

October 13, 2005  
10077.009

Oregon Department of Environmental Quality  
Northwest Region  
2020 SW Fourth Avenue  
Suite 400  
Portland, Oregon 97201-4987

**VIA Email**

**Attention: Anna Coates**

**Subject: Progress Report – September 2005  
Remedial Investigation/Feasibility Study/Interim Removal Action Measures  
Astoria Area-Wide Petroleum Site  
Astoria, Oregon  
DEQ ECSI File #2277**

Dear Ms. Coates:

This letter presents the progress made by the PRP Group in September 2005 on the RI/FS and IRAM development at the Astoria Area-Wide Petroleum Site in Astoria, Oregon. This work is being conducted in response to DEQ Order No. ECSR-NWR-01-11.

**WORK COMPLETED IN SEPTEMBER 2005**

Evaluation of data collected from the sub-slab soil gas sampling event and preparation of the technical memorandum describing the probe installation and results continued in September.

As-built diagrams of the upgraded HVAC system were received from P&L Johnson.

Cowlitz Clean Sweep (CCS) of Astoria, Oregon, performed monthly maintenance for the product absorbent socks in nine site monitoring wells containing measurable product. These monitoring wells are located upland of Slip 2 and at the Delphia Oil site. The socks are weighed upon removal from the monitoring well to develop an understanding about the product recovery rates. The enhanced synthetic and floating absorbent boom system installed in Slip 2 was inspected.

Upland data collection tasks described in the work plan for further characterization of petroleum hydrocarbons on Pier 2 were completed. Nine borings and three new monitoring wells were installed. Sufficient data were collected to describe the extent of free-phase hydrocarbons in this area.

The schedule for implementation of the IRAM work plan for the proposed development on the former Mobil/Niemi bulk plant property is understood to be delayed.

Work on the RI Report was initiated.

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The human health risk assessment work plan was completed in September.

The ecological risk assessment work plan was completed and submitted to the DEQ on September 23.

A meeting of the PRP Group representatives was held on September 6. A meeting between the PRP Group representatives and DEQ representatives was held on September 15.

### **WORK PLANNED FOR OCTOBER AND NOVEMBER 2005**

The updated project schedule is attached to this monthly progress report. Active project work tasks include the following:

- Completion of a technical memorandum describing sub-slab sampling at the Port office building;
- Completion of the documentation of installation of the upgraded HVAC system in the Port office building;
- Product recovery via absorbent socks in monitoring wells upland of Slip 2 and at Delphia Oil;
- Maintenance of the absorbent boom system in Slip 2;
- Preparation of documentation of the results of field work conducted for additional characterization in the area upland of the hydrocarbon seep at Slip 2;
- Acquisition of proposed building plans for the development at the former Mobil/Niemi bulk plant;
- Preparation of documentation regarding the undocumented pipelines and structures found during the Bornstein Seafoods development;
- Preparation of the RI report;
- Completion of the work plan for and initiation of the human health risk assessment; and
- Implementation of the work plan for and initiation of the ecological risk assessment.

An estimate of the percent complete for each of the tasks on the schedule is provided. The status of each task will be updated monthly on the project schedule for submittal to DEQ.

### **PROBLEMS ENCOUNTERED AND RESOLUTIONS**

There are no problems requiring resolution in the reporting period.

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**CLOSING COMMENTS**

Please call me at (503)768-5121 if you have any questions or comments regarding this progress report.

Sincerely,  
*EnviroLogic Resources, Inc.*

*Thomas J. Calabrese*

Thomas J. Calabrese, RG, CWRE  
Principal/Hydrogeologist  
Project Manager

cc: Distribution list attached

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**ASTORIA AREA-WIDE PETROLEUM SITE  
Distribution List**

- 1 Anna Coates, DEQ Project Manager, Site Response
  - 1 Don Haagensen, Attorney for Port of Astoria
  - 1 Peter Gearin, Port of Astoria
  - 1 Tom Calabrese, *EnviroLogic Resources, Inc.*, Consultant for PoA and AAW PRP Group
  - 1 Max Miller, Tonkon Torp, Attorney for McCall Oil and Chemical Corporation
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  - 1 John Edwards, Anchor Environmental, LLC, Consultant for McCall Oil and Chemical Corp
  - 1 Cary E. Bechtolt, Niemi Oil Company
  - 1 Jeff B. Kray, Marten Law Group, PLLC, Attorney for Niemi Oil Company
  - 1 Kurt Harrington, AMEC, Inc., Consultant for Niemi Oil Company
  - 1 Ed Platt, Shell Oil Company
  - 1 Rick Glick, Davis Wright Tremaine, Attorney for Shell Oil Company
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  - 1 Brian Harris, Harris Enterprises
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  - 1 Jerry Hodson, Miller Nash, Attorney for Harris Enterprises
  - 1 Lon Yandell, Kleinfelder, Consultant for Harris Enterprises
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  - 1 Alistaire Clary, Maul Foster Alongi, Consultant for Delphia Oil Company
  - 1 Darin Rouse, ChevronTexaco Products Company
  - 1 Jon Robbins, Attorney for ChevronTexaco Products Company
  - 1 Gerry Koschal, SAIC, Consultant for ChevronTexaco Products Company
  - 1 Brian Jacobson, Qwest Communications International, Inc.
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  - 1 Anita W. Lovely, Lovely Consulting, Inc., Consultant for Exxon Mobil Corporation
  - 1 Information Repository
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**UPDATED SCHEDULE (10/13/05)**

**Remedial Investigation/Feasibility Study  
Astoria Area-Wide Petroleum Site  
Astoria, Oregon**

ID	Task Description	Duration	Start	Finish	Complete	Predecessors
1	ASTORIA AREA-WIDE PETROLEUM STUDY	1169 days	1/9/2002	9/1/2006		
2						
3	RI/FS and IRAM PROPOSAL	11 days	1/9/2002	1/21/2002	100%	
4						
17						
18	RI/FS and IRAM DEVELOPMENT WORK PLAN	124 days	1/9/2002	7/1/2002	100%	
19						
58						
59	PHASE 1/2 RI/FS and IRAM WORK PLAN IMPLEMENTATION	1124 days	1/9/2002	6/28/2006		
60						
61	SOURCE/SOIL CHARACTERIZATION	709 days	1/9/2002	11/1/2004	100%	
62	Phase 1 Source/Soil Characterization	269 days	1/9/2002	1/27/2003		
99	Phase 2 Soil Characterization	375 days	4/30/2003	11/1/2004		
124						
125	GROUND-WATER CHARACTERIZATION	574 days	8/12/2002	11/23/2004	100%	
126	Water-Level Measurement Program	524 days	8/12/2002	9/14/2004		
157	Beneficial Ground Water and Land Use Studies	126 days	8/27/2002	2/21/2003		
164	Monitoring-Well Installation Program	365 days	8/20/2002	2/5/2004		
185	Quarterly Ground-Water Monitoring Program	281 days	10/8/2003	11/23/2004		
230	Hydraulic Characterization Program (NOT CURRENTLY PLANN)	46 days	3/1/2004	5/4/2004		
238						
239	STORM/SURFACE WATER CHARACTERIZATION	586 days	8/19/2002	12/20/2004	100%	
240	Storm Water Monitoring Plan	117 days	8/19/2002	1/31/2003		
244	Quarterly Storm Water Monitoring Program	309 days	9/23/2003	12/20/2004		
289						
290	SEDIMENT CHARACTERIZATION	100 days	6/13/2003	11/4/2003	100%	
291	Phase 1 Sediment Characterization	100 days	6/13/2003	11/4/2003		
302						
303	IRAM DEVELOPMENT	1035 days	5/13/2002	6/28/2006		
304	Indoor Air Quality IRAM Development	708 days	12/27/2002	10/26/2005		
305	Comparison of Soil Data to Screening Levels	10 days	12/27/2002	1/10/2003	100%	81
306	Indoor Air IRAM Development	622 days	4/30/2003	10/26/2005		
307	Air Quality Sampling Work Plan	299 days	4/30/2003	7/15/2004	100%	
314	Vapor Intrusion Pathway Sampling	180 days	8/20/2004	5/9/2005	100%	167
334	Sub-Slab Sampling	134 days	4/18/2005	10/26/2005	90%	
335	Draft Sub-Slab Sampling Work Plan Preparation	32 days	4/18/2005	6/1/2005	100%	
336	PRP Group Review	5 days	6/2/2005	6/8/2005	100%	335
337	Final Sub-Slab Sampling Work Plan	10 days	6/9/2005	6/22/2005	100%	336
338	Submittal to DEQ	1 day	6/23/2005	6/23/2005	100%	337
339	Sub-Slab Probe Installation	3 days	8/9/2005	8/11/2005	100%	338FS+30 days
340	Soil Vapor Sampling	2 days	8/12/2005	8/15/2005	100%	339
341	Laboratory Analyses	10 days	8/16/2005	8/29/2005	100%	340
342	Data Validation	10 days	8/30/2005	9/13/2005	100%	341
343	Analytical Data Compilation	5 days	9/14/2005	9/20/2005	100%	342
344	Draft Sub-Slab Sampling TM	15 days	9/21/2005	10/11/2005	80%	343
345	PRP Group Review	5 days	10/12/2005	10/18/2005		344
346	Final Sub-Slab Sampling TM	5 days	10/19/2005	10/25/2005		345
347	Submittal to DEQ	1 day	10/26/2005	10/26/2005		346
348	HVAC Adjustments - IRAM	160 days	2/28/2005	10/13/2005	95%	
349	Contracting	40 days	2/28/2005	4/22/2005	100%	
350	HVAC Adjustment	32 days	4/25/2005	6/8/2005	100%	349
351	Acquire As-Builts from Contractor	74 days	6/9/2005	9/23/2005	100%	350
352	Prepare Documentation of Adjustment	5 days	9/26/2005	9/30/2005	100%	351
353	PRP Group Review	5 days	10/3/2005	10/7/2005		352
354	Final Documentation	3 days	10/10/2005	10/12/2005		353
355	Submittal to DEQ	1 day	10/13/2005	10/13/2005		354
356	HYDROCARBON SEEP IRAM DEVELOPMENT	641 days	6/12/2003	1/9/2006		
357	Bail-Down Testing	3 days	6/12/2003	6/16/2003	100%	139
358	Water Quality Sampling at Seep MWs	2 days	6/17/2003	6/18/2003	100%	357
359	Product Removal	125 days	6/16/2003	12/15/2003	100%	
367	2004 A Product Removal	107 days	1/12/2004	6/10/2004	100%	
374	2004 B Product Removal	106 days	7/19/2004	12/16/2004	100%	
381	2005 Product Removal	192 days	3/30/2005	1/4/2006	75%	
392	Hydrocarbon Seep IRAM Work Plan	67 days	6/17/2003	9/22/2003	100%	
398	Hydrocarbon Seep IRAM Implementation	510 days	11/24/2003	12/12/2005		
399	IRAM Design/Build	206 days	11/24/2003	9/24/2004	100%	
408	O&M 2005 Month	192 days	3/10/2005	12/12/2005	75%	
419	Upland Data Collection	401 days	1/23/2004	8/25/2005	100%	
420	UDC Work Plan	141 days	1/23/2004	8/12/2004	100%	
425	UDC Implementation	71 days	9/13/2004	12/22/2004	100%	
431	UDC Technical Memorandum	169 days	12/23/2004	8/25/2005	100%	
436	Additional Product Characterization	219 days	2/24/2005	1/9/2006		
437	Work Plan Preparation	128 days	2/24/2005	8/25/2005	100%	
442	Field Preparation	11 days	8/26/2005	9/12/2005	100%	
445	Drilling Program	3 days	9/14/2005	9/16/2005	100%	
448	Analytical Program	40 days	9/19/2005	11/11/2005	50%	
449	Laboratory Analyses	20 days	9/19/2005	10/14/2005		447
450	Data Validation	10 days	10/17/2005	10/28/2005		449
451	Analytical Data Compilation	10 days	10/31/2005	11/11/2005		450
452	Reporting	219 days	2/24/2005	1/9/2006	0%	
453	Draft Product Characterization TM	15 days	11/14/2005	12/6/2005		451
454	PRP Group Review	10 days	12/7/2005	12/20/2005		453
455	Final Product Characterization TM	10 days	12/21/2005	1/6/2006		454
456	Submittal to DEQ	1 day	1/9/2006	1/9/2006		455

**UPDATED SCHEDULE (10/13/05)**

**Remedial Investigation/Feasibility Study  
Astoria Area-Wide Petroleum Site  
Astoria, Oregon**

ID	Task Description	Duration	Start	Finish	Complete	Predecessors
457	Project Management	109 days	2/24/2005	7/29/2005		438SS
458	<b>TANK-BOTTOM WASTE IRAM DEVELOPMENT (McCALL BP)</b>	<b>750 days</b>	<b>5/13/2002</b>	<b>5/10/2005</b>	<b>95%</b>	
459	Technology Screening	10 days	5/13/2002	5/24/2002		44
460	Detailed Evaluation of Alternatives	10 days	5/28/2002	6/10/2002		459
461	Implementation Plan Proposal	5 days	6/11/2002	6/17/2002		460
462	Review IRAM Implementation Report	5 days	5/4/2005	5/10/2005		167FS+500 days
463	<b>FORMER MOBIL/NIEMI BULK PLANT IRAM</b>	<b>455 days</b>	<b>9/7/2004</b>	<b>6/28/2006</b>		
464	<b>IRAM Work Plan</b>	<b>120 days</b>	<b>9/7/2004</b>	<b>3/1/2005</b>	<b>100%</b>	
471	<b>UST Removal</b>	<b>48 days</b>	<b>9/20/2004</b>	<b>11/24/2004</b>	<b>100%</b>	
489	<b>IRAM Implementation</b>	<b>313 days</b>	<b>4/1/2005</b>	<b>6/28/2006</b>		
490	<b>Vapor Barrier/Extraction Design</b>	<b>215 days</b>	<b>4/1/2005</b>	<b>2/8/2006</b>	<b>0%</b>	
491	Acquire Building Plans	180 days	4/1/2005	12/16/2005		
492	Draft Vapor Barrier/Extraction Design	15 days	12/19/2005	1/11/2006		491
493	PRP Group Review	5 days	1/12/2006	1/18/2006		492
494	Final Vapor Barrier/Extraction Design	5 days	1/19/2006	1/25/2006		493
495	Submittal to DEQ	5 days	1/26/2006	2/1/2006		494
496	DEQ Approval	5 days	2/2/2006	2/8/2006		495
497	<b>Vapor Barrier/Extraction Construction</b>	<b>12 days</b>	<b>3/24/2006</b>	<b>4/10/2006</b>	<b>0%</b>	
498	Mobilization/Demobilization	2 days	3/24/2006	3/27/2006		496FS+30 days
499	Drilling/SVE Well Installation	5 days	3/28/2006	4/3/2006		498
500	Vapor Barrier Construction Oversight	10 days	3/28/2006	4/10/2006		498
501	<b>Soil Management Plan</b>	<b>31 days</b>	<b>12/19/2005</b>	<b>2/2/2006</b>	<b>0%</b>	
502	Draft Soil Management Plan Preparation	20 days	12/19/2005	1/18/2006		491
503	PRP Group Review	5 days	1/19/2006	1/25/2006		502
504	Final Soil Management Plan	5 days	1/26/2006	2/1/2006		503
505	Submittal to DEQ	1 day	2/2/2006	2/2/2006		504
506	<b>IRAM Implementation Technical Memorandum</b>	<b>56 days</b>	<b>4/11/2006</b>	<b>6/28/2006</b>	<b>0%</b>	
507	Draft IRAM Implementation TM Preparation	40 days	4/11/2006	6/6/2006		500
508	PRP Group Review	10 days	6/7/2006	6/20/2006		507
509	Final IRAM Implementation TM	5 days	6/21/2006	6/27/2006		508
510	Submittal to DEQ	1 day	6/28/2006	6/28/2006		509
511	<b>COMMUNITY RELATIONS ACTIVITIES</b>	<b>600 days</b>	<b>4/30/2003</b>	<b>9/26/2005</b>		<b>167</b>
512						
513	<b>PROJECT MANAGEMENT</b>	<b>871 days</b>	<b>7/10/2002</b>	<b>12/31/2005</b>		
514	Phase 1 PM	257 days	7/10/2002	7/15/2003	100%	
535	Phase 2 PM	164 days	4/30/2003	12/30/2003	100%	
558	2004 A PM	242 days	1/5/2004	12/16/2004	100%	
603	2005 PM	597 days	8/8/2003	12/31/2005	75%	
646						
647	<b>REMEDIATION INVESTIGATION REPORT PREPARATION</b>	<b>378 days</b>	<b>11/10/2004</b>	<b>5/15/2006</b>	<b>5%</b>	
648	RI Report Outline	300 days	11/10/2004	1/24/2006	100%	560FS+208 days
649	RI Data Elements Compilation	90 days	2/24/2005	6/30/2005	100%	648SS+70 days,204
650	Data Interpretation	75 days	7/5/2005	10/18/2005	25%	649,120,263,298,204,432S
651	Draft RI Report	42 days	10/19/2005	12/19/2005	10%	650
652	PRP Group Review	20 days	12/20/2005	1/19/2006		651
653	Final Draft RI Report	20 days	1/20/2006	2/16/2006		652
654	DEQ Review	30 edays	2/16/2006	3/18/2006		653
655	Final RI Report	20 days	3/20/2006	4/14/2006		654
656	DEQ Approval	1 day	5/15/2006	5/15/2006		655FS+30 edays
657						
658	<b>RISK ASSESSMENT</b>	<b>486 days</b>	<b>3/1/2004</b>	<b>2/3/2006</b>		
659	<b>HUMAN HEALTH RISK ASSESSMENT</b>	<b>156 days</b>	<b>5/19/2005</b>	<b>1/4/2006</b>	<b>50%</b>	
660	<b>Human Health Risk Assessment Work Plan</b>	<b>98 days</b>	<b>5/19/2005</b>	<b>10/7/2005</b>		<b>81,193,298,252</b>
661	Scoping/Data Management	20 days	5/19/2005	6/16/2005	100%	649FS-30 days
662	Draft HHRA Work Plan	29 days	6/17/2005	7/29/2005	100%	661
663	PRP Group Review	10 days	8/1/2005	8/12/2005		662
664	Meeting with DEQ	2 days	7/8/2005	7/11/2005	100%	662SS+13 days
665	Final Draft HHRA Work Plan	5 days	8/15/2005	8/19/2005	100%	663
666	PRP Group Review	5 days	8/22/2005	8/26/2005	100%	665
667	Final HHRA Work Plan	28 days	8/29/2005	10/6/2005	95%	666
668	Submittal to DEQ	1 day	10/7/2005	10/7/2005		667
669	<b>Risk Assessment Report</b>	<b>156 days</b>	<b>5/19/2005</b>	<b>1/4/2006</b>		
670	Draft HHRA Report	30 days	10/19/2005	12/1/2005		668,650
671	PRP Group Review	10 days	12/2/2005	12/15/2005		670
672	Final HHRA Report	10 days	12/16/2005	1/3/2006		671
673	Submittal to DEQ	1 day	1/4/2006	1/4/2006		672
674	Project Management	91 days	5/19/2005	9/28/2005		661SS
675	<b>ECOLOGICAL EVALUATION</b>	<b>486 days</b>	<b>3/1/2004</b>	<b>2/3/2006</b>		
676	Level 1 Ecological Evaluation	185 days	3/1/2004	11/18/2004	100%	
685	Ecological Risk Assessment Work Plan Development	101 days	4/18/2005	9/9/2005	100%	
690	Level 2 Ecological Evaluation (REPLACED WITH ERA, below)	194 days	3/8/2004	12/11/2004	100%	
699	Ecological Risk Assessment	70 days	10/24/2005	2/3/2006		
700	Level 2 Ecological Field Program	30 days	10/24/2005	12/6/2005		689FS+30 days
701	Exposure Assessment	10 days	12/7/2005	12/20/2005		700
702	Effects Assessment	10 days	12/21/2005	1/6/2006		701
703	Risk Characterization/Reporting	20 days	1/9/2006	2/3/2006		702
704						
705	<b>FEASIBILITY STUDY</b>	<b>189 days</b>	<b>12/2/2005</b>	<b>9/1/2006</b>	<b>0%</b>	
706	<b>Feasibility Study Work Plan</b>	<b>77 days</b>	<b>12/2/2005</b>	<b>3/24/2006</b>		
707	Establish Remedial Action Objectives	5 days	12/2/2005	12/8/2005		650,670,120,193,432
708	Identify General Response Actions	10 days	12/9/2005	12/22/2005		707
709	Determine Preliminary Remediation Goals	5 days	12/27/2005	1/3/2006		708
710	ID/Screen Remedial Technologies	10 days	1/4/2006	1/17/2006		709
711	Draft Feasibility Study Work Plan	10 days	1/18/2006	1/31/2006		710
712	PRP Group Review	10 days	2/1/2006	2/14/2006		711

**UPDATED SCHEDULE (10/13/05)**

**Remedial Investigation/Feasibility Study  
Astoria Area-Wide Petroleum Site  
Astoria, Oregon**

<b>ID</b>	<b>Task Description</b>	<b>Duration</b>	<b>Start</b>	<b>Finish</b>	<b>Complete</b>	<b>Predecessors</b>
713	Final Feasibility Study Work Plan	5 days	2/15/2006	2/22/2006		712
714	DEQ Review	30 edays	2/22/2006	3/24/2006		713
715	<b>Feasibility Study Evaluation</b>	<b>40 days</b>	<b>3/27/2006</b>	<b>5/19/2006</b>		
716	Assemble/Screen Remedial Alternatives	10 days	3/27/2006	4/7/2006		714
717	Detailed Analysis	15 days	4/10/2006	4/28/2006		716
718	Compare Remedial Alternatives	10 days	5/1/2006	5/12/2006		717
719	Recommend Preferred Alternative	5 days	5/15/2006	5/19/2006		718
720	<b>Reporting</b>	<b>72 days</b>	<b>5/22/2006</b>	<b>9/1/2006</b>		
721	Draft FS Report	15 days	5/22/2006	6/12/2006		719
722	PRP Group Review	10 days	6/13/2006	6/26/2006		721
723	Final Draft FS Report	10 days	6/27/2006	7/12/2006		722
724	Submittal to DEQ	1 day	7/13/2006	7/13/2006		723
725	DEQ Review	30 edays	7/13/2006	8/12/2006		724
726	Final FS Report	15 days	8/14/2006	9/1/2006		725
727						