.00
Exposure depth plots				
Forrest, Casey	7/31/2015	.25	108.00	27.00
Updating report plots				
Hernandez, Cynthia	7/14/2015	2.00	85.00	170.00
RM 10.9 GIS Map: Compare Full RI Data Set to Kern EPA Data				
Hernandez, Cynthia	7/15/2015	2.50	85.00	212.50
RM 10.9 GIS Map: Compare Full RI Data Set to Kern EPA Data (Modifications and email final map) Call with George explaining development of New Map (2013 TCDD concentration vs 2015 Concentrations) & modify new map				
Hernandez, Cynthia	7/17/2015	4.50	85.00	382.50
Updating Difference Map GIS (Shoreline, add note) 2,3,7,8-TCDD Crossplot vs Polygon distance (IDL plot)				
Hernandez, Cynthia	7/20/2015	3.00	85.00	255.00
QC of Crossplot Polygon Map with RM 10.9 Data Design Area				
Hernandez, Cynthia	7/21/2015	8.00	85.00	680.00
Update Crossplot to label mean. Kearn Simulation comparison with mapping. Edit to 2 Panel Polygon Map with RM 10.9 Data Design Area				
Hernandez, Cynthia	7/30/2015	2.00	85.00	170.00
Figure 1 (Ratio vs 15 cm concentration) Value check Figure 5 Value check				
Israelsson, Peter	7/1/2015	1.25	205.00	256.25
Mapping response analyses; transect maps				
Israelsson, Peter	7/2/2015	.25	205.00	51.25

FOIA_001406_0006521

Mapping response maps; JPC outline

Israelsson, Peter	7/6/2015	1.75	205.00	358.75
Help develop mapping response outline; related analyses with A.Thorvaldsen				
Israelsson, Peter	7/9/2015	3.25	205.00	666.25
Exposure depth letter review and discussion; mapping response paper; mapping group mpa analysis				
Israelsson, Peter	7/10/2015	2.00	205.00	410.00
Exposure depth discussion to structure arguments; calls with J.Connolly and P.Oates/W.Ku				
Israelsson, Peter	7/13/2015	6.00	205.00	1,230.00
Exposure depth (3.5 hrs) and mapping response (2.5 hrs)				
Israelsson, Peter	7/14/2015	5.00	205.00	1,025.00
Exposure depth response (4 hrs) and mapping response (1 hr)				
Israelsson, Peter	7/14/2015	1.00	205.00	205.00
scope on exposure depth DR response				
Israelsson, Peter	7/15/2015	1.50	205.00	307.50
EPA responses on exposure depth (1 hr) and mapping (0.5 hr)				
Israelsson, Peter	7/15/2015	2.00	205.00	410.00
exposure depth DR outline/scope; mapping response scope and outline for dmi				
Israelsson, Peter	7/16/2015	2.50	205.00	512.50
Develop responses to EPA on exposure depth and mapping				
Israelsson, Peter	7/17/2015	3.50	205.00	717.50
Exposure depth intro; mapping response outline and plan				
Israelsson, Peter	7/20/2015	5.00	205.00	1,025.00
Mapping response discussion and outline; exposure depth response				
Israelsson, Peter	7/21/2015	4.50	205.00	922.50
Outline for TC on mapping memo and related discussions; Exposure depth response review analyses and text in prep for call with J.Connolly; call with team on exposure depth structure/analyses				
Israelsson, Peter	7/22/2015	4.00	205.00	820.00
Response to EPA on exposure depth				
Israelsson, Peter	7/23/2015	7.00	205.00	1,435.00
EPA response; review analyses and text; coordinate new analyses; coordinate call with M&N on ST response				
Israelsson, Peter	7/24/2015	6.50	205.00	1,332.50
Responses to EPA on mapping (2 hours) and exposure depth, with internal calls on both				
Israelsson, Peter	7/25/2015	6.00	205.00	1,230.00
Response to EPA on exposure depth				
Israelsson, Peter	7/27/2015	2.75	205.00	563.75
Edits to CWCM discussion of EPA exposure depth response; followup on other sections				
Israelsson, Peter	7/27/2015	.75	205.00	153.75

FOIA_001406_0006522

Proposal for TC on mapping response				
Israelsson, Peter	7/28/2015	.25	205.00	51.25
Check in on response work				
Israelsson, Peter	7/29/2015	2.25	205.00	461.25
Review/edit exposure depth draft and related followup; review revised mapping response outline (internal version)				
Israelsson, Peter	7/30/2015	.50	205.00	102.50
Mapping response proposal				
Israelsson, Peter	7/30/2015	2.50	205.00	512.50
Review revisions to exposure depth draft and provide comments; followup				
Israelsson, Peter	7/31/2015	.50	205.00	102.50
Followup on exposure depth draft				
Ku, Wen	7/10/2015	3.00	165.00	495.00
brainstorm and summarize analyses about exposure depth				
Ku, Wen	7/13/2015	5.00	165.00	825.00
brainstorm analyses about exposure depth; review and coordinate analysis results				
Ku, Wen	7/14/2015	6.00	165.00	990.00
review/coordinate analysis to respond to EPA's exposure depth				
Ku, Wen	7/15/2015	8.00	165.00	1,320.00
review/coordinate analysis to respond to EPA's exposure depth				
Ku, Wen	7/16/2015	4.00	165.00	660.00
review data analysis/model sensitivities				
Ku, Wen	7/17/2015	4.00	165.00	660.00
code change to extract fluff erosion loads; review Housatonic River model bed segmentation; coordinate/review analysis				
Ku, Wen	7/20/2015	6.00	165.00	990.00
review/update analysis; assess scour depth; review erosion flux from fluff vs. PB				
Ku, Wen	7/21/2015	6.00	165.00	990.00
call to discuss exposure depth TR response; review analysis; assess scour depth over high flow event				
Ku, Wen	7/22/2015	5.50	165.00	907.50
coordinate analysis on exposure depth DR				
Ku, Wen	7/23/2015	7.00	165.00	1,155.00
analysis and develop text for the exposure depth DR; call with M&N about exposure depth				
Ku, Wen	7/24/2015	7.00	165.00	1,155.00
analysis and develop text for the exposure depth DR				
Ku, Wen	7/27/2015	7.50	165.00	1,237.50
compile figure/text for exposure depth DR				
Ku, Wen	7/28/2015	7.50	165.00	1,237.50
compile figure/text for exposure depth DR				
Ku, Wen	7/29/2015	9.50	165.00	1,567.50

FOIA_001406_0006523

compile figure/text for exposure depth DR

Ku, Wen	7/30/2015	8.50	165.00	1,402.50
compile figure/text for exposure depth DR				
Ku, Wen	7/31/2015	4.50	165.00	742.50
compile figure/text for exposure depth DR				
Miyasaka, Shuhei	7/1/2015	1.75	83.00	145.25
summarized/documented the cross section analysis				
Miyasaka, Shuhei	7/9/2015	2.25	83.00	186.75
1)mpa vs. bathymetry change cross plot analysis				
Miyasaka, Shuhei	7/10/2015	6.00	83.00	498.00
depth of exposure analysis (technical reponse to CPG 6/12/2015 letter)				
Miyasaka, Shuhei	7/13/2015	6.25	83.00	518.75
depth of exposure analysis (technical reponse to CPG 6/12/2015 letter)				
Miyasaka, Shuhei	7/14/2015	8.00	83.00	664.00
1)launch shape runs to support exposure depth response for tcdd and tetra-cb 2)2cm vs. 15cm cross plot analysis refinement/updates 3)identify model calib runs that perturb fluff settings and develop metric plots				
Miyasaka, Shuhei	7/15/2015	6.50	83.00	539.50
1)manage and post process ongoing shape runs to support exposure depth response 2) post process and develop bed plots for runs that perturbed fluff layer parameters 3)2cm vs. 15cm cross plot analysis refinement/updates				
Miyasaka, Shuhei	7/16/2015	3.00	83.00	249.00
1)post process and manage ongoing shape runs to address exposure depth 2)Develop map of epa design extent of rm 10.9 3)review 2cm vs. 15cm cross plot and bed temporal analysis (in the context of addressing exposure depth issue)				
Miyasaka, Shuhei	7/17/2015	4.75	83.00	394.25
1)post process and manage ongoing shape runs to address exposure depth 2)launch runs to analyze fluff erosion flux. 3)develop temporals of fluff erosion flux vs. total bed erosion flux				
Miyasaka, Shuhei	7/20/2015	7.00	83.00	581.00
1)post process and develop bed and vertical metric plots of ongoing shape runs (3 EPA mixing sensitivities) 2)parent erosion flux vs. fluff erosion flux temporal and cumulative flux analysis. 3)2 vs 15cm ratio analysis refinement 4)prep for launching short term and long term calibration run (3 different EPA mixing sensitivities)				
Miyasaka, Shuhei	7/21/2015	7.00	83.00	581.00
1)launch short and long term calibration runs for tcdd and tetra-cb (3 EPA mixing sensitivity) 2)scour depth analysis.				
Miyasaka, Shuhei	7/22/2015	5.00	83.00	415.00
1)develop temporals of st, aoc, and rcatox thickness change. 2)started developing 2cm model vs. data bed metric plots. 3)manage and post process ongoing tcdd and tetra epa mixing sensitivity calibration runs.				
Miyasaka, Shuhei	7/23/2015	9.00	83.00	747.00
1)2cm model vs. data bed metric analysis. 2)manage and post process ongoing tcdd and tetra epa mixing sensitivity calibration runs.				
Miyasaka, Shuhei	7/24/2015	8.00	83.00	664.00

FOIA_001406_0006524

1)2cm bed copc conc. vs. % fines analysis 2)post process ongoing tcdd and tetra epa mixing sensitivity calibration runs and develop model metric plots. 3)2cm bed copc model to data analysis refinement. 4)2cm, 15cm, fluff layer bed, and water column temporal analysis

Miyasaka, Shuhei	7/27/2015	8.00	83.00	664.00
1)post process tcdd and tetra epa mixing sensitivity calibration runs and develop model metric plots. 2)2cm, 15cm, fluff layer bed, and water column temporal and correlation analysis. 3)launch short term calibration runs for model fluff sensitivity analysis (new runs to have more comparable results to base run). 4)post process tetra-cb nov calib runs for 2 vs 15 cm ratio analysis. 5)compile figures for DR deliverable				
Miyasaka, Shuhei	7/28/2015	6.00	83.00	498.00
1)post process ongoing short term calibration runs for model fluff sensitivity analysis (new runs to have more comparable results to base run). 2)Bathymetric change analysis/format M&N results to DR report figures. 3)compile,format, and review figures for DR deliverable				
Miyasaka, Shuhei	7/29/2015	4.00	83.00	332.00
1)post process and develop metric plots of short term calibration runs for model fluff sensitivity analysis (new runs to have more comparable results to base run). 2)address figure comments for DR deliverable				
Miyasaka, Shuhei	7/30/2015	5.75	83.00	477.25
1)2 cm vs. 15cm model to data comparison refinements/sensitivity analysis. 2)short term calibration runs for model fluff sensitivity analysis 3)identify different model run settings to see sensitivity of 2 cm bed calibrations 4)address figure comments for DR deliverable				
Miyasaka, Shuhei	7/31/2015	2.50	83.00	207.50
1)2 cm vs. 15cm model to data comparison refinements/sensitivity analysis. 2)address figure comments for DR deliverable and final review of the document				
Narayanan, Raghav	7/13/2015	1.00	128.00	128.00
Mapping White Paper response call				
Narayanan, Raghav	7/24/2015	1.00	128.00	128.00
Review reports for discussions of CWCM and DQOs				
Narayanan, Raghav	7/27/2015	1.00	128.00	128.00
Review QAPPs and reconcile differences between versions reg CWCM analysis				
Narayanan, Raghav	7/30/2015	1.00	128.00	128.00
Review modeling documents and FFS appendices about CWCM and other WC studies				
Oates, Peter	7/9/2015	1.00	144.00	144.00
Exposure depth				
Oates, Peter	7/10/2015	8.00	144.00	1,152.00
Exposure Depth, Mapping Response				
Oates, Peter	7/13/2015	7.00	144.00	1,008.00
Exposure Depth, Mapping Response				
Oates, Peter	7/14/2015	8.00	144.00	1,152.00
Exposure Depth, Mapping Response				
Oates, Peter	7/15/2015	8.00	144.00	1,152.00
Exposure Depth, Mapping Response				
Oates, Peter	7/16/2015	7.00	144.00	1,008.00
Exposure Depth				
Oates, Peter	7/17/2015	8.00	144.00	1,152.00
Exposure Depth				

FOIA_001406_0006525

Oates, Peter	7/20/2015	7.00	144.00	1,008.00
Exposure Depth Response				
Oates, Peter	7/21/2015	8.00	144.00	1,152.00
Exposure Depth Response				
Oates, Peter	7/22/2015	6.50	144.00	936.00
Exposure Response				
Oates, Peter	7/23/2015	8.00	144.00	1,152.00
Exposure Response				
Oates, Peter	7/24/2015	8.00	144.00	1,152.00
Exposure Response				
Oates, Peter	7/27/2015	8.00	144.00	1,152.00
Exposure Response				
Oates, Peter	7/28/2015	8.00	144.00	1,152.00
Exposure Response				
Oates, Peter	7/29/2015	8.00	144.00	1,152.00
Exposure Response				
Oates, Peter	7/30/2015	8.00	144.00	1,152.00
Exposure Response				
Oates, Peter	7/31/2015	8.00	144.00	1,152.00
Exposure Response				
Oliver, Jill	7/27/2015	1.00	121.00	121.00
Response to EPA Comments/RI Report Revision, sampling locations and figure revisions				
Owen, Chantell	7/13/2015	2.00	128.00	256.00
Review information needed to populate table on sites with contaminated sediments				
Owen, Chantell	7/14/2015	6.00	128.00	768.00
Request and compile information on contaminated sediment sites				
Owen, Chantell	7/15/2015	7.00	128.00	896.00
Compile information on contaminated sediment sites				
Owen, Chantell	7/20/2015	.50	128.00	64.00
Update table of contaminated sediment sites with additional information				
Pendleton, Eben	7/22/2015	1.00	96.00	96.00
Map Updates				
Pendleton, Eben	7/27/2015	3.00	96.00	288.00
Map Updates				
Salvador, Toni	7/30/2015	2.00	94.00	188.00
Edit and format Response to EPA Comments text, tables, and figures.				
Salvador, Toni	7/31/2015	5.00	94.00	470.00
Edit and format Response to EPA Comments text, tables, and figures.				
Thorvaldsen, Alyssa	7/1/2015	5.75	150.00	862.50
Mapping response				
Thorvaldsen, Alyssa	7/6/2015	7.25	150.00	1,087.50
Mapping response				
Thorvaldsen, Alyssa	7/7/2015	7.50	150.00	1,125.00

Mapping response					
Thorvaldsen, Alyssa	7/8/2015	7.50	150.00	1,125.00	
Mapping response					
Thorvaldsen, Alyssa	7/10/2015	3.00	150.00	450.00	
Mapping response					
Thorvaldsen, Alyssa	7/13/2015	6.50	150.00	975.00	
Mapping response					
Thorvaldsen, Alyssa	7/14/2015	7.50	150.00	1,125.00	
Mapping response					
Thorvaldsen, Alyssa	7/15/2015	7.25	150.00	1,087.50	
Mapping response					
Thorvaldsen, Alyssa	7/17/2015	4.50	150.00	675.00	
Mapping response					
Thorvaldsen, Alyssa	7/20/2015	5.50	150.00	825.00	
Mapping response					
Thorvaldsen, Alyssa	7/21/2015	4.75	150.00	712.50	
Mapping response					
Thorvaldsen, Alyssa	7/22/2015	5.25	150.00	787.50	
Mapping response					
Thorvaldsen, Alyssa	7/24/2015	5.50	150.00	825.00	
Mapping response					
Thorvaldsen, Alyssa	7/27/2015	7.00	150.00	1,050.00	
Mapping response					
Thorvaldsen, Alyssa	7/28/2015	7.00	150.00	1,050.00	
Mapping response					
Thorvaldsen, Alyssa	7/29/2015	6.00	150.00	900.00	
Mapping response					
Thorvaldsen, Alyssa	7/31/2015	2.50	150.00	375.00	
Mapping response					
Totals		736.00		110,510.75	
Total Labor					**110,510.75**

Total this Task **$110,510.75**

Task 04.01 Data Compilation/Literature Review

Professional Personnel

		Hours	**Rate**	**Amount**
Israelsson, Peter	7/1/2015	1.50	205.00	307.50
Review of NB studies mainly for domain definition question				
Israelsson, Peter	7/2/2015	.75	205.00	153.75
Newark Bay data/studies				
Israelsson, Peter	7/6/2015	.50	205.00	102.50
Newark Bay data/studies				
Israelsson, Peter	7/7/2015	.75	205.00	153.75
Newark Bay domain/subregions				
Israelsson, Peter	7/9/2015	1.00	205.00	205.00
Review Newark Bay studies				

FOIA_001406_0006527

Israelsson, Peter	7/27/2015	.25	205.00	51.25	
Review NB status data compilation followup					
Ku, Wen	7/2/2015	2.00	165.00	330.00	
literature review for NBSA					
Ku, Wen	7/8/2015	4.00	165.00	660.00	
literature review for NBSA					
Ku, Wen	7/9/2015	2.00	165.00	330.00	
literature review for NBSA					
Oates, Peter	7/1/2015	2.00	144.00	288.00	
NB Lit review					
Oates, Peter	7/2/2015	2.00	144.00	288.00	
NB Lit review					
Oates, Peter	7/6/2015	1.00	144.00	144.00	
NB Lit review					
Oates, Peter	7/7/2015	2.00	144.00	288.00	
NB Lit review					
Oates, Peter	7/8/2015	1.00	144.00	144.00	
NB Lit review					
Oates, Peter	7/9/2015	2.00	144.00	288.00	
NB Lit review					
Totals		22.75		3,733.75	
Total Labor					**3,733.75**
			Total this Task		**$3,733.75**

Task 04.04 Inputs and Parameterization

Professional Personnel

		Hours	Rate	Amount
Forrest, Casey	7/7/2015	5.00	108.00	540.00
Reviewing and updating SHREQ plots, updating processors and plotters for NB				
Forrest, Casey	7/8/2015	6.00	108.00	648.00
Reviewing and updating SHREQ plots, updating processors and plotters for NB				
Ku, Wen	7/9/2015	.25	165.00	41.25
review PS/NPS in NBSA				
Miyasaka, Shuhei	7/2/2015	3.50	83.00	290.50
1)Delineated first cut of Newark bay, Arthur kill, kill van kull, and Hackensack domain for model to data comparisons. 2)Developed prob plot of sedimentation rates in different model domains (to help delineate NWB model domain) and develop a map of sedimentation rates.				
Miyasaka, Shuhei	7/9/2015	1.25	83.00	103.75
nwb model domain sensitivity analysis				
Owen, Chantell	7/9/2015	1.50	128.00	192.00
Obtain files and format PS and NPS locations for mapping				

FOIA_001406_0006528

Owen, Chantell	7/10/2015	2.50	128.00	320.00	
Create map of PS and NPS locations in the Newark Bay study area					
Owen, Chantell	7/15/2015	.25	128.00	32.00	
Extend map extent to show all PS and NPS locations around Newark Bay and surrounding area					
Totals		20.25		2,167.50	
Total Labor					**2,167.50**
			Total this Task		**$2,167.50**

Task 04.05 Calibration

Professional Personnel

		Hours	**Rate**	**Amount**
Dang, George	7/9/2015	3.00	96.00	288.00
Calculating Newark Bay calibration targets				
Dang, George	7/10/2015	2.50	96.00	240.00
QC Newark Bay calibration targets and error bars				
Forrest, Casey	7/9/2015	5.25	108.00	567.00
Fractionation processors, debugging, temporal plots for Wen				
Forrest, Casey	7/10/2015	2.00	108.00	216.00
Fractionation debugging				
Forrest, Casey	7/13/2015	2.00	108.00	216.00
Fractionation				
Forrest, Casey	7/14/2015	1.00	108.00	108.00
Fractionation				
Forrest, Casey	7/30/2015	1.00	108.00	108.00
fractionation work with EP				
Israelsson, Peter	7/2/2015	1.25	205.00	256.25
Followup on Newark Bay model topics; domain delineation options				
Israelsson, Peter	7/6/2015	1.00	205.00	205.00
reprocessed results for NB model assessment; domain definition				
Israelsson, Peter	7/7/2015	1.00	205.00	205.00
BC sensitivities				
Israelsson, Peter	7/9/2015	1.25	205.00	256.25
Review NB results and sensitivity analyses with existing model results				
Ku, Wen	7/6/2015	.50	165.00	82.50
discuss model implementation; update fractionation calibration chart/analysis				
Ku, Wen	7/9/2015	.25	165.00	41.25
review BC analysis				
Ku, Wen	7/9/2015	2.00	165.00	330.00
update fractionation calibration chart/analysis; review bathy setup in the model				
Miyasaka, Shuhei	7/6/2015	5.50	83.00	456.50
Identify and develop NWB model and data comparison metrics.				

FOIA_001406_0006529

Miyasaka, Shuhei	7/7/2015	4.00	83.00	332.00	
Continue developing NWB model and data comparison metrics					
Miyasaka, Shuhei	7/8/2015	8.00	83.00	664.00	
Continue developing NWB model and data comparison metrics					
Miyasaka, Shuhei	7/9/2015	4.50	83.00	373.50	
1) 15 cm and 1cm copc bed temporal analysis in nwb 2)review model input setup and wc detailed dump output for fractionation analysis.					
Miyasaka, Shuhei	7/10/2015	1.00	83.00	83.00	
review nwb calibration targets and update bed temporal plots with targets.					
Oates, Peter	7/1/2015	4.50	144.00	648.00	
modeling coordination					
Oates, Peter	7/2/2015	6.00	144.00	864.00	
modeling coordination					
Oates, Peter	7/6/2015	6.00	144.00	864.00	
modeling coordination					
Oates, Peter	7/7/2015	3.00	144.00	432.00	
modeling coordination					
Oates, Peter	7/8/2015	7.00	144.00	1,008.00	
modeling coordination					
Oates, Peter	7/9/2015	5.00	144.00	720.00	
modeling coordination					
Pendleton, Eben	7/30/2015	1.00	96.00	96.00	
Fortran code output corrections					
Totals		79.50		9,660.25	
Total Labor					**9,660.25**
			Total this Task		**$9,660.25**

Task 04.07 Meetings/Coordination

Professional Personnel

		Hours	**Rate**	**Amount**
Forrest, Casey	7/1/2015	.75	108.00	81.00
Process Check				
Hernandez, Cynthia	7/1/2015	1.00	85.00	85.00
CPGpas Progress Check Meeting				
Israelsson, Peter	7/1/2015	3.50	205.00	717.50
Coordination of Newark Bay model tasks; team process check and call with M&N on status/path forward				
Israelsson, Peter	7/17/2015	1.00	205.00	205.00
Call with dmi on Newark Bay, with prep				
Ku, Wen	7/1/2015	2.50	165.00	412.50
calling with M&N about NB modeling; summarize notes; internal process check				

FOIA_001406_0006530

Ku, Wen	7/16/2015	.50	165.00	82.50	
update NBSA modeling status					
Ku, Wen	7/17/2015	.50	165.00	82.50	
summarize NBSA modeling followups					
Miyasaka, Shuhei	7/1/2015	.75	83.00	62.25	
Process call to review upcoming schedule and items for NWB modeling and data analysis.					
Miyasaka, Shuhei	7/2/2015	.50	83.00	41.50	
Call to review how to delineate Newark bay, Arthur kill, kill van kull, and Hackensack domain for model to data comparisons.					
Narayanan, Raghav	7/1/2015	1.00	128.00	128.00	
Team call					
Oates, Peter	7/1/2015	1.50	144.00	216.00	
process check					
Oates, Peter	7/16/2015	1.00	144.00	144.00	
NB update					
Thorvaldsen, Alyssa	7/1/2015	1.00	150.00	150.00	
NB process check					
Totals		15.50		2,407.75	
Total Labor					**2,407.75**

Reimbursable Expenses

Conference Calls	44.84	
Total Reimbursables	**44.84**	**44.84**
Total this Task		**$2,452.59**
Total this Invoice		**$146,562.92**

Outstanding Invoices

Number	Date	Balance
42878	7/2/2015	112,325.49
43204	7/23/2015	138,213.13
Total		**250,538.62**

Invoice cc:
Marylin Jenkins
Law Offices of Marylin Jenkins PC
220 Merrimack Street, Suite 625
Lawrence, MA 01945
Phone: 781.780.1937
Fax: 978.655.1456
mjenkins@edgcomb-law.com

Ticket #116345

05-06-03 4:54 AM

000511 1 79 116345

Greek Blobry Parfait

MED ABP Coffee

Banana

Meals
$7.89

CHECKER CAB
103 FULKERSON STREET
CAMBRIDGE, MA 02141

06/03/2015	04:51:36
Merchant ID:	000000001435297
Terminal ID:	06801439
376228027995	

CREDIT CARD

VISA SALE

	XXXXXXXXXXXX6479
	1010001
Batch #:	000101
Approval Code:	04109C
Entry Method:	Swiped
Mode:	Online
SALE AMOUNT	$27.00

Transportation - Taxi

CUSTOMER COPY

Meals
$64.00
no receipt

Parking

Madoor New Partners LLC
202 East 75th street
New York, NY 10021
212-288-6969
DCA License 1435265

AMEX [illegible]
CARD [illegible]

DATE 08-25-2015
TIME 08:46:08
SALE 46.00 ✓

APPROVED 521092

PARKING TICKET# 352929

Customer Copy

I agree to pay above total amount
according to card issuer agreement

[illegible]
[illegible]
[illegible]
RECEIPT [illegible]

ENTRY TIME:
[illegible]/25/15 [illegible]
EXIT TIME:
[illegible]/25/15 [illegible]
PARK FOR: [illegible]
0:03:15

AMOUNT: [illegible] ✓

KIND OF PAYMENT:
[illegible]
[illegible]
[illegible]
AUTH. CODE [illegible]

THANK YOU FOR YOUR
[illegible]

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E-ZPass

Account #19704

TRANSACTION VIEW

Generated: 6/28/2015 18:5

POSTING DATE	TRANSACTION DATE	TAG/ PLATE NUMBER	AGENCY	ACTIVITY	ENTRY TIME	ENTRY PLAZA	ENTRY LANE	EXIT TIME	EXIT PLAZA	EXIT LANE	VEHICLE TYPE CODE	AMOUNT	PREPAID	PLAN/RATE	FARE TYPE	BALANCE
06/26/2015	06/25/2015	00406726361	NYSTA	TOLL	-	-	-	13:54:33	NR	04N	2L	$1.66	Y	STANDARD	N	$16.22
06/26/2015	06/25/2015	00406726361	PANYNJ	TOLL	-	-	-	13:26:42	GWL	64	1	$9.75	Y	STANDARD	N	$17.88
06/25/2015	06/25/2015	00406726361	NJTP	TOLL	13:13:05	15W	05E	13:18:08	18W	08X	-	$2.45	Y	STANDARD	N	$27.63
06/25/2015	06/25/2015	00406726361	NJTP	TOLL	09:24:27	18W	07E	09:29:48	15W	12X	-	$2.45	Y	STANDARD	N	$30.08
06/24/2015	06/24/2015	00406726361	MTAB&T	TOLL	-	-	-	11:58:27	RKM	016	1	$5.54	Y	STANDARD	N	$32.53

Transportation - Tolls

NJ TRANSIT
The Way To Go.

RECEIPT

07/08/2015 09:02

NJ TRANSIT Rail
01 ADULT ROUND TRIP RT-F
NYP NYP **NWK**
FARE : $10.00

TOTAL : $10.00 ✓ X Transportation - train

PAYMENT : Credit - AE
AMOUNT : $10.00
MERCHANT : 04050920008
TRANS. ID : 028-0171154268
ACCT NO : XXXXXXXXXXX4007
NAME : CONNOLLY/JOHN P
AUTH NO : 501493

CONNOLLY/JOHN P (Signature)

5092 NYP NYP

$2.50 - Subway - no receipt
$2.50 - Bus - no receipt
$2.50 - Subway - no receipt

[illegible]

HAMPTON JITNEY, INC
395 COUNTY ROAD 39A
SOUTHAMPTON, NY 11968
631-283-4600

Name: CONNOLLY, JOHN
Date: 07-08-2015
Trip: 296
From: 69 To: EH
Fare: One Way $50.00

Total Fare: $50.00

Payment:Credit $50.00 ✓ X Transportation - bus
JOHN P CONNOLLY
CC#: **********4007
Issue: Amex
Exp: 04-2020

Change Due: $0.00

Peter Israelsson

From: etickets@amtrak.com
Sent: Wednesday, June 03, 2015 8:55 PM
To: Peter Israelsson
Subject: Amtrak: eTicket and Receipt for Your 06/04/2015 Trip - PETER ISRAELSSON
Attachments: Israelsson Peter 201506032054350881.pdf

SALES RECEIPT

Purchased: 06/03/2015 5:54 PM PTThank you for your purchase.

1. Retain this receipt for your records.
2. Print the attached eTicket and carry during your trip.

Merchant ID 0810760 Massachusetts AvenueWashington, DC 20002800-USA-RAILAmtrak.com

Reservation Number - 01467F**NEWARK PENN STA, NJ - BOSTON SOU STA, MA (One-Way)**JUNE 3, 2015

Billing Information

PETER ISRAELSSON32 PRINCE STCAMBRIDGE, MA 02139-

Visa ending in 6479 (Purchase)Authorization Code 03036C

Total $191

Purchase Summary - Ticket Number 1548107110477

Train 2154: NEWARK (PENN STATION), NJ - BOSTON (SOUTH STATION), MA Depart 9:31 AM, Thursday, June 4, 2015
1 ACELA EXPRESS BUSINESS CL SEAT

$191.00

Ticket Terms & ConditionsACELA EXPRESS SERVICE, NO PARTIAL REFUND IF USED ON OTHER SERVICE

Subtotal

$191.00

Total Charged by Amtrak

$191.00

Transportation - train

Peter Israelsson

From: etickets@amtrak.com
Sent: Tuesday, June 02, 2015 2:30 PM
To: Peter Israelsson
Subject: Amtrak: eTicket and Receipt for Your 06/03/2015 Trip - PETER ISRAELSSON
Attachments: Israelsson Peter 201506021430100093.pdf

SALES RECEIPT

Purchased: 06/02/2015 11:30 AM PTThank you for your purchase.

1. Retain this receipt for your records.
2. Print the attached eTicket and carry during your trip.

Merchant ID 0071860 Massachusetts AvenueWashington, DC 20002800-USA-RAILAmtrak.com

Reservation Number - E4F761BOSTON SOU STA, MA - NEWARK PENN STA, NJ (One-Way)JUNE 2, 2015

Billing Information

PETER ISRAELSSON32 PRINCE STCAMBRIDGE, MA 02139-

Visa ending in 6479 (Purchase)Authorization Code 00255C

Total $151

Purchase Summary - Ticket Number 1530718064335

Train 2151: BOSTON (SOUTH STATION), MA - NEWARK (PENN STATION), NJ Depart 5:05 AM, Wednesday, June 3, 2015
1 ACELA EXPRESS BUSINESS CL SEAT

$151.00

Ticket Terms & ConditionsACELA EXPRESS SERVICE, NO PARTIAL REFUND IF USED ON OTHER SERVICE

Subtotal

$151.00

Total Charged by Amtrak

$151.00

Transportation - train

ANCHOR QEA

Conference Calls
120980-02.03

Mins	Amount	Date	Topic	Host Name
80	3.04	6/23/2015	Passaic - discuss mapping presentation for TC call	Alyssa Thorvaldsen
82	3.116	6/23/2015	Passaic - discuss mapping presentation for TC call	Alyssa Thorvaldsen
83	3.154	6/23/2015	Passaic - discuss mapping presentation for TC call	Alyssa Thorvaldsen
97	3.686	6/15/2015	Passaic: Call to discuss mapping comments	George Dang
97	3.686	6/15/2015	Passaic: Call to discuss mapping comments	George Dang
100	3.8	6/15/2015	Passaic: Call to discuss mapping comments	George Dang
19	0.722	6/16/2015	Review MN Bathy Attachment	Raghav Narayanan
17	0.646	6/16/2015	Review MN Bathy Attachment	Raghav Narayanan
19	0.722	6/16/2015	Review MN Bathy Attachment	Raghav Narayanan
19	0.722	6/16/2015	Review MN Bathy Attachment	Raghav Narayanan
17	0.646	6/16/2015	Review MN Bathy Attachment	Raghav Narayanan
			Conference Calls: 6/16 - 6/23	
Subtotal	**$**	**23.94**		

Mins	Amount	Date	Topic	Host Name
2	0.076	7/1/2015	Passaic Modeling	Wen Ku
22	0.836	7/1/2015	Passaic Modeling	Wen Ku
21	0.798	7/1/2015	Passaic Modeling	Wen Ku
20	0.76	7/1/2015	Passaic Modeling	Wen Ku
			Conference Calls: 7/1	
Subtotal	**$**	**2.47**		

Mins	Amount	Date	Topic	Host Name
77	2.926	6/26/2015	CPGpas - NB process check	Wen Ku
79	3.002	6/26/2015	CPGpas - NB process check	Wen Ku
88	3.344	6/26/2015	CPGpas - NB process check	Wen Ku
			Conference Calls: 6/26	
Subtotal	**$**	**9.27**		

Mins	Amount	Date	Topic	Host Name
59	2.242	7/1/2015	Passaic - check in on Newark Bay modeling	Peter Israelsson
61	2.318	7/1/2015	Passaic - check in on Newark Bay modeling	Peter Israelsson
60	2.28	7/1/2015	Passaic - check in on Newark Bay modeling	Peter Israelsson
61	2.318	7/1/2015	Passaic - check in on Newark Bay modeling	Peter Israelsson
			Conference Calls: 7/1	
Subtotal	**$**	**9.16**		