

July 15, 2004
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 – June 2004
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 during June 2004 on 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 DURING JUNE 2004

Compilation of a technical memorandum describing the results of investigation and decommissioning of product pipelines and Phase 2 soil characterization was initiated.

Water levels in all monitoring wells were measured in June. Work on the Second Quarter 2004 (3rd Round) ground-water monitoring report was continued in June.

Work on the Level 1 Ecological Risk Assessment following DEQ guidance continued in June.

Preparation of a response to comments from the DEQ on the Vapor Inhalation Pathway Assessment work plan was completed and is being submitted concurrently with this progress report.

An alternate proposal for the hydrocarbon seep IRAM enhanced boom was prepared for DEQ review. Preparation of a work plan for collection of data upland from the hydrocarbon seep was continued in June. The interim product removal activities associated with the hydrocarbon seep IRAM were continued in June.

An updated project schedule has been prepared and is attached to this progress report. The updated schedule reflects changes required because of staging of field activities, scheduling of subcontractors, and incorporation of time required to respond to DEQ comments on various aspects of the project.

Ms. Anna Coates
July 15, 2004
Page 2

A meeting of the PRP Group representatives was held on June 10. A meeting between the PRP Group representatives and DEQ representatives was held on June 13.

WORK PLANNED FOR JULY 2004 AND AUGUST 2004

Evaluation of data and preparation of a technical memorandum for the investigation conducted along product pipelines, as well as complete documentation of the Phase 2 Soil Characterization will be conducted in July and August.

The water-level monitoring program will be continued in the complete monitoring-well network in July and August. Preparation of the report of the ground-water sampling for the Second Quarter 2004 (3rd Round) sampling event will be completed by mid July. The Third Quarter 2004 (4th Round) ground-water sampling event will be initiated in July and analytical data validation will be conducted in August.

Storm water sampling for the 2nd Quarter 2004 (4th Round) will be completed in July, depending on storm events. A report on these activities will be completed within 60 days of completion of sampling.

Preparation of documentation for the Level 1 ecological evaluation report is scheduled to be completed in July.

Comments from the DEQ on the Vapor Intrusion Pathway Assessment work plan will be addressed in correspondence to DEQ in July. Field work related to this work plan will be initiated within three weeks of resolution of comments from DEQ.

A work plan to fill data gaps related to evaluation of the hydrocarbon seep at Slip 2 will be prepared during July. Construction of the IRAM for the hydrocarbon seep began in May and will be completed in July, pending approval by the DEQ of an alternative boom system. A report presenting the as-built diagrams of the installed IRAM will be prepared in August. The interim product removal activities associated with the hydrocarbon seep IRAM are scheduled to continue in July and August.

Initiation of tasks related to preparation of the Remedial Investigation Report will continue in July and August.

PROBLEMS ENCOUNTERED AND RESOLUTIONS

There are no problems requiring resolution in June.

Ms. Anna Coates
July 15, 2004
Page 3

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

Ms. Anna Coates
July 15, 2004
Page 4

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

- 1 Anna Coates, DEQ Project Manager, Site Response
 - 1 Mike Lilly, 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
 - 1 Ted McCall, McCall Oil and Chemical Corporation
 - 1 John Edwards, Anchor Environmental, LLC, Consultant for McCall Oil and Chemical Corp
 - 1 Cary E. Bechtolt, Niemi Oil Company
 - 1 Allan B. Bakalian, 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
 - 1 Leon Lahiere, Hart Crowser, Consultant for Shell Oil Company
 - 1 Brian Harris, Harris Enterprises
 - 1 Larry Vandermay, Flying Dutchman
 - 1 David Bartz & Neal Hueske, Schwabe Williamson & Wyatt, Attorney for Flying Dutchman
 - 1 Jerry Hodson, Miller Nash, Attorney for Harris Enterprises
 - 1 Lon Yandell, Kleinfelder, Consultant for Harris Enterprises
 - 1 Richard Delphia, Delphia Oil Company
 - 1 Chuck Smith, Attorney for Delphia Oil Company
 - 1 Alistaire Clary, Maul Foster Alongi, Consultant for Delphia Oil Company
 - 1 Cheryl Morrison, ChevronTexaco Products Company
 - 1 Charles Lambert, Attorney for ChevronTexaco Products Company
 - 1 Gerry Koschal, SAIC, Consultant for ChevronTexaco Products Company
 - 1 Brian Jacobson, Qwest Communications International, Inc.
 - 1 David Bledsoe, Perkins Coie LLP, Attorney for Qwest Communications International, Inc.
 - 1 Donna LaCombe, Tetra Tech EM, Inc., Consultant for Qwest Communications International
 - 1 Anita W. Lovely, Lovely Consulting, Inc., Consultant for Exxon Mobil Corporation
-

UPDATED SCHEDULE (7/15/04)

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

ID	Task Description	Duration	Start	Finish	Predecessors
1	ASTORIA AREA-WIDE PETROLEUM STUDY	972 days	1/9/2002	11/17/2005	
2					
3	RI/FS and IRAM PROPOSAL	11 days	1/9/2002	1/21/2002	
4					
17					
18	RI/FS and IRAM DEVELOPMENT WORK PLAN	124 days	1/9/2002	7/1/2002	
19					
58					
59	PHASE 1/2 RI/FS and IRAM WORK PLAN IMPLEMENTATION	787 days	1/9/2002	2/25/2005	
60					
61	SOURCE/SOIL CHARACTERIZATION	667 days	1/9/2002	9/1/2004	
62	Phase 1 Source/Soil Characterization	273 days	1/9/2002	1/31/2003	
99	Phase 2 Soil Characterization	333 days	4/30/2003	9/1/2004	
100	Phase 2 Soil Characterization Work Plan	51 days	4/30/2003	7/15/2003	
106	Phase 2 Soil Characterization Field Work	260 days	8/15/2003	9/1/2004	
107	Field Preparation	96 days	8/15/2003	1/9/2004	
108	DEQ Approval of Work Plan	1 day	8/15/2003	8/15/2003	105FS+30 edays
109	Utility Clearance Survey	5 days	8/18/2003	8/22/2003	108
110	Pipeline Characterization Work Plan	95 days	8/18/2003	1/9/2004	108
111	Drilling Program	148 days	8/25/2003	4/1/2004	
112	Mobilization/Demobilization	1 day	8/25/2003	8/25/2003	109
113	Install/Sample Borings	10 days	8/26/2003	9/9/2003	112
114	Pipeline Drilling Program	3 days	3/30/2004	4/1/2004	110FS+80 edays
115	Analytical Program	50 days	8/28/2003	11/6/2003	
116	Laboratory Analyses	30 days	8/28/2003	10/9/2003	113SS+2 days
117	Data Validation	10 days	10/10/2003	10/23/2003	116
118	Analytical Data Compilation	10 days	10/24/2003	11/6/2003	117
119	Reporting	76 days	5/14/2004	9/1/2004	
120	Draft P2 Soil Characterization TM	55 days	5/14/2004	8/3/2004	118,114FS+30 days
121	PRP Group Review	10 days	8/4/2004	8/17/2004	120
122	Final P2 Soil Characterization TM	10 days	8/18/2004	8/31/2004	121
123	Submittal to DEQ	1 day	9/1/2004	9/1/2004	122
124					
125	GROUND-WATER CHARACTERIZATION	546 days	8/12/2002	10/14/2004	
126	Water-Level Measurement Program	524 days	8/12/2002	9/14/2004	
127	Install Data Loggers/Transducers	3 days	8/27/2002	8/29/2002	177,66
128	P1 Water-Level Measurement	232 days	8/12/2002	7/11/2003	
141	P2 Water-Level Measurement	85 days	8/11/2003	12/11/2003	
147	2004 P1 Water-Level Measurement	108 days	1/12/2004	6/11/2004	
154	2004 P2 Water-Level Measurement	21 days	8/16/2004	9/14/2004	
155	2004 P2 Water-Level Measurement 1	2 days	8/16/2004	8/17/2004	
156	2004 P2 Water-Level Measurement 2	2 days	9/13/2004	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	
165	Monitoring-Well Installation Plan	149 days	12/27/2002	7/31/2003	
174	Drilling Program	319 days	8/20/2002	11/20/2003	
180	Well Installation Report	46 days	11/21/2003	2/5/2004	
185	Quarterly Monitoring Program	253 days	10/8/2003	10/14/2004	
186	4Q03 Ground-Water Analytical Program	54 days	10/8/2003	12/30/2003	
197	1Q04 Ground-Water Analytical Program	59 days	1/12/2004	4/2/2004	
208	2Q04 Ground-Water Analytical Program	74 days	4/12/2004	7/28/2004	
209	Mobilization/Demobilization	2 days	4/12/2004	4/14/2004	198FS+90 edays
210	Ground-Water Sampling (2Q04)	10 days	4/14/2004	4/28/2004	209
211	Laboratory Analyses	20 days	4/16/2004	5/13/2004	210SS+1 day
212	Data Validation	5 days	5/13/2004	5/20/2004	211
213	Analytical Data Compilation	2 days	5/20/2004	5/24/2004	212
214	2Q04 Ground-Water Reporting	51 days	5/13/2004	7/28/2004	
215	Draft 2Q04 Ground-Water Sampling TM	40 days	5/13/2004	7/13/2004	211
216	PRP Group Review	5 days	7/13/2004	7/20/2004	215
217	Final 2Q04 Ground-Water Sampling TM	5 days	7/20/2004	7/27/2004	216
218	Submittal to DEQ	1 day	7/27/2004	7/28/2004	217
219	3Q04 Ground-Water Analytical Program	64 days	7/16/2004	10/14/2004	
220	Mobilization/Demobilization	2 days	7/16/2004	7/19/2004	209FS+92 edays
221	Ground-Water Sampling (3Q04)	10 days	7/20/2004	8/2/2004	220
222	Laboratory Analyses	20 days	7/21/2004	8/17/2004	221SS+1 day
223	Data Validation	5 days	8/18/2004	8/24/2004	222
224	Analytical Data Compilation	2 days	8/25/2004	8/26/2004	223
225	3Q04 Ground-Water Reporting	41 days	8/18/2004	10/14/2004	
226	Draft 3Q04 Ground-Water Sampling TM	25 days	8/18/2004	9/22/2004	222
227	PRP Group Review	10 days	9/23/2004	10/6/2004	226
228	Final 3Q04 Ground-Water Sampling TM	5 days	10/7/2004	10/13/2004	227
229	Submittal to DEQ	1 day	10/14/2004	10/14/2004	228
230	Hydraulic Characterization Program (NOT CURRENTLY PLANNED)	46 days	3/1/2004	5/4/2004	
231	Slug Testing	10 days	3/1/2004	3/15/2004	188FS+5 days,202
232	Slug-Test Analysis	10 days	3/15/2004	3/29/2004	231
233	Slug Test Reporting	26 days	3/29/2004	5/4/2004	
234	Draft Slug-Testing TM	10 days	3/29/2004	4/12/2004	232
235	PRP Group Review	10 days	4/13/2004	4/26/2004	234
236	Final Slug-Testing TM	5 days	4/26/2004	5/3/2004	235
237	Submittal to DEQ	1 day	5/3/2004	5/4/2004	236
238					
239	STORM/SURFACE WATER CHARACTERIZATION	472 days	8/19/2002	7/8/2004	
240	Storm Water Monitoring Plan	117 days	8/19/2002	1/31/2003	
244	Quarterly Storm Water Monitoring Program	195 days	9/23/2003	7/8/2004	

UPDATED SCHEDULE (7/15/04)

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

ID	Task Description	Duration	Start	Finish	Predecessors
245	3Q03 Storm Water Analytical Program (was 2Q03)	38 days	9/23/2003	11/13/2003	
256	4Q03 Storm Water Analytical Program	53 days	11/24/2003	2/17/2004	
267	1Q04 Storm Water Analytical Program	38 days	2/11/2004	4/5/2004	
278	2Q04 Storm Water Analytical Program	38 days	5/13/2004	7/8/2004	
279	Mobilization/Demobilization - Scheduled next rain event	1 day	5/13/2004	5/13/2004	242,243
280	Storm-Water Sampling (2Q04)	1 day	5/14/2004	5/14/2004	279
281	Laboratory Analyses	10 days	5/17/2004	5/28/2004	280
282	Data Validation	2 days	6/1/2004	6/2/2004	281
283	Analytical Data Compilation	1 day	6/3/2004	6/3/2004	282
284	2Q04 Storm-Water Reporting	26 days	6/1/2004	7/8/2004	
285	Draft 2Q04 Storm-Water Sampling TM	10 days	6/1/2004	6/14/2004	281
286	PRP Group Review	10 days	6/15/2004	6/28/2004	285
287	Final 1Q04 Storm-Water Sampling TM	5 days	6/29/2004	7/7/2004	286
288	Submittal to DEQ	1 day	7/8/2004	7/8/2004	287
289					
290	SEDIMENT CHARACTERIZATION	179 days	6/13/2003	3/8/2004	
291	Mobilization/Demobilization	1 day	6/13/2003	6/13/2003	167FS+30 edays,139FS+1 day
292	Sediment Sampling	1 day	6/16/2003	6/16/2003	291
293	Laboratory Analyses	10 days	6/17/2003	6/30/2003	292
294	Data Validation	1 day	7/1/2003	7/1/2003	293
295	Analytical Data Compilation	1 day	7/2/2003	7/2/2003	294
296	Reporting	86 days	7/7/2003	11/4/2003	
301	PHASE 2 SEDIMENT CHARACTERIZATION	1 day	3/8/2004	3/8/2004	300FS+30 edays
302	Phase 2 Work Plan (see Level 2 Eco Evaluation Work Plan)	1 day	3/8/2004	3/8/2004	521SS
303					
304	IRAM DEVELOPMENT	698 days	5/13/2002	2/25/2005	
305	INDOOR AIR QUALITY IRAM DEVELOPMENT	539 days	12/27/2002	2/25/2005	
306	Comparison of Soil Data to Screening Levels	10 days	12/27/2002	1/10/2003	81
307	Indoor Air IRAM Development	453 days	4/30/2003	2/25/2005	
308	Air Quality Sampling Work Plan	299 days	4/30/2003	7/15/2004	
309	PRP Consultants Prepare Site-Specific Plan	20 days	4/30/2003	5/29/2003	167
310	Develop Draft Air Quality Work Plan	20 days	5/30/2003	6/26/2003	309
311	PRP Group Review	109 days	6/27/2003	12/4/2003	310
312	Final Air Quality Work Plan	5 days	12/5/2003	12/11/2003	311
313	Submittal to DEQ	1 day	12/12/2003	12/12/2003	312
314	Response to DEQ Comments	130 days	1/12/2004	7/15/2004	313FS+30 edays
315	Vapor Intrusion Pathway Sampling	74 days	7/30/2004	11/11/2004	167
316	DEQ Approval of Work Plan	1 day	7/30/2004	7/30/2004	314FS+10 days
317	Mobilization/Demobilization	5 days	8/16/2004	8/20/2004	316FS+10 days
318	Probe Installation and Sampling	10 days	8/23/2004	9/3/2004	317
319	Laboratory Analyses (incl in sampling)	20 days	8/24/2004	9/21/2004	318SS+1 day
320	Data Validation	5 days	9/22/2004	9/28/2004	319
321	Analytical Data Compilation	1 day	9/29/2004	9/29/2004	320
322	Draft Vapor Intrusion Pathway Report	15 days	9/30/2004	10/20/2004	321
323	PRP Group Review	10 days	10/21/2004	11/3/2004	322
324	Final Vapor Intrusion Pathway Report	5 days	11/4/2004	11/10/2004	323
325	Submittal to DEQ	1 day	11/11/2004	11/11/2004	324
326	Air Quality Reporting and IRAM Work Plan	70 days	11/12/2004	2/25/2005	
327	Air Quality Evaluation	10 days	11/12/2004	11/29/2004	325
328	Technology Screening (if necessary)	15 days	11/30/2004	12/20/2004	306,327
329	Detailed Evaluation of Alternatives (if necessary)	15 days	12/21/2004	1/13/2005	328
330	Implementation Plan Proposal (if necessary)	30 days	1/14/2005	2/25/2005	329
331	Prepare Draft Document	10 days	11/30/2004	12/13/2004	327
332	PRP Group Review	5 days	12/14/2004	12/20/2004	331
333	Final Air Quality TM or IRAM Work Plan	5 days	12/21/2004	12/28/2004	332
334	Submittal to DEQ	1 day	12/29/2004	12/29/2004	333
335	HYDROCARBON SEEP IRAM DEVELOPMENT	385 days	6/12/2003	12/29/2004	
336	Bail-Down Testing	3 days	6/12/2003	6/16/2003	139
337	Water Quality Sampling at Seep MWs	2 days	6/17/2003	6/18/2003	336
338	Product Removal	125 days	6/16/2003	12/15/2003	
346	2004 A Product Removal	107 days	1/12/2004	6/10/2004	
353	2004 B Product Removal	106 days	7/19/2004	12/16/2004	
354	2004 A Product Removal 7	1 day	7/19/2004	7/19/2004	
355	2004 A Product Removal 8	1 day	8/16/2004	8/16/2004	
356	2004 A Product Removal 9	1 day	9/13/2004	9/13/2004	
357	2004 A Product Removal 10	1 day	10/14/2004	10/14/2004	
358	2004 A Product Removal 11	1 day	11/11/2004	11/11/2004	
359	2004 A Product Removal 12	1 day	12/16/2004	12/16/2004	
360	Hydrocarbon Seep IRAM Work Plan	67 days	6/17/2003	9/22/2003	
366	Hydrocarbon Seep IRAM Implementation	206 days	11/24/2003	9/24/2004	
367	IRAM Design/DEQ Submittal	18 days	11/24/2003	12/22/2003	365FS+60 edays
368	DEQ Review	90 edays	12/22/2003	3/21/2004	367
369	Bid/Contracting	20 days	3/22/2004	4/16/2004	368
370	Sewer Reroute and Boom Construction	70 days	4/19/2004	7/28/2004	369
371	Draft Completion Report/As-Builts	20 days	7/29/2004	8/25/2004	370
372	PRP Group Review	10 days	8/26/2004	9/9/2004	371
373	Final Completion Report	10 days	9/10/2004	9/23/2004	372
374	Submittal to DEQ	1 day	9/24/2004	9/24/2004	373
375	Upland Data Collection	236 days	1/23/2004	12/29/2004	
376	UDC Work Plan	141 days	1/23/2004	8/12/2004	
377	Draft UDC Work Plan Preparation	120 days	1/23/2004	7/14/2004	367SS,447FS+5 days
378	PRP Group Review	10 days	7/15/2004	7/28/2004	377
379	Final UDC Work Plan	10 days	7/29/2004	8/11/2004	378
380	Submittal to DEQ	1 day	8/12/2004	8/12/2004	379
381	UDC Implementation	19 days	9/13/2004	10/7/2004	

UPDATED SCHEDULE (7/15/04)

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

ID	Task Description	Duration	Start	Finish	Predecessors
382	Mobilization/Demobilization	5 days	9/13/2004	9/17/2004	380FS+30 edays
383	LNAPL Delineation	5 days	9/20/2004	9/24/2004	382
384	Potential Conduits Evaluation	3 days	9/27/2004	9/29/2004	383,370
385	Aquifer Testing via Tidal Evaluation	6 days	9/30/2004	10/7/2004	384
386	Treatment System Evaluation	5 days	9/13/2004	9/17/2004	382SS
387	UDC Technical Memorandum	56 days	10/8/2004	12/29/2004	
388	Draft UDC TM Preparation	30 days	10/8/2004	11/18/2004	385
389	PRP Group Review	15 days	11/19/2004	12/13/2004	388
390	Final UDC Technical Memorandum	10 days	12/14/2004	12/28/2004	389
391	Submittal to DEQ	1 day	12/29/2004	12/29/2004	390
392	TANK-BOTTOM WASTE IRAM DEVELOPMENT (McCALL BP)	590 days	5/13/2002	9/20/2004	
393	Technology Screening	10 days	5/13/2002	5/24/2002	44
394	Detailed Evaluation of Alternatives	10 days	5/28/2002	6/10/2002	393
395	Implementation Plan Proposal	5 days	6/11/2002	6/17/2002	394
396	Review IRAM Implementation Report	5 days	9/14/2004	9/20/2004	167FS+340 days
397					
398	COMMUNITY RELATIONS ACTIVITIES	360 days	4/30/2003	10/11/2004	167
399					
400	PROJECT MANAGEMENT	612 days	7/10/2002	12/16/2004	
401	Phase 1 PM	257 days	7/10/2002	7/15/2003	
422	Phase 2 PM	164 days	4/30/2003	12/30/2003	
445	2004 A PM	242 days	1/5/2004	12/16/2004	
446	PRP Group Meetings 2004	102 days	1/15/2004	6/8/2004	
453	PRP Group Meetings 2004	108 days	7/13/2004	12/14/2004	
454	PRP Group Meetings 2004 7	1 day	7/13/2004	7/13/2004	
455	PRP Group Meetings 2004 8	1 day	8/10/2004	8/10/2004	
456	PRP Group Meetings 2004 9	1 day	9/14/2004	9/14/2004	
457	PRP Group Meetings 2004 10	1 day	10/12/2004	10/12/2004	
458	PRP Group Meetings 2004 11	1 day	11/9/2004	11/9/2004	
459	PRP Group Meetings 2004 12	1 day	12/14/2004	12/14/2004	
460	DEQ Meetings 2004A	109 days	1/9/2004	6/11/2004	
467	DEQ Meetings 2004B	108 days	7/15/2004	12/16/2004	
468	DEQ Meetings 2004B 1	1 day	7/15/2004	7/15/2004	
469	DEQ Meetings 2004B 2	1 day	8/12/2004	8/12/2004	
470	DEQ Meetings 2004B 3	1 day	9/16/2004	9/16/2004	
471	DEQ Meetings 2004B 4	1 day	10/14/2004	10/14/2004	
472	DEQ Meetings 2004B 5	1 day	11/11/2004	11/11/2004	
473	DEQ Meetings 2004B 6	1 day	12/16/2004	12/16/2004	
474	Monthly Progress Reports 2004 A	107 days	1/12/2004	6/10/2004	
481	Monthly Progress Reports 2004 B	107 days	1/12/2004	6/10/2004	
482	Monthly Progress Reports 2004 A 1	1 day	1/12/2004	1/12/2004	
483	Monthly Progress Reports 2004 A 2	1 day	2/10/2004	2/10/2004	
484	Monthly Progress Reports 2004 A 3	1 day	3/10/2004	3/10/2004	
485	Monthly Progress Reports 2004 A 4	1 day	4/12/2004	4/12/2004	
486	Monthly Progress Reports 2004 A 5	1 day	5/10/2004	5/10/2004	
487	Monthly Progress Reports 2004 A 6	1 day	6/10/2004	6/10/2004	
488	Schedule/Budget Tracking	189 days	1/5/2004	9/30/2004	
489	Project Coordination	189 days	1/5/2004	9/30/2004	488SS
490					
491	REMEDIAL INVESTIGATION REPORT PREPARATION	326 days	4/12/2004	7/28/2005	
492	RI Report Outline	60 days	4/12/2004	7/7/2004	447FS+60 days
493	RI Data Elements Compilation	60 days	7/8/2004	9/30/2004	492,204
494	Data Interpretation	60 days	10/8/2004	1/6/2005	493,120,263,297,204,388SS,321
495	Draft RI Report	40 days	1/7/2005	3/4/2005	494
496	PRP Group Review	20 days	3/7/2005	4/1/2005	495
497	Final Draft RI Report	20 days	4/4/2005	4/29/2005	496
498	DEQ Review	30 edays	4/29/2005	5/29/2005	497
499	Final RI Report	20 days	5/31/2005	6/27/2005	498
500	DEQ Approval	1 day	7/28/2005	7/28/2005	499FS+30 edays
501					
502	RISK ASSESSMENT	382 days	3/1/2004	9/2/2005	
503	Draft Risk Assessment Work Plan	35 days	10/1/2004	11/18/2004	81,193,297,252
504	Data Evaluation	15 days	10/1/2004	10/21/2004	493
505	Exposure Assessment (Update CSM)	10 days	10/22/2004	11/4/2004	504
506	Toxicity Assessment	10 days	11/5/2004	11/18/2004	505
507	Final Risk Assessment Work Plan	25 days	11/19/2004	12/28/2004	506
508	HUMAN HEALTH EVALUATION	27 days	1/13/2005	2/18/2005	
509	Meeting w/DEQ	1 day	1/13/2005	1/13/2005	507FS+15 edays
510	Risk Characterization	15 days	1/31/2005	2/18/2005	509FS+15 edays
511	ECOLOGICAL EVALUATION	254 days	3/1/2004	3/3/2005	
512	Level 1 Ecological Evaluation	105 days	3/1/2004	7/28/2004	
513	Source Document Compilation	5 days	3/1/2004	3/5/2004	447FS+30 days
514	Preliminary Field Assessment	15 days	3/29/2004	4/16/2004	513FS+15 days
515	Level 1 Status Meeting	1 day	4/19/2004	4/19/2004	514
516	L1 Eco Project Management	20 days	3/1/2004	3/26/2004	513SS
517	L1 ERA Report	45 days	4/19/2004	6/21/2004	514
518	PRP Group Review	15 days	6/22/2004	7/14/2004	517
519	Submittal to DEQ	10 days	7/15/2004	7/28/2004	518
520	Level 2 Ecological Evaluation	249 days	3/8/2004	3/3/2005	
521	Level 2 Ecological Evaluation Work Plan	194 days	3/8/2004	12/11/2004	
522	Data Gaps Analysis	5 days	9/10/2004	9/16/2004	519FS+30 days
523	Problem Formulation	5 days	9/17/2004	9/23/2004	522
524	Draft L2 Eco Evaluation Work Plan	15 days	9/24/2004	10/14/2004	523
525	PRP Group Review	10 days	10/15/2004	10/28/2004	524
526	Final L2 Eco Evaluation Work Plan	10 days	10/29/2004	11/11/2004	525

UPDATED SCHEDULE (7/15/04)

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

ID	Task Description	Duration	Start	Finish	Predecessors
527	DEQ Review	30 edays	11/11/2004	12/11/2004	526
528	L2 Eco Project Management	81 days	3/8/2004	6/29/2004	513
529	Level 2 Ecological Field Program	15 days	12/13/2004	1/5/2005	527
530	Exposure Assessment	10 days	1/6/2005	1/19/2005	529
531	Effects Assessment	10 days	1/20/2005	2/2/2005	530
532	Risk Characterization	20 days	2/3/2005	3/3/2005	531
533	REPORTING	128 days	3/4/2005	9/2/2005	
534	Draft Risk Assessment Report	60 days	3/4/2005	5/26/2005	510,532
535	PRP Group Review	15 days	5/27/2005	6/17/2005	534
536	Final Draft Risk Assessment Report	10 days	6/20/2005	7/5/2005	535
537	Submittal to DEQ	1 day	7/6/2005	7/6/2005	536
538	DEQ Review	30 edays	7/6/2005	8/5/2005	537
539	Final Risk Assessment Report	20 days	8/8/2005	9/2/2005	538
540					
541	FEASIBILITY STUDY	189 days	2/22/2005	11/17/2005	
542	Feasibility Study Work Plan	76 days	2/22/2005	6/8/2005	
543	Establish Remedial Action Objectives	5 days	2/22/2005	2/28/2005	494,510,120,193,388
544	Identify General Response Actions	10 days	3/1/2005	3/14/2005	543
545	Determine Preliminary Remediation Goals	5 days	3/15/2005	3/21/2005	544
546	ID/Screen Remedial Technologies	10 days	3/22/2005	4/4/2005	545
547	Draft Feasibility Study Work Plan	10 days	4/5/2005	4/18/2005	546
548	PRP Group Review	10 days	4/19/2005	5/2/2005	547
549	Final Feasibility Study Work Plan	5 days	5/3/2005	5/9/2005	548
550	DEQ Review	30 edays	5/9/2005	6/8/2005	549
551	Feasibility Study Evaluation	40 days	6/9/2005	8/5/2005	
552	Assemble/Screen Remedial Alternatives	10 days	6/9/2005	6/22/2005	550
553	Detailed Analysis	15 days	6/23/2005	7/15/2005	552
554	Compare Remedial Alternatives	10 days	7/18/2005	7/29/2005	553
555	Recommend Preferred Alternative	5 days	8/1/2005	8/5/2005	554
556	Reporting	73 days	8/8/2005	11/17/2005	
557	Draft FS Report	15 days	8/8/2005	8/26/2005	555
558	PRP Group Review	10 days	8/29/2005	9/12/2005	557
559	Final Draft FS Report	10 days	9/13/2005	9/26/2005	558
560	Submittal to DEQ	1 day	9/27/2005	9/27/2005	559
561	DEQ Review	30 edays	9/27/2005	10/27/2005	560
562	Final FS Report	15 days	10/28/2005	11/17/2005	561
563					