Attachment #1: Federal On-Scene Coordinator's Report for the Wahatcom Creek – Olympic Pipeline Incident, Bellingham, WA, June 10 – December 31, 1999.

U. S. Environmental Protection Agency, Region 10
1200 Sixth Avenue, ECL-116
Seattle, WA 98101

Federal On-Scene Coordinator's Report
for

The Whatcom Creek - Olympic Pipeline Incident

Bellingham, WA, June 10 - December 31, 1999

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LIST OF ACRONYMS

Acronym	Definition
BFD	Bellingham Fire Department
BPD	Bellingham Police Department
COB	City of Bellingham
cy	cubic yards
DNR	Department of Natural Resources
OPS	U.S. Department of Transportation's Office of Pipeline Safety
E & E	Ecology and Environment, Inc.
Ecology	Washington State Department of Ecology
EMD	Emergency Management Department
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
ERP	Emergency Restoration Plan
FAA	Federal Aviation Administration
FOSC	Federal On-Scene Coordinator
GPS	Global Positioning System
HAZWOPER	Hazardous Waste Operations and Emergency Response
HDPE	High Density Polyethylene
IAP	Incident Action Plan
IC	Incident Commander
ICS	Incident Command System
JIC	Joint Information Center
JRC	Joint Restoration Committee
LOSC	Local On-Scene Coordinator
MSRC	Marine Spill Response Corporation
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRDA	Natural Resource Damage Assessment
NTSB	National Transportation Safety Board
OPL	Olympic Pipeline Company
OSC	On-Scene Coordinator

LIST OF ACRONYMS (CONTINUED)

Acronym	Definition
PFD	Personal Flotation Device
PID	Photo-Ionization Detector
PPE	Personal Protective Equipment
PPM	part-per-million
PVC	Polyvinyl Chloride
RCRA	Resource Conservation and Recovery Act
RP	Responsible Party
RPOSC	Responsible Party On-Scene Coordinator
SCAT	Shoreline Cleanup Assessment Team
SERP	Specialized Emergency Response Program
SOSC	State On-Scene Coordinator
START	Superfund Technical Assessment and Response Team
TDD	Technical Directive Document
UCS	Unified Command Structure
USCG	United States Coast Guard
USF & WS	United States Fish and Wildlife Service
VES	Vapor Extraction System
VOC	Volatile Organic Compound
WSP	Washington State Patrol
WWU	Western Washington University

EXECUTIVE SUMMARY

The Whatcom Creek Incident began on June 10, 1999, when a section of pipeline transporting unleaded gasoline ruptured and was reported as having spilled over 277,000 gallons of product to the environment. The rupture occurred immediately adjacent to the City of Bellingham water treatment plant in Bellingham, Washington. Gasoline reached Whatcom Creek and flowed approximately 2 miles downstream before the vapors were ignited resulting in a tremendous fire. One youth fishing in Whatcom Creek was overcome by the gasoline vapors and drown; two other youths, who were along the creek bank, died as a result of third-degree burns from the fire. Ecologically, the burn area was severely impacted. One home adjacent to Whatcom Creek also was heavily damaged by the fire.

Local, state, federal, and private organizations were on-site within minutes of the explosion to assist the Bellingham Fire Department. The fire department established an Incident Command System and a Unified Command Structure quickly followed. The response was divided into the following five phases:

- Emergency response,
- Pipeline investigation,
- Emergency streambed remediation,
- Emergency source area remediation, and
- Short-term streambed restoration.

The emergency response, the pipeline investigation, emergency streambed remediation, and emergency source area remediation phases took place concurrently. Incident Action Plans were developed to organize and manage the different activities. All activities were conducted under the guidance of the Unified Command Structure.

A 22-day period from June 10 through July 2, 1999, was designated as the emergency response phase. Fire suppression, site control, search and rescue, health and safety monitoring, and environmental cleanup activities began immediately during the emergency response phase. By day four of the incident (June 14, 1999), all spot fires were extinguished so cleanup work and the accident investigation could begin. As a precautionary measure, the fire department remained at the source location throughout the entire emergency response phase. Very early in the response, work began to immediately recover free product and to stabilize stream banks.

The pipeline investigation was overseen by the National Transportation Safety Board (NTSB). Safety concerns delayed some of the on-site investigation activities during the early stages of the

investigation. During that time, investigators focused on pipeline operations and interviewing Olympic Pipeline employees. Eight Olympic employees at the operations center refused to talk to the NTSB investigators. Once the pipeline source location was deemed safe, the pipeline sections in question were located, documented, cut out, crated, and shipped to NTSB headquarters in Washington D.C. for testing. A pipeline pressure relief valve also was removed for testing. The cause of the pipeline failure remains under investigation.

Emergency streambed remediation activities were proposed by the responsible party (RP) and reviewed by a Joint Restoration Committee which included of federal, tribal, state, and local trustees. The goal of the emergency streambed remediation was to restore salmon spawning habitat in Whatcom Creek prior to the expected returning runs of salmon in mid-August. Remediation options included:

- Mechanical and manual streambed agitation,
- Stream bank washing, and
- Nightly creek flushing

These remedial actions were developed, implemented, and completed by mid-August.

Emergency source area remediation activities began once the spot fires had been extinguished. These activities included restoring drinking water, characterizing and determining the extent of contamination near the rupture location and along Hannah Creek, developing and implementing the appropriate remediation cleanup options, and restoration of Hannah Creek. Remediation activities included:

- Implementation of a temporary water supply;
- Excavation of contaminated soils;
- Installation of a subsurface interceptor trench and vertical collection well;
- Restoration of Hannah Creek; and
- Installation of a vapor extraction system.

Emergency source area remediation activities were completed in January 2000. Long term restoration will be conducted by the responsible party and overseen by the federal lead administrative trustee agency National Oceanic and Atmospheric Administration (NOAA), and the National Marine Fisheries Service (NMFS).

Once the petroleum hydrocarbon levels were reduced through the emergency streambed remediation activities, a short-term restoration plan was developed to further enhance the habitat of both Whatcom and Hannah Creeks. The objective of the plan was to increase spawning and rearing habitats prior to the winter rains. A long-term restoration plan is still being developed at the time of this report.

The EPA and the START's on site oversight lasted from June 10, 1999 through September 1, 1999. Periodic site visits occurred through December 1999. The federal trustee agencies NOAA and NWFS, and other trustees including the City of Bellingham, will oversee long-term restoration of Whatcom and Hannah Creeks.

At this time, the pipeline has been rebuilt but has not resumed operation due to further testing required by the U.S. Department of Transportation. The NTSB investigation is pending.

1. INTRODUCTION

On June 10, 1999, the United States Environmental Protection Agency (EPA) tasked the Ecology and Environment, Inc. (E & E) Superfund Technical Assessment and Response Team (START) contractor to respond to a gasoline release and subsequent explosion and fire in Bellingham, Washington. Technical Directive Document (TDD) number 99-06-0004 was issued under EPA START contract number 68-W6-0008.

Due to other START work in the general vicinity, a START member was on-scene within minutes of the explosion to provide technical support to the EPA, local, and state first responders. Other specific START tasks throughout the incident included:

- Provide technical assistance to the EPA Federal On-Scene Coordinator (FOSC) during all phases of the response;
- Conduct health and safety oversight and air monitoring for the first responders and the general public;
- Assist in the establishment of a Unified Command Structure;
- Act as a liaison between the EPA and other federal, state, local representatives and the responsible party; and
- Provide written, photo, and cost tracking documentation.

The emergency response in Bellingham, Washington eventually developed into a Responsible Party (RP) funded time-critical removal action and eventually a long-term restoration project.

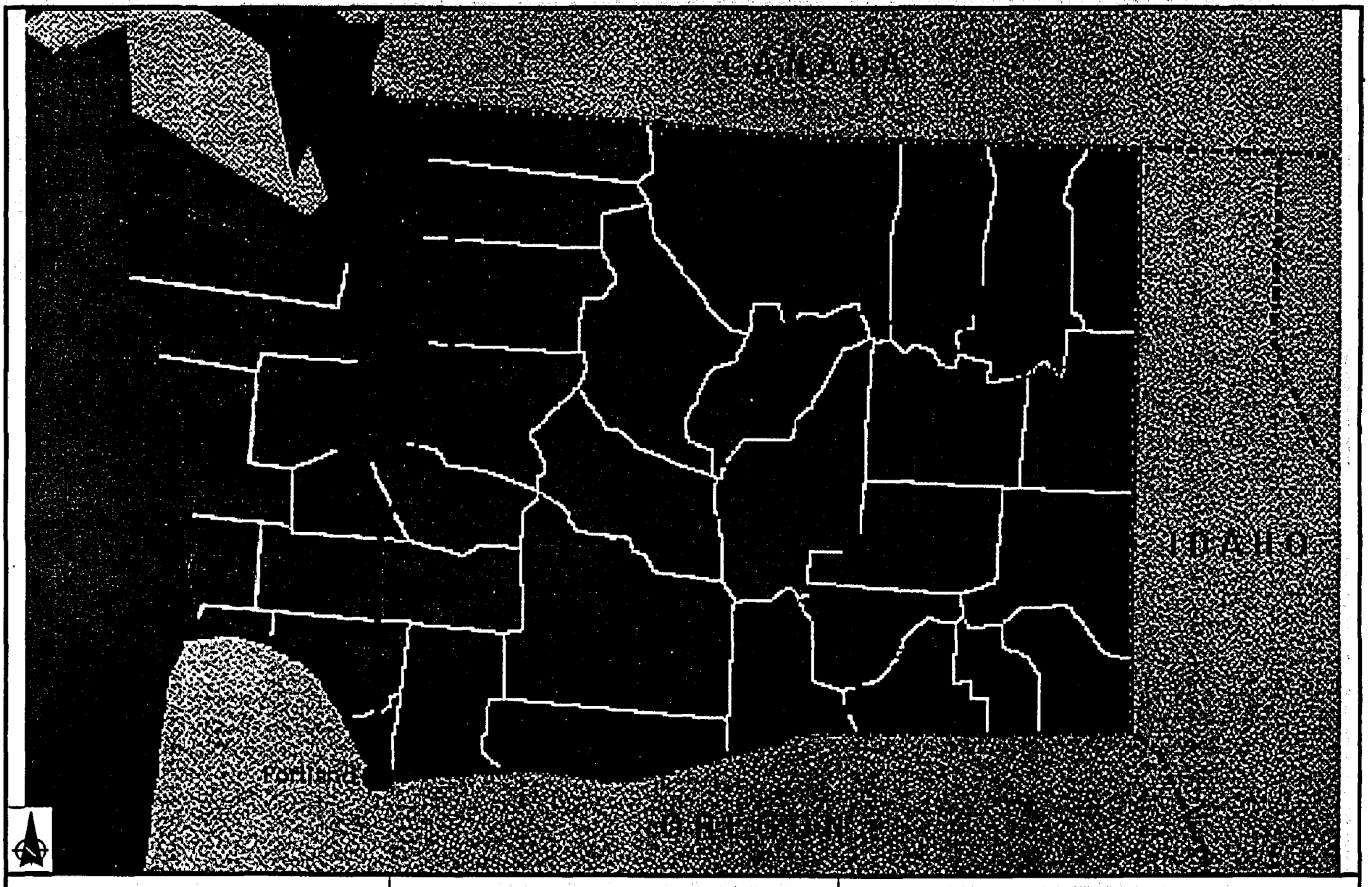
2. SITE CONDITIONS AND BACKGROUND

A 16-inch pipeline, owned and operated by Olympic Pipe Line Company (OPL), originating at the Cherry Point refinery north of Bellingham, Washington, extends approximately 275 miles south to Portland, Oregon (Figure 2-1). Operation of the pipeline began in September 1965 and is primarily used to transport gasoline, diesel and aviation jet fuel. A section of the pipeline runs through Bellingham, which is located in Whatcom County.

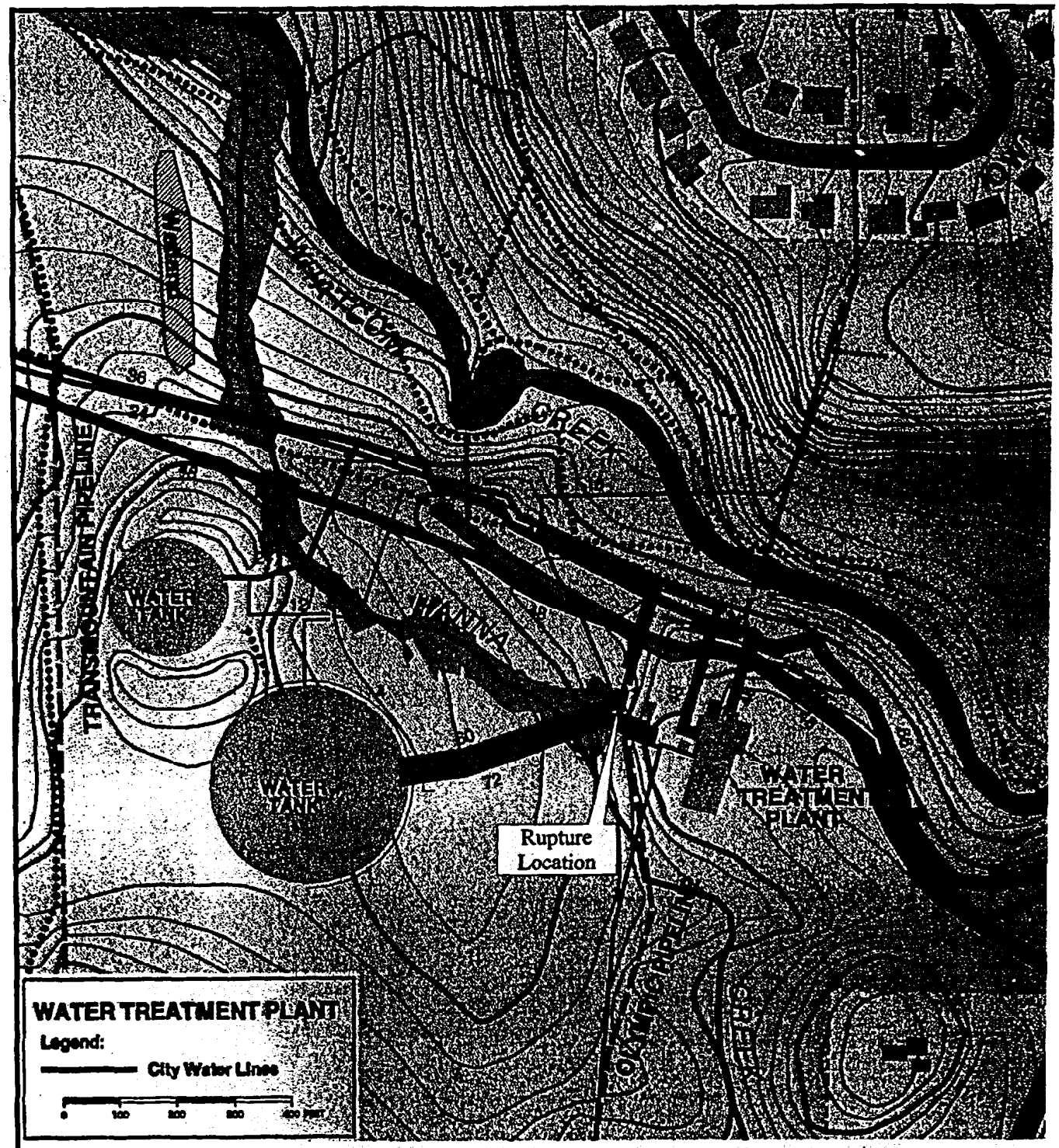
At or before approximately 1630 hours, June 10, 1999, the 16-inch pipeline carrying ARCO unleaded gasoline, ruptured for an undetermined reason and released up to 277,000 gallons of product to the environment. The rupture occurred at pipeline mile marker 15.8 which is immediately adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park (Figure 2-2). The released product proceeded to flow subsurface to surface and then into Hannah Creek, a tributary to Whatcom Creek. Once the product reached Hannah Creek, it flowed approximately 1,200 feet northwest to the confluence of Whatcom Creek. Whatcom Creek's head waters originate at Lake Whatcom. Creek flow is generally east to west for one mile within Whatcom Falls Park and then extends through residential and business areas in Bellingham before it empties into Bellingham Bay, a part of Puget Sound. The rupture location is approximately three miles inland (east) of Bellingham Bay. At 1702 hours, an explosion occurred igniting the fuel-impacted portions of the two creeks. The explosion and fire wholly consumed approximately 1.75 miles of the creeks downstream of the rupture location (Figure 2-3), and there by disrupted the city's water supply. The explosion and resulting fires quickly consumed the vast majority of all the fuel. As a result of hydrocarbon vapor exposure and the explosion, three people were killed and nine injured.

Responding public officials established a Unified Command Structure (UCS) consisting of federal (EPA), state (Washington State Department of Ecology), local (Bellingham Fire Department) officials as well as the RP OPL, and Tribal representation. The Bellingham Fire Department under the Unified Command umbrella, led the fire, and search and rescue efforts. An Emergency Operations Center (EOC) was initially activated at the nearby Lakewood Best Western motel, and by the following day was relocated to the Whatcom County EOC. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the federal lead trustee agency, the National Oceanographic and

Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), United States Fish and Wildlife Service (USF & WS), the City of Bellingham, and Washington State Department of Ecology (Ecology), assembled on June 12, 1999 to begin damage assessment surveys and monitor the work of OPL representatives on development of an Emergency Restoration Plan (ERP) for the affected areas. An accident investigation team from the National Transportation Safety Board (NTSB) and the United States Department of Transportation's Office of Pipeline Safety (OPS) assembled on June 11, 1999 to investigate the cause of the pipeline failure.



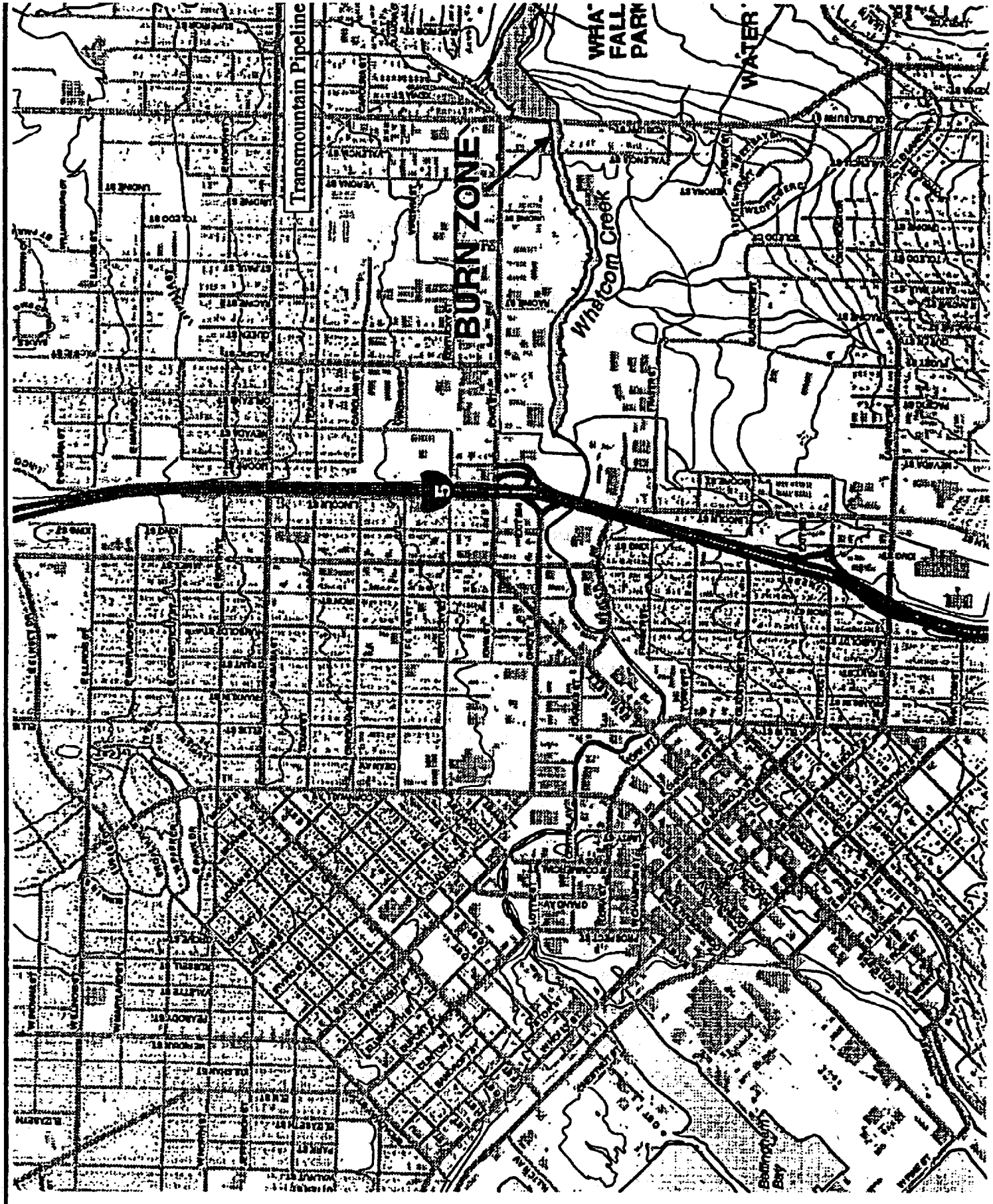
ecology and environment, inc. International Specialists in the Environment Seattle, Washington	WHATCOM CREEK INCIDENT Bellingham, Washington	Figure 2-1 OLYMPIC PIPELINE ROUTE			
	Figure provided by OPL.	Drawn: AES	Date 2/29/00	Job No. DF04SGROT0	Dwg.No. DF04SG 2-1



SOURCE: City of Bellingham,

ecology and environment, inc. International Specialists in the Environment Seattle, Washington	WHATCOM CREEK INCIDENT Bellingham, Washington	Figure 2-2 RUPTURE LOCATION

Drawn:	DATE:	JOB NO.	Dwg.
AES	2/24/00	DF04SGROT0	DF04S


Transmountain Pipeline
BURN ZONE
Whatcom Creek
WHA
FALL
PARK
WATER
5

3. ORGANIZATION OF RESPONSE

The Whatcom Creek Incident was a multi-agency and multi-phased response with many different activities occurring simultaneously with different teams of first and secondary responders. This report will focus on the emergency response and cleanup activities in which the EPA and the START were directly involved. For ease of organization, Section three will be broken into the following five sub-sections:

- Emergency response;
- Pipeline investigation;
- Emergency streambed remediation;
- Emergency source area remediation; and
- Short-term streambed restoration.

3.1 EMERGENCY RESPONSE

The emergency response phase of the Whatcom Creek Incident covers a 22-day period from June 10, to July 2, 1999. Over 2,770 different primary and secondary responders were involved during this period. Incident Command was initially established by the Bellingham Fire Department (BFD) at the intersection of Woburn and Iowa streets. During the first days of the response, the Bellingham Fire and Police Departments focused on spot fire extinguishment, health and safety, search and rescue, evacuation of the citizens near the affected areas, and site control (See Appendix A Photos 3-1 and 3-2).

3.1.1 Air Monitoring

Throughout the first night, and for several days after the explosion, the START, the BFD, OPL, United States Coast Guard (USCG), and private Hazmat teams conducted air monitoring for hazardous total volatile organic compound (VOC) vapors and explosive atmospheres. Initially, the START was tasked with conducting air monitoring at the Whatcom County Jail and along the Whatcom Creek boardwalk adjacent to the jail. To monitor for VOCs, the START utilized a Photo-Ionization Detector (PID) and an Explosimeter when monitoring for explosive atmospheres. No detections were observed on the PID at the jail, but along the boardwalk a detection of 140 parts-per-million (ppm) VOC was

recorded. On day two, the START reported PID detections ranging from non-detectable to 7 ppm in the breathing zone along the banks of Whatcom Creek. Other VOC detections as high as 100 ppm, were in areas where gasoline contaminated debris pooled. Other air monitoring teams reported VOC detections (not in the breathing zone) ranging from non-detect along Whatcom Creek to 1,400 ppm at the source location and 50 ppm benzene. Testing for benzene levels was conducted using colormetric detector tubes and the RP's "snapshot" which was a portable gas chromatograph. Breathing zone VOC readings ranged from 150 ppm to 300 ppm at the source site (See Photo 3-3).

All areas of elevated readings were cordoned off using barrier tape to limit responder access.

3.1.2 ICS Establishment

On June 11, 1999, OPL's emergency response team was mobilized from Houston, Texas to Bellingham, and the lead RP position was transferred to Equilon (representing OPL). The Incident Command System (ICS) established initially by the fire department and maintained throughout. A Unified Command Structure also was established (See Figure 3-1). Incident Action Plans (IAPs) were developed by the Planning Section to direct 24-hour operational periods. A Joint Information Center (JIC) was created very early in order to provide the general public, via the media, accurate up-to-date information regarding response activities. Information was disseminated to the public through press conferences, daily fact sheets, a web site, and community meetings. The JIC was comprised of federal, state, local, and the RP representatives. The EPA also generated Pollution Reports to document factual, operational, and progressive information regarding the Whatcom Creek Incident. Copies of the Pollution Reports can be found in Appendix B.

3.1.3 Site Control

The Bellingham Police Department (BPD) coordinated site control during the initial stage of the emergency response. Site control was difficult to maintain due to the extensive area impacted and the lack of staffing. By the third day of the response BPD reduced staff, and site control responsibilities were maintained through the UC and transferred to a private security company.

The burn area and source location required security and were initially very dangerous areas. Petroleum hydrocarbon vapors, smouldering trees, unstable creek banks and bridge integrity are examples of dangers on site. Citizens were asked not to enter the burn area for their safety and for environmental protection. Four teams of two security guards patrolled the burn area in an effort to keep trespassers away. To control access to the source location, a security guard was posted at the water

treatment plant entrance and the Bay View Cemetery entrance. With over 2,770 primary and secondary responders during the first 22 days, personnel were required to have photo identification from the EOC in order to gain access to the site.

3.1.4 Initial Site Assessment

Hard boom and sorbent pads and boom were deployed at various locations along Whatcom Creek to try and capture floating product. Whatcom Creek stream flow is controlled by the City of Bellingham Public Works (COB) as it leaves Lake Whatcom. Initial assessments on the first day (June 10th) revealed the presence of explosive pockets of gasoline along the creek in residential and downtown areas. The BFD Battalion Chief was concerned that the pockets presented an immediate public safety hazard and proposed the idea of flushing the creek, and asked for concurrence of the EPA, OPL, and Ecology. The FOSC and OPL concurred with flushing so long as it was for public protection. Ecology rejected flushing, citing the potential for adverse affects to fish and shellfish in Bellingham Bay. The Battalion Chief had the areas along the creek monitored again. Assessment teams reported that the explosive hazards along the creek were quickly subsiding. Therefore, the creek was not flushed at that time since the reason for flushing was diminishing

The Washington Department of Natural Resources (DNR) responded to Bellingham to clear downed and burned trees, create safe walking paths for responders, identify hot spots using infrared detectors, extinguish any smoldering sources, and map the extent of the burn area using a Global Positioning System (GPS). Several NRDA teams also assembled to assess the impact the fire and the gasoline had on the riparian and aquatic habitats. The NRDA teams began to collect water and sediment samples as well as count and speciate: fish; amphibians; birds; and mammals killed during the release and subsequent fire along Whatcom and Hannah Creeks (See Photos 3-4 and 3-5).

To address the immediate creek restoration needs and minimize any potential secondary impacts, OPL developed an Emergency Restoration Plan (ERP) for Whatcom and Hannah Creeks. Review and oversight of the plan was conducted by a Joint Restoration Committee (JRC) including trustee representatives, with UCS identified as the principle decision making body. The EPA and START involvement with the ERP is discussed in Sections 3.3 - 3.5.

3.1.5 Water Supply Reroute

In addition to the environmental impacts, the explosion damaged five water pumps at the water treatment plant's Dakin-Yew pump house. The pumps were responsible for supplying water to

approximately one-third of the Bellingham residents. OPL allocated four potable water pumps and 3,200 feet of 16-inch outside diameter High Density Polyethylene (HDPE) pipe to construct a temporary pump station. Material acquisition, construction, and operation of the temporary station was completed within ten days (See Photos 3-6 and 3-7).

3.2 PIPELINE INVESTIGATION

An NTSB investigation team was mobilized from Washington, D.C. and investigators with the Office of Pipeline Safety (OPS) mobilized from Denver, Co. to Bellingham June 11, 1999. The primary function of the NTSB, as stated in the United States Code, Title 49, Chapter 11 is as follows:

> *-Determine facts, circumstances, and causes into pipeline accidents in which there is a fatality, substantial property damage, or significant injury to the environment.*
>
> *-Has priority over any investigation by another department, agency, or instrumentality of the US Government.*

Based on these authorities, the NTSB acted as the lead federal agency for the civil investigation phase of the incident.

3.2.1 Investigation Delays

At the pipeline rupture location (source), UCS made the decision to allow product spot fires to burn in an effort to consume residual gasoline. During this time, NTSB and OPS investigators focused their investigation on OPL's pipeline operations. Investigators gathered pipeline operation data, and interviewed numerous OPL personnel, however, eight of OPL's operators refused to talk to investigators. By day four of the incident, the fires were extinguished to relieve concerns of toxic vapors from smoke and to begin cleanup and on-site investigation work. Once the source area was deemed safe by the UC Site Safety Officer, OPL isolated the ruptured section of pipe and removed residual product from the line. To expose the pipeline, two bell holes were dug, one to the north and one to the south of the rupture location. The pipeline was tapped, residual product was removed, and sections from the north and south ends of the pipeline (not the failed section) removed.

A decision was made by the UCS to temporarily reroute the city's water supply prior to excavating the ruptured section of pipeline. This was thought necessary as the excavation near the pump house could have disrupted the city's water supply.

3.2.2 Excavation

Once isolated and the temporary water supply reroute was operational, excavation of the ruptured section began. NTSB investigators were restricted to an observation deck outside of the hot zone during

the excavation work because they were not Hazardous Waste Operations and Emergency Response (HAZWOPER) trained. Therefore, at NTSB's request, a HAZWOPER trained representative from the BFD took still photographs and EPA (START) videoed the excavation process and pipeline removal. The NTSB invoked a restriction on all other photo-documentation during the excavation process due to the on going investigation.

Due to the close proximity of water, telephone, and chemical lines to the affected petroleum pipeline, and the on-going forensic investigation, the excavation was slow and methodical. Excavation procedures ranged from a track-hoe excavator to hand-digging around OPL's pipeline. On June 28, 1999, the ruptured section of the pipeline was located and revealed a 28-inch by 7-inch fissure type tear (See Photos 3-8 and 3-9). Free petroleum product was observed "bubbling" to the surface as the rupture was exposed. A vacuum truck was brought to the area and the product was removed. Once the pipeline was sufficiently exposed, the pipe and the tear were surveyed, and throughly documented. A lubricant was sprayed on the pipe to minimize the potential for corrosion, and then covered with plastic while a track-hoe was used to widen the excavation.

3.2.3 Evidence Preservation and Shipping

By July 6th, the two sections of pipe under investigation were excavated, cut out, wrapped in plastic, and crated for shipment to Washington, D.C.. The first section removed was the ruptured section and the second section removed was a section that has previously displayed pig anomalies noted on an former Ecology corrective order. The NTSB retained chain-of-custody of the evidence. A semi-truck and trailer were contracted to transport the evidence from Bellingham to Washington, D.C. where the sections underwent investigation by the NTSB.

The events leading up to the rupture and the rupture itself remain under investigation by the NTSB. An NTSB report is expected in late 2000.

3.3 EMERGENCY STREAMBED REMEDIATION[1]

As outlined in the Draft Emergency Restoration Plan prepared by OPL, an objective of the emergency creek remediation was to agitate the sediments to facilitate the release of residual gasoline trapped in stream sediments (OPL 1999). The work had to be completed by mid-August in anticipation of the salmon spawning season. A large workforce was required to conduct the remediation work.

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[1]More detailed information can be found in the *Draft Emergency Restoration Plan for Whatcom Creek and Whatcom Falls Park, Bellingham, Washington* prepared by Olympic Pipeline Company.

However, because the area was contaminated with gasoline, the laborers had to have HAZWOPER training. OPL provided the required 8-hour course to the laborers.

3.3.1 SCAT Team Assessment

Initially Whatcom Creek was divided into five sectors (A - E). Sectors A-D were along Whatcom Creek and sector E was from the western edge of the burn area to Bellingham Bay. Sector F was later added and included the source site and Hannah Creek (See Figure 3-2). The sectors were divided as follows:

Sector A: 43.50 to 33.01 feet (1,049 feet) beginning of canyon to Valencia Street,
Sector B: 33.00 to 20.91 feet (1,209 feet) aboveValencia Street,
Sector C: 20.90 to 14.16 feet (674 feet) above Racine Street,
Sector D: 14.15 to 00.00 feet (1,415 feet) Racine Street to western edge of burn area,
Sector E: Western edge of burn area to Bellingham Bay, and
Sector F: The source location northwest to the confluence of Whatcom and Hannah Creeks.

Water and sediment samples were collected from each sector by OPL under the oversight of Ecology and the NRDA team. Sample results were used to characterize and identify the extent of contamination. Because the vast majority of the gasoline was consumed during the initial fire, only residual gasoline remained trapped in the shoreline banks and in streambed sediments. A Shoreline Cleanup Assessment Team (SCAT) was deployed to visually identify the impacted areas. The SCAT team consisted of federal, state, local, and RP representatives.

3.3.2 Emergency Remediation Options

The sectors requiring remediation were identified and different remediation options based on the particular sector characteristics and impacts, were proposed by the RP to the JRC. Upon review of the available options, manual and mechanical agitation of streambed sediments and stream bank washing were the most widely used methods. An EPA (START) member oversaw and documented the cleanup activities in all sectors. Sectors A, B, C, D, and F required agitation and stream bank washing. Approximately 75 workers conducted manual agitation and stream bank washing along these Sectors. Mechanical agitation using a track-hoe excavator was conducted in Sectors B and C. Sector A was located east of the Woburn St. bridge to lower Whatcom Falls. This sector of Whatcom Creek has steep slopes, large boulders, and log jams in the creek (See Photos 3-10 and 3-11). A rubber-wheeled

excavator known as a Spyder, was used to move the large boulders, log jams, and agitate any sediment (See Photo 3-12).

Whatcom Lake levels are managed and controlled by flood gates in Whatcom Creek. Whatcom Creek flow is controlled by the COB. To further expedite the remediation of Whatcom Creek, waters were restricted during crew working hours and the creek was flushed with a two-foot water level increase during the night. This process continued throughout the emergency remediation phase.

Manual agitation of Hannah Creek (Sector F) took place in a small area where excavation equipment could not gain access. This area extended from the confluence of Whatcom Creek upstream approximately 500 feet. Other emergency remediation actions for Hannah Creek and Sector F are discussed in Section 3.4.

3.4 EMERGENCY SOURCE RESTORATION[2]

OPL began characterizing the subsurface soil and ground water at the source site and along Hannah Creek on June 16, 1999. GeoProbe® borings were installed to collect soil, soil gas, and ground water samples. Surface water and seep samples also were collected. The sample results were used to identify the boundary of gasoline contamination and determine the most feasible remedial clean up options. Due to differences in contamination, topography, and geology along Hannah Creek, the creek was divided into two sections each requiring separate cleanup options. Soil cleanup options chosen included excavation of accessible contaminated soil, installation of a vapor extraction system, and streambed agitation and washing. On-water recovery options for product on Whatcom and Hannah Creeks in Sector F included the construction of an underflow dam, deployment of a drum skimmer, sorbent boom and pads, and the installation of a subsurface interceptor drain and vertical recovery well. An EPA (START) member documented cleanup activities.

3.4.1 Free Product Recovery Cleanup Options

On-water recovery of free-product in Sector F included skimming, sorbent padding and booming, and constructing an underflow dam on Hannah Creek (See Photos 3-13 and 3-14). Gasoline was observed seeping into Whatcom Creek approximately 300 feet north of the rupture location. The seep locations were above or near the water level of the creek. At the Whatcom Creek location, sorbent pads were placed directly on the seeps in an effort to capture as much free product as possible. Hard boom

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[2]More detailed information can be reviewed in the *Site Characterization and Remediation Report Pipeline Release Area Whacom Creek Incident, Bellingham, Washington* prepared by GeoEngineers.

and a drum skimmer also were deployed to contain and remove free product not captured by the sorbent pads.

Contractors for Olympic Pipeline reported to the UCS that they suspected the gasoline had entered fractured bedrock and was able to rapidly flow toward the creek. To alleviate the problem, an interceptor drain and pumping system was designed and installed. The interceptor drain was constructed of 4-inch diameter, Schedule 80 Polyvinyl chloride (PVC) pipe which was perforated in the middle 160 feet to allow water and gasoline to enter. Using a horizontal drilling technique, the interceptor drain was installed approximately 300 feet north of the rupture location in an east-west direction (See Photo 3-15). The interceptor drain was a total of 460 feet from end to end and about 37 feet deep at it's mid-point. A vertical well was drilled and penetrated the mid-point of the interceptor drain. The vertical well was designed to be a recovery well equipped with a pump to draw-down the water level and pump-off any free product captured. The pumping system was started on August 12, 1999 and gasoline was being removed within minutes of startup.

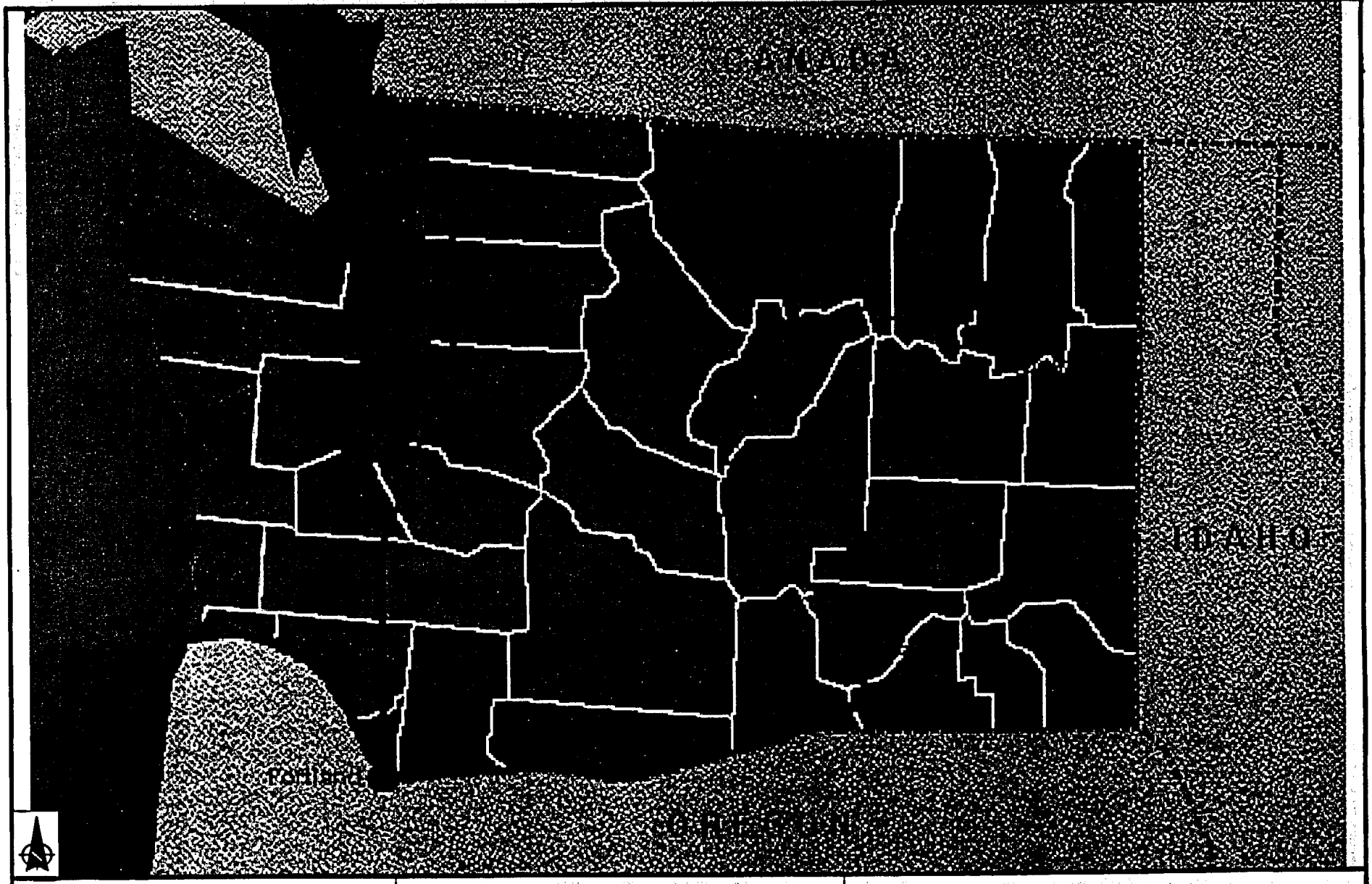
3.4.2 Upper Hannah Creek/Source Location Soil Cleanup Options

Upper Hannah Creek extended from the rupture location to approximately 150 feet south of the lower culverts. This reach of Hannah Creek was relatively flat with sand/silt soil making the area accessible by heavy equipment. For this portion of the source location, excavation and soil vapor extraction were the cleanup options chosen.

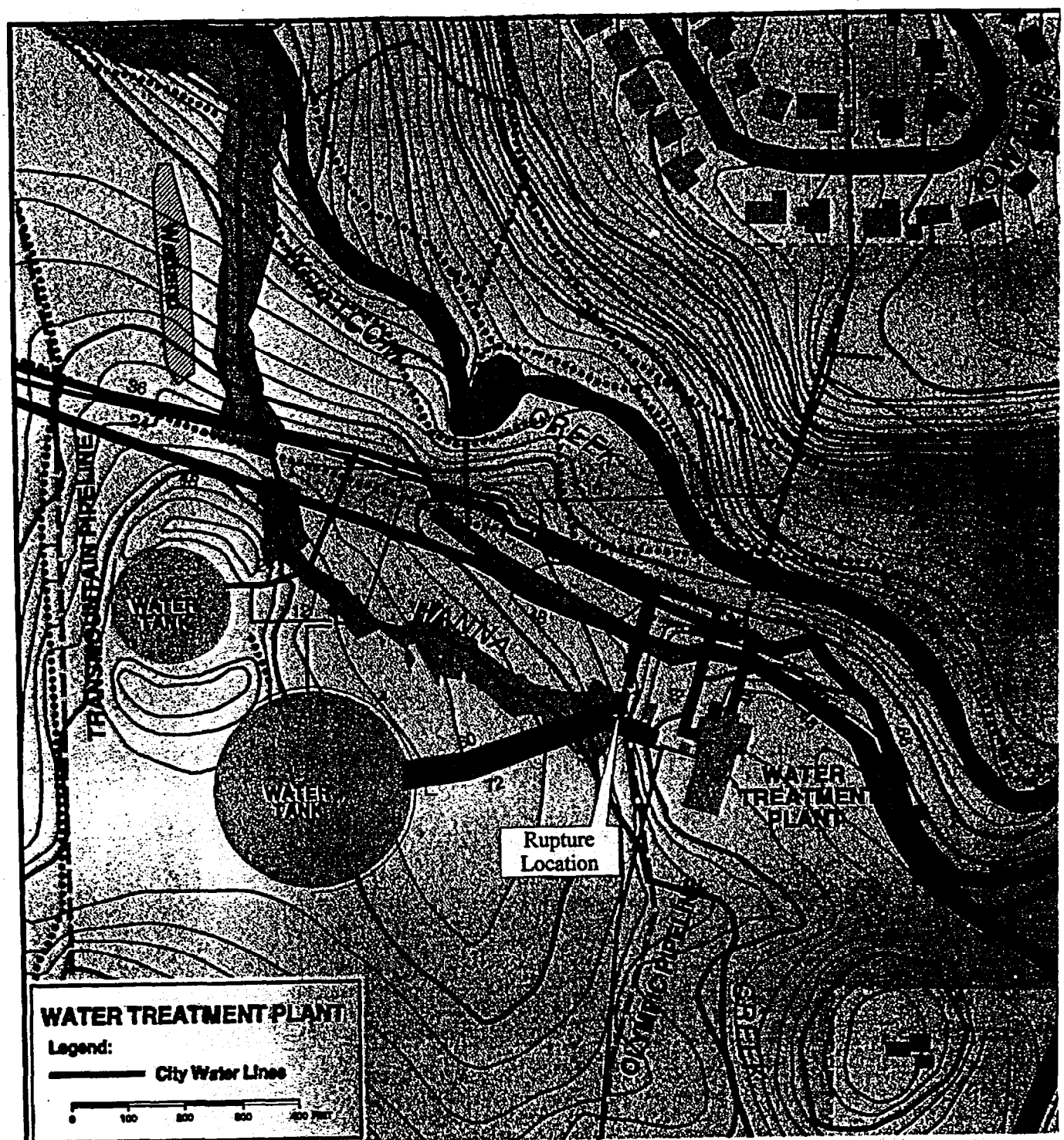
Prior to excavating the source area and Hannah Creek, the creek was rerouted. Hannah Creek was dammed up and rerouted through a 6-inch diameter, 1,800-foot-long HDPE pipe which carried the water to the confluence of Whatcom Creek. Dead or severely damaged trees were topped and brush was removed. Heavy equipment was used to clear the source area and sections of Hannah Creek (See Photos 3-16 and 3-17). Two different sets of culverts were also replaced along upper Hannah Creek. The new culverts were designed to be more "fish friendly" allowing fish to easily travel through the culverts.

The close proximity of active waterlines, limited information regarding underground utilities, the numerous vaults in the area, and the need for COB public works engineers to inspect piping and cathodic protection wrap on waterlines slowed and sometimes delayed excavation work. City of Bellingham public works engineers were on site during most excavation work to assist OPL. At times, workers hand dug contaminated soils to not damage waterlines and other infrastructure. The boundary of the excavation was determined by existing infrastructure, piping, and field screening of soil in applicable areas. Approximately 9,500 cubic yards (cy) of contaminated soil were excavated from the source area and upper Hannah Creek between mid-July and mid-September. Contaminated soil was stockpiled in a

Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), United States Fish and Wildlife Service (USF & WS), the City of Bellingham, and Washington State Department of Ecology (Ecology), assembled on June 12, 1999 to begin damage assessment surveys and monitor the work of OPL representatives on development of an Emergency Restoration Plan (ERP) for the affected areas. An accident investigation team from the National Transportation Safety Board (NTSB) and the United States Department of Transportation's Office of Pipeline Safety (OPS) assembled on June 11, 1999 to investigate the cause of the pipeline failure.



ecology and environment, inc. International Specialists in the Environment Seattle, Washington	WHATCOM CREEK INCIDENT Bellingham, Washington	Figure 2-1 OLYMPIC PIPELINE ROUTE			
	Figure provided by OPL.	Drawn: AES	Date 2/29/00	Job No. DF04SGROT0	Dwg.No. DF04SG 2-1



SOURCE: City of Bellingham, W

ecology and environment, inc.
International Specialists in the Environment
Seattle, Washington

WHATCOM CREEK INCIDENT
Bellingham, Washington

Figure 2-2
RUPTURE LOCATION

Drawn:	DATE:	JOB NO.	Dwg.N
AES	2/24/00	DF04SGROT0	DF04SG

Transmountain Pipeline
BURN ZONE
Whatcom Creek
Bellingham Bay
5

3. ORGANIZATION OF RESPONSE

The Whatcom Creek Incident was a multi-agency and multi-phased response with many different activities occurring simultaneously with different teams of first and secondary responders. This report will focus on the emergency response and cleanup activities in which the EPA and the START were directly involved. For ease of organization, Section three will be broken into the following five sub-sections:

- Emergency response;
- Pipeline investigation;
- Emergency streambed remediation;
- Emergency source area remediation; and
- Short-term streambed restoration.

3.1 EMERGENCY RESPONSE

The emergency response phase of the Whatcom Creek Incident covers a 22-day period from June 10, to July 2, 1999. Over 2,770 different primary and secondary responders were involved during this period. Incident Command was initially established by the Bellingham Fire Department (BFD) at the intersection of Woburn and Iowa streets. During the first days of the response, the Bellingham Fire and Police Departments focused on spot fire extinguishment, health and safety, search and rescue, evacuation of the citizens near the affected areas, and site control (See Appendix A Photos 3-1 and 3-2).

3.1.1 Air Monitoring

Throughout the first night, and for several days after the explosion, the START, the BFD, OPL, United States Coast Guard (USCG), and private Hazmat teams conducted air monitoring for hazardous total volatile organic compound (VOC) vapors and explosive atmospheres. Initially, the START was tasked with conducting air monitoring at the Whatcom County Jail and along the Whatcom Creek boardwalk adjacent to the jail. To monitor for VOCs, the START utilized a Photo-Ionization Detector (PID) and an Explosimeter when monitoring for explosive atmospheres. No detections were observed on the PID at the jail, but along the boardwalk a detection of 140 parts-per-million (ppm) VOC was

recorded. On day two, the START reported PID detections ranging from non-detectable to 7 ppm in the breathing zone along the banks of Whatcom Creek. Other VOC detections as high as 100 ppm, were in areas where gasoline contaminated debris pooled. Other air monitoring teams reported VOC detections (not in the breathing zone) ranging from non-detect along Whatcom Creek to 1,400 ppm at the source location and 50 ppm benzene. Testing for benzene levels was conducted using colormetric detector tubes and the RP's "snapshot" which was a portable gas chromatograph. Breathing zone VOC readings ranged from 150 ppm to 300 ppm at the source site (See Photo 3-3).

All areas of elevated readings were cordoned off using barrier tape to limit responder access.

3.1.2 ICS Establishment

On June 11, 1999, OPL's emergency response team was mobilized from Houston, Texas to Bellingham, and the lead RP position was transferred to Equilon (representing OPL). The Incident Command System (ICS) established initially by the fire department and maintained throughout. A Unified Command Structure also was established (See Figure 3-1). Incident Action Plans (IAPs) were developed by the Planning Section to direct 24-hour operational periods. A Joint Information Center (JIC) was created very early in order to provide the general public, via the media, accurate up-to-date information regarding response activities. Information was disseminated to the public through press conferences, daily fact sheets, a web site, and community meetings. The JIC was comprised of federal, state, local, and the RP representatives. The EPA also generated Pollution Reports to document factual, operational, and progressive information regarding the Whatcom Creek Incident. Copies of the Pollution Reports can be found in Appendix B.

3.1.3 Site Control

The Bellingham Police Department (BPD) coordinated site control during the initial stage of the emergency response. Site control was difficult to maintain due to the extensive area impacted and the lack of staffing. By the third day of the response BPD reduced staff, and site control responsibilities were maintained through the UC and transferred to a private security company.

The burn area and source location required security and were initially very dangerous areas. Petroleum hydrocarbon vapors, smouldering trees, unstable creek banks and bridge integrity are examples of dangers on site. Citizens were asked not to enter the burn area for their safety and for environmental protection. Four teams of two security guards patrolled the burn area in an effort to keep trespassers away. To control access to the source location, a security guard was posted at the water

treatment plant entrance and the Bay View Cemetery entrance. With over 2,770 primary and secondary responders during the first 22 days, personnel were required to have photo identification from the EOC in order to gain access to the site.

3.1.4 Initial Site Assessment

Hard boom and sorbent pads and boom were deployed at various locations along Whatcom Creek to try and capture floating product. Whatcom Creek stream flow is controlled by the City of Bellingham Public Works (COB) as it leaves Lake Whatcom. Initial assessments on the first day (June 10th) revealed the presence of explosive pockets of gasoline along the creek in residential and downtown areas. The BFD Battalion Chief was concerned that the pockets presented an immediate public safety hazard and proposed the idea of flushing the creek, and asked for concurrence of the EPA, OPL, and Ecology. The FOSC and OPL concurred with flushing so long as it was for public protection. Ecology rejected flushing, citing the potential for adverse affects to fish and shellfish in Bellingham Bay. The Battalion Chief had the areas along the creek monitored again. Assessment teams reported that the explosive hazards along the creek were quickly subsiding. Therefore, the creek was not flushed at that time since the reason for flushing was diminishing

The Washington Department of Natural Resources (DNR) responded to Bellingham to clear downed and burned trees, create safe walking paths for responders, identify hot spots using infrared detectors, extinguish any smoldering sources, and map the extent of the burn area using a Global Positioning System (GPS). Several NRDA teams also assembled to assess the impact the fire and the gasoline had on the riparian and aquatic habitats. The NRDA teams began to collect water and sediment samples as well as count and speciate: fish; amphibians; birds; and mammals killed during the release and subsequent fire along Whatcom and Hannah Creeks (See Photos 3-4 and 3-5).

To address the immediate creek restoration needs and minimize any potential secondary impacts, OPL developed an Emergency Restoration Plan (ERP) for Whatcom and Hannah Creeks. Review and oversight of the plan was conducted by a Joint Restoration Committee (JRC) including trustee representatives, with UCS identified as the principle decision making body. The EPA and START involvement with the ERP is discussed in Sections 3.3 - 3.5.

3.1.5 Water Supply Reroute

In addition to the environmental impacts, the explosion damaged five water pumps at the water treatment plant's Dakin-Yew pump house. The pumps were responsible for supplying water to

approximately one-third of the Bellingham residents. OPL allocated four potable water pumps and 3,200 feet of 16-inch outside diameter High Density Polyethylene (HDPE) pipe to construct a temporary pump station. Material acquisition, construction, and operation of the temporary station was completed within ten days (See Photos 3-6 and 3-7).

3.2 PIPELINE INVESTIGATION

An NTSB investigation team was mobilized from Washington, D.C. and investigators with the Office of Pipeline Safety (OPS) mobilized from Denver, Co. to Bellingham June 11, 1999. The primary function of the NTSB, as stated in the United States Code, Title 49, Chapter 11 is as follows:

> *-Determine facts, circumstances, and causes into pipeline accidents in which there is a fatality, substantial property damage, or significant injury to the environment.*
>
> *-Has priority over any investigation by another department, agency, or instrumentality of the US Government.*

Based on these authorities, the NTSB acted as the lead federal agency for the civil investigation phase of the incident.

3.2.1 Investigation Delays

At the pipeline rupture location (source), UCS made the decision to allow product spot fires to burn in an effort to consume residual gasoline. During this time, NTSB and OPS investigators focused their investigation on OPL's pipeline operations. Investigators gathered pipeline operation data, and interviewed numerous OPL personnel, however, eight of OPL's operators refused to talk to investigators. By day four of the incident, the fires were extinguished to relieve concerns of toxic vapors from smoke and to begin cleanup and on-site investigation work. Once the source area was deemed safe by the UC Site Safety Officer, OPL isolated the ruptured section of pipe and removed residual product from the line. To expose the pipeline, two bell holes were dug, one to the north and one to the south of the rupture location. The pipeline was tapped, residual product was removed, and sections from the north and south ends of the pipeline (not the failed section) removed.

A decision was made by the UCS to temporarily reroute the city's water supply prior to excavating the ruptured section of pipeline. This was thought necessary as the excavation near the pump house could have disrupted the city's water supply.

3.2.2 Excavation

Once isolated and the temporary water supply reroute was operational, excavation of the ruptured section began. NTSB investigators were restricted to an observation deck outside of the hot zone during

the excavation work because they were not Hazardous Waste Operations and Emergency Response (HAZWOPER) trained. Therefore, at NTSB's request, a HAZWOPER trained representative from the BFD took still photographs and EPA (START) videoed the excavation process and pipeline removal. The NTSB invoked a restriction on all other photo-documentation during the excavation process due to the on going investigation.

Due to the close proximity of water, telephone, and chemical lines to the affected petroleum pipeline, and the on-going forensic investigation, the excavation was slow and methodical. Excavation procedures ranged from a track-hoe excavator to hand-digging around OPL's pipeline. On June 28, 1999, the ruptured section of the pipeline was located and revealed a 28-inch by 7-inch fissure type tear (See Photos 3-8 and 3-9). Free petroleum product was observed "bubbling" to the surface as the rupture was exposed. A vacuum truck was brought to the area and the product was removed. Once the pipeline was sufficiently exposed, the pipe and the tear were surveyed, and throughly documented. A lubricant was sprayed on the pipe to minimize the potential for corrosion, and then covered with plastic while a track-hoe was used to widen the excavation.

3.2.3 Evidence Preservation and Shipping

By July 6th, the two sections of pipe under investigation were excavated, cut out, wrapped in plastic, and crated for shipment to Washington, D.C.. The first section removed was the ruptured section and the second section removed was a section that has previously displayed pig anomalies noted on an former Ecology corrective order. The NTSB retained chain-of-custody of the evidence. A semi-truck and trailer were contracted to transport the evidence from Bellingham to Washington, D.C. where the sections underwent investigation by the NTSB.

The events leading up to the rupture and the rupture itself remain under investigation by the NTSB. An NTSB report is expected in late 2000.

3.3 EMERGENCY STREAMBED REMEDIATION[1]

As outlined in the Draft Emergency Restoration Plan prepared by OPL, an objective of the emergency creek remediation was to agitate the sediments to facilitate the release of residual gasoline trapped in stream sediments (OPL 1999). The work had to be completed by mid-August in anticipation of the salmon spawning season. A large workforce was required to conduct the remediation work.

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[1]More detailed information can be found in the *Draft Emergency Restoration Plan for Whatcom Creek and Whatcom Falls Park, Bellingham, Washington* prepared by Olympic Pipeline Company.

However, because the area was contaminated with gasoline, the laborers had to have HAZWOPER training. OPL provided the required 8-hour course to the laborers.

3.3.1 SCAT Team Assessment

Initially Whatcom Creek was divided into five sectors (A - E). Sectors A-D were along Whatcom Creek and sector E was from the western edge of the burn area to Bellingham Bay. Sector F was later added and included the source site and Hannah Creek (See Figure 3-2). The sectors were divided as follows:

Sector A: 43.50 to 33.01 feet (1,049 feet) beginning of canyon to Valencia Street,
Sector B: 33.00 to 20.91 feet (1,209 feet) aboveValencia Street,
Sector C: 20.90 to 14.16 feet (674 feet) above Racine Street,
Sector D: 14.15 to 00.00 feet (1,415 feet) Racine Street to western edge of burn area,
Sector E: Western edge of burn area to Bellingham Bay, and
Sector F: The source location northwest to the confluence of Whatcom and Hannah Creeks.

Water and sediment samples were collected from each sector by OPL under the oversight of Ecology and the NRDA team. Sample results were used to characterize and identify the extent of contamination. Because the vast majority of the gasoline was consumed during the initial fire, only residual gasoline remained trapped in the shoreline banks and in streambed sediments. A Shoreline Cleanup Assessment Team (SCAT) was deployed to visually identify the impacted areas. The SCAT team consisted of federal, state, local, and RP representatives.

3.3.2 Emergency Remediation Options

The sectors requiring remediation were identified and different remediation options based on the particular sector characteristics and impacts, were proposed by the RP to the JRC. Upon review of the available options, manual and mechanical agitation of streambed sediments and stream bank washing were the most widely used methods. An EPA (START) member oversaw and documented the cleanup activities in all sectors. Sectors A, B, C, D, and F required agitation and stream bank washing. Approximately 75 workers conducted manual agitation and stream bank washing along these Sectors. Mechanical agitation using a track-hoe excavator was conducted in Sectors B and C. Sector A was located east of the Woburn St. bridge to lower Whatcom Falls. This sector of Whatcom Creek has steep slopes, large boulders, and log jams in the creek (See Photos 3-10 and 3-11). A rubber-wheeled

excavator known as a Spyder, was used to move the large boulders, log jams, and agitate any sediment (See Photo 3-12).

Whatcom Lake levels are managed and controlled by flood gates in Whatcom Creek. Whatcom Creek flow is controlled by the COB. To further expedite the remediation of Whatcom Creek, waters were restricted during crew working hours and the creek was flushed with a two-foot water level increase during the night. This process continued throughout the emergency remediation phase.

Manual agitation of Hannah Creek (Sector F) took place in a small area where excavation equipment could not gain access. This area extended from the confluence of Whatcom Creek upstream approximately 500 feet. Other emergency remediation actions for Hannah Creek and Sector F are discussed in Section 3.4.

3.4 EMERGENCY SOURCE RESTORATION[2]

OPL began characterizing the subsurface soil and ground water at the source site and along Hannah Creek on June 16, 1999. GeoProbe® borings were installed to collect soil, soil gas, and ground water samples. Surface water and seep samples also were collected. The sample results were used to identify the boundary of gasoline contamination and determine the most feasible remedial clean up options. Due to differences in contamination, topography, and geology along Hannah Creek, the creek was divided into two sections each requiring separate cleanup options. Soil cleanup options chosen included excavation of accessible contaminated soil, installation of a vapor extraction system, and streambed agitation and washing. On-water recovery options for product on Whatcom and Hannah Creeks in Sector F included the construction of an underflow dam, deployment of a drum skimmer, sorbent boom and pads, and the installation of a subsurface interceptor drain and vertical recovery well. An EPA (START) member documented cleanup activities.

3.4.1 Free Product Recovery Cleanup Options

On-water recovery of free-product in Sector F included skimming, sorbent padding and booming, and constructing an underflow dam on Hannah Creek (See Photos 3-13 and 3-14). Gasoline was observed seeping into Whatcom Creek approximately 300 feet north of the rupture location. The seep locations were above or near the water level of the creek. At the Whatcom Creek location, sorbent pads were placed directly on the seeps in an effort to capture as much free product as possible. Hard boom

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[2]More detailed information can be reviewed in the *Site Characterization and Remediation Report Pipeline Release Area Whacom Creek Incident, Bellingham, Washington* prepared by GeoEngineers.

and a drum skimmer also were deployed to contain and remove free product not captured by the sorbent pads.

Contractors for Olympic Pipeline reported to the UCS that they suspected the gasoline had entered fractured bedrock and was able to rapidly flow toward the creek. To alleviate the problem, an interceptor drain and pumping system was designed and installed. The interceptor drain was constructed of 4-inch diameter, Schedule 80 Polyvinyl chloride (PVC) pipe which was perforated in the middle 160 feet to allow water and gasoline to enter. Using a horizontal drilling technique, the interceptor drain was installed approximately 300 feet north of the rupture location in an east-west direction (See Photo 3-15). The interceptor drain was a total of 460 feet from end to end and about 37 feet deep at it's mid-point. A vertical well was drilled and penetrated the mid-point of the interceptor drain. The vertical well was designed to be a recovery well equipped with a pump to draw-down the water level and pump-off any free product captured. The pumping system was started on August 12, 1999 and gasoline was being removed within minutes of startup.

3.4.2 Upper Hannah Creek/Source Location Soil Cleanup Options

Upper Hannah Creek extended from the rupture location to approximately 150 feet south of the lower culverts. This reach of Hannah Creek was relatively flat with sand/silt soil making the area accessible by heavy equipment. For this portion of the source location, excavation and soil vapor extraction were the cleanup options chosen.

Prior to excavating the source area and Hannah Creek, the creek was rerouted. Hannah Creek was dammed up and rerouted through a 6-inch diameter, 1,800-foot-long HDPE pipe which carried the water to the confluence of Whatcom Creek. Dead or severely damaged trees were topped and brush was removed. Heavy equipment was used to clear the source area and sections of Hannah Creek (See Photos 3-16 and 3-17). Two different sets of culverts were also replaced along upper Hannah Creek. The new culverts were designed to be more "fish friendly" allowing fish to easily travel through the culverts.

The close proximity of active waterlines, limited information regarding underground utilities, the numerous vaults in the area, and the need for COB public works engineers to inspect piping and cathodic protection wrap on waterlines slowed and sometimes delayed excavation work. City of Bellingham public works engineers were on site during most excavation work to assist OPL. At times, workers hand dug contaminated soils to not damage waterlines and other infrastructure. The boundary of the excavation was determined by existing infrastructure, piping, and field screening of soil in applicable areas. Approximately 9,500 cubic yards (cy) of contaminated soil were excavated from the source area and upper Hannah Creek between mid-July and mid-September. Contaminated soil was stockpiled in a

designated area to the northwest of the water treatment plant. The soil was characterized and transported off site for thermal treatment at TPS Technologies in Tacoma, Washington.

One of the final steps of the emergency phase was to address the residual contamination adjacent to infrastructure and piping, a vapor extraction system (VES) was designed and installed. Under the UCS, the extraction system was placed adjacent to Whatcom Creek, meeting permit requirements but not requiring the permit thereby eliminating the untimely permitting process. A combination of vapor extraction, air sparging, dewatering wells, and related piping were constructed and connected to a water treatment system, vacuum blowers, and vapor treatment unit. The aboveground equipment is housed in an equipment enclosure to the northwest of the water treatment plant (See Photo 3-18).

As areas were excavated, clean overburden and imported pit run sand and gravel was used as backfill for the source site and along Hannah Creek. By the end of October, Hannah Creek was reconstructed with vegetation, logjams, pools, and riffles (See Photos 3-19 and 3-20).

3.4.3 Lower Hannah Creek/Source Location Soil Cleanup Options

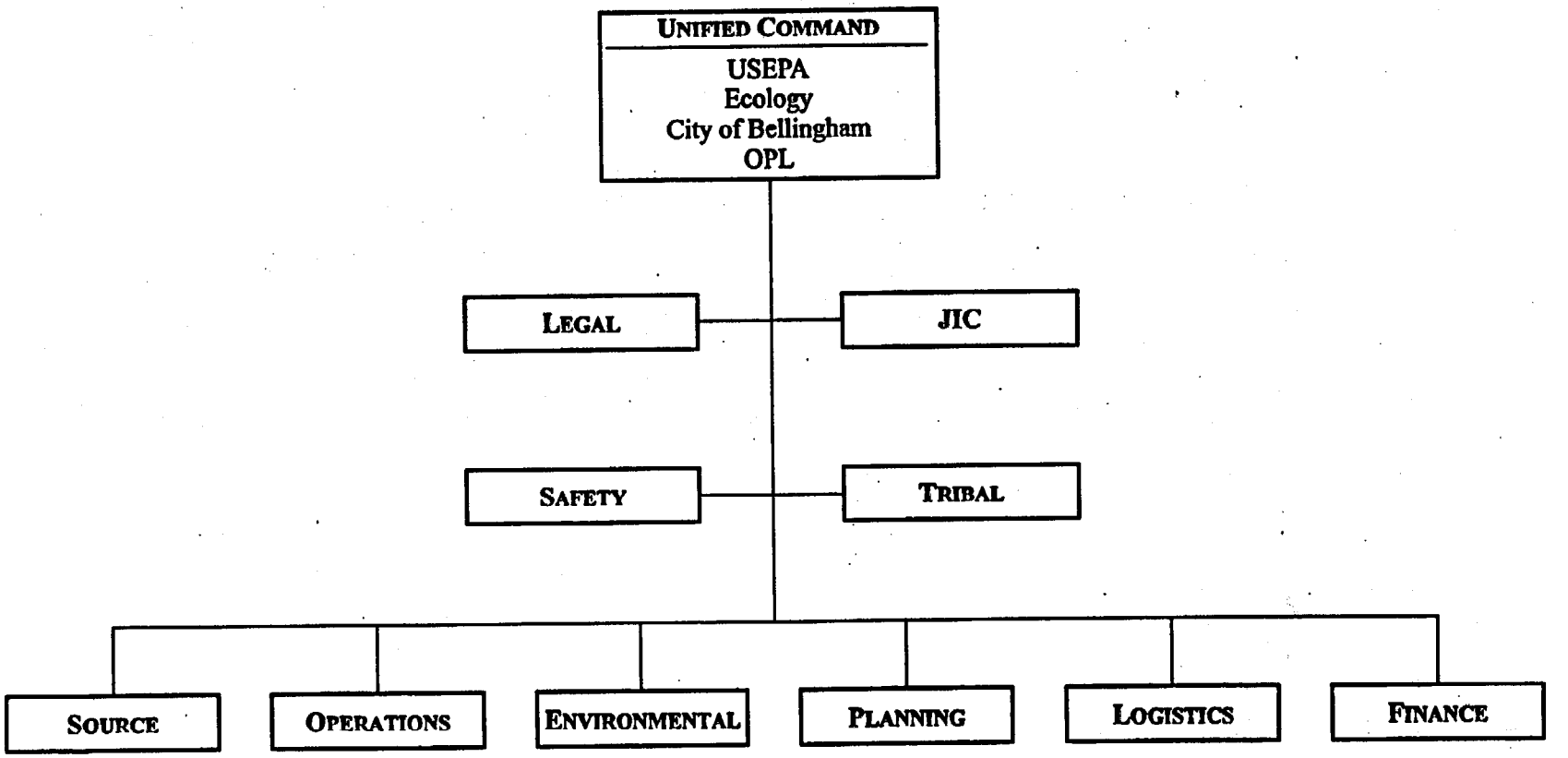
Lower Hannah Creek extended from the end of upper Hannah Creek to the confluence of Hannah and Whatcom Creeks. Lower Hannah Creek flows through steep canyon walls of bedrock with it's streambed consisting of intermittent shallow sand and gravel bars (See Photos 3-21 and 3-22). The restricted access and subsurface geology called for different cleanup options including manual agitation and stream flushing. Workers were deployed to manually till the sand and gravel bars in the creek. Water was trucked to the site, staged in two portable tanks, at the creek and utility road crossing, and used to flush the lower reach of Hannah Creek. After each flush, water samples were collected at the confluence of the creeks. Three flushes were conducted on Lower Hannah Creek.

3.5 SHORT-TERM STREAMBED RESTORATION

A Draft Emergency Restoration Plan for Whatcom Creek and Whatcom Falls Park, Bellingham, Washington was prepared by Olympic Pipeline Company, and was reviewed by the UCS. The JRC, including trustees, provided comments and oversight to the short-term restoration plan. The objective of the restoration was to accelerate stream recovery and increase spawning and rearing habitat of Whatcom Creek prior to the anticipated fall salmon runs and winter rains. The main components of the creek restoration included:

- Identify salmonoid and resident fish,
- Streambank and upland revegetation,
- Increase production of instream invertabrates, and
- Enhancement of the creek channel.

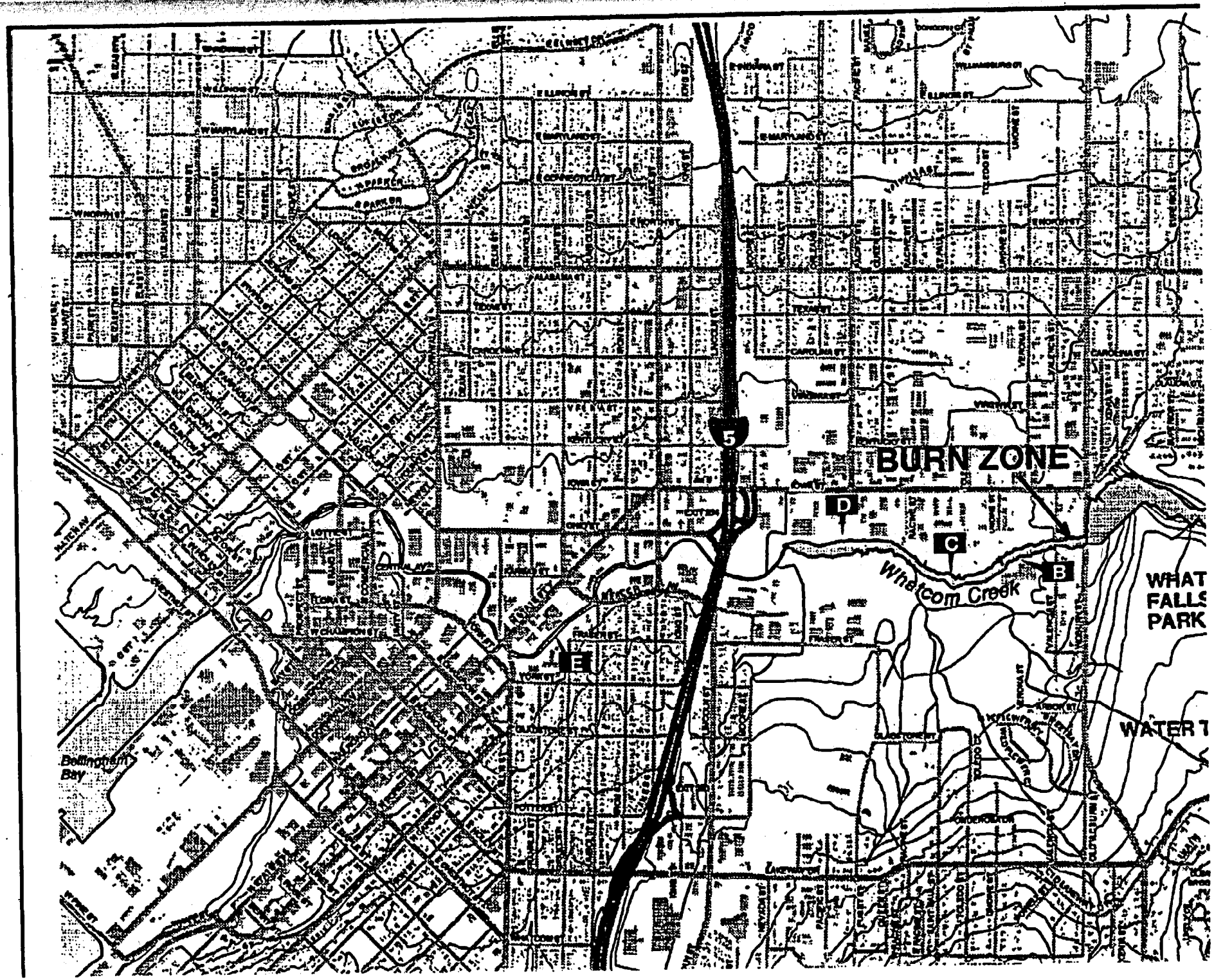
Creek channel enhancement included the addition of pools, riffles, cascades, log jams, and step pools . Certain creek sectors required more than one type of enhancement. The short-term restoration work was completed by August 19, 1999. The short-term restoration plan served as an integral part of the future long-term restoration plan under the federal lead administrative trustee, NOAA and NMFS.



ecology and environment, inc.

WHATCOM CREEK INCIDENT

Figure 3-1
INCIDENT COMMAND SYSTEM ORGANIZATION


BURN ZONE
D
C
B
E
5
Whatcom Creek
WHAT
FALLS
PARK
WATER T
Bellingham
Bay

4. COMMUNITY RELATIONS

4.1 PARTIES INVOLVED

Numerous federal, state, local, tribal, and private agencies responded to the Bellingham incident. At one time there were over 2,700 people logged-in at the EOC assisting with the response.

Federal agencies involved included:

- U.S. EPA,
- Veterans Affairs,
- NOAA,
- NTSB,
- U.S. Department of Transportation Office of Pipeline Safety (OPS),
- U.S. Coast Guard (USCG),
- Department of the Interior and Bureau of Indian Affairs,
- U.S. Navy,
- USF&WS, and
- Federal Aviation Administration (FAA).

Tribal agencies involved included:

- Lummi Indian Nation, and
- Nooksack Tribe of Indians

State agencies involved included:

- Washington State Department of Natural Resources (DNR),
- State Emergency Management Department (EMD),
- State Department of Transportation,
- Washington State Patrol (WSP),
- Washington State Department of Ecology (Ecology),
- Western Washington University (WWU) Police,
- Air National Guard, and
- Washington State Fish and Wildlife.

Local agencies involved included:

- Bellingham Fire Department
- Bellingham Police Department,
- City of Bellingham Public Works (COB),
- Whatcom County Sheriffs Office,
- Whatcom County Specialized Emergency Response Program (SERP),
- Port of Bellingham,
- What-Comm Dispatch,
- Whatcom County Fire Districts 1-9,
- Ferndale Police,

- Skagit County Sheriff's Office, and
- Whatcom Transportation Authority.

Some of the private entities involved included:

- American Red Cross,
- ARCO Refinery,
- Clean Sound Co-Op,
- Marine Spill Response Corporation (MSRC),
- Puget Sound Energy,
- Salvation Army,
- Tosco Refinery,
- Life Rescue,
- St. Joseph Hospital,
- Cascade Ambulance,
- Olympic Pipeline Company,
- Trans-Mountain Pipeline,
- Polaris Applied Sciences,
- GeoEngineers,
- Equilon Enterprises,
- Dames and Moore,
- Westcliffe Environmental Management, Inc.,
- Johnson Environmental, Inc.,
- Whatcom Environmental Services, Inc.,
- Medflight, and
- Inter-Fluve, Inc.

4.2 PUBLIC MEETINGS/PUBLIC RELATIONS

The UC representatives attended numerous public meetings, community meetings, and forums to provide information to the public regarding the cleanup. The EPA START also attended the community meetings to provide technical support. Public meetings, press meetings, meetings with visiting public officials and politicians, as well as forums and seminars were held in city hall, the public library, local schools, and on site. Information about the impacts, cleanup, and restoration work along Hannah and Whatcom Creeks as well as pipeline operations and safety were common subjects.

From the initial emergency response phase through the restoration phase of the Whatcom Creek Incident, public relation efforts were extensive. Many federal, state, local, and private representatives, including the families of the three victims, visited the site and were given site tours led by the FOSC. EPA fact sheets were distributed and the FOSC answered many questions posed by the general public and political officials.

4.3 MEDIA COVERAGE

Media interest was very high throughout the emergency phase of the Bellingham incident. A JIC was established soon after the explosion occurred to disseminate information to the media and the public. In the initial investigation phase of the response, access to the release area was restricted by the NTSB. The NTSB held separate press conferences throughout the investigation phase of the response. When the response shifted from the investigation phase to the cleanup phase, the FOSC invited the press to tour the source site at the water treatment plant and answered questions regarding the cleanup. The UCS members were interviewed regularly by radio, television, and newspapers throughout the emergency and cleanup phases.

5. CHRONOLOGY OF MAJOR EVENTS

June 10, 1999

- 16-inch petroleum pipeline operated by Olympic Pipeline ruptured releasing up to 277,200 gallons of unleaded gasoline to Hannah and Whatcom Creeks.
- OPL shut down pipeline.
- Approximately one-half hour after the release of gasoline, an ignition source caused an explosion and ensuing fire.
- EPA on site.
- Framework of EPA and OPL with UCS was established and primary objectives set: restore safety, environmental cleanup, and uniformly address community.
- Local first responders extinguished fires along a 1.75 mile stretch of Whatcom Creek.
- Two severely burned children Medi-vac to Seattle trauma center.
- One young man found dead in Whatcom Creek.
- START worked with local first responders monitoring for explosive atmospheres at park and jail.
- A UCS was established consisting of Federal, State, Tribal, Local, and RP representatives.
- Evacuations conducted, roads closed, site controls established, search and rescue conducted, city loses one-third of water source.
- EOC established at motel.
- Oil Spill Liability Trust Fund was opened under EPA, and duplicate number under USCG is closed.

June 11, 1999

- Command post was relocated at the Whatcom County Department of Emergency Management's (EOC).
- Impacted areas from the source location to the mouth of Bellingham Bay were divided into five sectors (A through E).
- Whatcom Falls Park closed to the public.
- Residual fires continued to burn in Sector A as a result of free product.
- DNR mobilized personnel to address spot fires and fell trees.

- Ecology mobilized the NRDA team to begin damage assessment. The NRDA team consists of representatives from the USF&WS, NOAA, Lummi, and Nooksack Tribes, and Ecology.
- UCS restructured to include federal, state, local, and RP. Tribal representation moves to Environmental Unit and NRDA.
- START assisted site assessment crews with air monitoring, safety evaluations, and determination of the extent of contamination.
- Two boys burned in the incident died in hospital.
- START began photo and site documentation and cost tracking.
- Representatives from the NTSB and U.S. DOT OPS mobilized to the site to initiate the accident investigation.
- A JIC was established with an EPA Public Information Officer on-scene.
- Bellingham Fire Department remained at source location.
- START distributed first Pollution Report.
- OPL mobilized their spill management team to maintain ICS.
- JIC established and begins issuing press releases.
- An incident web page was developed at http://www.co.whatcom.wa.us.
- End 12-hour incident action periods, began 24-hour IAP's.

June 12, 1999

- Developed 24-hour IAP.
- START continued assisting with air monitoring, safety evaluations, and determination of extent of contamination in Sectors A – E, photo and site documentation, and cost tracking.
- Sector A was divided into a sixth sector, F, which surrounds the pipeline source location.
- Within Sector F a continuing source of product was found to be leaching into Whatcom Creek.
- Cleanup crews using sorbent material attempted to recover product leaching into Whatcom Creek.
- Cleanup crews replaced saturated sorbent material in all sectors as necessary.
- NRDA representatives directed OPL to develop an Emergency Restoration Plan (ERP) for review and agency approval by June 16, 1999.
- NTSB and OPS began the accident investigation.
- The American Red Cross hosted a grief-counseling meeting for the general public at a local middle school.
- Bellingham Fire Department remained at source location.

June 13, 1999

- RP began shoreline assessment; implementation of a waste management plan; execution of a water sampling plan in Whatcom Creek and Bellingham Bay; implementation of an initial soil sampling plan near the source location (Sector F); and development of an excavation/repair plan for the pipeline.
- DNR continued to address spot fires, develop a map identifying the extent of the burn area, and create a fire trail around Sector F.
- RP established an 800 number to handle claims; Finance Section reports cost-to-date are approximately $800,000.
- START continued assisting with air monitoring, safety evaluations, and determination of extent of contamination in Sectors A – F.
- START continued photo and site documentation and cost tracking.
- Bellingham Fire Department remained at source location.

June 14, 1999

- Because of safety concerns from the toxic smoke fumes, the Bellingham Fire Department extinguished the remaining residual fires at the source location.
- The NTSB and OPS investigation efforts are limited due to site safety concerns and OPL's operators refusal to talk to NTSB investigators.
- The JIC continued to issue press releases.
- Finance Section reports cost-to-date is approximately $1,000,000.
- START continued assisting with safety evaluations and determination of extent of contamination in Sectors A – F.
- START continued photo and site documentation, and cost tracking.
- Bellingham Fire Department remained at source location.

June 15, 1999

- UCS supported COB decision to reroute city water lines re-routed prior to excavating the ruptured section of OPL pipeline.
- OPL began excavating soil to expose pipeline north of rupture location.
- START continued with safety evaluations, photo and site documentation, and cost tracking.
- The JIC continued to issue press releases.
- Bellingham Fire Department remained at source location.

June 16,1999

- OPL completed excavation and tapping of pipeline north of the rupture location and began excavation south of rupture location.
- OPL contractor began drilling for soil characterization in Sector F.
- OPL began sparge testing in Whatcom Creek
- OPL collected surface water samples once per day along Whatcom Creek.
- Efforts began to re-route water supply for 20,000 Bellingham residents.
- START continued with safety evaluations, photo and site documentation, and cost tracking.
- The JIC continued to issue press releases and prepared for an open house community meeting.

June 17 - 18, 1999

- Governor Lock arrived in Bellingham, Washington to tour the burned area, meet with the families of the victims, and hold a press conference.
- Equipment for the waterline reroute procedures located and en-route to Bellingham, Wa.
- START continued with safety evaluations, photo and site documentation, and cost tracking.
- START assisted Ecology in collecting seep and product sample collection and photographs sampling procedures.
- The JIC continued to issue press releases.

June 19 – 20, 1999

- OPL completed excavation and tapping of pipeline south of the rupture location.
- The four potable water pumps and 3,700 feet of High-Density Polyethylene (HDPE) pipe arrived at source location.
- START continued with safety evaluations, photo and site documentation, and cost tracking.
- The JIC continued to issue press releases.
- Finance Section reported that costs-to-date is approximately $2.4 Million.
- NTSB and OPS continued with their accident investigation.

June 21, 1999

- OPL presented the draft Emergency Restoration Plan to the NRDA team and the UCS.
- Six groundwater wells have been installed in Section F with free product observed in at least three wells.

- START continued with safety evaluations, photo and site documentation, and cost tracking.
- Two USCG Strike Team members on site.
- OPL continued soil characterization in Sector F.

June 22 - 23, 1999

- OPL presented a draft pipeline excavation plan to the UCS for review.
- START continued with safety evaluations, photo and site documentation, and cost tracking.

June 24, 1999

- NTSB coordinated with the Bellingham Fire Department photographer and START personnel to photograph and video the OPL pipeline excavation and in-situ investigation.
- The Finance Section reported that costs-to-date are approximately $2.9 Million.
- START continued with safety evaluations, photo and site documentation, and cost tracking.

June 25 – 27, 1999

- The waterline reroute and flushing of the new waterlines completed.
- Began the gasoline pipeline excavation.
- START personnel assisted NTSB with videography.
- START continued with safety evaluations, photo and site documentation, and cost tracking.
- NTSB placed a camera restriction within the source area.

June 28, 1999

- Ruptured area of pipeline exposed revealing a 28" by 7" fissure type tear.
- START personnel continued with videography.
- Finance Section reported costs-to-date are approximately $3.3 Million.
- START continued with safety evaluations, photo and site documentation, and cost tracking.

June 29, 1999

- A final IAP was developed for a 72-hour operation period.
- Excavation and isolation of the ruptured pipeline section continued.

- START personnel continued with videography.
- START continued with safety evaluations, photo and site documentation, and cost tracking.
- A *Conceptual Interim Remedial Action Plan* which focuses on the source impacted area was presented to the UC.

June 30 – July 2, 1999

- NTSB continued a camera restriction within the source area.
- Crews completed the isolation, cutting, and removal of the ruptured pipeline section.
- The Environmental Section completed video taping the affected reaches of Hannah and Whatcom Creeks.
- START personnel continued with videography.
- A draft Remedial Action Plan was presented to the UC.
- USCG Strike Team demobilized.
- START continued with safety evaluations, photo and site documentation, and cost tracking.

July 3- 11, 1999

- Majority of operations shutdown over holiday weekend.
- Cleanup crews continued as before with product recovery.
- City of Bellingham Parks and Recreation Department hosted tours of the source site location.
- OPL continued excavation of the gasoline pipeline.
- Local workers for streambed remediation received 8-hour HAZWOPER level training.
- Streambed remediation began along Whatcom Creek.
- START continued assisting with safety evaluations, photo and site documentation, and cost tracking.
- Excavation of the gasoline pipeline continued south of the 72" water pipe.
- START personnel continued with videography.
- Water and sediment sampling continued.
- Financial Section reported costs-to-date are approximately $4.2 Million.
- Final section of gasoline pipeline removed, NTSB demobilizes.
- Product recovery temporarily stopped along Whatcom Creek due to creek flushing.
- Crews completed topping trees and started clearing vegetation around Hannah Creek.

July 12-18, 1999

- Cleanup crews continued as before with product recovery.
- Streambed remediation continued along Whatcom Creek.
- START continued assisting with safety evaluations, photo and site documentation, and cost tracking.
- Water and sediment sampling continued.
- Excavation of contaminated soil in source area began.
- Low-level flushing of Whatcom Creek continued on a nightly basis.
- Washington State Resource Damage Assessment Committee granted OPL the opportunity to prepare a long-term Restoration plan.
- Financial Section reported costs-to-date are approximately $5.4 Million.
- Hannah Creek rerouted via HDPE pipe overland to Whatcom Creek.

July 19-25, 1999

- Cleanup crews continued as before with product recovery.
- Streambed remediation continued along Whatcom Creek.
- START continued assisting with safety evaluations, photo and site documentation, and cost tracking.
- Water and sediment sampling continued.
- Excavation of contaminated soil in source area continued.
- Horizontal drilling operations have begun to install a 300-foot subsurface french drain to intercept groundwater leachate from the source area along Whatcom Creek.
- Horizontal drilling operations have been delayed while awaiting equipment parts.
- Financial Section reported costs-to-date are approximately $6.3 Million.
- Crews pressure washed the interior of the water treatment plant pump house.

July 26-August 1, 1999

- Horizontal drilling began for interceptor drain.
- Cleanup crews continued as before with product recovery.
- Streambed remediation continued along Whatcom Creek.
- START continued assisting with safety evaluations, photo and site documentation, and cost tracking.
- Water and sediment sampling continued.
- Excavation of contaminated soil in source area continued.

- Horizontal drilling was completed.
- The EPA Regional Administrator arrived in Bellingham, WA and met with OPL, city, county, and state representatives.
- Financial Section reported costs-to-date are approximately $6.7 Million.

August 2-9, 1999

- Drilling began for the vertical well to be used in conjunction with the horizontal interceptor drain.
- Cleanup crews continued as before with product recovery.
- Streambed remediation continued along Whatcom Creek.
- START continued assisting with safety evaluations, photo and site documentation, and cost tracking.
- Water and sediment sampling continued.
- Excavation of contaminated soil in Hannah Creek was completed.
- To date, approximately 5,260 cubic yards of contaminated soil were excavated from the source area and Hannah Creek.
- Financial Section reported costs-to-date are approximately $7 Million.

August 10 – 16, 1999

- Interceptor drain and pumping system operations began.
- Three vapor extraction wells were installed near pump house.
- The directors of the NTSB, OPS, two congressional aids, and two of the victim's families toured the source site.
- OPL constructed a concrete pad over the gasoline pipeline in the vicinity of overlying water pipelines.
- Streambed remediation continued along Whatcom Creek.
- START continued assisting with safety evaluations, photo and site documentation, and cost tracking.
- Water and sediment sampling continued.
- Crews excavated soil near 60" and 16" water lines.
- The family of the third victim toured the source site.

August 17 – 23, 1999

- Short-term restoration work completed along Whatcom Creek.
- Two creek flushes conducted down the lower reaches of Hannah Creek.

- START continued assisting with safety evaluations, photo and site documentation, and cost tracking.
- Water and sediment sampling continued.
- Financial Section reported costs-to-date are approximately $7.2 Million.
- Crews continued excavation of soil near 60" and 16" water lines.

August 24 –30, 1999

- Excavation of contaminated soil near the 60" and 16" waterlines completed.
- OPL workers helped City of Bellingham workers replace a 24" valve.
- START continued assisting with safety evaluations, photo and site documentation, and cost tracking.
- Water and sediment sampling continued.
- Crews conducted a pilot test of the vapor extraction system at the source site.
- Began Hannah Creek reconstruction design.

August 31 – September 3, 1999

- Crews completed initial testing of three VES wells around pump house.
- The START demobilized from Bellingham, WA, intermittent travel continues per FOSC request.

September 3 – 24, 1999

- Excavation of contaminated soil completed.
- Hannah Creek reconstruction began.
- City of Bellingham crews continued work restoring pump house.

September 25 – October 1, 1999

- In-stream water/sediment sampling has been completed for the emergency phase.
- Hannah Creek reconstruction completed between the 1st and 2nd set of culverts.
- All excavated stockpile soil have been transported off site for disposal.

October 2 – December 31, 1999

- Hannah Creek reconstruction completed in November 1999 and natural flow restored.
- Site Characterization and Remediation Report completed by OPL contractor November 30, 1999.

- City of Bellingham pump house restored and fully operational by first week of Decembe 1999.
- Temporary pump operations for the city water supply were taken off-line the first week of December 1999.
- Vapor Extraction System design completed and system installed. Scheduled to be operational by January 2000.
- Vegetation recovery observed along the banks of both Whatcom and Hannah Creeks.

6. HEALTH AND SAFETY

The Unified Command Structure and the designated site safety officer maintained ultimate responsibility for site safety during the emergency response and subsequent clean up actions. The START developed and was responsible for its own site-specific safety plan that covered the emergency response and oversight activities. The RP and each contractor and subcontractor developed and was responsible for its own site-specific safety plan to cover all activities for its personnel. The designated site safety officer held safety meetings twice daily during both the emergency response and clean up phases. Visitors or guests to the site had to check-in with the site safety officer and were informed of the site hazards and activities. The START assisted with health and safety oversight throughout the incident.

During the initial emergency phase, a contractor was hired by the RP to assist the site safety officer with air monitoring and oversight activities. The Bellingham Fire Department also was on-scene at the source area until mid-July due to a potential fire hazard associated with the petroleum hydrocarbon vapors. At the request of the FOSC, two USCG Strike Team members were mobilized to the site during the emergency phase to assist with health and safety activities.

Throughout all phases of the incident, Level D personal protective equipment (PPE) was the minimum level of protection required at the site. However, due to high petroleum vapors at the source area, workers were frequently required to upgrade to Level C PPE and wear half- or full-faced respirators. Workers exposed to free product were required to wear rain gear and rubber boots as splash protection and a respirator. A personal floatation device (PFD) and rubber steel-toed waders were required when work was conducted in Whatcom Creek.

Site control was difficult to attain in the early stages of the response. Because Whatcom Falls Park encompasses a large area around the source site, trespassers were frequently walking in and out of hazardous zones. To help maintain site control, the RP contracted to a private site security company to patrol the park and along the banks of Whatcom Creek keeping citizens in designated, safe areas. The main entrance of the water treatment plant served as the check-in point to the source site. A secondary entrance to the source site was through the Bay View Cemetery entrance. Security guards were stationed at both entrances as well as at the Woburn Street bridge. Picture identification obtained through the EOC was required to gain access to the site. Caution signs stated that the site was hazardous and no trespassing was allowed.

Chemical hazards at the site consisted of gasoline and the associated petroleum hydrocarbons vapors. During excavation work, splash protection was required if free product was encountered. Air monitoring was conducted throughout the emergency and cleanup activities. Physicals hazards at the sit included heavy equipment, slip, trip, fall, heat stress, work near the creeks, explosion, fire, and confined space. Personal floatation devices were required for workers in or near the creeks. Five minor accidents were recorded throughout the incident.

7. DISPOSAL SUMMARY

The following is a summary of waste disposed as reported to date by OPL:

Waste Type	Recovered	Stored on-site	Disposed off-site
Oil	8,511 gal	0 gal	8,511 gal
Oil/Water	420,506 gal	8,222 gal	412,284 gal
Other Liquids	66,287 gal	0 gal	66,287 gal
Oil Solids	9,519 cy	0 cy	9,519 cy
Solids	86 drums; 39 cy	1 drum; 5 cy	86 drums; 39 cy
RCRA Liquid			189,615 gal
RCRA Solid			10,617 lbs
RCRA Soil			
Non-hazardous Liquid			222,669 gal
Non-hazardous Solid			342 lbs
Non-hazardous Soil			9,519 cy

Key:
cy = cubic yards
gal = gallons
lbs = pounds
RCRA = Resource Conservation and Recovery Act

8. COST SUMMARY

The Whatcom Creek Incident project was allocated $144, 592 for START oversight activities. The estimated cost summary as of February, 2000 is:

START	$113,616
EPA	$ 36, 350
TOTAL	$149,966

9. PROBLEMS ENCOUNTERED

A variety of problems encountered during the Whatcom Creek Incident complicated activities and delayed certain operations. However, most of these problems were addressed and overcome, during the emergency response phase of this incident. A list of problems encountered and their solutions is provided below.

- The catastrophic explosion and fire in conjunction with lethal petroleum-hydrocarbon vapors, over taxed the resources of the local responders. To address the issue, responders from outlying communities including federal, state, and private industry were on-scene within minutes of the explosion to assist with fire suppression, search and rescue, evacuation procedures, and air monitoring. The ICS was implemented immediately to manage the incident and keep responders and citizens as safe as possible.

- Access to certain areas of both creeks was difficult and dangerous due to steep, unstable terrain and thick underbrush. The Department of Natural Resources accessed these areas clearing the underbrush and creating safer walking paths for responders.

- Keeping unauthorized citizens from accessing the burn area was another problem. To minimize trespassing by citizens, the RP hired a private security company to patrol the burn area. Signs requesting individuals to stay out of the burn area also were placed along Whatcom Creek and at the water treatment plant. Authorized personnel were required to get a photo identification badge from the EOC in order to obtain access to the burn areas.

- The media attention during the incident posed difficulties as well. Reporters were caught trespassing in the burn area, the EOC, and even flying aircraft at low altitudes over the impacted areas. To address the trespassing issue, the JIC would organize press releases, press conferences, and guided site tours. The EPA addressed the low flying aircraft by requesting a temporary flight restriction over the burn area during emergency operations from the FAA.

- The explosion rendered three of five of the city's water pumps not functional and damaged the two others, impacting one-third of the drinking water supply to the city of Bellingham. The RP located four temporary potable water pumps and piping to temporarily reroute the water system. Within ten days, a temporary water supply system was constructed and fully operational. A secondary problem encountered as a result of the impacted water supply was the excavation investigation conducted by

NTSB was delayed. City of Bellingham public works was concerned the excavation work near the pump house could disrupt the remaining two functioning pumps. The UC made the decision to have the temporary water supply system operational prior to initiating any excavation work.

- Proper HAZWOPER training was another issue associated with the incident. Local workers were hired to do the in-stream remediation work, however, the majority of the workers did not have HAZWOPER training. Therefore, the workers were provided 8-hour HAZWOPER level training. Another problem occurred when the NTSB investigators assigned to investigate the incident had no previous HAZWOPER training. Viewing platforms to the east and west of the rupture location were designated as cold zones for NTSB. Problems also arose over the proper level of protection required for visitors touring the source site. To help alleviate the problem, the UCS developed a site visit protocol stating the levels of protection required.

- Fatigue and emotional stress were issues through out the incident. A safety shutdown was required after several "close calls" occurred at the source site during excavation work. Grief counselors and a website were made available to responders and citizens in an effort to help cope with the incident. Public meetings were also held so citizens could voice their questions and concerns regarding the cause of the pipeline failure, pipeline safety issues, and cleanup activities.

- Differences in industry standards between water pipelines and oil pipelines came to light when OPL supplied 16-inch outside diameter pipeline for the temporary water system. COB had requested 16-inch pipeline, but did not specify inside diameter. The result was that the temporary water system w capable of delivering only about 75% of it's design capabilities. This did not ultimately cause majo problems, but could have in the event of a large fire or other event requiring full water delivery capacity.

10. CONCLUSIONS

The major tasks of the site and stream remediation are completed. The emergency in-stream remediation work in Whatcom Creek was accomplished in a timely manner to accommodate salmon spawning. Short-term restoration activities also were completed. Salmon were observed in Whatcom Creek and vegetation along the banks was thriving. Excavation of contaminated soil at the source site and Hannah Creek was completed as was the installation of the groundwater interceptor and vapor extraction system. Hannah Creek was redesigned and re-vegetated. The temporary water supply system served the community for six months and was disassembled after the restoration of the pump house was completed and operational.

The Whatcom Creek Incident was an excellent example of the ICS being utilized as an effective management tool for a large, multi-jurisdictional emergency response and subsequent cleanup activities. The ICS allowed each agency the opportunity to voice their questions and concerns while working toward the common goals of worker and citizen safety and environmental restoration.

At the conclusion of EPA's oversight activities, the imminent and substantial threat to human health and the environment had been greatly reduced. The results of the NTSB's investigation and Office of Pipeline Safety investigation are pending. To date, the RP funded cleanup has cost 22 million dollars. Future efforts include long-term operation and maintenance of containment systems plus federal lead administrative trustee agency long-term restoration (NOAA and NMFS). Office of Pipeline Safety is currently requiring OPL to conduct further testing along the pipeline.

11. REFERENCES

GeoEngineers, November 30, 1999, *Site Characterization and Remediation Report, Pipeline Release Area, Whatcom Creek Incident,* Bellingham, Washington.

Olympic Pipeline Company, June, 1999, *Draft Emergency Restoration Plan,* Bellingham, Washinton.

U.S. Government Printing Office, 1995, *United States Code, Title 49, Chapter 11, National Transportation Safety Board.*

APPENDIX A

PHOTOGRAPHIC DOCUMENTATION

PHOTO DOCUMENTATION
WHATCOM CREEK EMERGENCY RESPONSE
BELLINGHAM, WASHINGTON

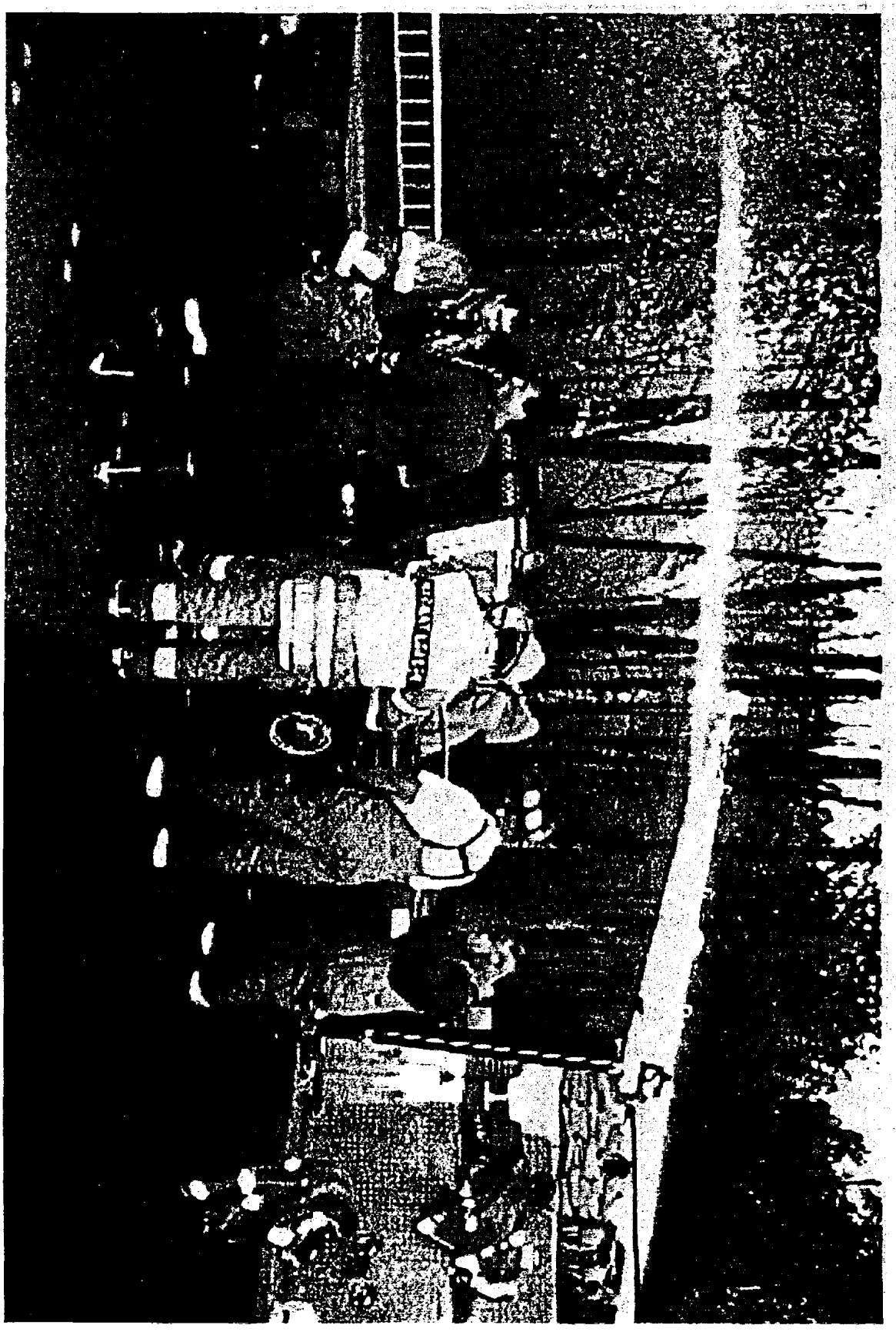
Lens Type: 35mm **TDD #: 99-06-0004**

Photo	Date	By	Direction	Description
3-1	6-10	BFD	Southeast	Bellingham Fire Department responding to explosion and fire.
3-2	6-10	BFD	South	Search and rescue team preparing to mobilize into burn area.
3-3	6-11	BFD	Down	OPL contractor conducting air monitoring.
3-4	6-13	BFD	North	DNR mapping extent of burn area using GPS.
3-5	6-10	DW	Down	Lummi Tribe representative speciating dead fish.
3-6	6-16	BFD	West	Interior of Dankin-Yew Pump House.
3-7	7-1	BFD	West	Temporary water reroute station for City of Bellingham.
3-8	6-28	BFD	Down	OPL workers hand-digging around pipeline rupture location.
3-9	6-28	BFD	Down	Rupture exposed revealing a 28" x 7" fissure type tear.
3-10	7-8	YJ	Northwest	Crews rinsing stream banks.
3-11	7-10	YJ	E	Track-hoe near Valencia St. bridge agitating creek bed.
3-12	7-12	YJ	NE	Spider performing mechanical agitation.
3-13	7-22	DW	Down	Drum skimmer and hard boom near seep location on Whatcom Creek.
3-14	7-22	DW	South	Underflow dam on Hannah Creek.
3-15	8-6	DM	North	Installation of interceptor drain.
3-16	8-13	DM	North west	Excavation of contaminated soil near 60-inch waterline.
3-17	7-20	DM	South	Hannah Creek rerouted through HDPE pipe.
3-18	7-20	DM	North	Hannah Creek rerouted through HDPE pipe.
3-19	7-9	DM	South	Topping trees along Hannah Creek for excavation.

PHOTO DOCUMENTATION
WHATCOM CREEK EMERGENCY RESPONSE
BELLINGHAM, WASHINGTON

Lens Type: 35mm **TDD #: 99-06-0004**

Photo	Date	By	Direction	Description
3-20	12-29	DM	East	Above-ground vapor extraction equipment.
3-21	12-29	DM	Northwest	Regrowth of vegetation along Hannah Creek after reconstruction.
3-22	12-29	DM	South	Regrowth of vegetation along Hannah Creek after reconstruction.



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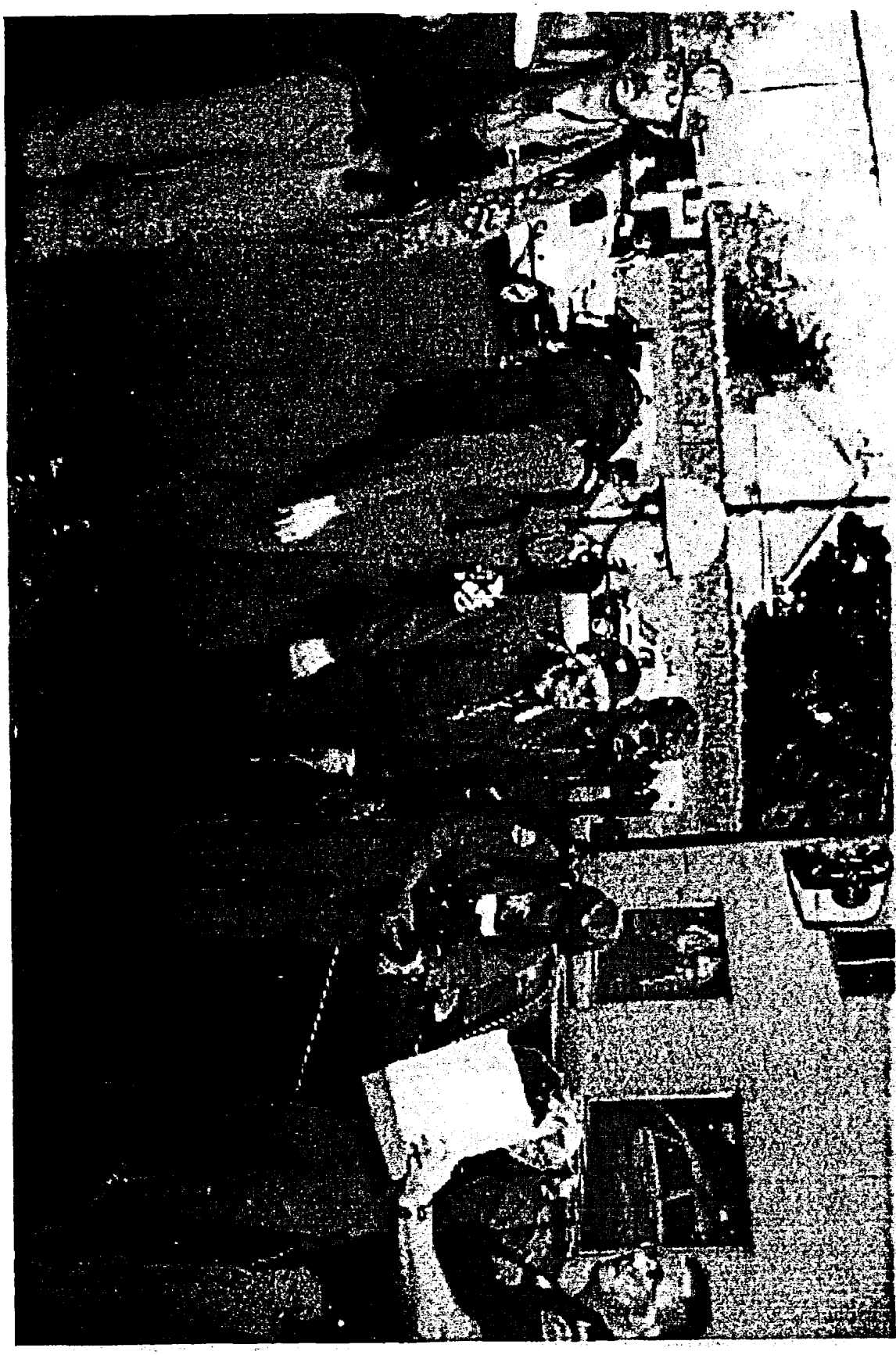

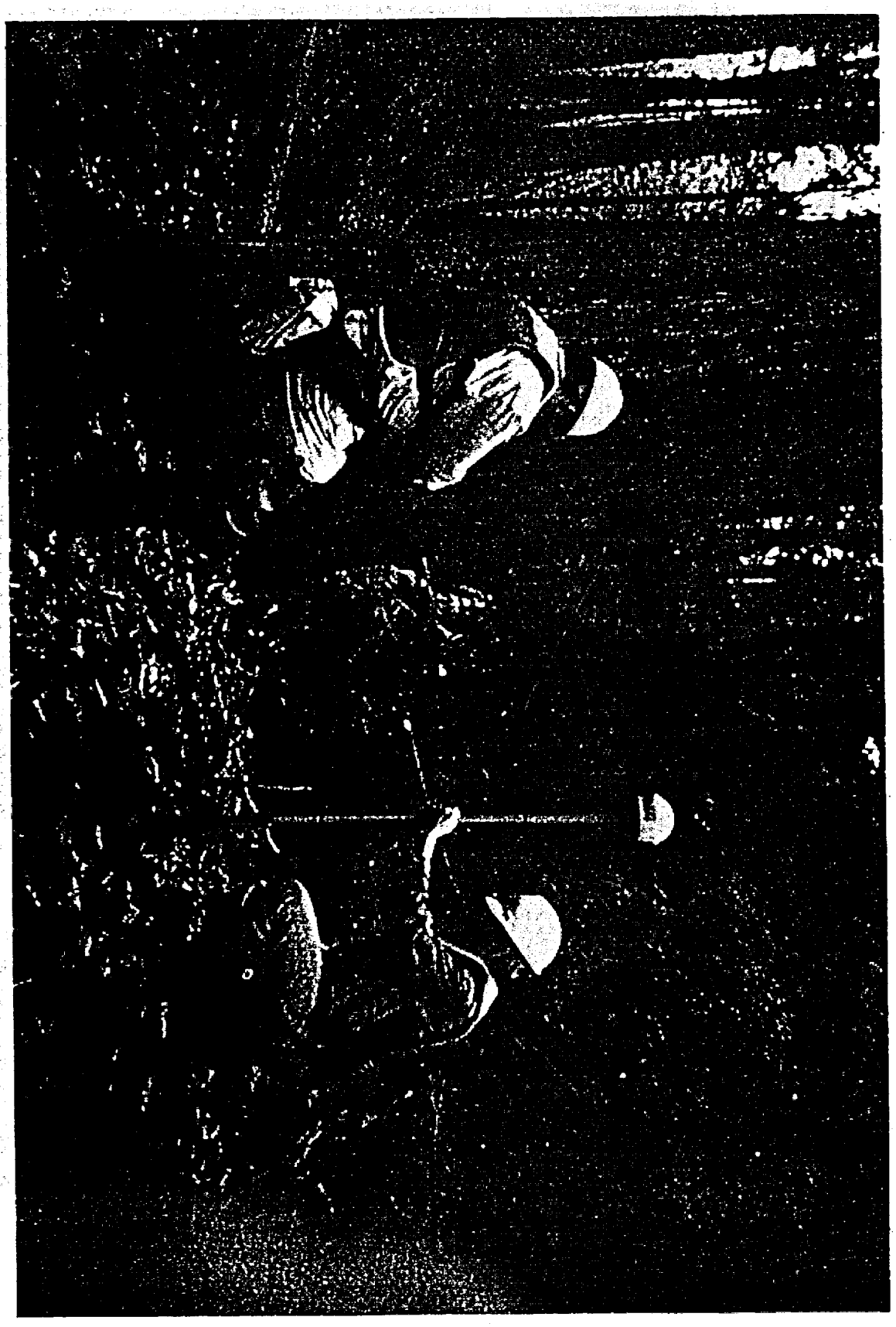

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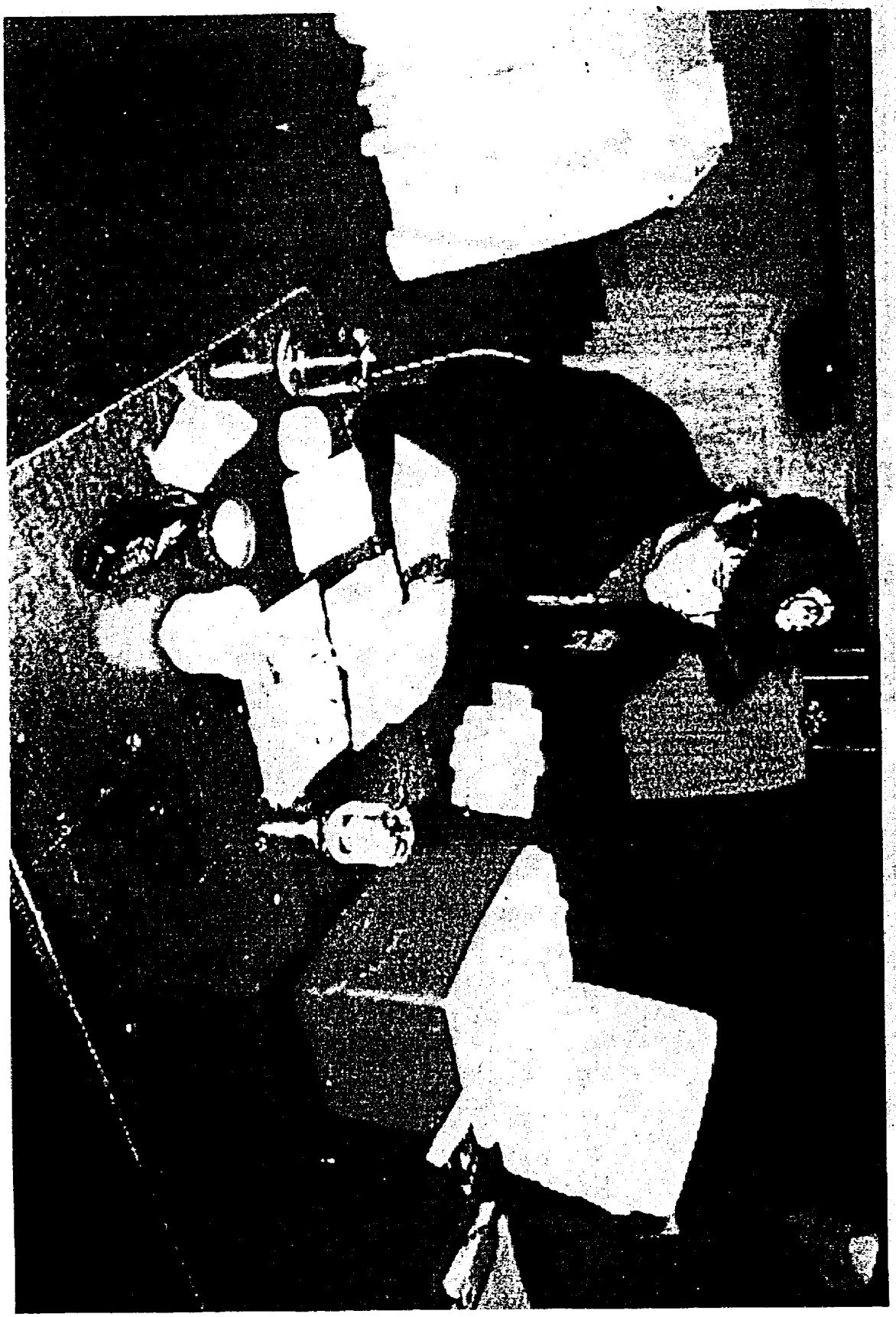

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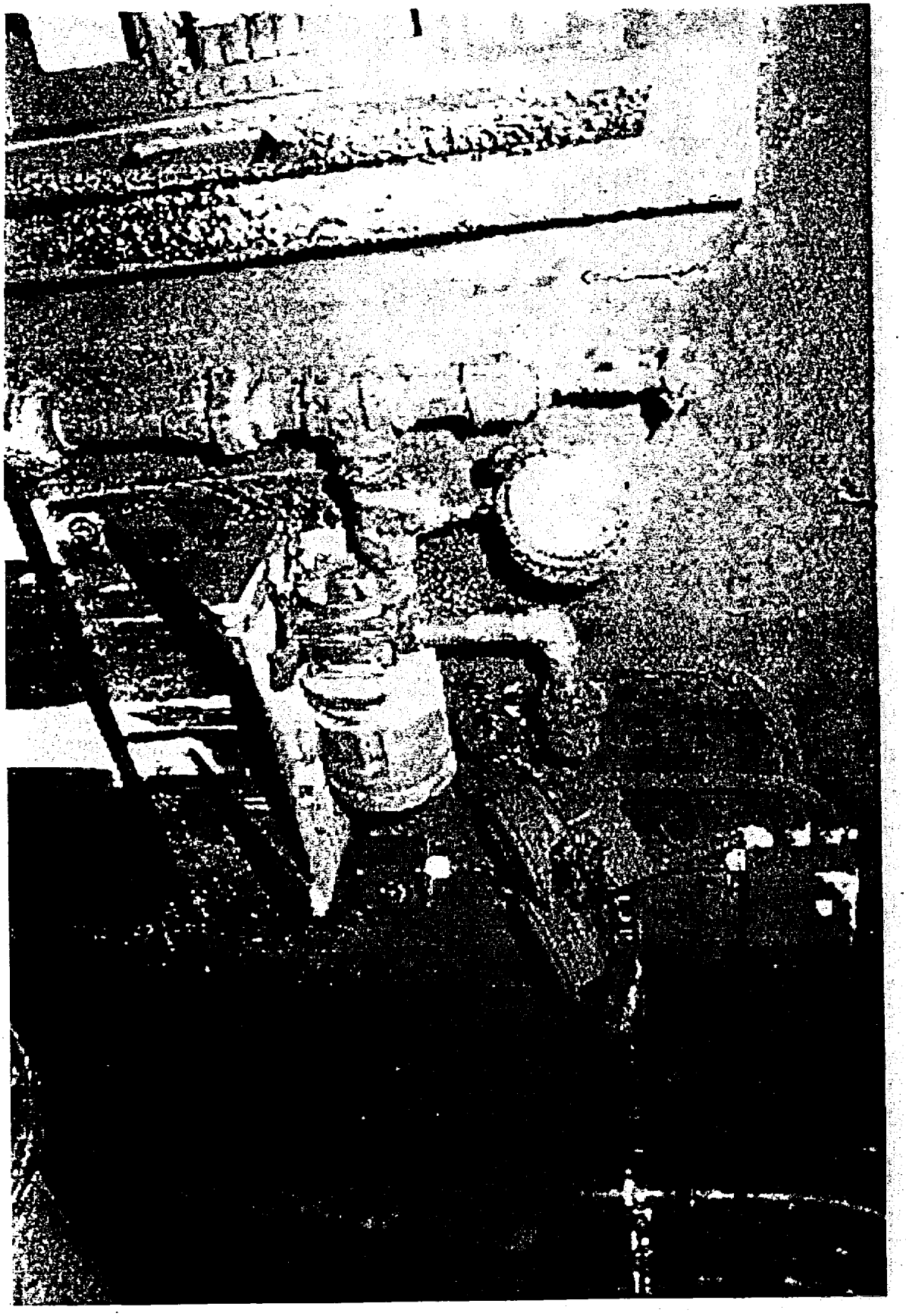

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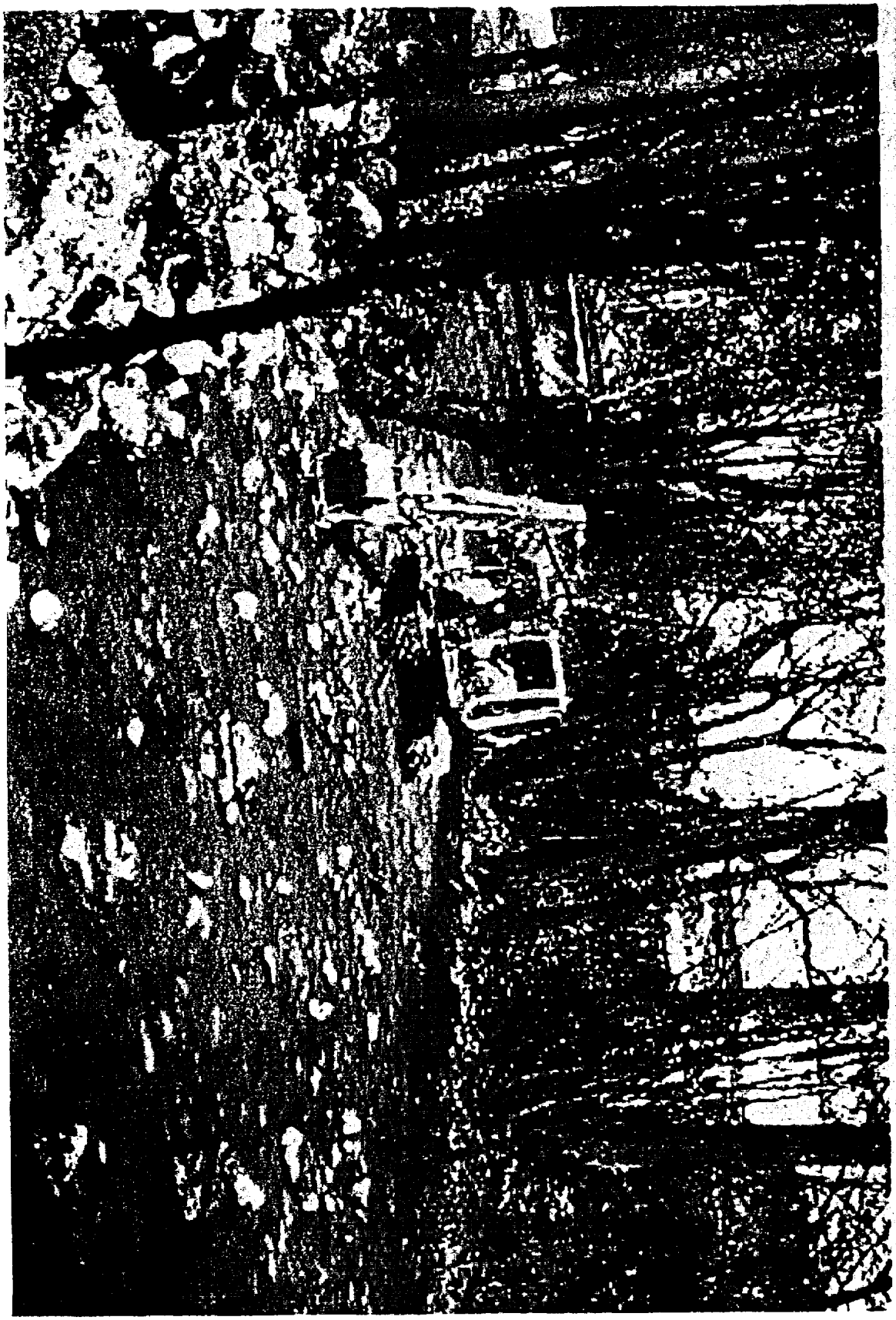

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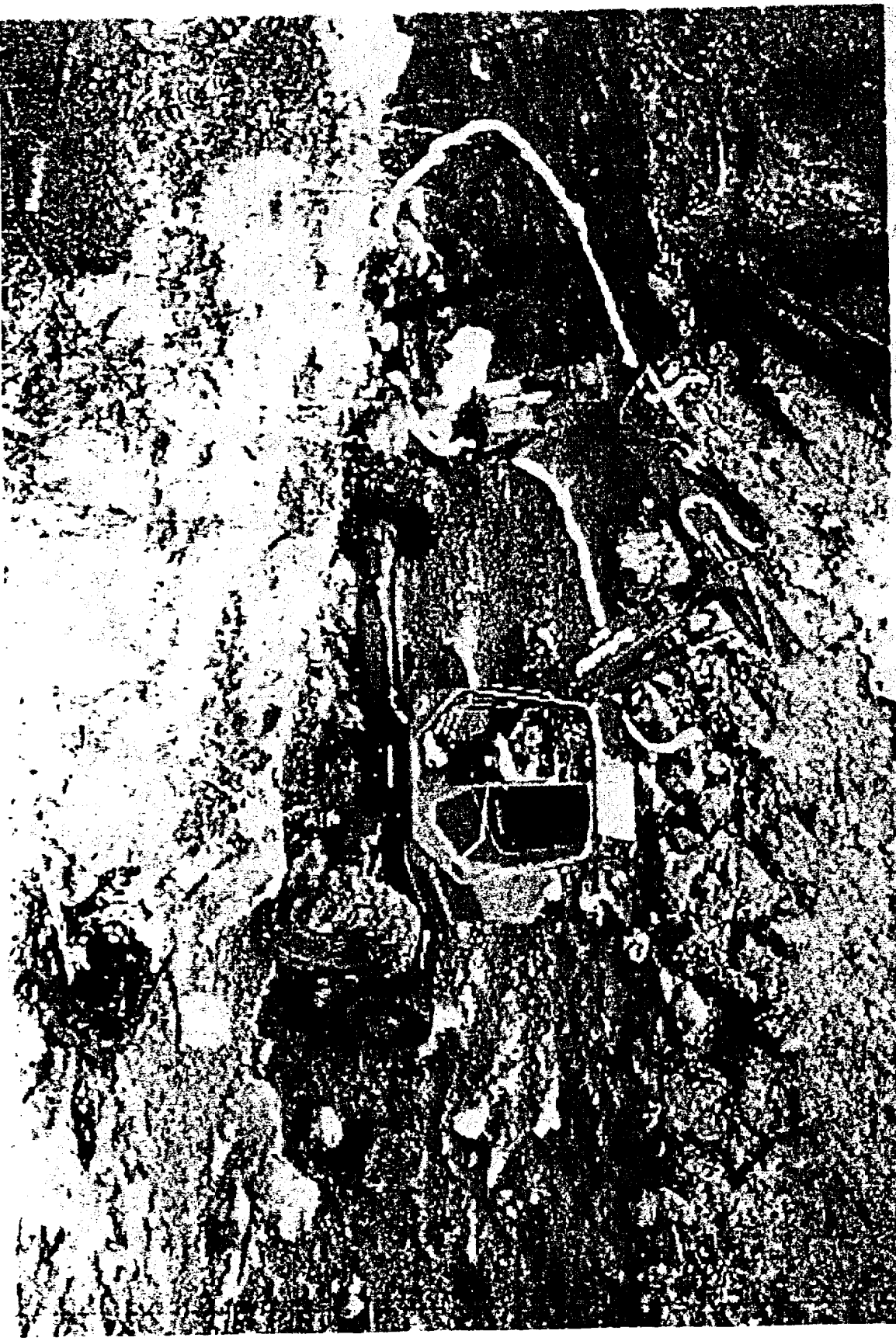

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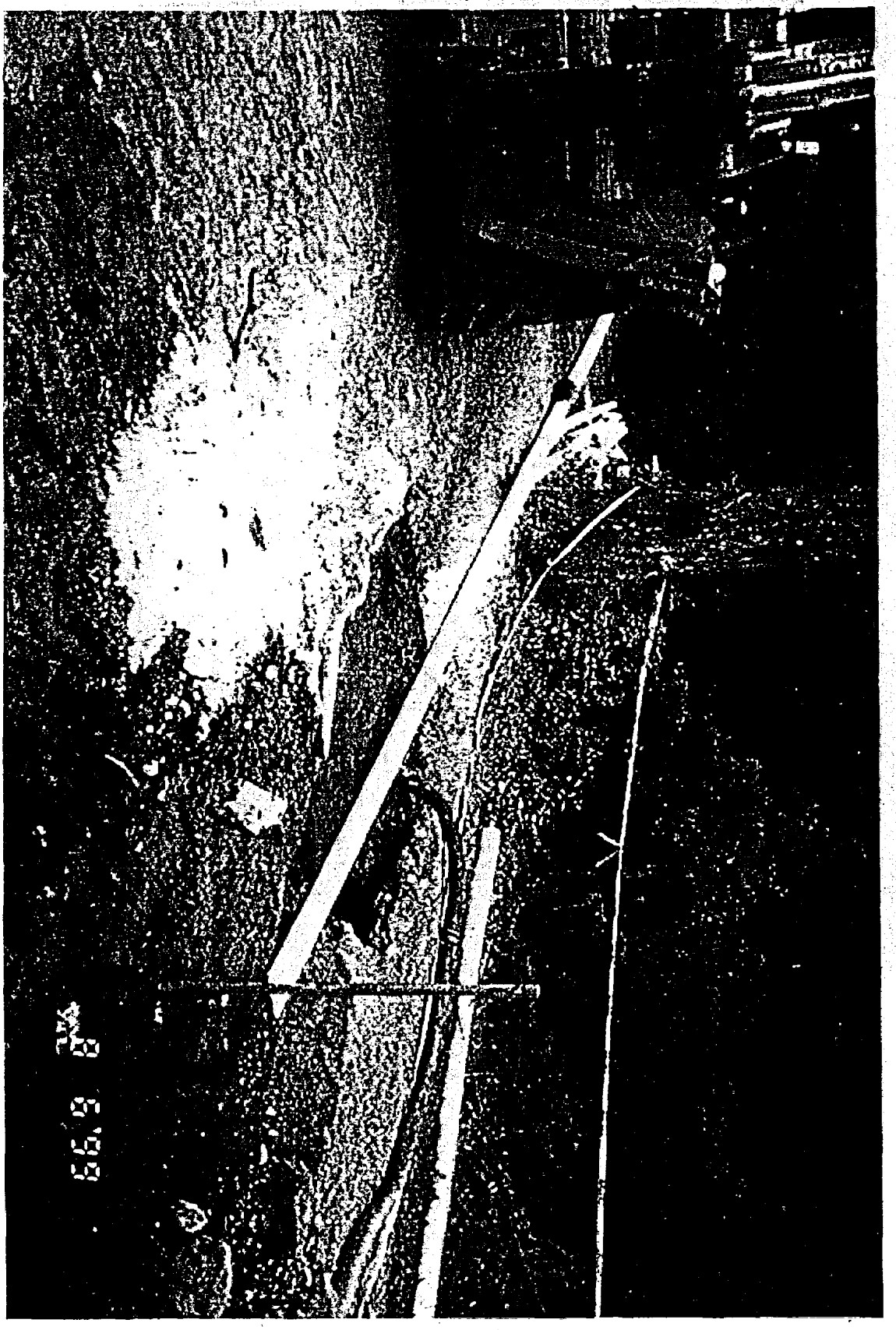

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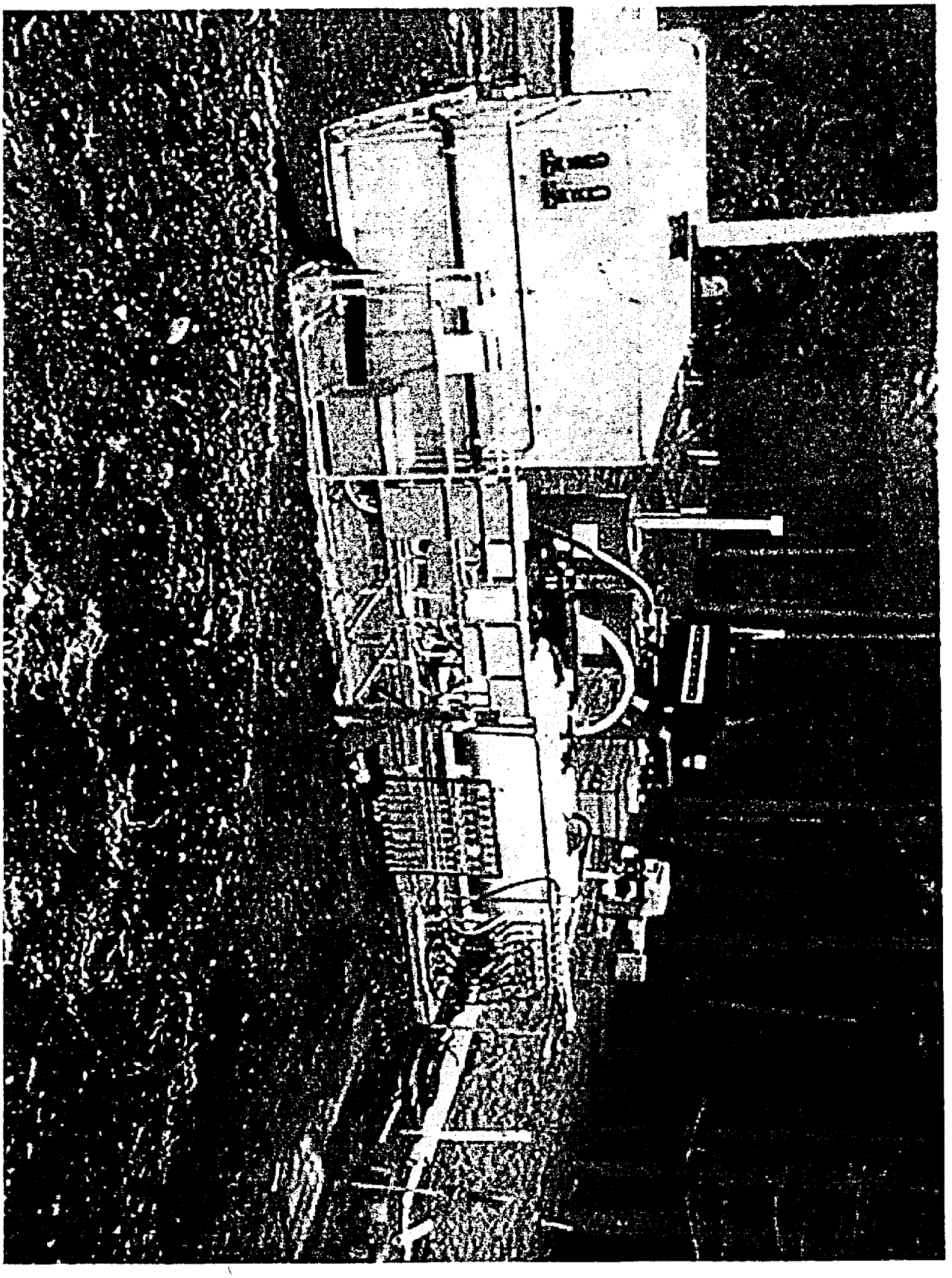

APPENDIX B

POLLUTION REPORTS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: June 28, 1999
FROM: Thor Cutler and Anthony Barber, Carl Kitz OSCs, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6634/6637, Whatcom Cty EOC 360-676-6681
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #14
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: June 25 - 28, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released between 84,000 to 277,000 gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The ignition source is unknown. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage Assessment (NRDA) team,

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consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure, however, investigation of the source location is limited by residual spot fires that remain at the source itself. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, obtained by the EPA, were included on the web page 6/14.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for 6/25 - 28/99:
Situation: The Planning Section developed an Incident Action Plan (IAP) for a seventy-two hour; operational period, which was approved by UC. The main IAP objectives continue to be as follows: assure the personal safety of the public and all responders; minimize the long-term environmental impact while considering the short-term issues; minimize additional release and secure the source from threat of further release; and reassure the public, agencies, and officials of Olympic Pipeline's intent to minimize the impact of the spill both in the short and long term.

Comments on the Draft Emergency Restoration Plan presented to the Natural Resource Damage Assessment (NRDA) by OPL have been delayed until June 28, 1999.

Investigators from NTSB and OPS, and Ecology continue with their accident investigation. Their efforts at the source are still limited due to safety concerns and the reroute of the waterlines. The ruptured areas of the pipe are to be exposed by June 29, 1999. The investigation at the Renton, Washington OPL Operations Center is currently on hold. NTBS will coordinate with the Bellingham Fire Department photographer and START personnel to photograph and video the gas pipeline excavation and in-situ investigation.

The JIC issued the fifteenth press release. A copy of this release can be found on the internet at www.co.whatcom.wa.us. The JIC will also separate; part of the JIC will work the Renton investigation and the other members will work with Unified Command.

The City of Bellingham Public Works Department and OPL completed the waterline reroute procedures for both the north and south tie-ins. The City also completed flushing the new waterlines and testing the water late Saturday afternoon. Also on Saturday a limited amount of overburden was removed and stockpiled. The gasoline pipeline excavation began Sunday, June 27, 1999. An excavator was used until the piping was located with a probe. Once located, workers hand-dug to expose the pipe. The pipe was surveyed when exposed.

OPL has established an 800 number to handle claims by the finance section. The Claims Division reported to date they have received over 100 calls to their claim line. The Finance Section Chief reports that costs-to-date are estimated to be more than $3.1 Million.

The Planning Section is continuing to obtain appropriate information for evaluating when the park may be reopened. Additionally, they are developing an overall General Plan for future activities throughout the impacted areas.

Date: Friday, June 25, 1999
Personnel On Site: OSC-2, START-2, USCG-1
Date: Saturday, June 26, 1999
Personnel On Site: OSC-1, START-1, USCG-1
Date: Sunday, June 27, 1999
Personnel On Site: OSC-2, START-3, USCG-1

Weather: Skies cloudy with daytime temperatures in the upper 60s.

Activities to Date:

- For activities up through 6/24 see POLREP #13,
- Draft Emergency Restoration Plan being reviewed by the UC,
- Crews continue to recover free flowing product leaching from the banks into Whatcom Creek. Flow rates have decreased and skimming operations are working effectively,
- Surface water samples continue to be collected along Whatcom Creek but are only be collected once per day,
- Continue soil characterization and soil gas testing in Section F,

- 9 groundwater wells have been installed in Section F with free product observed in at least 3 wells,
- Remove product and water from vaults and excavation sites,
- Excavate clean overburden Saturday, June 26, 1999,
- Commission water pumps and piping in Area A by 6 a.m. June 27, 1999,
- Begin excavation of ruptured pipeline June 27, 1999,
- Continue to maintain an implement a waste management plan,
- Continue work on permit for gasoline pipeline repair and/or reroute,

Major Planned Activities for Next Reporting Period:

During the next 24-hour operational period the major incident objectives identified in the IAP include:

- Continue soil and groundwater characterization in section F,
- Continue shoreline, sediment, and water remediation assessment and sampling,
- Continue hydraulic analysis sampling for restoration plan,
- Assess the need for product recovery trenches adjacent to Hannah Creek near the pipeline rupture site,
- Develop an emergency remedial action plan,
- Continue to maintain waste management plan,
- Remove free product as necessary within Sector F,
- Investigate pipeline repair and reroute alignments,
- Continue development of a Transition/General Plan.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling has been increased from $50,000 to $100,000. A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru June 27, 1999
	$100,000	
EPA Costs		25,415
START		27,131
Contingency		TBD
Total Project Costs		52,546

VI. DISPOSITION OF WASTES

Not updated since PolRep #13. Approximately 34,125 gallons of gasoline/water mixture regulated as RCRA hazardous waste and 46,900 gallons of gasoline/water mixture regulated as Non Hazardous, was disposed at Pugent Sound Refinery. Nineteen drums of saturated sorbent pads and boom (approximately 393 gallons of product) were disposed through Phillips

Environmental. Approximately 4,000 gallons of gasoline/water mixture and 353 gallons of product are currently stored on site.

VII. STATUS

Case pending.

DISTRIBUTION

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Tulalip Tribe
Attn: Reid Allison – aratulalip@aol.com

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: June 29, 1999
FROM: Thor Cutler and Anthony Barber, Carl Kitz OSCs, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6634/6637, Whatcom Cty EOC 360-676-6681
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #15
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: June 28, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released between 84,000 to 277,000 gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The ignition source is unknown. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage Assessment (NRDA) team,

consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure, however, investigation of the source location is limited by residual spot fires that remain at the source itself. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, obtained by the EPA, were included on the web page 6/14.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for 6/28/99:
Situation: The Planning Section developed an Incident Action Plan (IAP) for a seventy-two hour; operational period, which was approved by UC. The main IAP objectives continue to be as follows: assure the personal safety of the public and all responders; minimize the long-term environmental impact while considering the short-term issues; minimize additional release and secure the source from threat of further release; and reassure the public, agencies, and officials of Olympic Pipeline's intent to minimize the impact of the spill both in the short and long term.

Comments on the Draft Emergency Restoration Plan presented to the Natural Resource Damage Assessment (NRDA) by OPL have been delayed until June 28, 1999.

Investigators from NTSB and OPS, and Ecology continue with their accident investigation. Their efforts at the source are still limited due to safety concerns and the reroute of the waterlines. The ruptured areas of the pipe were exposed June 28, 1999. The investigation at the Renton, Washington OPL Operations Center is currently on hold. NTBS will coordinate with the Bellingham Fire Department photographer and START personnel to photograph and video the gas pipeline excavation and in-situ investigation.

Copies of the press releases can be found on the internet at www.co.whatcom.wa.us. The JIC will also separate; part of the JIC will work the Renton investigation and the other members will work with Unified Command.

Workers located the OPL pipeline by mid-day June 28, 1999. The ruptured area was exposed revealing about a 28" by 7" fissure type tear. Soil was removed from around the rupture area by hand. Product began "bubbling" to the surface as the rupture was exposed and a vac-truck was used to remove any free product. The pipe and tear were surveyed. A lubricant was sprayed on the rupture area to prevent/minimize rusting and then covered with plastic while the excavation was widened. The excavator was used to expand the hole to the north.

OPL has established an 800 number to handle claims by the finance section. The Claims Division reported to date they have received over 100 calls to their claim line. The Finance Section Chief reports that costs-to-date are estimated to be more than $3.3 Million.

The Planning Section is continuing to obtain appropriate information for evaluating when the park may be reopened. Additionally, they are developing an overall General Plan for future activities throughout the impacted areas.

Date: Monday, June 28, 1999
Personnel On Site: OSC-3, START-3, USCG-1

Weather: Skies cloudy and rain with daytime temperatures in the upper 60s.

Activities to Date:

- For activities up through 6/27 see POLREP #14,
- Draft Emergency Restoration Plan being reviewed by the UC,
- Crews continue to recover free flowing product leaching from the banks into Whatcom Creek. Flow rates have decreased and skimming operations are working effectively,
- Surface water samples continue to be collected along Whatcom Creek but are only be collected once per day,
- Continue soil characterization and soil gas testing in Section F,
- Continue to maintain an implement a waste management plan,
- Continue work on permit for gasoline pipeline repair and/or reroute,
- Rupture area of OPL line exposed,

Major Planned Activities for Next Reporting Period:

During the next 24-hour operational period the major incident objectives identified in the IAP include:

- Adjust booming as needed,
- Continue shoreline, sediment, and water remediation assessment and sampling,
- Continue hydraulic analysis sampling for restoration plan,
- Assess the need for product recovery trenches adjacent to Hannah Creek near the pipeline rupture site,
- Develop an emergency remedial action plan,
- Evaluate and incorporate comments from the JRC into the ERP,
- Trap fish on Cemetery Creek,
- Continue to maintain waste management plan,
- Remove free product as necessary within Sector F,
- Continue pipeline excavation and removal of ruptured section,
- Investigate pipeline repair and reroute alignments,
- Continue development of a Transition/General Plan.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling has been increased from $50,000 to $100,000. A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru June 28, 1999
	$100,000	
EPA Costs		25,760
START		29,579
Contingency		TBD
Total Project Costs		55,339

VI. DISPOSITION OF WASTES

Not updated since PolRep #13. Approximately 34,125 gallons of gasoline/water mixture regulated as RCRA hazardous waste and 46,900 gallons of gasoline/water mixture regulated as Non Hazardous, was disposed at Pugent Sound Refinery. Nineteen drums of saturated sorbent pads and boom (approximately 393 gallons of product) were disposed through Phillips Environmental. Approximately 4,000 gallons of gasoline/water mixture and 353 gallons of product are currently stored on site.

VII. STATUS

Case pending.

DISTRIBUTION

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Attn: Reid Allison – aratulalip@aol.com

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **June 30, 1999**
FROM: **Thor Cutler and Anthony Barber, Carl Kitz OSCs, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6634/6637, Whatcom Cty EOC 360-676-6681
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #16**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: June 29, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives

from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, obtained by the EPA, were included on the web page 6/14.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for 6/29/99:
Situation: The Planning Section developed a "final" Incident Action Plan (IAP) for a seventy-two hour operational period covering activities from 1900 on 6/29 through 1900 on 7/2, which was approved by UC. The reason this is the final IAP is that this incident is moving from an emergency response phase into a project (cleanup) phase effective July 2, 1999. Therefore, no additional IAP will be developed or produced to the UC for approval. The main IAP objectives continue to be as follows: assure the personal safety of the public and all responders; minimize the long-term environmental impact while considering the short-term issues; minimize additional release and secure the source from threat of further release; and reassure the public, agencies, and officials of Olympic Pipeline's intent to minimize the impact of the spill both in the short and long term.

Investigators from NTSB, OPS, and Ecology continue with their accident investigation. Their efforts at the source are still limited due to safety concerns and the reroute of the waterlines. The

ruptured areas of the pipe were exposed June 28, 1999. The investigation at the Renton, Washington OPL Operations Center is currently on hold. NTBS will coordinate with the Bellingham Fire Department photographer and START personnel to photograph and video the gas pipeline excavation and in-situ investigation.

Copies of the press releases can be found on the internet at www.co.whatcom.wa.us. The JIC separated the JIC will work the Renton investigation and the other members will work with Unified Command. Fact Sheet #16 was approved by the UC and can be found on the web page. The final fact sheet is expected to be issued on July 1st.

Workers continue to expose the OPL pipeline. The ruptured area was covered and isolated while crews began to cut cold cut out an approximate 10 foot section immediately adjacent and north of the damaged portion. This is being removed to facilitate easier removal of the damaged portion of the pipeline. Excavation of soils from the area are being temporally staged on visqueen in several areas within Sector F. Removal operations are slower than expected due to the geology being encountered around the pipeline itself. One more additional section of pipeline, immediately downstream, of the ruptured portion, will also be removed due to some possible defects noted during a tuba-scope inspection conducted previously. Replacement piping has begun to arrive in the area. Teams are continuing to address access, right-of-way, and necessary permits for the rerouting of the pipeline.

OPL has established an 800 number to handle claims by the finance section. The Claims Division reported to date they have received over 100 calls to their claim line. The Finance Section Chief reports that costs-to-date are estimated to be approximately $3.5 million.

A Conceptual Interim Remedial Action Plan was presented to the UC as part of the IAP for 6/29. This plan focuses on controlling free product migration, mitigation of vapor hazards, protection of water quality within the creeks, and reducing human health risk from petroleum impacted soils and ground water. It focuses primarily on the source impact areas.

Date: Monday, June 28, 1999
Personnel On Site: OSC-1, START-3, USCG-1

Weather: Skies cloudy and rain with daytime temperatures in the mid 60s.

Activities to Date:

- For activities up through 6/27 see POLREP #14,
- Draft Emergency Restoration Plan being reviewed by the UC,
- Crews continue to recover free flowing product leaching from the banks into Whatcom Creek. Flow rates have decreased and skimming operations are working effectively,
- Surface water samples continue to be collected along Whatcom Creek but are only be collected once per day,
- Continue soil characterization and soil gas testing in Section F,

- Continue to maintain and implement a waste management plan,
- Continue work on permit for gasoline pipeline repair and/or reroute,
- Rupture area of OPL line exposed,
- Two cold cuts were made in a 10 foot section of the pipeline immediately upstream of the rupture,
- Crews readjusted the skimming operations to put two skimmers in Whatcom Creek due to the amount of continued seepage in the area and reduce to a sorbent padding operation in Hannah Creek based on volumes being released,
- Plans have been finalized for moving into the project phase of this incident effective 7/2 and support operations will be moving out of the EOC into rented office space on Meridian street.
- Fact Sheet #16 was approved by the UC issued by the JIC,
- A Conceptual Interim Remedial Action Plan was developed by OPL for approval by the UC to address remedial actions in the source location.

Major Planned Activities for this Fnal Reporting Period:

During the next 72--hour operational period the major incident objectives identified in the IAP include:

- Adjust booming, skimming, and padding operations as needed,
- Continue shoreline, sediment, and water remediation assessment and sampling,
- Continue hydraulic analysis sampling for restoration plan,
- Continue soil and ground characterization plan in Sector F,
- Assess the need for product recovery trenches adjacent to Hannah Creek near the pipeline rupture site,
- Evaluate and incorporate comments from the JRC into the ERP,
- Trap fish on Cemetery Creek,
- Continue to maintain waste management plan,
- Remove free product as necessary within Sector F,
- Continue pipeline excavation and removal of ruptured section,
- Investigate pipeline repair and reroute alignments,
- Execute the Transition Plan for moving into the project phase.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling has been increased from $50,000 to $100,000. A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru June 29, 1999
	$100,000	
EPA Costs		27,015
START		31,952
USCG		TBD

Contingency	TBD
Total Project Costs	58,967

VI. DISPOSITION OF WASTES

Approximately 33,825 gallons (adjusted down slightly from previous polrep) of gasoline/water mixture regulated as RCRA hazardous waste and 46,900 gallons of gasoline/water mixture regulated as Non Hazardous, was disposed of at Puget Sound Refinery. Twenty-three drums of saturated sorbent pads and boom were disposed through Phillips Environmental. Approximately 10,000 gallons of gasoline/water mixture and 4,492 gallons of product are currently stored on site as well as 360 cubic yards of contaminated soils and 15 cubic yards of soiled sorbent materials remain on site.

VII. STATUS

Case pends, however, it is moving into the project phase.

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Attn: Jim Taylor - jim.taylor@rspa.dot.gov

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: July 2, 1999
FROM: Thor Cutler and Anthony Barber, Carl Kitz OSCs, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6634/6637, Whatcom Cty EOC 360-676-6681
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #17
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: June 30 - July 2, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives

from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
6/30/99:
Situation: The "final" Incident Action Plan (IAP), covering a seventy-two hour operational period was implemented. The main IAP objectives continue to be as follows: assure the personal safety of the public and all responders; minimize the long-term environmental impact while considering the short-term issues; minimize additional release and secure the source from threat of further release; and reassure the public, agencies, and officials of Olympic Pipeline's intent to minimize the impact of the spill both in the short and long term.

Investigators from NTSB remain on site and continue with their accident investigation. The NTSB placed a camera restriction within the source area to still photography by the Bellingham Fire Department still photo photographer and video photography by the START personnel of the gas pipeline excavation and in-situ investigation.

Workers completed the isolation, cutting, and removal of the ruptured section of OPL pipeline. The pipe section actually came out of the ground at approximately 1830. News media were allowed on site to photograph the removal of this section of pipe. The section of pipe was placed in a secure wooden crate for shipment to Washington, DC for analysis.

OPL has established an 800 number to handle claims by the finance section. The Claims Division reported to date they have received over 100 calls to their claim line. The Finance Section Chief reports that costs-to-date are estimated to be approximately $3.5 million.

The Environmental Group completed video taping the entire affected reaches of both Hannah and Whatcom Creeks. A series of five tapes were made and copies will be provided to the UC members. The Joint Restoration Committee (JRC) continues to work on finalizing the tactical aspects of the Erosion Control Plan and the Stream-Bed Remediation Plans. The on-water cleanup activities continue.

7/1/99:
Situation: The rupture section of pipe was further secured within a wooden crate for transporting to DC. Round the clock police security is provided to oversee both the pipe crate and the remaining section of in-ground pipe still of concern to the NTSB which will be excavated within the next week. The pipe section immediately south of the rupture pipe section also demonstrated some anomalies during an internal electronic investigation and will also be removed, per NTSB direction, for analysis purposes. However, excavation and recovery of this portion of the pipeline is being postponed until 7/7/99. Beginning 7/2 excavation and removal operations will begin on the pipeline immediately to the north of the ruptured line where OPL intends to remove approximately 100+ feet of pipeline as part of their abandonment operation. The NTSB is not concerned with oversight of this portion of pipeline.

Following removal of the ruptured portion of the pipeline it was decided by the UC that the Bellingham Fire Department Rescue Squad services would no longer be required and they were demobilized from the site. On-water skimming operations continue as before.

The JIC issued Fact Sheet #17, which will be their final one. It was posted on the Whatcom County website previously identified. The EOC within the County building was closed and the project phase office was moved into the following location:

4140 Meridian, Suite 210
Bellingham, WA 98226
(360) 676-8788

7/2/99:
Situation: Excavation begins on the pipeline to the north of the rupture (see 7/1 discussion above). At 1030, the create containing the ruptured portion of pipe was moved off site in a 40' truck container to Lutke Trucking awaiting inclusion of the second section of pipe prior to

transporting to DC.

OPL's Environment Group held a meeting at the Public Works Department, with the JRC, to discuss the Guidelines for Instream Sediment Cleanup and to present the final version of the Stream-Bed Remediation Plan for Whatcom Creek. Representatives of all the JRC were present to discuss final tactical approaches. Additionally, the supervisors for the in-stream remediation group walked the entire stretch of the burned portion of the creek to evaluate the need for debris/slash removal and identify accessibility locations for crews and equipment.

The FOSC attended a UC meeting to discuss a number of issues including at what interval they will meet in the future and how he can be kept abreast of the daily work schedule and progress during the project phase of this operation.

Date:
Wednesday, June 30, 1999
Personnel On Site: OSC-1, START-3

Thursday, July 1, 1999
Personnel On Site: OSC-1, START-2

Friday, July 2, 1999
Personnel On Site: OSC-1, START-1

Weather: Similar for all three days, skies cloudy, rain, low winds, with daytime temperatures in the mid 60s.

Activities to Date:

- For activities up through 6/29 see POLREP #16,
- Fact Sheet #17 was approved by the UC issued by the JIC,
- The final Stream-Bed Remediation Plan for Whatcom Creek was approved by the JRC
- The ruptured portion of the pipeline was removed, packaged, and isolated for transportation,
- The Environmental Group supervisors walked the burned creek reach area,
- The EOC was shutdown and support operations for the project phase were moved,
- Crews began excavation of a portion of the pipeline immediately north of the rupture section
- A draft Remedial Action Plan was developed and presented to the UC.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

	Established Ceilings $100,000	Estimated Costs (including awaits) Thru July 2, 1999
EPA/USCG Costs		27,500
START		36,639
Contingency		TBD
Total Project Costs		64,139

VI. DISPOSITION OF WASTES

No new information from Polrep #16.

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

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Dan Thornton - **thornton.dan@epa.gov**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: July 7, 1999
FROM: Thor Cutler and Anthony Barber, Carl Kitz OSCs, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6634/6637, Whatcom Cty EOC 360-676-6681
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #18
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 3-6, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/3-5/99:
Saturday, July 3, 1999
Personnel On Site: OSC-0, START-0

Sunday, July 4, 1999
Personnel On Site: OSC-0, START-0

Monday, July 5, 1999
Personnel On Site: OSC-0, START-1

Situation: Over the holiday weekend the majority of work operations shutdown. However, crews continued to conduct skimming/padding operations at the fuel seep areas in Hannah and

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Tuesday, July 6, 1999
Personnel On Site: OSC-1, START-2

Weather: Similar for July 3-4, skies cloudy, rain, low winds, with daytime temperatures in the mid 60s. July 5, skies clear and sunny, temperatures in upper 70's, low winds. July 6, sunny and clear, temperatures in low 80's, low winds.

Activities to Date:

- For activities up through 7/2 see POLREP #17,
- 7/3-7/5 crews maintain seep recovery operations,
- Supervisors train 71 local hires to 8-Hour HAZWOPER training levels for stream-bed remediation project,
- Three crews were dispatched throughout Sectors A, B, and F conducting stream-bed remediation,
- Water/sediment sample continues,
- Excavation of pipeline upstream of the ruptured area continues.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru July 6, 1999
	$100,000	
EPA/USCG Costs		28,100
START		38,519
Contingency		TBD
Total Project Costs		66,619

VI. DISPOSITION OF WASTES

On 7/6/99, 240 cubic yards of contaminated soils were transported off site to a TSD facility in Tacoma, WA. No additional oil/water was moved off site since totaled in POLREP #16.

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

EPA ECL/Region X, Fax (206) 553-0124
Attn: Chris Field - field.chris@epa.gov

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 8, 1999**
FROM: **Thor Cutler and Anthony Barber, Carl Kitz OSCs, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6634/6637, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #19**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 7, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/7/99:
Wednesday, July 7, 1999
Personnel On Site: OSC-1, START-3

Situation: Excavation work resumed on the section of pipeline just south of the rupture point and the 72" concrete water line. This portion is being exposed and removed under the direction of the NTSB. This portion of pipe, like the ruptured portion, will be boxed, sealed, and shipped to the Washington, DC area for further analysis. Additionally, the portion of pipe directly beneath the 72" water pipe will be internal investigation on 7/8, a determination will be made by NTSB whether this section also needs further analysis by NTSB. A START member was utilized to conduct the video filming of pipeline removal for the NTSB. Excavation, and removal of the section of pipeline upstream of the ruptured portion was completed on 7/6.

The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah and Whatcom Creeks. In-stream water/sediment sampling continues as before.

The stream-bed remediation continued with the deployment of 67 workers at three locations along the impacted stream reaches. One team, of 24 workers, primarily conducted slash removal and manual agitation along Sector A (A06.33 – A31.88, a total of 2,555'), one team member was injured when she fell and cut her head requiring 3 stitches. A second team, of 22 workers, conducted slash removal within Sector C (C00-00 - C22–08, a total of 2,208'), and installed 2 filter fences one in Sector B (at B00.00) and one in Sector C (at C13.98). The third team, of 21 workers, conducted manual agitation, slash removal, and high pressure flushing operations within Sector F (F8.88 – F15.12, a total of 624'). The markings above (i.e., A06.33 – A31.88) represent footage markings identifying sub-sections within the previously identified Sectors. All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

The OPL Financial Section reports approximately $4.2 million has been spent to date on the response.

Weather: For July 7, skies cloudy/overcast, occasional rain, low winds, with daytime temperatures in the low-mid 60s.

Activities to Date:

- For activities up through 7/2 see POLREP #17,
- 7/3-7/5 crews maintain seep recovery operations,
- Supervisors train 71 local hires to 8-Hour HAZWOPER training levels for stream-bed remediation project,
- Three crews were dispatched throughout Sectors A, B, C, and F conducting stream-bed remediation activities,
- Water/sediment sample continues,
- Excavation of pipeline upstream and downstream of the ruptured area continues,
- A public meeting was hosted by a local church,
- A bid package is being developed to address source remediation activities.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

Established Ceilings	Estimated Costs (including awaits) Thru July 7, 1999

	$100,000	
EPA/USCG Costs		28,500
START		40,790
Contingency		TBD
Total Project Costs		69,290

VI. DISPOSITION OF WASTES

On 7/7, 5 drums, totaling 250 lbs. of soiled PPE equipment was shipped off site as non-hazardous solid waste. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	7,788 gal	4,539 gal	3,249 gal
Oil/water	99,813 gal	19,088 gal	80,725 gal
Oil solids	710 cy	450 cy	260 cy
Solids		15 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			46,900 gal
Non-hazardous solid			250 lbs
Non-hazardous soil			260 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

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Tulalip Tribe
Attn: Reid Allison **aratulalip@aol.com**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: July 9, 1999
FROM: Thor Cutler and Anthony Barber, Carl Kitz OSCs, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6634/6637, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #20
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 8, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/8/99:
Thursday, July 8, 1999
Personnel On Site: OSC-1, START-3
Total Manpower is as follows:

Source Area	- 10
In-Stream	- 61
Command	- 20
Total	91

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah and Whatcom Creeks. In-stream water/sediment sampling continues as before.

The stream-bed remediation continued with the deployment of 53 workers at three locations along the impacted stream reaches. One team, of 7 workers, conducted slash removal and manual agitation along Sector A (A22.26 – A29.74, a total of 748'). Slash removal was limited to 138' with manual agitation over the full 748'. A second team, of 24 workers, conducted slash removal and manual agitation within Sector A (A00-00 – A31.88, a total of 3,188'), they also removed approximately 250 bags of contaminated slash. The third team, of 22 workers, conducted manual agitation, slash removal, and low pressure flushing operations within Sector C (C13.98 – C00.00, a total of 1,398'). Additionally, they completed installation of a filter fence at Woburn Bridge (Sector B), and build a sand bag barrier around Cemetery Creek to prevent flushing operations (planned for 7/9) from backing up within the creek. All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

The final section of pipeline which was of concern to the NTSB was removed, boxed, sealed and sent off to Washington, DC. This completed the areas of concern for the NTSB and they de-mobilzed from the site at the end of the day.

A City of Bellingham arborist gave approval to remove several trees in the source area. Workers began topping the trees approximately 40' above grade. The remaining trunks and root wads will be used for in-stream restoration.

The OPL Financial Section reports approximately $4.4 million has been spent to date on the response.

Weather:
For July 8, skies clear/sunny, low winds, with daytime temperatures in the low 80s.

Activities to Date:

- For activities up through 7/2 see POLREP #17,
- Crews maintain seep recovery operations,
- Supervisors train 71 local hires to 8-Hour HAZWOPER training levels for stream-bed remediation project,
- Three crews were dispatched throughout Sectors A, B, C, and F conducting stream-bed remediation activities,
- Water/sediment sample continues,
- Excavation of pipeline upstream and downstream of the ruptured area continues,
- A public meeting was hosted by a local church,
- A bid package is being developed to address source remediation activities,
- Several trees were topped out in the source area,
- The final section of pipe for the NTSB was removed, NTSB demobilzed.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 12, 1999**
FROM: **Thor Cutler and Anthony Barber, Carl Kitz OSCs, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6634/6637, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #21**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 9-11, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/9-11/99:
Personnel On Site: OSC-1, START-3
Total Manpower is as follows:

Source Area	- 10
In-Stream	- 61
Command	- 20
Friday, July 9, 1999	
Total	91

Saturday, July 10, 1999
Personnel On Site: OSC-1, START-2
Total Manpower is as follows:

Source Area - 4
In-Stream - 61
Command - 6
Total 71

Sunday, July 11, 1999
Personnel On Site: OSC-0, START-0
Total Manpower is as follows:

Source Area - 2
In-Stream - 66
Command - 4
Total 72

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, but has temporarily stopped on Whatcom Creek due to creek flushing. Sorbent pads and a filter fabric were placed over the seep area to minimize impact to Whatcom creek during flushing. In-stream water/sediment sampling continues as before.

On Friday, the streambed remediation continued with the deployment of 57 workers at three locations along the impacted stream reaches. One team of workers, conducted pressure washing in Sector A (A22.26 – A31.88, a total of 962'). A second team of workers, conducted low-pressure washing and mechanical agitation within Sector A (A6-33 – A31.88, a total of 2,555'). The third teamof workers, conducted mechanical agitation, slash removal, and low pressure flushing operations within Sectors B and C (B1.08 – B22.21, a total of 2,130' and C00.00 – C13.98, a total of 1,398').

On Saturday, the streambed remediation continued with the deployment of 69 workers at three locations along the impacted stream reaches. One team of workers conducted manual agitation and low pressure washing in Sector A (A00.00 – A21.83) and mechanical agitation in Sector A (A21.83 – A31.88). A second team of workers, conducted mechanical agitation in Sector B (B1.08 – B11.67) and manual agitation and low-pressure washing also in Sector B (B1.08 – B6.06). Workers in Sector C rebuilt the silt fence at C-1398 and worked debris on banks from A-2226 to C-1348.

On Sunday, the streambed remediation continued with the deployment of 66 workers at four locations along the impacted stream reaches. One team of workers conducted manual agitation and low pressure washing in Sector A (A00.00 – A21.83, a total of 2,183') and mechanical agitation in Sector A (A19.61 – A31.88, a total of 1,227'). A second team of workers conducted mechanical agitation in Sector B (B11.67 – B22.21, a total of 1,054'). A third team of workers conducted manual agitation and low-pressure washing in Sector C (C13.98 – C22.08, a total of 810'). A fourth team of workers, conducted manual agitation and low-pressure washing in Sector D (D00.00 – D19.74, a total of 1,974') and debris removal (D00.00 – D32.19, a total of 3,219').

All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

A City of Bellingham arborist gave approval to remove several trees in the source area. Workers completed topping the trees approximately 40' above grade and started clearing and grubbing around Hanna Creek in preparation of the contaminated soil excavation. Work at the Source Area was not conducted Saturday or Sunday, but will resume Monday morning.

The OPL Financial Section reports approximately $4.4 million has been spent to date on the response.

Weather:
For July 9-11, skies clear/sunny, low winds, with daytime temperatures in the low 80s.

Activities to Date:

- For activities up through 7/2 see POLREP #17,
- Flushing of Whatcom creek began,
- Crews maintain seep recovery operations,
- Three crews were dispatched throughout Sectors A, B, C, and F conducting stream-bed remediation activities,
- Water/sediment sample continues,
- Excavation of pipeline upstream and downstream of the ruptured area completed,
- A bid package is being developed to address source remediation activities,
- Several trees were topped and removed in the source area,
- Clearing and grubbing at the Source Area near Hanna creek began,
- NTSB demobilized.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

	Established Ceilings $100,000	Estimated Costs (including awaits) Thru July 10, 1999
EPA/USCG Costs		30,140
START		46,575
Contingency		TBD
Total Project Costs		77,615

VI. DISPOSITION OF WASTES

No additional waste was shipped off site today. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	7,799 gal	4,550 gal	3,249 gal
Oil/water	107,580 gal	26,855 gal	80,725 gal
Oil solids	845 cy	585 cy	260 cy
Solids		15 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			46,900 gal
Non-hazardous solid			250 lbs
Non-hazardous soil			260 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: July 7, 1999
FROM: Thor Cutler and Anthony Barber, Carl Kitz OSCs, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6634/6637, Whatcom Cty EOC 360-676-6681
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #18
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 3-6, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/3-5/99:
Saturday, July 3, 1999
Personnel On Site: OSC-0, START-0

Sunday, July 4, 1999
Personnel On Site: OSC-0, START-0

Monday, July 5, 1999
Personnel On Site: OSC-0, START-1

Situation: Over the holiday weekend the majority of work operations shutdown. However, crews continued to conduct skimming/padding operations at the fuel seep areas in Hannah and

Whatcom Creeks. Supervisors, working on the stream-bed remediation, developed tactical approaches to be employed by work crews beginning on 7/6. Additionally, local hires (71 people), to be used in the stream-bed remediation, were provided 8-hour HAZWOPER level training at a local motel conference room. NTSB representatives departed the site on Friday with the intention to resume the on-site investigation efforts on 7/7. On Saturday the City of Bellingham Parks and Recreation Department hosted tours of the source site location. Approximately 1,000 people visited the site including the Mayor of Bellingham. One START mobilized to the Bellingham area

7/6/99:
Tuesday, July 6, 1999
Personnel On Site: OSC-1, START-2

Situation: Excavation work resumed near the source location (Sector F), upstream of the rupture point, removing additional OPL pipeline that is intended to be taken out of service permanently (approximately 100' of pipe). OPL developed a bid package to address remediation activities for the source location including soil excavation (est. 500-1,000 cubic yards); installation of soil vapor extraction wells; installation of culverts, and; possible re-routing of Hannah Creek to facilitate remediation activities. The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah and Whatcom Creeks. In-stream water/sediment sampling continues as before.

The stream-bed remediation began with the deployment of approximately 75 workers at three locations along the impacted stream reaches. One team primarily conducted slash (woody debris) removal along the upper portions of Sector A in preparation for mechanical agitation at a later date. A second team conducted slash removal, manual agitation, and flushing operations utilizing a float-a-pump operation, within Hannah Creek in Sector F. The third team conducted manual agitation (using shovels, rakes, and crow bars) within the upper portion of Sector B. All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member is roving between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA. Activities at the rupture site are shut down, at the request of NTSB, until they return to the site on 7/7. NTSB has requested restrictions on photo documentation of the blowout area.

A "town meeting" was held in the evening at the Alabama Street Baptist Church where city officials discussed OPL's proposals to create a new path for its pipeline of repair it in place (ref. The Bellingham Herald, 7/7). It was attended by approximately 120 citizens but no representatives from OPL were officially invited.

OSC met with State WDOE representatives at the Bellingham WDOE field office and discussed general work to be done in this coming week. Water sampling data, collected by WDOE and analyzed at Manchester Lab, was provided to the EPA by the State. The State will continue to pull water samples at the seep location until further notice.

Tuesday, July 6, 1999
Personnel On Site: OSC-1, START-2

Weather: Similar for July 3-4, skies cloudy, rain, low winds, with daytime temperatures in the mid 60s. July 5, skies clear and sunny, temperatures in upper 70's, low winds. July 6, sunny and clear, temperatures in low 80's, low winds.

Activities to Date:

- For activities up through 7/2 see POLREP #17,
- 7/3-7/5 crews maintain seep recovery operations,
- Supervisors train 71 local hires to 8-Hour HAZWOPER training levels for stream-bed remediation project,
- Three crews were dispatched throughout Sectors A, B, and F conducting stream-bed remediation,
- Water/sediment sample continues,
- Excavation of pipeline upstream of the ruptured area continues.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

	Established Ceilings $100,000	Estimated Costs (including awaits) Thru July 6, 1999
EPA/USCG Costs		28,100
START		38,519
Contingency		TBD
Total Project Costs		66,619

VI. DISPOSITION OF WASTES

On 7/6/99, 240 cubic yards of contaminated soils were transported off site to a TSD facility in Tacoma, WA. No additional oil/water was moved off site since totaled in POLREP #16.

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 8, 1999**
FROM: **Thor Cutler and Anthony Barber, Carl Kitz OSCs, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6634/6637, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #19**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 7, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/7/99:
Wednesday, July 7, 1999
Personnel On Site: OSC-1, START-3

Situation: Excavation work resumed on the section of pipeline just south of the rupture point and the 72" concrete water line. This portion is being exposed and removed under the direction of the NTSB. This portion of pipe, like the ruptured portion, will be boxed, sealed, and shipped to the Washington, DC area for further analysis. Additionally, the portion of pipe directly beneath the 72" water pipe will be internal investigation on 7/8, a determination will be made by NTSB whether this section also needs further analysis by NTSB. A START member was utilized to conduct the video filming of pipeline removal for the NTSB. Excavation, and removal of the section of pipeline upstream of the ruptured portion was completed on 7/6.

The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah and Whatcom Creeks. In-stream water/sediment sampling continues as before.

The stream-bed remediation continued with the deployment of 67 workers at three locations along the impacted stream reaches. One team, of 24 workers, primarily conducted slash removal and manual agitation along Sector A (A06.33 – A31.88, a total of 2,555'), one team member was injured when she fell and cut her head requiring 3 stitches. A second team, of 22 workers, conducted slash removal within Sector C (C00-00 - C22–08, a total of 2,208'), and installed 2 filter fences one in Sector B (at B00.00) and one in Sector C (at C13.98). The third team, of 21 workers, conducted manual agitation, slash removal, and high pressure flushing operations within Sector F (F8.88 – F15.12, a total of 624'). The markings above (i.e., A06.33 – A31.88) represent footage markings identifying sub-sections within the previously identified Sectors. All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

The OPL Financial Section reports approximately $4.2 million has been spent to date on the response.

Weather: For July 7, skies cloudy/overcast, occasional rain, low winds, with daytime temperatures in the low-mid 60s.

Activities to Date:

- For activities up through 7/2 see POLREP #17,
- 7/3-7/5 crews maintain seep recovery operations,
- Supervisors train 71 local hires to 8-Hour HAZWOPER training levels for stream-bed remediation project,
- Three crews were dispatched throughout Sectors A, B, C, and F conducting stream-bed remediation activities,
- Water/sediment sample continues,
- Excavation of pipeline upstream and downstream of the ruptured area continues,
- A public meeting was hosted by a local church,
- A bid package is being developed to address source remediation activities.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

Established Ceilings	Estimated Costs (including awaits) Thru July 7, 1999

	$100,000
EPA/USCG Costs	28,500
START	40,790
Contingency	TBD
Total Project Costs	69,290

VI. DISPOSITION OF WASTES

On 7/7, 5 drums, totaling 250 lbs. of soiled PPE equipment was shipped off site as non-hazardous solid waste. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	7,788 gal	4,539 gal	3,249 gal
Oil/water	99,813 gal	19,088 gal	80,725 gal
Oil solids	710 cy	450 cy	260 cy
Solids		15 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			46,900 gal
Non-hazardous solid			250 lbs
Non-hazardous soil			260 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 9, 1999**
FROM: **Thor Cutler and Anthony Barber, Carl Kitz OSCs, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6634/6637, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #20**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 8, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/8/99:
Thursday, July 8, 1999
Personnel On Site: OSC-1, START-3
Total Manpower is as follows:

Source Area	- 10
In-Stream	- 61
Command	- 20
Total	91

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah and Whatcom Creeks. In-stream water/sediment sampling continues as before.

The stream-bed remediation continued with the deployment of 53 workers at three locations along the impacted stream reaches. One team, of 7 workers, conducted slash removal and manual agitation along Sector A (A22.26 – A29.74, a total of 748'). Slash removal was limited to 138' with manual agitation over the full 748'. A second team, of 24 workers, conducted slash removal and manual agitation within Sector A (A00-00 – A31.88, a total of 3,188'), they also removed approximately 250 bags of contaminated slash. The third team, of 22 workers, conducted manual agitation, slash removal, and low pressure flushing operations within Sector C (C13.98 – C00.00, a total of 1,398'). Additionally, they completed installation of a filter fence at Woburn Bridge (Sector B), and build a sand bag barrier around Cemetery Creek to prevent flushing operations (planned for 7/9) from backing up within the creek. All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

The final section of pipeline which was of concern to the NTSB was removed, boxed, sealed and sent off to Washington, DC. This completed the areas of concern for the NTSB and they de-mobilzed from the site at the end of the day.

A City of Bellingham arborist gave approval to remove several trees in the source area. Workers began topping the trees approximately 40' above grade. The remaining trunks and root wads will be used for in-stream restoration.

The OPL Financial Section reports approximately $4.4 million has been spent to date on the response.

Weather:
For July 8, skies clear/sunny, low winds, with daytime temperatures in the low 80s.

Activities to Date:

- For activities up through 7/2 see POLREP #17,
- Crews maintain seep recovery operations,
- Supervisors train 71 local hires to 8-Hour HAZWOPER training levels for stream-bed remediation project,
- Three crews were dispatched throughout Sectors A, B, C, and F conducting stream-bed remediation activities,
- Water/sediment sample continues,
- Excavation of pipeline upstream and downstream of the ruptured area continues,
- A public meeting was hosted by a local church,
- A bid package is being developed to address source remediation activities,
- Several trees were topped out in the source area,
- The final section of pipe for the NTSB was removed, NTSB demobilzed.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 12, 1999**
FROM: **Thor Cutler and Anthony Barber, Carl Kitz OSCs, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6634/6637, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #21**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 9-11, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/9-11/99:
Personnel On Site: OSC-1, START-3
Total Manpower is as follows:

Source Area	- 10
In-Stream	- 61
Command	- 20
Friday, July 9, 1999	
Total	91

Saturday, July 10, 1999
Personnel On Site: OSC-1, START-2
Total Manpower is as follows:

Source Area - 4
In-Stream - 61
Command - 6
Total 71

Sunday, July 11, 1999
Personnel On Site: OSC-0, START-0
Total Manpower is as follows:

Source Area - 2
In-Stream - 66
Command - 4
Total 72

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, but has temporarily stopped on Whatcom Creek due to creek flushing. Sorbent pads and a filter fabric were placed over the seep area to minimize impact to Whatcom creek during flushing. In-stream water/sediment sampling continues as before.

On Friday, the streambed remediation continued with the deployment of 57 workers at three locations along the impacted stream reaches. One team of workers, conducted pressure washing in Sector A (A22.26 – A31.88, a total of 962'). A second team of workers, conducted low-pressure washing and mechanical agitation within Sector A (A6-33 – A31.88, a total of 2,555'). The third teamof workers, conducted mechanical agitation, slash removal, and low pressure flushing operations within Sectors B and C (B1.08 – B22.21, a total of 2,130' and C00.00 – C13.98, a total of 1,398').

On Saturday, the streambed remediation continued with the deployment of 69 workers at three locations along the impacted stream reaches. One team of workers conducted manual agitation and low pressure washing in Sector A (A00.00 – A21.83) and mechanical agitation in Sector A (A21.83 – A31.88). A second team of workers, conducted mechanical agitation in Sector B (B1.08 – B11.67) and manual agitation and low-pressure washing also in Sector B (B1.08 – B6.06). Workers in Sector C rebuilt the silt fence at C-1398 and worked debris on banks from A-2226 to C-1348.

On Sunday, the streambed remediation continued with the deployment of 66 workers at four locations along the impacted stream reaches. One team of workers conducted manual agitation and low pressure washing in Sector A (A00.00 – A21.83, a total of 2,183') and mechanical agitation in Sector A (A19.61 – A31.88, a total of 1,227'). A second team of workers conducted mechanical agitation in Sector B (B11.67 – B22.21, a total of 1,054'). A third team of workers conducted manual agitation and low-pressure washing in Sector C (C13.98 – C22.08, a total of 810'). A fourth team of workers, conducted manual agitation and low-pressure washing in Sector D (D00.00 – D19.74, a total of 1,974') and debris removal (D00.00 – D32.19, a total of 3,219').

All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

A City of Bellingham arborist gave approval to remove several trees in the source area. Workers completed topping the trees approximately 40' above grade and started clearing and grubbing around Hanna Creek in preparation of the contaminated soil excavation. Work at the Source Area was not conducted Saturday or Sunday, but will resume Monday morning.

The OPL Financial Section reports approximately $4.4 million has been spent to date on the response.

Weather:
For July 9-11, skies clear/sunny, low winds, with daytime temperatures in the low 80s.

Activities to Date:

- For activities up through 7/2 see POLREP #17,
- Flushing of Whatcom creek began,
- Crews maintain seep recovery operations,
- Three crews were dispatched throughout Sectors A, B, C, and F conducting stream-bed remediation activities,
- Water/sediment sample continues,
- Excavation of pipeline upstream and downstream of the ruptured area completed,
- A bid package is being developed to address source remediation activities,
- Several trees were topped and removed in the source area,
- Clearing and grubbing at the Source Area near Hanna creek began,
- NTSB demobilized.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

	Established Ceilings $100,000	Estimated Costs (including awaits) Thru July 10, 1999
EPA/USCG Costs		30,140
START		46,575
Contingency		TBD
Total Project Costs		77,615

VI. DISPOSITION OF WASTES

No additional waste was shipped off site today. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	7,799 gal	4,550 gal	3,249 gal
Oil/water	107,580 gal	26,855 gal	80,725 gal
Oil solids	845 cy	585 cy	260 cy
Solids		15 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			46,900 gal
Non-hazardous solid			250 lbs
Non-hazardous soil			260 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 13, 1999**
FROM: **Thor Cutler OSC, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #22**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 12, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/12/99:
Personnel On Site: OSC-1, START-3
Total Manpower is as follows:

Source Area	- 10
In-Stream	- 51
Command	- 10

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek. In-stream water/sediment sampling continues as before.

On Monday, the streambed remediation continued with the deployment of 53 workers at three locations along the impacted stream reaches. A specialized piece of equipment called a spider, was deployed in Sector A to conduct mechanical agitation. One team of workers, conducted low-pressure washing with manual agitation in Sector A (A00.00 – A17.36, a total of 1,736'). A second team of workers, conducted mechanical agitation with an excavator in Sector A (A19.61 – A31.88, a total of 1,277'). The third team of workers, conducted mechanical agitation with a spider within Sector A (A3.63 – A7.32, a total of 369'). A second team of workers conducted low-pressure washing in Sector B (B16.38 – B22.21, a total of 583'). A third team of workers conducted mechanical agitation in Sector C (C00.00 – C13.98, a total of 1,398') and also low-pressure washing and manual agitation in Sector C (C00.00 – C12.72, a total of 1,272'). A fourth team in Sector D conducted manual agitation, low-pressure washing, and debris removal (D19.74 – D32.19, a total of 1,245')

All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

Workers completed clearing and grubbing around Hanna Creek and began the excavation of the contaminated soil. The press was also allowed to photograph the rupture area and Hanna Creek and pose questions to the EPA OSC regarding the environmental cleanup.

The Washington Resource Damage Assessment Committee (RDA) met to determine how to proceed with the long-term restoration of Whatcom and Hanna Creek. OPL presented an overview of their long-term restoration plan. The RDA authorized OPL to proceed with a more detailed long-term restoration plan and continue to implement the emergency restoration activities.

The OPL Financial Section reports approximately $4.6 million has been spent to date on the response.

Weather:
For July 12, skies clear/sunny, low winds, with daytime temperatures in the low 80s.

Activities to Date:

- For activities up through 7/2 see POLREP #17,
- Flushing of Whatcom creek completed,
- Crews maintain seep recovery operations,
- Three crews were dispatched throughout Sectors A, B, C, and F conducting stream-bed remediation activities,
- Water/sediment sample continues,
- A bid package is being developed to address source remediation activities,
- Several trees were topped and removed in the source area,
- NTSB demobilized.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

	Established Ceilings $100,000	Estimated Costs (including awaits) Thru July 12, 1999
EPA/USCG Costs		30,540
START		48,625
Contingency		TBD
Total Project Costs		79,165

VI. DISPOSITION OF WASTES

No additional waste was shipped off site today. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	7,799 gal	4,550 gal	3,249 gal
Oil/water	107,580 gal	26,855 gal	80,725 gal
Oil solids	845 cy	585 cy	260 cy
Solids		15 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			46,900 gal
Non-hazardous solid			250 lbs
Non-hazardous soil			260 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 14, 1999**
FROM: **Thor Cutler OSC, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #23**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 13, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

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6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for 7/13/99:
Personnel On Site: OSC-1, START-3
Total Manpower is as follows:

Source Area	- 10
In-Stream	- 57
Command	- 10

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek. In-stream water/sediment sampling continues as before.

On Tuesday, the streambed remediation continued with the deployment of 57 workers at four locations along the impacted stream reaches. A specialized piece of equipment called a spider, was deployed in Sector A to conduct mechanical agitation (A7.32 – A20.35, a total of 1,303'). One team of workers conducted low-pressure washing with manual agitation in Sector A (A00.00 – A17.36, a total of 1,736'). A second team of workers conducted mechanical agitation with an excavator in Sector B (B1.08 – B15.00, a total of 1,392'), and also manual agitation with low-pressure washing (B00.00 – B06.06, a total of 606'). A third team of workers conducted manual agitation with low-pressure washing in Sector C (C12.94 – C13.98, a total of 104'). The fourth team of workers manually excavated contaminated peat and gravel from the banks of Hanna Creek in Sector F (F16.26 – F15.75, a total of 51'). The workers in Sector F also installed a silt dam at F-16.26 on Hanna Creek and staged a frac tank for additional water needed for the Hanna Creek flush.

All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

Workers completed excavating contaminated soil in Hanna Creek south of the utility corridor road and began back filling the excavation with pit run. Excavation of contaminated soil on the north side of the utility corridor continues. Approximately 500 cy of contaminated soil have been excavated and stockpiled.

The OPL Financial Section reports approximately $5.3 million has been spent to date on the response.

Weather:
For July 13, skies clear/sunny, low winds, with daytime temperatures in the low 80s.

Activities to Date:

- For activities up through 7/10 see POLREP # 20,
- Low-level flushing of Whatcom creek continues on a nightly basis,
- Crews maintain seep recovery operations,
- Four crews were dispatched throughout Sectors A, B, C, and F conducting stream-bed remediation activities,
- Water/sediment sample continues,
- A bid package is being developed to address source remediation activities,
- Washington State RDA Committee granted OPL the opportunity to prepare a long-term restoration plan.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

	Established Ceilings $100,000	Estimated Costs (including awaits) Thru July 12, 1999
EPA/USCG Costs		30,500
START		50,340
Contingency		TBD
Total Project Costs		80,840

VI. DISPOSITION OF WASTES

Solid waste was shipped off site today to TPS/Woodworth in Tacoma, WA. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	7,814 gal	4,565 gal	3,249 gal
Oil/water	131,930 gal	27,150 gal	97,925 gal
Oil solids	1,245 cy	605 cy	640 cy
Solids		15 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			46,900 gal
Non-hazardous solid			250 lbs
Non-hazardous soil			260 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

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Attn: Jim Taylor - jim.taylor@rspa.dot.gov

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 15, 1999**
FROM: **Thor Cutler OSC, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #24**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 14, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

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6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/14/99:
Personnel On Site: OSC-1, START-3
Total Manpower is as follows:

Source Area	- 10
In-Stream	- 57
Command	- 10

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek. In-stream water/sediment sampling continues as before.

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On Wednesday, the streambed remediation continued with the deployment of 57 workers at four locations along the impacted stream reaches. A specialized piece of equipment called a spider was deployed in Sector A to conduct mechanical agitation (A10.35 – A16.40, a total of 605'). One team of workers conducted low-pressure washing with manual agitation in Sector A (A00.00 – A17.36, a total of 1,736'). A second team of workers conducted mechanical agitation with an excavator in Sector B (B15.00 – B22.21, a total of 721'), and also manual agitation with low-pressure washing (B03.03 – B16.38, a total of 1,335'). A third team of workers conducted mechanical agitation in Sector C (C00.00 – C13.98, a total of 1,398'). The fourth team of workers manually excavated about 4 cy of contaminated peat and gravel from the banks of Hanna Creek in Sector F (F8.88 – F9.48, a total of 60'). The workers in Sector F also replaced filter material at silt dam at F-16.26 on Hanna Creek. The banks between F8.88 – F9.48 were low-pressure washed and the lower end of Hanna was flushed at the end of the day with about 21,000 gallons of water from the staged frac tank.

All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

Workers continue excavating contaminated soil in Hanna Creek on the north side of the utility corridor and will begin excavating to the west of Hanna Creek. Approximately 1,000 cy of contaminated soil have been excavated to date. Workers will also begin excavating in the vicinity of the abandoned 16" water line 7/15/99. The drilling contractor is scheduled to begin installation of the horizontal interception well 7/20/99.

The OPL Financial Section reports approximately $5.4 million has been spent to date on the response.

Weather:
For July 14, skies partly cloudy with some light rain, low winds, with daytime temperatures in the low 70s.

Activities to Date:

- For activities up through 7/10 see POLREP # 20,
- Low-level flushing of Whatcom creek continues on a nightly basis,
- Crews maintain seep recovery operations,
- Four crews were dispatched throughout Sectors A, B, C, and F conducting stream-bed remediation activities,
- Water/sediment sample continues,
- A bid package is being developed to address source remediation activities,
- Washington State RDA Committee granted OPL the opportunity to prepare a long-term restoration plan,
- Excavation of contaminated soil near Hanna Creek continues.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru July 14, 1999
	$100,000	
EPA/USCG Costs		30,500
START		52,132
Contingency		TBD
Total Project Costs		82,632

VI. DISPOSITION OF WASTES

Solid waste was shipped off site today to TPS/Woodworth in Tacoma, WA. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	7,819 gal	4,570 gal	3,249 gal
Oil/water	131,930 gal	14,956 gal	106,525 gal
Oil solids	1,700 cy	770 cy	930 cy
Solids		15 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			46,900 gal
Non-hazardous solid			250 lbs
Non-hazardous soil			260 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 16, 1999**
FROM: **Thor Cutler OSC, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #25**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 15, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellingham's water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOT's Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPL's line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/15/99:
Personnel On Site: OSC-1, START-3
Total Manpower is as follows:

Source Area	- 10
In-Stream	- 57
Command	- 10

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek. In-stream water/sediment sampling continues as before.

On Thursday, the streambed remediation continued with the deployment of 60 workers at four locations along the impacted stream reaches. A specialized piece of equipment called a spider was deployed in Sector A to conduct mechanical agitation (A17.36 – A6.33, a total of 1,103'). On the second pass, the Spider repositioned downed trees along creek bed to Inter Fluve's (OPL contactor) specifications. One team of workers conducted low-pressure washing with manual agitation in Sector A (A00.00 – A21.83, a total of 2,183'). A second team of workers conducted mechanical smoothing of creek bed with an excavator in Sector B (B00.00 – B22.21, a total of 2,221'), and also manual agitation with low-pressure washing (B00.00 – B22.21, a total of 2,221'). A third team of workers conducted mechanical agitation in Sector C (C13.98 – C17.49, a total of 351') and also conducted mechanical smoothing of stream bed in Sector C (C00.00 – C17.49, a total of 1,749'). The fourth team of workers manually excavated about cy of contaminated peat and gravel from the banks of Hanna Creek in Sector F (F8.88 – F9.48, a total of 60'), low-pressure washed and raked streambed between F11-13 and F12-45. Workers in Sector F also replaced filter material at silt dam at F-16.26 on Hanna Creek. No flushing of Hannah Creek occurred today.

All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

Workers completed excavating contaminated soil north and south of the utility corridor east of Hannah Creek. The area is being back filled and compacted. Workers also began excavating contaminated soil around the abandoned 16" water line as well as the line itself. Approximately 1,000 cy of contaminated soil have been excavated to date. The drilling contractor is scheduled to begin installation of the horizontal interception well 7/20/99.

The OPL Financial Section reports approximately $5.4 million has been spent to date on the response.

Weather:
For July 15, skies partly cloudy with low winds, and daytime temperatures in the low 70s.

Activities to Date:

- For activities up through 7/10 see POLREP # 20,
- Low-level flushing of Whatcom creek continues on a nightly basis,
- Crews maintain seep recovery operations,
- Four crews were dispatched throughout Sectors A, B, C, and F conducting stream-bed remediation activities,
- Water/sediment sample continues,
- A bid package is being developed to address source remediation activities,
- Washington State RDA Committee granted OPL the opportunity to prepare a long-term restoration plan,
- Excavation of contaminated soil near Hanna Creek continues,

- Begin removal of abandoned 16" water line,
- OPL prepares to replace excavated section of gasoline pipeline in preparation of hydrotest.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru July 15, 1999
	$100,000	
EPA/USCG Costs		30,500
START		53,982
Contingency		TBD
Total Project Costs		84,482

VI. DISPOSITION OF WASTES

Solid waste was shipped off site today to TPS/Woodworth in Tacoma, WA. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	7,819 gal	4,570 gal	3,249 gal
Oil/water	131,930 gal	14,956 gal	106,525 gal
Oil solids	1,700 cy	770 cy	930 cy
Solids		15 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			46,900 gal
Non-hazardous solid			250 lbs
Non-hazardous soil			260 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 19, 1999**
FROM: **Thor Cutler OSC, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #26**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 16, 17, & 18, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/16, 17, 18/99:
Personnel On Site: OSC-0, START-2
Total Manpower is as follows:
July 16, 1999

Source Area	- 9
In-Stream	- 45
Command	- 10
Total	64

totaled 17 gallons. In-stream water/sediment sampling continues as before.

On Wednesday, the streambed remediation continued with the deployment of 33 workers within Sector's A & C to prepare for site walk by trustees. High-pressure washing and manual agitation was conducted by a boat crew in Sector C (C13.98 - 22.08 a total of 798') concentrating on hot spot areas identified 7/16. High pressure washing and manual agitation was also conducted in Sector A (A19.00 - 26.37 and A03.63 - 08.08 a total of 1,182') on areas identified by the NRDA team 7/20. One hot spot was detected with elevated ambient air levels within Sector A and work was discontinued in that area until a later time.

All these operations are being conducted in accordance with the Stream-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

OPL contractors continued with the re-routing of Hannah Creek and were 95% complete. Crews also began excavating sections of the creek near the source location. Approximately 15 trucks of contaminated soils were loaded and transported to the staging area on site awaiting off-site disposal. During the excavation under the culvert areas near the source location crews experienced some free floating product flows in a low lying area. The product was contained and removed by vac-truck. Crews continued to grid the area where the horizontal interceptor piping will be installed (parallel to Whatcom Creek). The horizontal drilling rig was mobilized to the site but was awaiting arrival of parts to begin directional drilling. Drilling is expected to begin by 7/23. A START member also continues to provide oversight and written/photo documentation at the source remediation area.

Repair work on rebuilding of the pipeline has been ceased temporarily by OPL while they negotiate with the City of Bellingham certain demands placed by the city. Additionally, the OPS has issued additional requirements on OPL in an amendment to their original order for re-construction of the pipeline. An OPS representative, from their Denver office, has been on scene since 7/19 and is working with OPL personnel.

The OPL Financial Section reports approximately $6.3 million has been spent to date on the response (tabulated through 7/20). OPL reports that their claims department has received a total of 158 claims, having settled 48 of those for a total of approximately $45,000.

The FOSC contacted the USCG D13 representative to request the OSLTF ceiling be raised to $200,000.

OPL contractors completed the re-routing of Hannah Creek via hard piping installed over 1,650'. Crews continue to excavate sections of the creek near the source location where they also removed the two culvert from under the access road to the plant tanks closest to the source location. An unknown amount of truck loads of contaminated soils were loaded and transported to the staging area on site awaiting off-site disposal. The horizontal drilling rig on site is still awaiting arrival of parts to begin directional drilling. Drilling is expected to begin by 7/23. A START member also continues to provide oversight and written/photo documentation at the source remediation area.

Repair work on rebuilding of the pipeline has been ceased temporarily by OPL while they negotiate with the City of Bellingham certain demands placed by the city. Additionally, the OPS has issued additional requirements on OPL in an amendment to their original order for re-construction of the pipeline. An OPS representative, from their Denver office, has been on scene since 7/19 and is working with OPL personnel.

Crews worked on pressure washing the water treatment plant pump house damaged during the original explosion.

A Unified Command meeting was held at the local Ecology offices. Status updates were discussed as well as work planned for the next one week period. In attendance was a representative from OPS. Additionally, the OSC, and one START member, attended an afternoon meeting of the Joint Restoration Committee (JRC) to discuss restoration actions and to try and come to resolution on when does the remediation phase end and the restoration phase begin.

The OPL Financial Section reports approximately $6.3 million has been spent to date on the response (tabulated through 7/20). OPL reports that their claims department has received a total of 158 claims, having settled 48 of those for a total of approximately $45,000.

Weather:
For July 22, skies were sunny with moderate winds, and daytime temperatures near 70.

Activities to Date:

24 truck loads of contaminated soils were removed off site for disposal,
The horizontal drilling rig was mobilized to the site and crews laid out a grid of where they intend to drill, however, the crew is still awaiting arrival of directional drilling equipment,
The FOSC contacted the USCG about raising the OSLTF ceiling to $200,000,
Excavation crews remove culvert system near source location,
Crews work on pressure washing water treatment plant pump house,
UC and JRC meetings held 7/22.

Crews continue to excavate sections of the creek near the source location. An unknown amount trucks of contaminated soils were loaded and transported to the staging area on site awaiting off-site disposal. The staging area is beginning to near capacity and will have to be addressed soon. The horizontal drilling rig received their needed parts to begin directional drilling and is expected to begin drilling 7/24.

Repair work on rebuilding of the pipeline has been ceased temporarily by OPL while they negotiate with the City of Bellingham certain demands placed by the city. Additionally, the OPS has issued additional requirements on OPL in an amendment to their original order for re-construction of the pipeline. An OPS representative, from their Denver office, has been on scene since 7/19 and is working with OPL personnel.

Crews worked on pressure washing the water treatment plant pump house damaged during the original explosion.

The OPL Financial Section reports approximately $6.3 million has been spent to date on the response (tabulated through 7/20). OPL reports that their claims department has received a total of 158 claims, having settled 48 of those for a total of approximately $45,000.

Weather:
For July 23, skies were sunny with light winds, and daytime temperatures near 70.

Activities to Date:

24 truck loads of contaminated soils were removed off site for disposal,
The horizontal drilling rig was mobilized to the site and crews laid out a grid of where they intend to drill, however, the crew is still awaiting arrival of directional drilling equipment,
The FOSC contacted the USCG about raising the OSLTF ceiling to $200,000,
Excavation crews remove culvert system near source location,
Crews work on pressure washing water treatment plant pump house,
UC and JRC meetings held 7/22.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

Established Ceilings	Estimated Costs (including awaits) Thru July 23, 1999	
$200,000		
EPA/USCG Costs		32,550
START		68,100
Contingency		TBD
Total Project Costs	100,650	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: July 20, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #27
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 19, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/19/99:
Personnel On Site: OSC-1, START-3
Total Manpower is as follows:
July 19, 1999

Source Area	- 9
In-Stream	- 33
Command	- 10
Total	52

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek. In-stream water/sediment sampling continues as before.

On Monday, the streambed remediation continued with the deployment of 33 workers at Sector A to prepare for site walk by trustees. High-pressure wash and manual agitation were conducted in Sector A (A00.00 – A31.88, a total of 3,188'). Approximately 300 pounds of broken glass, beer cans, scrap metal and trash were also collected in Sector A. An excavator conducted mechanical agitation in Sectors B and C (B15.00 – C17.50, a total of 2,400').

All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

Workers in the source area completed fusing HDPE for Hannah Creek reroute, and worked on loading contaminated soil into trucks for disposal at TPS in Tacoma, WA. Geo-Engineers worked to try and determine the extent of contamination in Hannah Creek from a second set of culverts downstream to Whatcom Creek.

The OPL Financial Section reports approximately $6.1 million has been spent to date on the response.

Weather:
For July 19, skies mostly sunny with low winds, and daytime temperatures in the mid 70s.

Activities to Date:

- For activities up through 7/15 see POLREP # 25,
- Low-level flushing of Whatcom Creek continues on a nightly basis,
- Crews maintain seep recovery operations,
- Crews were dispatched throughout Sectors A, B, C, and F conducting stream-bed remediation activities,
- Water/sediment sample continues,
- Excavation of contaminated soil near Hanna Creek continues,
- Begin removal of abandoned 16" water line,
- Workers reroute Hannah Creek,
- OPL prepares to replace excavated section of gasoline pipeline in preparation for hydro-testing.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

	Established Ceilings $100,000	Estimated Costs (including awaits) Thru July 19, 1999
EPA/USCG Costs		30,950
START		60,340
Contingency		TBD
Total Project Costs		91,290

VI. DISPOSITION OF WASTES

Approximately 465 cy of contaminated soil was shipped off site to TPS/Woodworth in Tacoma, WA; however, all liquid waste was shipped off site to Puget Sound Refining in Anacortes, WA. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	7,995 gal	0 gal	7,995 gal
Oil/water	132,325 gal	0 gal	132,325 gal
Oil solids	2,190 cy	795 cy	1,395 cy
Solids		15 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			98,500 gal
Non-hazardous solid			309 lbs
Non-hazardous soil			1,395 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

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USCG D13
Attn: Ensign Ed Kessler - **ekesler@pacnorwest.uscg.mil**

NPFC
Attn: Carl Moberg **cmoberg@ballston.uscg.mil**

US DOT OPS, Washington DC,
Attn: Jim Taylor - jim.taylor@rspa.dot.gov

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 21, 1999**
FROM: **Thor Cutler OSC, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #28**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 20, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three

people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

Additional Updated Background of Current and Future Activities:
An Emergency Restoration Plan (ERP) was completed and approved by the Unified Command and Natural Resource Damage Assessment (NRDA) Team for Whatcom and Hannah Creeks. The impacted area was divided into six sectors covering three miles from the source location to the mouth of Whatcom Creek. A shoreline cleanup assessment was conducted to evaluate the gas impacts and to determine appropriate cleanup methodologies. Based on the SCAT, a Streambed Remediation Plan was prepared and approved. Agitation of the streambed was one of the methodologies identified in the plan.

Prior to conducting the streambed agitation, crews removed all contaminated woody debris and logs to allow proper access to the streams and conducted low pressure washing of the stream banks. These methodologies achieved an 80% completion level. The Joint Restoration Committee approved a change to allow use of a high pressure wash approach to achieve the final completion levels.

Streambed cleanup crews conducted both manual and mechanical agitation of the streambed to remove residual gas in the banks and streambed. Manual crews, with as many as 70 people, manual agitated the streambed and built sedimentation and debris fences. The mechanical crews utilized two track-hoes and one "spider track-hoe" to move rocks and further agitate the stream sediments.

During the streambed remediation phase, over two tons of steel, trash, and debris were removed from the streams. The streambed cleanup began July 6th and were 95% complete by July 20th, approximately 10 days ahead of schedule. Goals are to begin streambed restoration and habitat improvement on July 26th and to continue work until mid-August.
Source removal of contaminated soils at the water treatment plant and Hannah Creek have removed over 2,000 cubic yards of contaminated soils since July 1st. Excavations are expected to continue into early August. Hannah Creek has been diverted around the source area work site to minimize further impacts to Whatcom Creek.

The affected water lines have been temporarily re-routed with two 16" water lines and four skid mounted high volume pumps. This system continues to supply 1/3 of the City of Bellingham's drinking water.

Horizontal drilling operations have begun to install 300 feet of subsurface french drains to intercept groundwater leachate from the source area along Whatcom Creek.

There continues to be high community interest in the events as well as final resolution of the cleanup and future pipeline operations. On July 20th pipeline replacement operations were ceased by OPL, on the request of the City of Bellingham, pending further negotiations between the City and OPL.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for

7/20/99:
Personnel On Site: OSC-1, START-3
Total Manpower is as follows:
July 20, 1999

Source Area	- 9
In-Stream	- 37
Command	- 10
Total	56

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek, however, the seepage has been reduced to a very small amount and the recovered oil amounts are nearly immersible. In-stream water/sediment sampling continues as before.

On Tuesday, the streambed remediation continued with the deployment of 31 workers within Sector's B & C to prepare for site walk by trustees. High-pressure wash and manual agitation were conducted in Sector B/C (B08.88 – C19.80, a total of 3,313' and B00.00 - C13.98, a total of 3,619' for a grand total of 6,932 liner feet).. The crews also removed a trash fence and smoothed out tracks made by the mechanical excavator. Trustees conducted a walk of Sector A and identified a list of spots needing an additional pass of agitation and pressure washing. The EPA OSC walked Sector A along with the trustees photographing the area.

All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

Workers in the source area began to replace the pipe between Silver Beach Road and MP-16 (mile post), install fittings for bleeder points to vent during the hydro-test, and begin the preparation work for installation of a block valve at MP-11.8. A START member also continues to provide oversight and written/photo documentation at the source remediation area where crews began to grid the area where the horizontal interceptor piping will be installed (parallel to Whatcom Creek). Additionally, the crews continued, and nearly finished, the re-routing of Hannah Creek in preparation for doing excavation of the creek bed and adjacent banks scheduled to begin 7/21.

The OPL Financial Section reports approximately $6.1 million has been spent to date on the response (tabulated through 7/17). OPL reports that their claims department has received a total of 158 claims, having settled 48 of those for a total of approximately $45,000.

Weather:
For July 20, skies mostly sunny with low winds, and daytime temperatures were near 80 degrees.

Activities to Date:

For activities up through 7/15 see POLREP # 25,
Low-level flushing of Whatcom Creek continues on a nightly basis,
Crews maintain seep recovery operations,

Crews were dispatched throughout Sectors A, B, C, and F conducting stream-bed remediation activities,
Water/sediment sample continues,
Excavation of contaminated soil near Hanna Creek continues,

Begin removal of abandoned 16" water line,
Workers near completion of the re-route of Hannah Creek,
OPL prepares to replace excavated section of gasoline pipeline in preparation for hydro-testing,
Trustees conducted a walking tour of Sector A to identify additional spots needing further remediation.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru July 20, 1999
	$100,000	
EPA/USCG Costs		31,350
START		62,215
Contingency		TBD
Total Project Costs		93,565

VI. DISPOSITION OF WASTES

No new disposals of waste took place today. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
			Oil
		7,995 gal	0 gal
			7,995 gal
Oil/water			
			133,751 gal
			0 gal

Oil solids	133,751 gal 2,190 cy 795 cy 1,395 cy
Solids	15 cy
RCRA liquid	33,825 gal
RCRA solid	8,600 lbs
RCRA soil	99,926 gal
Non-hazardous liquid	
Non-hazardous solid	309 lbs
Non-hazardous soil	1,395 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

USCG D13
Attn: Ensign Ed Kessler - **ekesler@pacnorwest.uscg.mil**

NPFC
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US DOT OPS, Washington DC,
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Tulalip Tribe
Attn: Reid Allison – **aratulalip@aol.com**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 22, 1999**
FROM: **Thor Cutler OSC, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #29**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 21, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially

activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

Additional Updated Background of Current and Future Activities:
An Emergency Restoration Plan (ERP) was completed and approved by the Unified Command and Natural Resource Damage Assessment (NRDA) Team for Whatcom and Hannah Creeks. The impacted area was divided into six sectors covering three miles from the source location to the mouth of Whatcom Creek. A shoreline cleanup assessment was conducted to evaluate the gas impacts and to determine appropriate cleanup methodologies. Based on the SCAT, a Streambed Remediation Plan was prepared and approved. Agitation of the streambed was one of the methodologies identified in the plan.

Prior to conducting the streambed agitation, crews removed all contaminated woody debris and logs to allow proper access to the streams and conducted low pressure washing of the stream banks. These methodologies achieved an 80% completion level. The Joint Restoration Committee approved a change to allow use of a high pressure wash approach to achieve the final completion levels.

Streambed cleanup crews are conducting both manual and mechanical agitation of the streambed to remove residual gas in the banks and streambed. Manual crews, with as many as 70 people, manual agitated the streambed and built sedimentation and debris fences. The mechanical crews utilized two track-hoes and one "spider track-hoe" to move rocks and further agitate the stream sediments.

During the streambed remediation phase, over two tons of steel, trash, and debris were removed from the streams. The streambed cleanup began July 6th and were 95% complete by July 20th, approximately 10 days ahead of schedule. Goals are to begin streambed restoration and habitate improvement on July 26th and to continue work until mid-August.
Source removal of contaminated soils at the water treatment plant and Hannah Creek have removed over 2,000 cubic yards of contaminated soils since July 1st. Excavations are

expected to continue into early August. Hannah Creek has been diverted around the source area work site to minimize further impacts to Whatcom Creek.

The affected water lines have been temporarily re-routed with two 16" water lines and four skid mounted high volume pumps. This system continues to supply 1/3 of the City of Bellingham's drinking water.

Horizontal drilling operations have begun to install 300 feet of subsurface french drains to intercept groundwater leachate from the source area along Whatcom Creek.

There continues to be high community interest in the events as well as final resolution of the cleanup and future pipeline operations. On July 20th pipeline replacement operations were ceased by OPL, on the request of the City of Bellingham, pending further negotiations between the City and OPL.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/20/99:
Personnel On Site: OSC-1, START-3
Total Manpower is as follows:
July 20, 1999

Source Area	- 9
In-Stream	- 33
Command	- 10
Total	52

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek, however, the seepage has been reduced to a very small amount and the recovered oil amounts collected between 7/16-7/21

Weather:
For July 21, skies were overcast with low winds, and daytime temperatures in the upper 60's.

Activities to Date:

24 truck loads of contaminated soils were removed off site for disposal,
The horizontal drilling rig was mobilized to the site and crews laid out a grid of where they intend to drill, however, the crew is still awaiting arrival of directional drilling equipment,
The FOSC contacted the USCG about raising the OSLTF ceiling to $200,000.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru July 21, 1999
	$200,000	
EPA/USCG Costs		31,750
START		64,355
Contingency		TBD
Total Project Costs		96,105

VI. DISPOSITION OF WASTES

A total of 24 truck loads containing 545 cubic yards of contaminated soils were transported off site to TPS in Tacoma, WA. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,167 gal	172 gal	7,995 gal
Oil/water	133,751 gal	0 gal	133,751 gal
Oil solids	2,315 cy	375 cy	1,940 cy
Solids		30 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			99,926 gal
Non-hazardous solid			309 lbs
Non-hazardous soil			1,940 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

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DISTRIBUTION

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Attn: Ensign Ed Kessler - **ekesler@pacnorwest.uscg.mil**

NPFC
Attn: Carl Moberg **cmoberg@ballston.uscg.mil**

US DOT OPS, Washington DC,
Attn: Jim Taylor - jim.taylor@rspa.dot.gov

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/2299:
Personnel On Site: OSC-1, START-3
Total Manpower is as follows:
July 22, 1999

Source Area	- 9	
In-Stream		- 28
Command		- 10
Total	47	

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek, however, the seepage has been reduced to a very small amount and the recovered oil amounts collected between 7/16-7/21 totaled 17 gallons. In-stream water/sediment sampling continues as before.

On Thursday, the streambed remediation continued with the deployment of 28 workers within Sector's A; B, & C. High-pressure washing and manual agitation was conducted in all three areas in the following areas:
Sector A (A03.63 - A14.24 a total of 1,061') and (A26.37 - A31.88 a total of 551')
Sector B (B00.00 - B02.00 a total of 200') and (B16.50 - B19.00 total of 250')
Sector C (C14.50 - C20.08 a total of 558')
An overall total of 2,620 feet were cleaned.
Additionally, the silt fence at C13.98 was removed. A fish prevention fence, to keep adult salmon from entering the creek above the weir dam and fish ladder at C13.98, was installed. Crews also picked up trash in Sector A.

All these operations are being conducted in accordance with the Stream-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

I. HEADING

DATE: July 26, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #30
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 22, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

See POLREP 29

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Activities for
7/23/99:
Personnel On Site: OSC-1, START-2
Total Manpower is as follows:
July 23, 1999

Source Area	- 9
In-Stream	- 29
Command	- 10
Total	48

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek, however, the seepage has been reduced to a very small amount. In-stream water/sediment sampling continues as before.

On Friday, the streambed remediation continued with the deployment of 29 workers within Sector's A, B, & C. Activities included high-pressure washing, manual agitation, bank washing, removed a fish fence, sand bagged the fish ladder, and pressure washed a gravel bar.
Sector A (A08.75 - A09.50 a total of 75') and (A12.75 - A13.50 a total of 75')
Sector B (B19.00 - B21.00 a total of 200')
Sector C (C13.98 sand bag/fence removal) and C03.63 (gravel bar wash)
An overall total of 350 feet were cleaned.
Following these activities a final inspection walking tour was conducted with representatives from EPA, Lummi Nation, Ecology, WDF&W, OPL, and the remediation contractors to get final sign-off on the work conducted. While no final approval was obtained, the OPL contractor stated that effective COB today he was reducing his crew down to approximately 7 people to attack any future spots identified but generally the major remediation effort was completed. This reduced crew will work throughout the restoration phase scheduled to begin soon.

All these operations are being conducted in accordance with the Stream-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

I. HEADING

DATE: July 26, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #31
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 23, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

See POLREP 29

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

Established Ceilings	Estimated Costs (including awaits) Thru July 22, 1999
$200,000	
EPA/USCG Costs	32,150
START	66,560
Contingency	TBD
Total Project Costs	98,710

VI. DISPOSITION OF WASTES

Due to no available OPL representative it is unknown if any waste went off site today. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	7,995 gal	8,167 gal	172 gal
Oil/water	133,751 gal	0 gal	133,751 gal
Oil solids	2,315 cy	375 cy	1,940 cy
Solids		30 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			99,926 gal
Non-hazardous solid			309 lbs
Non-hazardous soil			1,940 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION
Same as POLREP 29

VI. DISPOSITION OF WASTES

Due to no available OPL representative it is unknown if any waste went off site today. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	7,995 gal	8,167 gal	172 gal
Oil/water	133,751 gal	0 gal	133,751 gal
Oil solids	2,315 cy	375 cy	1,940 cy
Solids		30 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			99,926 gal
Non-hazardous solid			309 lbs
Non-hazardous soil			1,940 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: July 27, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #32
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 24 - 26, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage Assessment

(NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek, however, the seepage has been reduced to a very small amount. In-stream water/sediment sampling continues as before.

Activities for
7/24/99: Personnel On Site: OSC-1, START-1 Weather: Light rain and 65°
Total Manpower is as follows: July 24, 1999

Source Area	- 9
In-Stream	- 12
Command	- 10
Total	31

On Saturday, no streambed remediation was conducted within Sector's A, B, & C. On Saturday, crews continued to excavate sections of the creek near the source location, however; the staging

area reached capacity. Free product was also discovered after removing the upper culverts and road and was removed via vac truck. The horizontal drilling rig received their needed parts to begin directional drilling and began drilling. Some drilling muds appeared in the slope above Whatcom Creek which prompted the construction of silt fences to minimize impacts to Whatcom Creek.

Activities for
7/25/99: Personnel On Site: OSC-0, START-0 Weather: Overcast skies and 70°
Total Manpower is as follows: July 25, 1999

Source Area	- 9
In-Stream	- 2
Command	- 1
Total	12

On Sunday two personnel conducted a survey of the stream bed in Sector C (C13.98 – C22.08) and Sector D(D00.00 – D19.00) to plan for the next weeks activities. Work conducted at the source on Sunday was limited to water treatment pump and skimming operations and horizontal drilling.

Activities for
7/25/99: Personnel On Site: OSC-0, START-2 Weather: Clear skies and 75°
Total Manpower is as follows: July 26, 1999

Source Area	- 9
In-Stream	- 8
Command	- 10
Total	27

On Monday, crews worked in Sectors A and B. Sorbent boom was removed from A29.79 and manual raking occurred in pool areas from B01.08 – B08.84. At the source site, crews expanded stockpile #1 and continued excavating soil from upper Hannah Creek. Horizontal drilling for the installation of the interception drain continued reaching a length of 100' and a depth of about 26'.

All of the Whatcom Creek operations are being conducted in accordance with the Stream-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

City of Bellingham crews continue to work on pressure washing the water treatment plant pump house damaged during the original explosion.

The OPL Financial Section reports approximately $6.3 million has been spent to date on the response (tabulated through 7/20). OPL reports that their claims department has received a total of 158 claims, having settled 50 of those for a total of approximately $50,000.

Activities to Date:

The horizontal drilling rig began installing the horizontal interception drain,
Crews continued excavating contaminated soil from upper Hannah Creek totaling approximately 1,200 cy,
Excavation crews remove culvert system near source location,
The FOSC contacted the USCG about raising the OSLTF ceiling to $200,000,
Crews work on pressure washing water treatment plant pump house.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings $200,000	Estimated Costs (including awaits) Thru July 26, 1999
EPA/USCG Costs		33,550
START		71,020
Contingency		TBD
Total Project Costs		104,570

VI. DISPOSITION OF WASTES

No waste went off site over the three day period. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,290 gal	285 gal	7,995 gal
Oil/water	160,189 gal	9,238 gal	150,951 gal
Other Liquids	1,545gal	1,545gal	
Oil solids	3,440 cy	1,500cy	1,940 cy
Solids		32 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			117,126gal
Non-hazardous solid			309 lbs
Non-hazardous soil			1,940 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 30, 1999**
FROM: **Thor Cutler OSC, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #33**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 27 - 30, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on

6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek, however, the seepage has been reduced to a very small amount. In-stream water/sediment sampling continues as before.

Activities for
7/27/99: Personnel On Site: OSC-1, START-2 Weather: Sunny and 75°
Total Manpower is as follows: July 27, 1999

Source Area	- 12
In-Stream	- 7
Command	- 10
Total	30

On Tuesday, crews worked in within Sector B (B08.84 – B22.21) manually raking pools and vegetated areas. At the source site, crews continue to excavate upper Hannah Creek. Fifteen trucks removed approximately 465 tons of soil from the site for treatment and disposal. The horizontal drilling for the interception drain continues.

Also, the EPA Regional Administrator (RA) arrived in Bellingham talk with OPL, city, county, and State representatives. The RA toured the EOC, source site at the water treatment plant, and the Woburn Street Bridge.

Activities for
7/28/99: Personnel On Site: OSC-1, START-2 Weather: Clear skies and 80°
Total Manpower is as follows: July 28, 1999

Source Area	- 9
In-Stream	- 7
Command	- 10
Total	26

On Wednesday, seven personnel conducted manual agitation of pool and eddy areas and removed debris and trash in Sector C (C00.00 – C13.98). At the source, crews continued excavating contaminated soil within Hannah Creek, operating water treatment pumps and skimmers, and horizontal drilling. The horizontal drilling has reached a distance of approximately 215' at a depth of about 30'.

Activities for
7/29/99: Personnel On Site: OSC-1, START-2 Weather: Overcast skies and 70°
Total Manpower is as follows: July 29, 1999

Source Area	- 14
In-Stream	- 7
Command	- 10
Total	31

On Thursday, crews worked in Sector C (C12.00 – C22.08) conducting manual agitation in pool and eddy areas as well as, berry bush and debris removal. At the source site, crews continued excavating soil from upper Hannah Creek. A total of 322 tons of soil were transported off site for treatment and disposal at TPS in Tacoma, WA. Horizontal drilling for the installation of the interception drain continued reaching a length of 280' and a depth of about 30'.

Activities for
7/30/99: Personnel On Site: OSC-0, START-2 Weather: Clear skies and 75°
Total Manpower is as follows: July 30, 1999

Source Area	- 9
In-Stream	- 8
Command	- 10

Total 27

On Friday, crews worked in Sector C (C12.00 – C22.08) conducting manual agitation in pool and eddy areas as well as, berry bush and debris removal. At the source site, crews continued excavating soil from upper Hannah Creek. A total of 679 tons of soil were transported off site for treatment and disposal at TPS in Tacoma, WA. Horizontal drilling for the installation of the interception drain was completed with the drill making its ascension to the surface approximately 430' from the starting point.

All of the Whatcom Creek operations are being conducted in accordance with the Stream-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

City of Bellingham crews continue to work on restoring the water treatment plant pump house damaged during the original explosion.

The OPL Financial Section reports approximately $6.7 million has been spent to date on the response (tabulated through 7/20). OPL reports that their claims department has received a total of 158 claims, having settled 50 of those for a total of approximately $50,000.

Activities to Date:

The horizontal drilling rig completed first phase of installing the horizontal interception drain,
Crews excavated contaminated soil from upper Hannah Creek totaling approximately 1463 cy,
Excavation crews remove culvert system near source location,
The FOSC contacted the USCG and raised the OSLTF ceiling to $200,000,
Crews work on restoring water treatment plant pump house,
Limited work continues on Whatcom Creek

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings $200,000	Estimated Costs (including awaits) Thru July 30, 1999
EPA/USCG Costs		35,150
START		76,605
Contingency		TBD
Total Project Costs		111,755

VI. DISPOSITION OF WASTES

Approximately 1463 tons of contaminated soil and 17,200 gallons of product and water went off site over the four-day period. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,330 gal	325 gal	7,995 gal
Oil/water	170,270 gal	2,119 gal	168,151 gal
Other Liquids	4,087gal	400gal	4,087 gal
Oil solids	4,350 cy	1,500cy	3,100 cy
Solids		32 cy	
RCRA liquid			51,025 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			117,126gal
Non-hazardous solid			309 lbs
Non-hazardous soil			3,100 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **July 30, 1999**
FROM: **Thor Cutler OSC, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #34**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: July 31 - August 2, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage

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Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek, however, the seepage has been reduced to a very small amount. In-stream water/sediment sampling continues as before.

Activities for
7/31/99: Personnel On Site: OSC-0, START-1 Weather: Sunny and 75°
Total Manpower is as follows: July 31, 1999

Source Area	- 14
In-Stream	- 1
Command	- 5
Total	20

On Saturday, no crews worked in Whatcom Creek. At the source site, the horizontal drill is now being used to "clean" out the boring in preparation of the installation of the interception drain.

Also at the source, a crew remains on site to oversee water treatment plant pumps and skimming operations.

Activities for
8/1/99: Personnel On Site: OSC-0, START-0 Weather: Clear skies and 80°
Total Manpower is as follows: August 1, 1999

Source Area	- 14
In-Stream	- 1
Command	- 0
Total	3

On Sunday, no work was conducted in Whatcom Creek. At the source, a crew continued operating water treatment pumps and skimmers, however; the drill bit on the horizontal drill broke stopping operations until a replacement arrives.

Activities for
8/2/99: Personnel On Site: OSC-0, START-1 Weather: Clear skies and 75°
Total Manpower is as follows: August 2, 1999

Source Area	- 14
In-Stream	- 7
Command	- 10
Total	31

On Monday, crews resumed worked in Whatcom Creek in Sector A (A00.00 ⇘ 31.88) conducting manual agitation in pool and eddy areas as well as, debris removal. At the source site, crews continued excavating soil from upper Hannah Creek. Horizontal drilling for the installation of the interception drain is still stopped while awaiting the arrival of the new drill bit. Work has begun, however; on the installation of the vertical well for the interceptor drain.

All of the Whatcom Creek operations are being conducted in accordance with the Stream-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

City of Bellingham crews continue to work on restoring the water treatment plant pump house damaged during the original explosion.

The OPL Financial Section reports approximately $6.8 million has been spent to date on the response (tabulated through 7/20). OPL reports that their claims department has received a total of 183 claims, having settled 59 of those for a total of approximately $63,000.

Activities to Date:

The horizontal drilling rig completed first phase of installing the horizontal interception drain,
Drillers begin installation of the vertical well for the interceptor drain,

July 17, 1999

Source Area	- 5
In-Stream	- 43
Command	- 10
Total	58

July 18, 1999

Source Area	- 4
In-Stream	- 10
Command	- 0
Total	14

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek. In-stream water/sediment sampling continues as before.

On Friday, the streambed remediation continued with the deployment of 45 workers at three locations along the impacted stream reaches. A specialized piece of equipment called a spider was deployed in Sector A to conduct mechanical agitation (A04.44 – A06.33, a total of 189'). One team of workers conducted low-pressure washing in Sector A (A00.00 – A04.44, a total of 444'). A second team of workers removed wood and brush debris, trash, and silt fence in Sector B (B01.08 – B04.11, a total of 303'), and also a higher-pressure wash (B01.08 – B05.00, a total of 392'). A third team of workers conducted manual agitation and low-pressure wash in Sector F (F12.48 - F15.12, a total of 264'). Workers in Sector F also replaced filter material at silt dam at F-16.26 on Hanna Creek.

On Saturday, the streambed remediation continued with the deployment of 43 workers at four locations along the impacted stream reaches. The Spider was demobilized from the site and only a high-pressure wash and manual agitation were conducted in Sector A (A02.52 – A03.00 and A18.50 – A26.34, a total of 240'). A second team of workers conducted mechanical screening, manual agitation, and high-pressure wash in Sector B (B15.00 – B22.21 and B00.00 – B08.07, a total of 1,528'). A third team of workers in Sector C conducted mechanical screening (C00.00 – C13.98, a total of 1,398'). A fourth team of workers in Sector F conducted manual washing and high-pressure wash (F15.12 – F16.26, a total of 114').

No work was conducted in Whatcom Creek on Sunday.

All these operations are being conducted in accordance with the Steam-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

Workers completed excavating contaminated soil north and south of the utility corridor east of Hannah Creek. The area is being back-filled and compacted. Workers completed excavating contaminated soil around a section of the abandoned 16" water line as well as the line itself. A

new dam was constructed on upper Hannah Creek and the water was rerouted via HDPE pipe overland to approximately 300' downstream of the second set of culverts on Hannah Creek. Geo Engineers also received the design for the replacement culvert on upper Hannah Creek from the City of Bellingham.

The OPL Financial Section reports approximately $5.7 million has been spent to date on the response.

Weather:
For July 16 - 18, skies mostly sunny with low winds, and daytime temperatures in the low to mid 70s.

Activities to Date:

- For activities up through 7/15 see POLREP # 25,
- Low-level flushing of Whatcom creek continues on a nightly basis,
- Crews maintain seep recovery operations,
- Crews were dispatched throughout Sectors A, B, C, and F conducting stream-bed remediation activities,
- Water/sediment sample continues,
- Excavation of contaminated soil near Hanna Creek continues,
- Begin removal of abandoned 16" water line,
- OPL prepares to replace excavated section of gasoline pipeline in preparation of hydrotest.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $100,000. A breakdown of costs is as follows:

	Established Ceilings $100,000	Estimated Costs (including awaits) Thru July 18, 1999
EPA/USCG Costs		30,500
START		56,662
Contingency		TBD
Total Project Costs		87,162

VI. DISPOSITION OF WASTES

No solid waste was shipped off site over the weekend to TPS/Woodworth in Tacoma, WA; however, all liquid waste was shipped off site to Puget Sound Refining in Anacortes, WA. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	7,995 gal	0 gal	7,995 gal
Oil/water	132,325 gal	0 gal	132,325 gal
Oil solids	2,090 cy	1,130 cy	930 cy
Solids		15 cy	
RCRA liquid			33,825 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			98,500 gal
Non-hazardous solid			309 lbs
Non-hazardous soil			1,173 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

EPA ECL/Region X, Fax (206) 553-0124
Attn: Chris Field - **field.chris@epa.gov**
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USCG D13
Attn: Ensign Ed Kessler - **ekesler@pacnorwest.uscg.mil**

NPFC
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US DOT OPS, Washington DC,
Attn: Jim Taylor - jim.taylor@rspa.dot.gov

Crews excavated contaminated soil from upper Hannah Creek totaling approximately 1463 cy,
Crews work on restoring water treatment plant pump house,
Limited work continues on Whatcom Creek

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings $200,000	Estimated Costs (including awaits) Thru August 2, 1999
EPA/USCG Costs		35,150
START		78,950
Contingency		TBD
Total Project Costs		114,100

VI. DISPOSITION OF WASTES

Approximately 1463 tons of contaminated soil and 17,200 gallons of product and water went off site over the four-day period. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,330 gal	325 gal	7,995 gal
Oil/water	177,732 gal	9,581 gal	168,151 gal
Other Liquids	10,487gal	6,400gal	4,087 gal
Oil solids	4,450 cy	1,600cy	3,100 cy
Solids		32 cy	
RCRA liquid			51,025 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			117,126gal
Non-hazardous solid			309 lbs
Non-hazardous soil			3,100 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: August 6, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #35
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: August 3 - 6, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage

Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek, however, the seepage has been reduced to a very small amount. In-stream water/sediment sampling continues as before.

Activities for
8/3/99: Personnel On Site: OSC-1, START-1 Weather: Sunny until late afternoon with increased clouds and rain and 75°
Total Manpower is as follows: August 3, 1999

Source Area	- 14
In-Stream	- 9
Command	- 10
Total	23

On Tuesday, crews worked in Whatcom Creek in Sectors A (A06.33 – A12-35, manual agitation) and F (F14.26 – F16.26, sorbent placement for seeps and survey). At the source site, the horizontal drill was repaired and back-ream began in preparation for the installation of the interception drain. The installation of the vertical well is temporarily on hold due to equipment failure. The 16" auger could not penetrate the sandstone beyond about 16' below-ground-surface. A different piece of equipment will be brought on site 8/4/99. Crews mobed to the lower section of Hannah Creek and began excavating contaminated soil. A front-end loader was used to transport the soil from the creek to an awaiting dump truck. The excavator came off its tracks but was fixed and excavation work continued. Thirty-four trucks transported contaminated soil to TPS totaling approximately 745 cy.

8/4/99: Personnel On Site: OSC-1, START-1 Weather: Clear skies and 75°
Total Manpower is as follows: August 4, 1999

Source Area	- 14
In-Stream	- 10
Command	- 10
Total	34

On Wednesday, crews resumed worked in Whatcom Creek in Sector B (B05.00 ✎ 22.21, manual raking and agitation), Sector C (C00.00 – C16.53, manual raking and agitation and C10.00 – C16.00, restoration (pool and gravel bar construction)), and Sector F (F00.00 – F15.00). Crews completed the excavation of contaminated soil from lower Hannah Creek. A total of 14 trucks hauled 315 cy to TPS for treatment and disposal. The drillers began connecting the PVC interceptor drain together and will install it 8/5/99. A lager auger drill will be mobilized to the site 8/6/99 to finish the vertical well for the interceptor drain. A crew remains on site to oversee water treatment plant pumps and skimming operations.

Also, the JRC met today to discuss short-term restoration work scheduled to begin today. Restoration of Hannah Creek was also discussed with a preliminary plan designed by one of OPL's contractors. Clean up levels for Whatcom Creek are being developed based on toxicity levels for salmanoid eggs. Hannah Creek clean up levels are currently on hold.

Activities for
8/5/99: Personnel On Site: OSC-0, START-1 Weather: Partly cloudy skies and 80°
Total Manpower is as follows: August 5, 1999

Source Area	- 14
In-Stream	- 11
Command	- 10
Total	35

On Thursday, work continued along Whatcom Creek in Sectors A, B, and C. In Sector A, workers conducted manual agitation from A07.32 – A17.36; Sector B from B22.21 – B20.00 was restoration work; and Sector C from C00.00 – C17.38 was berry bush and debris removal and

C10.00 – C00.00 was restoration work. Restoration work consisted of pool, gravel bar and run development. Crews at source site completed side work, and will de-mobe until after OPL replaces their line adjacent to the 60" waterline. Approximately 400 cy of contaminated soil was transported of site to TPS. Also at the source site, crews had to disassemble the horizontal drain because the joints were not flexible and started breaking when being pulled into place. Workers purchased new materials and will reassemble the drain 8/6/99. Other crews continued operating water treatment pumps and skimmers.

Activities for
8/6/99: Personnel On Site: OSC-0, START-1 Weather: Clear skies and 75°
Total Manpower is as follows: August 6, 1999

Source Area	- 14
In-Stream	- 11
Command	- 10
Total	35

On Friday, crews resumed worked in Whatcom Creek in Sectors A, B, C, and D. Sector A work included falling of trees from A05.00 & A17.36. Sector B work included pool, ripple, and glide development from B00.00 – B17.00. Sectors C and D work included manual agitation from C17.68 – C22.08 and D00.00 – 15.00. At the source site, crews complete installing the interception drain and will begin completing the vertical well on 8/9/99. Contractors are continuing to work on a design to remove the contaminated sediments from the last 200' of lower Hannah Creek.

All of the Whatcom Creek operations are being conducted in accordance with the Stream-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

OPL received permission from the City of Bellingham to replace the section of pipeline adjacent to the water treatment facility from the north bell-hole to the just beyond the 72" waterline. Work started 8/6/99 and is expected to be complete by 8/9/99.

City of Bellingham crews continue to work on restoring the water treatment plant pump house damaged during the original explosion.

The OPL Financial Section reports approximately $6.8 million has been spent to date on the response (tabulated through 7/20). OPL reports that their claims department has received a total of 183 claims, having settled 59 of those for a total of approximately $63,000.

Activities to Date:

The horizontal drilling rig completed installing the horizontal interception drain,
Interceptor drain installed,

Drillers began installation of the vertical well for the interceptor drain,
Crews completed excavating contaminated soil from upper and lower Hannah Creek totaling approximately 1460 cy,
City crews work on restoring water treatment plant pump house,
Short-term restoration work began Whatcom Creek

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings $200,000	Estimated Costs (including awaits) Thru August 6, 1999
EPA/USCG Costs		35,150
START		81,135
Contingency		TBD
Total Project Costs		116,285

VI. DISPOSITION OF WASTES

Approximately 1460 cy of contaminated soil went off site over the four-day period. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,330 gal	325 gal	7,995 gal
Oil/water	180,230 gal	12,086 gal	168,151 gal
Other Liquids	10,487gal	6,400gal	4,087 gal
Oil solids	5,260 cy	698cy	4,560 cy
Solids		32 cy	
RCRA liquid			51,025 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			117,126gal
Non-hazardous solid			309 lbs
Non-hazardous soil			4,160 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: August 9, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #36
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: August 7 - 9, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage

Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek, however, the seepage has been reduced to a very small amount. In-stream water/sediment sampling continues as before.

Activities for
8/7/99: Personnel On Site: OSC-0, START-0 Weather: Partly cloudy and 75°
Total Manpower is as follows: August 7, 1999

Source Area	- 3
In-Stream	- 11
Command	- 4
Total	18

On Saturday, crews worked in Whatcom Creek in Sectors B (B00.00 – B22.21, pool, bar, nad run development with log placement) and F (F14.00 – F16.26, manual agitation). No environmental work was conducted at the source site due to OPL replacing their pipeline. Crews did however, continue water treatment pump and skimming operations.

8/8/99: Personnel On Site: OSC-0, START-0 Weather: Partly cloudy and 75°
Total Manpower is as follows: August 8, 1999

Source Area	- 3
In-Stream	- 4
Command	- 4
Total	11

On Sunday, crews continued to work in Whatcom Creek in Sector A (A17.36 & A31.88, stream restoration) and Sector B (B00.00 – B22.21, stream restoration). No environmental work was conducted at the source site due to OPL replacing their pipeline. A crew remains on site to oversee water treatment plant pumps and skimming operations.

Activities for
8/9/99: Personnel On Site: OSC-0, START-1 Weather: Partly cloudy skies and 75°
Total Manpower is as follows: August 9, 1999

Source Area	- 14
In-Stream	- 12
Command	- 10
Total	36

On Monday, work continued along Whatcom Creek in Sectors A, B, and C. In Sector A, workers conducted mechanical agitation using an excavator and restoration work from A17.36 – A31.88 and restoration work and tree falling from A03.63 – A17.36. Work in Sector B from B00.00 – B22.21 and in Sector C from C00.00 – C17.68 was restoration maintenance. Crews at source site completed constructing the vertical well and will begin to seal-off the east and west ends of the horizontal interceptor drain. Other crews continued operations of the water treatment pumps and Whatcom Creek seep. Skimmers are no longer required on Whatcom Creek only a small number of sorbent pads.

All of the Whatcom Creek operations are being conducted in accordance with the Stream-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

OPL completed replacing the section of pipeline adjacent to the water treatment facility from the north bell-hole to the just beyond the 72" waterline.

City of Bellingham crews continue to work on restoring the water treatment plant pump house damaged during the original explosion.

The OPL Financial Section reports approximately $7 million has been spent to date on the response (tabulated through 8/5). OPL reports that their claims department has received a total of 187 claims, having settled 76 of those for a total of approximately $110,000.

Activities to Date:

The horizontal drilling rig completed installing the horizontal interception drain,
Interceptor drain installed,
Drillers complete installation of the vertical well for the interceptor drain,
Crews completed excavating contaminated soil from upper and lower Hannah Creek and the source area totaling approximately 5260 cy,
City crews work on restoring water treatment plant pump house,
Short-term restoration work began Whatcom Creek

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings $200,000	Estimated Costs (including awaits) Thru August 9, 1999
EPA/USCG Costs		35,150
START		82,110
Contingency		TBD
Total Project Costs		117,265

VI. DISPOSITION OF WASTES

No contaminated soil went off site over the three-day period. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,330 gal	325 gal	7,995 gal
Oil/water	184,926 gal	16,775 gal	168,151 gal
Other Liquids	10,487gal	6,000gal	4,487 gal
Oil solids	5,260 cy	800cy	4,460 cy
Solids		32 cy	
RCRA liquid			51,025 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			117,126gal
Non-hazardous solid			309 lbs
Non-hazardous soil			4,460 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION
Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: August 13, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #37
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: August 10 - 13, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage

Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek, however, the seepage has been reduced to a very small amount. In-stream water/sediment sampling continues as before.

Activities for
8/10/99: Personnel On Site: OSC-1, START-1 Weather: Partly cloudy and 75°
Total Manpower is as follows: August 10, 1999

Source Area	- 14
In-Stream	- 12
Command	- 10
Total	36

On Tuesday, crews worked in Whatcom Creek in Sectors A (A03.63 – A17.36, restoration with Spider and manual restoration and A17.36 – A31.88, restoration with an excavator) and B (B00.00 – B22.21, berry bush and debris removal). Drillers completed interceptor drain and vertical well work and demobilized equipment from the source site. A total of 8,600 gallons of contaminated water were transported off site to Puget Sound Refining. Crews continued water treatment pump and seep control operations.

8/11/99: Personnel On Site: OSC-1, START-1 Weather: cloudy and 75°

Total Manpower is as follows: August 11, 1999

Source Area	- 9
In-Stream	- 14
Command	- 10
Total	38

On Wednesday, crews continued to work in Whatcom Creek in Sector A (A03.63 & A31.88, stream restoration using spider and excavator); Sector C (C17.38 – C22.08, manual agitation); and Sector D (D00.00 – D20.00, manual agitation). Workers completed removing sediment from the bottom of the vertical well in order to install the pump. Three VES points were installed around the pump house to characterize the surrounding soil and if necessary, connect to the VES. A crew remains on site to oversee water treatment plant pumps and seep control operations.

Activities for

8/12/99: Personnel On Site: OSC-1, START-1 Weather: Partly cloudy skies and 75°

Total Manpower is as follows: August 12, 1999

Source Area	- 9
In-Stream	- 14
Command	- 10
Total	36

On Thursday, work continued along Whatcom Creek in Sectors A, B, C, and F. In Sector A, workers conducted restoration work from A17.38 – A31.88. Work in Sector B from B00.00 – B22.21 was restoration maintenance. Work in Sector C included debris removal C00.00 – C19.67. Work in Sector F included manual agitation and tilling from F10.88 – F15.00. Crews at the source site completed installing the pump in the vertical well and began operation. The interceptor drain and pumping system began working immediately by de-watering MW2 and capturing free product. Other crews continued operations of the water treatment pumps and Whatcom Creek seep.

A meeting with the oversight committee (formerly unified command) was held to discuss cleanup options for lower Hannah Creek. It was decided to till the lower reach of Hannah and then flush the stream. This process was determined to be the least invasive method of removing residual hydrocarbons.

A site tour with the director of NTSB, director of DOT/RSPA and two congressional aids was conducted at the water treatment plant. Families of two of the deceased boys also visited the site later in the day.

Activities for
8/13/99: Personnel On Site: OSC-1, START-1 Weather: Cloudy skies and 70°
Total Manpower is as follows: August 13, 1999

Source Area	- 14
In-Stream	- 13
Command	- 10
Total	37

On Friday, crews continued restoration work in Whatcom Creek in Sector B (B00.00 – B05.00) and manual trenching and tilling in Sector F (F11.00 – F16.26). At the source site, crews began excavating around the 60" waterline. The excavation is progressing slowly due to the close proximity of underground utilities and structures. Soil is saturated with product and workers are required to wear to half-face respirators. The interceptor drain and pumping system continue to operate and has removed about 17 gallons of product.

All of the Whatcom Creek operations are being conducted in accordance with the Stream-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

OPL completed construction of a concrete pad over the gasoline pipeline where waterlines run overtop of the gasoline pipeline.

City of Bellingham crews continue to work on restoring the water treatment plant pump house damaged during the original explosion.

The OPL Financial Section reports approximately $7 million has been spent to date on the response (tabulated through 8/5). OPL reports that their claims department has received a total of 187 claims, having settled 76 of those for a total of approximately $110,000.

Activities to Date:

The pump was installed in the vertical well for the interceptor drain,
Crews began working in lower Hannah Creek to till the stream bed in preparation for a stream flush,
City crews work on restoring water treatment plant pump house,
Short-term restoration work began Whatcom Creek

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru August 13, 1999
	$200,000	
EPA/USCG Costs		36,350
START		85,060
Contingency		TBD
Total Project Costs		121,410

VI. DISPOSITION OF WASTES

Approximately 500 cy of contaminated soil went off site Friday, August 13, 1999. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,330 gal	0 gal	8,330 gal
Oil/water	194,510 gal	11,700 gal	185,026 gal
Other Liquids	14,087gal	600 gal	13,487 gal
Oil solids	5,660 cy	700 cy	4,960 cy
Solids		50 cy	
RCRA liquid			51,025 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			137,326gal
Non-hazardous solid			309 lbs
Non-hazardous soil			4,960 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: August 17, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #38
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: August 14 - 16, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage

Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek, however, the seepage has been reduced to a very small amount. In-stream water/sediment sampling continues as before.

Activities for
8/14/99: Personnel On Site: OSC-0, START-0 Weather: Partly cloudy and 75°
Total Manpower is as follows: August 14, 1999

Source Area	- 4
In-Stream	- 7
Command	- 4
Total	15

On Saturday, crews worked in Whatcom Creek in Sectors B (B00.00 – B05.00, tree placement and cleaning of the Smith property) and F (F11.00 – F16.26, manual trenching and tilling with a high water flush). No excavation work was conducted at the source site. Crews continued water treatment pump and seep control operations.

8/15/99: Personnel On Site: OSC-0, START-0 Weather: rainy and 70°
Total Manpower is as follows: August 15, 1999

Source Area	- 4
In-Stream	- 0
Command	- 0
Total	4

On Sunday, crews continued to work in Whatcom Creek in Sector A (A03.63 & A31.88, stream restoration using spider and excavator); Sector C (C17.38 – C22.08, manual agitation); and Sector D (D00.00 – D20.00, manual agitation). No excavation work was conducted at the source site. A crew remains on site to oversee water treatment plant pumps and seep control operations.

Activities for
8/16/99: Personnel On Site: OSC-0, START-1 Weather: rainy and 70°
Total Manpower is as follows: August 16, 1999

Source Area	- 9
In-Stream	- 14
Command	- 10
Total	36

On Monday, work continued along Whatcom Creek with crews cabling logs along the creek bank. Work on Whatcom Creek should be completed by 8/19/99. At the source site, workers continued to excavate along the 16" waterline. The Soil is highly contaminated and workers remain in half-face respirators while in excavation. The City of Bellingham continues to have its contractor oversee excavation work. Interceptor drain and pumping system continue operating removing water and product from the subsurface. No work was conducted in lower Hannah Creek today. Other crews continued operations of the water treatment pumps and seep control. Approximately 11,500 gallons of contaminated liquid were transported off site to Puget Sound Refining in Anacortes, WA.

The parents of Liam Wood visited the source site today to tour the area.

All of the Whatcom Creek operations are being conducted in accordance with the Stream-Bed Remediation Plan for Whatcom Creek. A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

City of Bellingham crews continue to work on restoring the water treatment plant pump house damaged during the original explosion.

The OPL Financial Section reports approximately $7.2 million has been spent to date on the response (tabulated through 8/13). OPL reports that their claims department has received a total of 187 claims, having settled 76 of those for a total of approximately $110,000.

Activities to Date:

The horizontal drain and pumping system continues to operate recovering free product,
Crews began working in lower Hannah Creek to till the stream bed in preparation for a stream flush,
Crews continue to excavate contaminated soil along the 16" waterline,
City crews work on restoring water treatment plant pump house,
Short-term restoration work began Whatcom Creek

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru August 16, 1999
	$200,000	
EPA/USCG Costs		36,350
START		86,035
Contingency		TBD
Total Project Costs		122,385

VI. DISPOSITION OF WASTES

No contaminated soil or liquid went off site over the three-day period. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,330 gal	0 gal	8,330 gal
Oil/water	213,415 gal	16,389 gal	197,026 gal
Other Liquids	14,087gal	600 gal	13,487 gal
Oil solids	6,210 cy	1,250 cy	4,960 cy
Solids		50 cy	
RCRA liquid			51,025 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			148,326gal
Non-hazardous solid			309 lbs
Non-hazardous soil			4,960 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: August 20, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #39
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: August 17 - 20, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage

Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek, however, the seepage has been reduced to a very small amount. In-stream water/sediment sampling continues as before.

Activities for
8/17/99: Personnel On Site: OSC-0, START-1 Weather: Sunny and 75°
Total Manpower is as follows: August 17, 1999

Source Area	- 14
In-Stream	- 6
Command	- 10
Total	30

On Tuesday, crews worked in Whatcom Creek securing trees used in the restoration along the banks. At the source site, crews continued to excavate contaminated soil along the 60" waterline. In the process of excavating, however; the operator hit the 36" bypass elbow. Though the elbow was not breached, the damage will lead to the pipe either being replaced or repaired. The City of Bellingham was on site to inspect the damage and will make the determination as to what needs to be done. A total of 17,000 gallons of contaminated water were transported off site to Puget Sound Refining in Anacortes, WA and approximately 350 cy of contaminated soil were transported to TPS in Tacoma, WA. Approximately 1,000 gallons of gasoline have been recovered via the interceptor drain pumping system and the seeps along Whatcom Creek are dry. Crews continued water treatment pump operations.

8/18/99: Personnel On Site: OSC-0, START-1 Weather: cloudy and 75°
Total Manpower is as follows: August 18, 1999

Source Area	- 14
In-Stream	- 6
Command	- 10
Total	30

On Wednesday, crews continued to work in Whatcom Creek in the gorge area (Sector A) cabling logjams in place. At the source site, crews continued to excavate along the 60" waterline. Soil remains highly contaminated and workers are required to wear half-face respirators. A second crew collected field-screening samples using both a Photoionization detector (PID) and sheen testing, from lower Hannah Creek to determine how successful the first flush was. A crew remains on site to oversee water treatment plant pump operations.

A safety shutdown was implemented at the end of the day as a result of two near misses at the source site. The decision came at the request of the source site safety officer to give the crews a long weekend to regroup. A detailed safety meeting will be held Monday morning to discuss past activities and current expectations.

A Joint Restoration Committee meeting was held to discuss lower Hannah Creek, short-term restoration work on Whatcom Creek, and the toxic action levels developed for Whatcom Creek.

Activities for
8/19/99: Personnel On Site: OSC-1, START-1 Weather: Partly cloudy skies and 75°
Total Manpower is as follows: August 19, 1999

Source Area	- 2
In-Stream	- 6
Command	- 10
Total	18

On Thursday, short-term restoration work completed along Whatcom Creek. No environmental work was conducted at the source site with the exception of Philip Environmental picking up 36

drums of spent PPE and contaminated sorbent pads and boom. Drums were transported to Burlington Environmental Inc. (BEI), in Tacoma, WA for disposal. Other crews continued operating the water treatment pumps and the interceptor drain pumping system.

Activities for
8/20/99: Personnel On Site: OSC-0, START-1 Weather: Cloudy skies and 70°
Total Manpower is as follows: August 20, 1999

Source Area	- 2
In-Stream	- 0
Command	- 10
Total	12

On Friday, a second flush was conducted on Hannah Creek to try and volatilize remaining gasoline in the streambed. Surface water samples were collected before and after the flush. Analytical data will be available next week. Other than pump operations, no work was conducted at the source site.
A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

City of Bellingham crews continue to work on restoring the water treatment plant pump house damaged during the original explosion.

The OPL Financial Section reports approximately $7.2 million has been spent to date on the response (tabulated through 8/13). OPL reports that their claims department has received a total of 187 claims, having settled 76 of those for a total of approximately $110,000.

Activities to Date:
The pump was installed in the vertical well for the interceptor drain,
Conducted first flush in lower Hannah Creek,
City crews work on restoring water treatment plant pump house,
Short-term restoration work completed in Whatcom Creek

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru August 20, 1999
	$200,000	
EPA/USCG Costs		36,350
START		88,985
Contingency		TBD
Total Project Costs		125,335

VI. DISPOSITION OF WASTES

A total of 17,000 gallons of liquid was transported off site to Puget Sound Refining, approximately 350 cy of contaminated soil went off site toTPS, and 36 drums of spent PPE, sorbent pads and boom were shipped off site to BEI over the four-day period. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,330 gal	0 gal	8,330 gal
Oil/water	223,253 gal	9,237 gal	214,026 gal
Other Liquids	14,087gal	600 gal	13,487 gal
Oil solids	6,400 cy	1,100 cy	5,300 cy
Solids	89 drums and 32 cy	32 cy	89 drums
RCRA liquid			51,025 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			165,326 gal
Non-hazardous solid			309 lbs
Non-hazardous soil			5,300 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: **August 24, 1999**
FROM: **Thor Cutler OSC, EPA, Region 10**
DEPT: **Ofc of Environmental Cleanup, EPA-10 (ECL-116)**
TEL: **ofc (206) 553-1673/2136**
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: **See Distribution List**
SUBJ: **Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #40**
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: August 21 - 23, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage

Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seepage to Whatcom Creek has stopped due to the de-watering by the interceptor drain and vertical well pumping system. Excavation of contaminated soil continues at the water filtration treatment plant. In-stream water/sediment sampling continues.

Activities for
8/21/99: Personnel On Site: OSC-0, START-0 Weather: Sunny and 75°
Total Manpower is as follows: August 21, 1999

Source Area	- 2
In-Stream	- 0
Command	- 2
Total	4

No work was conducted at the source site or along Whatcom Creek. Crews continued water treatment pump operations.

8/22/99: Personnel On Site: OSC-0, START-0 Weather: sunny and 75°
Total Manpower is as follows: August 22, 1999

Source Area	- 2
In-Stream	- 0
Command	- 0
Total	2

No work was conducted at the source site or along Whatcom Creek. Crews continued water treatment pump operations.

Activities for
8/23/99: Personnel On Site: OSC-0, START-1 Weather: Partly cloudy skies and 80°
Total Manpower is as follows: August 23, 1999

Source Area	- 14
In-Stream	- 0
Command	- 10
Total	24

On Monday at the source site, crews continued excavating contaminated soil along the 60-inch waterline south of the utility corridor. Crews continued oversight operations of the water treatment pumps.

A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

City of Bellingham crews continue to work on restoring the water treatment plant pump house damaged during the original explosion.

The OPL Financial Section reports approximately $7.2 million has been spent to date on the response (tabulated through 8/20). OPL reports that their claims department has received a total of 187 claims, having settled 76 of those for a total of approximately $110,000.

Activities to Date:

Began pumping from the vertical well for the interceptor drain,
Conducted second flush in lower Hannah Creek,
City crews work on restoring water treatment plant pump house,
Short-term restoration work completed in Whatcom Creek

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru August 20, 1999
	$200,000	
EPA/USCG Costs		36,350
START		89,960
Contingency		TBD
Total Project Costs		126,310

VI. DISPOSITION OF WASTES

Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,330 gal	0 gal	8,330 gal
Oil/water	223,253 gal	9,237 gal	214,026 gal
Other Liquids	14,087gal	600 gal	13,487 gal
Oil solids	6,400 cy	1,100 cy	5,300 cy
Solids	89 drums and 32 cy	32 cy	89 drums
RCRA liquid			51,025 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			165,326 gal
Non-hazardous solid			309 lbs
Non-hazardous soil			5,300 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: August 27, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #41
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: August 24 - 27, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage

Pugent Sound Refinery. Nineteen drums of saturated sorbent pads and boom (approximately 393 gallons of product) were disposed through Phillips Environmental. Approximately 4,000 gallons of gasoline/water mixture and 353 gallons of product are currently stored on site.

VII. STATUS

Case pending.

DISTRIBUTION

EPA ECL/Region X, Fax (206) 553-0124
Attn: Chris Field - field.chris@epa.gov
Bill Longston - longston.bill@epa.gov
Mary Mathews - matthews.mary@epa.gov
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Carl Kitz – kitz.carl@epa.gov

EPA HQ, Washington DC, Fax (703) 603-9107
Attn: Terry Eby – eby.terry@epa.gov
Dana Stalcup - stalcup.dana@epa.gov
Dan Thornton - thornton.dan@epa.gov

USCG D13
Attn: Ensign Ed Kessler - ekesler@pacnorwest.uscg.mil

US DOT OPS, Washington DC,
Attn: Jim Taylor - jim.taylor@rspa.dot.gov

Tulalip Tribe
Attn: Reid Allison – aratulalip@aol.com

Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery continues in Hannah Creek, and in Whatcom Creek, however, the seepage has been reduced to a very small amount. In-stream water/sediment sampling continues as before.

Activities for
8/24/99: Personnel On Site: OSC-1, START-1 Weather: Sunny and 75°
Total Manpower is as follows: August 14, 1999

Source Area	- 14
In-Stream	- 0
Command	- 10
Total	24

On Tuesday, crews completed excavating contaminated soil along the 60" waterline south of the utility corridor road. Next will be to dig a test pit north of the utility corridor to track contamination. Approximately 600 cy of contaminated soil were transported to TPS in Tacoma, WA. Crews continued water treatment pump operations.

A press conference was held at the water treatment plant to update the media on restoration activities. OSC Cutler led the press tour.

8/25/99: Personnel On Site: OSC-0, START-1 Weather: rain in the a.m. then sunny and 75°
Total Manpower is as follows: August 25, 1999

Source Area	- 14
In-Stream	- 0
Command	- 10
Total	24

On Wednesday crews completed the first test pit north of the utility corridor road. Approximately 1.5 feet of soil above the 60" waterline was contaminated and crews worked in half-face respirators. A dry well was installed adjacent to the 60" line to determine if any free product was in the bedding material. A crew remains on site to oversee water treatment plant pump operations.

A Joint Restoration Committee meeting was held to discuss lower Hannah Creek, short-term restoration work on Whatcom Creek, and the toxic action levels developed for Whatcom Creek.

Activities for
8/26/99: Personnel On Site: OSC-0, START-1 Weather: Partly cloudy skies and 75°
Total Manpower is as follows: August 26, 1999

Source Area	- 14
In-Stream	- 0
Command	- 10
Total	24

On Thursday, the dry well installed adjacent to the 60" line was checked for free product and none was detected. Crews began excavating the second test pit about 40' to the northeast of the first test pit. The 60" line was located and only 100-150 ppm TPH vapors were reported. Workers were not required to wear half-face respirators. Work shut down early so that crews could return to the water treatment plant to help the City of Bellingham workers shut down the city water supply and replace a 24" valve at 2300 hours. Other crews continued operating the water treatment pumps and the interceptor drain pumping system.

Activities for
8/27/99: Personnel On Site: OSC-0, START-1 Weather: Partly cloudy skies and 75°
Total Manpower is as follows: August 27, 1999

Source Area	- 2
In-Stream	- 0
Command	- 10
Total	12

On Friday, no work was conducted at the source site due to the work done with the City of Bellingham over night. Excavation work will commence 8/30/99. Oversight for the pump operations continues.
A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

City of Bellingham crews continue to work on restoring the water treatment plant pump house damaged during the original explosion.

The OPL Financial Section reports approximately $7.2 million has been spent to date on the response (tabulated through 8/13). OPL reports that their claims department has received a total of 187 claims, having settled 76 of those for a total of approximately $110,000.

Activities to Date:

The pump was installed in the vertical well for the interceptor drain,
Conducted second flush in lower Hannah Creek,
City crews work on restoring water treatment plant pump house,
Short-term restoration work completed in Whatcom Creek

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru August 20, 1999
	$200,000	
EPA/USCG Costs		36,350
START		92,745
Contingency		TBD
Total Project Costs		129,095

VI. DISPOSITION OF WASTES

A total of 10,000 gallons of liquid was transported off site to Puget Sound Refining and approximately 600 cy of contaminated soil went off site toTPS. Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,330 gal	0 gal	8,330 gal
Oil/water	231,078 gal	4,184 gal	226,894 gal
Other Liquids	14,087gal	600 gal	13,487 gal

Oil solids	6,562 cy	630 cy	5,932 cy
Solids	89 drums and 32 cy	32 cy	89 drums

RCRA liquid	68,025 gal
RCRA solid	8,600 lbs
RCRA soil	
Non-hazardous liquid	175,421 gal
Non-hazardous solid	309 lbs
Non-hazardous soil	5,932 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: August 31, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #42
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: August 28 - 30, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage

Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seepage to Whatcom Creek has stopped due to the de-watering by the interceptor drain and vertical well pumping system. Excavation of contaminated soil continues at the water filtration treatment plant. In-stream water/sediment sampling continues.

Activities for
8/28/99: Personnel On Site: OSC-0, START-0 Weather: Sunny and 75°
Total Manpower is as follows: August 28, 1999

Source Area	- 2
In-Stream	- 0
Command	- 2
Total	4

No work was conducted at the source site or along Whatcom Creek. Crews continued water treatment pump operations.

8/29/99: Personnel On Site: OSC-0, START-0 Weather: cloudy with light rain and 70°
Total Manpower is as follows: August 29, 1999

Source Area	- 2
In-Stream	- 0
Command	- 0
Total	2

No work was conducted at the source site or along Whatcom Creek. Crews continued water treatment pump operations.

Activities for
8/30/99: Personnel On Site: OSC-1, START-1 Weather: Partly cloudy skies and 65°
Total Manpower is as follows: August 30, 1999

Source Area	- 8
In-Stream	- 0
Command	- 10
Total	18

On Monday at the source site, crews conducted a pilot test of a vapor extraction system near the pump house and constructed concrete vaults around the entry and exit points of the horizontal well and around the pump on the vertical well. Crews continued oversight operations of the water treatment pumps.

A START member continues to rove between the work crews overseeing operations and providing written/photo documentation on behalf of the EPA.

City of Bellingham crews continue to work on restoring the water treatment plant pump house damaged during the original explosion. Currently awaiting pipe wrap test results from the 60" waterline conducted by the manufacturer.

The OPL Financial Section reports approximately $7.2 million has been spent to date on the response (tabulated through 8/20). OPL reports that their claims department has received a total of 187 claims, having settled 76 of those for a total of approximately $110,000.

Activities to Date:

Continue pumping from the vertical well for the interceptor drain,
Work on vapor extraction system design,
Begin redesign of Hannah Creek,
City employees work on restoring water treatment plant pump house,
Short-term restoration work completed in Whatcom Creek

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings $200,000	Estimated Costs (including awaits) Thru August 30, 1999
EPA/USCG Costs		37,150
START		93,610
Contingency		TBD
Total Project Costs		130,760

VI. DISPOSITION OF WASTES

Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,330 gal	0 gal	8,330 gal
Oil/water	223,253 gal	9,237 gal	214,026 gal
Other Liquids	14,087gal	600 gal	13,487 gal
Oil solids	6,400 cy	1,100 cy	5,300 cy
Solids	89 drums and 32 cy	32 cy	89 drums
RCRA liquid			51,025 gal
RCRA solid			8,600 lbs
RCRA soil			
Non-hazardous liquid			165,326 gal
Non-hazardous solid			309 lbs
Non-hazardous soil			5,300 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: September 16, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #43
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: August 31 – September 3, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage

Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery along Whatcom Creek has stopped due to the de-watering by the horizontal and vertical well pumping system. The seep in Hannah Creek continues, but TPH-G levels are decreasing. In-stream water/sediment sampling continues, but less frequently.

Activities for
8/31/99: Personnel On Site: OSC-0, START-1 Weather: Partly cloudy and 70°
Total Manpower is as follows: August 31, 1999

Source Area	- 14
In-Stream	- 0
Command	- 10
Total	24

On Tuesday, crews completed testing VES around the pump house. Initial test results indicated VES will recover residual contamination in soil. OPL contractor demobed from source site and will return September 7, 1999 to replace Hannah Creek culvert. Crews continued water treatment pump operations.

9/1/99: Personnel On Site: OSC-0, START-1 Weather: rain in the a.m. then sunny and 75°
Total Manpower is as follows: September 1, 1999

Source Area	- 14
In-Stream	- 0
Command	- 10
Total	24

On Wednesday, no excavation work was conducted at the source site. Other crews continued operating the water treatment pumps and the interceptor drain pumping system.

A Joint Restoration Committee meeting was held to discuss lower Hannah Creek, short-term restoration work on Whatcom Creek, and the toxic action levels developed for Whatcom Creek.

The START demobilized from Bellingham, Washington at the direction of the OSC.

Activities for
9/2/99: Personnel On Site: OSC-0, START-0 Weather: Partly cloudy skies and 75°
Total Manpower is as follows: September 2, 1999

Source Area	- 14
In-Stream	- 0
Command	- 10
Total	24

On Thursday, no excavation work was conducted at the source site. Other crews continued operating the water treatment pumps and the interceptor drain pumping system.

Activities for
9/3/99: Personnel On Site: OSC-0, START-0 Weather: Partly cloudy skies and 75°
Total Manpower is as follows: September 3, 1999

Source Area	- 2
In-Stream	- 0
Command	- 10
Total	12

On Friday, no work was conducted at the source site. Oversight for the pump operations continues.

City of Bellingham crews continue to work on restoring the water treatment plant pump house damaged during the original explosion.

The OPL Financial Section reports approximately $7.2 million has been spent to date on the response (tabulated through 8/13). OPL reports that their claims department has received a total of 187 claims, having settled 76 of those for a total of approximately $110,000.

Activities to Date:

The pump was installed in the vertical well for the interceptor drain,
Conducted second flush in lower Hannah Creek,
City crews work on restoring water treatment plant pump house,
Short-term restoration work completed in Whatcom Creek,
Initial test on VES near pump house completed.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru September 3, 1999
	$200,000	
EPA/USCG Costs		36,350
START		96,355
Contingency		TBD
Total Project Costs		132,705

VI. DISPOSITION OF WASTES

Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,511 gal	0 gal	8,511 gal
Oil/water	240,598 gal	4,304 gal	236,294 gal
Other Liquids	14,087gal	600 gal	13,487 gal
Oil solids	6,562 cy	630 cy	5,932 cy
Solids	85 drums and 32 cy	20 cy	85 drums and 12 cy
RCRA liquid			77,425 gal
RCRA solid			10,617 lbs
RCRA soil			
Non-hazardous liquid			175,421 gal
Non-hazardous solid			342 lbs
Non-hazardous soil			5,932 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: September 27, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #44
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: September 13 – September 24, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage

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Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery along Whatcom Creek has stopped due to the de-watering by the horizontal and vertical well pumping system. The seep in Hannah Creek continues, but TPH-G levels are decreasing. In-stream water/sediment sampling has completed for the emergency phase.

The START demobilized from Bellingham, Washington at the direction of the OSC. The OSC continues to participate in daily call-in meetings with the RP, city, and state representatives.

At the source site, oversight for the pump operations continues. The excavation of contaminated soil has been completed and OPL contractors work to finalize the VES design. Hannah Creek is currently in the process of being reconstructed with logjams, slope stabilization, and vegetation.

City of Bellingham crews continue to work on restoring the water treatment plant pump house damaged during the original explosion as well as pipe wrap repair.
The OPL Financial Section reports approximately $8.5 million has been spent to date on the response (tabulated through 9/3). OPL reports that their claims department has received a total of 187 claims, having settled 76 of those for a total of approximately $110,000.

Activities to Date:

City crews work on restoring water treatment plant pump house,
Excavation work completed at source site,
VES design being drafted for source site.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru September 3, 1999
	$200,000	
EPA/USCG Costs		36,350
START		96,355
Contingency		TBD
Total Project Costs		132,705

VI. DISPOSITION OF WASTES

Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,511 gal	0 gal	8,511 gal
Oil/water	240,598 gal	4,304 gal	236,294 gal
Other Liquids	14,087gal	600 gal	13,487 gal
Oil solids	6,562 cy	630 cy	5,932 cy
Solids	85 drums and 32 cy	20 cy	85 drums and 12 cy
RCRA liquid			77,425 gal
RCRA solid			10,617 lbs
RCRA soil			
Non-hazardous liquid			175,421 gal
Non-hazardous solid			342 lbs
Non-hazardous soil			5,932 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: October 1, 1999
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #45
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: September 24 – October 1, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:
1. Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on 6/11. A Natural Resource Damage

Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume. For additional background information see Polrep #1.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

Situation: The temporary city water supply bypass system continues to be operated. Seep recovery along Whatcom Creek has stopped due to the de-watering by the horizontal and vertical well pumping system. The seep in Hannah Creek continues, but TPH-G levels are decreasing. In-stream water/sediment sampling has completed for the emergency phase.

The START demobilized from Bellingham, Washington at the direction of the OSC. The OSC continues to participate in daily call-in meetings with the RP, city, and state representatives.

At the source site, oversight for the pump operations continues. The excavation of contaminated soil has been completed and OPL contractors work to finalize the VES design. Hannah Creek reconstruction has been completed between the 1st and 2nd culverts. The 2nd set of culverts will be replaced starting 10/1/99. All excavated stockpiled soil has been transported off site for disposal.

City of Bellingham crews continue to work on restoring the water treatment plant pump house damaged during the original explosion as well as pipe wrap repair. Crews with the city will also drain the 16 million-gallon reservoir in order to replace the damaged 36-inch by pass elbow and inspect the interior lining of the 72 and 60-inch water lines.

The OPL Financial Section reports approximately $9.3 million has been spent to date on the response (tabulated through 9/17). OPL reports that their claims department has received a total of 187 claims, having settled 76 of those for a total of approximately $110,000.

Activities to Date:

City crews work on restoring water treatment plant pump house,
Excavation work completed at source site,
VES design being drafted for source site.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru September 3, 1999
	$200,000	
EPA/USCG Costs		36,350
START		96,355
Contingency		TBD
Total Project Costs		132,705

VI. DISPOSITION OF WASTES

Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,511 gal	0 gal	8,511 gal
Oil/water	288,740 gal	8,205 gal	272,259 gal
Other Liquids	14,087gal	0 gal	14,087 gal
Oil solids	8,050 cy	0 cy	8,050 cy
Solids	85 drums and 34 cy	0 cy	85 drums and 34 cy
RCRA liquid			106,575 gal
RCRA solid			10,617 lbs
RCRA soil			
Non-hazardous liquid			175,421 gal
Non-hazardous solid			342 lbs
Non-hazardous soil			8,050 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION
Same as POLREP 29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

I. HEADING

DATE: January 18, 2000
FROM: Thor Cutler OSC, EPA, Region 10
DEPT: Ofc of Environmental Cleanup, EPA-10 (ECL-116)
TEL: ofc (206) 553-1673/2136
field (206) 605-6635, Meridian Office 360-733-9715, Fax 360-733-9829
TO: See Distribution List
SUBJ: Olympic Pipeline Major Gasoline Spill Whatcom Creek POLREP #46
Bellingham, Washington

II. BACKGROUND

Site ID: SSID # pending, FPN S99043
State Notification: Yes
Removal Start Date: June 10, 1998
Expected Completion Date: unknown
Incident Category: Emergency
Activity Period: October 1, 1999 – December 31, 1999

III. SITE INFORMATION

Incident Category:
This is an emergency action.

Site Description and Background:

1. Initial Site Background: At approximately 1630 hours, June 10, 1999, an Olympic Pipe Line (OPL) 16" pipeline, carrying ARCO unleaded gasoline, experienced a rupture for an undetermined reason, and released 277,200 (final amount determined by OPL) gallons. The pipeline is adjacent to the City of Bellingham Water Treatment Facility in Whatcom Falls Park. The resulting spill leaked into Hanna Creek, a tributary to Whatcom Creek that runs through the metropolitan area of Bellingham, Washington. Approximately one-half hour later (around 1702 hours) an explosion occurred igniting the fuel impacted portions of the creeks. The explosion impacted approximately one mile of the creeks downstream from the source location and disrupted the City of Bellinghams water supply. The explosion, and resulting fires, consumed the vast majority of the fuel. As a result of the explosion three people were killed and 10 injured. Responders established a Unified Command consisting of federal (EPA), state (WA Dept. of Ecology), local (Bellingham Fire Department) officials as well as the Responsible Party, OPL. An Emergency Operations Center (EOC) was initially activated at the Best Western Motel on 6/10 and moved to the Whatcom County EOC on

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6/11. A Natural Resource Damage Assessment (NRDA) team, consisting of representatives from the U.S. Fish & Wildlife Service (USF&WS), the National Oceanographic & Atmospheric Agency (NOAA), and Washington State Department of Ecology (Ecology) assembled on 6/12 to begin damage assessment surveys and to work with OPL representatives on development of an Emergency Restoration Plan for the creek area. An accident investigation team, consisting of representatives from the National Transportation Safety Board (NTSB), U.S. DOTs Office of Pipeline Safety, and Washington State Department of Ecology, assembled on 6/11 to begin looking into the cause of the pipeline failure. On 6/14, at the direction of the UC, Bellingham Fire Department extinguished the main source fire due to concern for toxic smoke fumes threatening the responders in the area. OPL informed the UC that between OPL and Transmountain Pipelines they carry approximately 300,000 barrels of product throughout the northwest each day. While OPLs line is shutdown, the approximate amount of product being currently transported is slightly less that 50% of that volume.

On June 27, 1999, the reroute of the city of Bellingham's waterlines was completed and the excavation of the ruptured section of the OPL line began. By July 8, 1999 the sections of the pipeline under investigation were isolated and removed under the direction of NTSB.

Excavation of contaminated soil in the source area (adjacent to the water treatment plant) began July 11, 1999. An interceptor drain and extraction well were installed, parallel to Whatcom Creek, and operational by August 10, 1999 to prevent residual free product from seeping into the creek. The interceptor drain was approximately 30 feet below-ground-surface and 300 feet long. As crews continued to excavate contaminated soil at the source site, a design for a vapor extraction system was being developed. Because of the extent of contamination along and within Hannah Creek, the creek bed and banks were excavated. By the end of September 1999, Hannah Creek was being reconstructed with two new sets of culverts, logjams, pools, and riffles. During the month of December 1999, the vapor extraction system was installed and the aboveground equipment secured. By the end of November, OPL's contractor submitted the Site Character and Remediation Report for the pipeline release area.

Emergency creek restoration was conducted expeditiously in an effort to prepare for salmon spawning by mid-August. Emergency restoration work included both manual and mechanical agitation using a track-hoe excavator and a spider excavator. Stream bank flushing also was incorporated.

From the initial emergency response phase through the restoration phase of the Whatcom Creek Incident, public relation efforts were extensive. Many federal, state, local, and private representatives visited the site and were given site tours led by the EPA OSC. EPA fact sheets were distributed and the OSC answered many questions posed by the general public and political officials. Congressional hearings also were conducted as a result of the pipeline accident in an effort to improve current pipeline safety protocols.

2. Physical Location: See Polrep #1

3. Site Characteristics: See Polrep #1

4. Release or Threatened Release into the Environment of a hazardous substance, pollutant, or contaminant: See Polrep #4

IV. REMOVAL INFORMATION

Information regarding the release and associated press releases can also be found on the Internet at www.co.whatcom.wa.us. Additional photographs, including ones obtained by the EPA, are available on the web page.

Planned Removal Activities: Safety, security, and environmental restoration remain the lead activities.

At the source site, the city's water treatment pump house was restored and is fully operational. Pump operations for the city of Bellingham's temporary water was terminated the first week of December 1999. A concrete pad was constructed for the CatOx equipment and the VE system is scheduled to be operational by the first part of January 2000. Hannah Creek reconstruction has been completed and natural flow restored by November 1999. Vegetation was observed growing along the banks of both creeks during a December 29th site visit. All excavated stockpiled soil has been transported off site for disposal.

The OPL Financial Section reports approximately $21 million has been spent to date on the response (tabulated through 12/16/99).

Activities to Date:

VE system expected to be fully operational by the first part of January.
OPL has completed the Site Characterization and Remediation Report.
The city of Bellingham's water treatment pump house is fully operational.

V. COST INFORMATION

The cost to accomplish this action is summarized below. The total authorized ceiling is $200,000 (increased 7/21). A breakdown of costs is as follows:

	Established Ceilings	Estimated Costs (including awaits) Thru December 31, 1999
	$200,000	
EPA/USCG Costs		36,350
START		109,930
Contingency		TBD

Total Project Costs 146,280

VI. DISPOSITION OF WASTES

Total waste disposal to date is as follows:

Waste Type	Recovered	Stored (on site)	Disposed of (off-site)
Oil	8,511 gal	0 gal	8,511 gal
Oil/water	420,506 gal	8,222 gal	412,284 gal
Other Liquids	66,087gal	0 gal	66,087 gal
Oil solids	9,519 cy	0 cy	9,519 cy
Solids	86 drums and 39 cy	1 drum and 5 cy	86 drums and 39 cy
RCRA liquid			189,615 gal
RCRA solid			10,617 lbs
RCRA soil			
Non-hazardous liquid			222,669 gal
Non-hazardous solid			342 lbs
Non-hazardous soil			9,519 cy

VII. STATUS

Case pends, however, it has moved into the project phase.

DISTRIBUTION

Same as POLREP 29