

PERIODIC REVIEW

Unocal Bulk Plant Facility/Site ID #: 17342596

111 Pine Street Newport, Washington 99156

Eastern Regional Office

TOXICS CLEANUP PROGRAM

May 2010

1.0	1.0 INTRODUCTION				
2.0	SUMMARY OF SITE CONDITIONS	2			
2.	Site History	2			
2.2	2 Site Investigations and Remedial Actions	2			
2.3	8 Restrictive Covenant	4			
3.0	PERIODIC REVIEW	6			
3.	Effectiveness of completed cleanup actions	б			
3.2	2 New scientific information for individual hazardous substances for mixtures present at				
	the Site	б			
3.3	8 New applicable state and federal laws for hazardous substances present at the Site	б			
3.4	Current and projected Site use	7			
3.:	5 Availability and practicability of higher preference technologies	7			
3.0	Availability of improved analytical techniques to evaluate compliance with cleanup				
	levels	7			
4.0	CONCLUSIONS	8			
4.	Next Review	8			
5.0	5.0 REFERENCES				
6.0	APPENDICES	0			
6.	Vicinity Map1	1			
6.2	2 Site Plan12	2			
6.	B Restrictive Covenant	3			
6.4	Photo log19	9			

1.0 INTRODUCTION

This document is the Department of Ecology's review of post-cleanup site conditions and monitoring data to ensure human health and the environment are being protected at the former Unocal Bulk Plant site (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA), Chapter 173-340 of the Washington Administrative Code (WAC).

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP). The cleanup actions resulted in residual concentrations of total petroleum hydrocarbons (TPH) in soil that exceed MTCA Method A cleanup levels established under WAC 173-340-740 (2), which requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- Whenever the department conducts a cleanup action; or
- Whenever the department approves a cleanup action under an order, agreed order, or consent decree;
- Or, as resources permit, whenever the department issues a no further action opinion;
- And one of the following conditions exists:
 - (a) Institutional controls or financial assurance are required as part of the cleanup; or
 - (b) Where the cleanup level is based on a practical quantitation limit;
 - (c) Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to ensure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the site.
- (b) New scientific information for individual hazardous substances of mixtures present at the Site.
- (c) New applicable state and federal laws for hazardous substances present at the Site.
- (d) Current and projected Site use.
- (e) Availability and practicability of more permanent remedies.
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site History

The former Unocal Bulk Plant site (Site) is located at the intersection of Pine and State Streets in the city of Newport, Pend Oreille County, Washington. A vicinity map is available as Appendix 6.1 and a Site plan is available as Appendix 6.2. Following remedial activities that took place between 1989 and 1999, a Restrictive Covenant was recorded for the property, and the Site received a No Further Action determination.

In 1926, the Union Oil Company of California purchased the property and began operation of a bulk fuel and oil facility. The facility operated until October 31, 1991, when the Site was closed. During the later period of operation, the facility used 5 vertical aboveground storage tanks (ASTs) and 2 horizontal lube oil ASTs located in the southern portion of the Site. A concrete dike surrounded the product storage area in order to contain any spills. A warehouse with an adjoining office and enclosed platform was located in the northeast portion of the Site. A loading and unloading area, served by underground product lines, was located between the warehouse and product storage areas. Currently, the Site is used as a used car dealership and a storage unit rental facility.

2.2 Site Investigations and Remedial Actions

A subsurface investigation was conducted at the Site in 1989. The investigation included collecting soil samples from eight borings (labeled HA-1 through HA-8), and installing six vapor probes (VP-1 through VP-6) in the borings. Laboratory results indicated that TPH was present at concentrations exceeding Method A cleanup levels in the majority of the borings. The highest concentration of diesel-range hydrocarbons was detected in the soil sample collected at 18 feet in VP-4 [4,200 milligrams per kilogram (mg/kg)]. A sample collected from VP-4 at 33 feet was non-detect for benzene, toluene, ethylbenzene, and xylene (BTEX) and TPH. VP-4 was located in the vicinity of the abandoned underground product lines.

In 1992, approximately 800 cubic yards of petroleum-contaminated soil were excavated from the northwest portion of the property and stockpiled in the southern portion of the Site. Soil was removed to a maximum depth of 3 feet below ground surface (bgs). The excavation was in the vicinity of borings HA-1 and HA-2. Based on field screening and results from samples collected from the excavation, petroleum-contaminated soil remained in areas along the north and west property boundaries, and in the area of the former ASTs.

In November 1994, 11 test pits (TP-1 through TP-11) were completed to define the extent of contamination. Test pits were located in the vicinity of the previous excavation (TP-1 through TP-3), in the vicinity of the abandoned underground product lines (TP-4, TP-5, and TP-9), and in the location of the former aboveground heating oil, waste oil, lube oil, and product tanks (TP-6, TP-7, TP-10, and TP-11). Test pit TP-8 was excavated in the location of a drywell. The test pits were completed to depths ranging from approximately 7 to 12.5 feet bgs. At least one soil

sample was collected from each pit and submitted for hydrocarbon identification. Gasoline-, diesel-, and heavy-oil range hydrocarbons were identified in samples from TP-4, located near the underground product lines. Diesel-range hydrocarbons were also identified in a sample from TP-11, located near the former ASTs

Six soil borings (VP-7 through VP-11 and B-1) were installed to depths ranging from 44.5 to 45 feet bgs. At least one soil sample was collected from each boring and submitted for hydrocarbon identification. Diesel-range hydrocarbons were detected in the sample from VP-10 at 29.5 feet bgs, which was located in the vicinity of the abandoned underground product lines and the former truck loading rack. However, the concentration (110 mg/kg) was below the Method A cleanup level (200 mg/kg) for diesel in soil.

In September 1996, eight soil samples were collected from the stockpiled soil from the 1992 excavation stored at the southern portion of the Site. Seven of the eight samples contained diesel-range hydrocarbon concentrations exceeding 200 mg/kg. All eight samples contained oil-range hydrocarbons exceeding 200 mg/kg. The TPH concentrations (the sum of gasoline-, diesel-, and oil-range hydrocarbon concentrations) ranged from 435 mg/kg to 3,754 mg/kg.

In August 1997, additional test pit sampling (TP-12 through TP-17) and stockpile sampling was conducted. Evidence of TPH contamination was observed at TP-14 and TP-15.

Soil samples were collected from each test pit, and five composite samples were collected from the stockpile. Samples were analyzed for diesel- and oil-range petroleum hydrocarbons by method NWTPH-Dx. In addition, samples were analyzed for gasoline-range petroleum hydrocarbons by method NWTPH-G and BTEX.

All test pit samples were below Method A cleanup levels, except one near-surface sample (1.5 feet). This sample contained the highest concentration of petroleum hydrocarbons at the Site (15,800 mg/kg diesel and 555 mg/kg gasoline). BTEX and gasoline-range hydrocarbons were not detected above MTCA Method A cleanup levels in any other samples.

Based on these results, samples were further evaluated for compliance using Ecology's Interim TPH Policy criteria. These samples were submitted to the lab and analyzed for volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH), and polynuclear aromatic hydrocarbons (PAHs). Using data from these samples, a Site-specific cleanup level of 3,871 mg/kg was calculated. Of the samples collected in 1997, only the TP-15 sample exceeded the calculated cleanup level.

In June 1999, excavation of soil with TPH concentrations exceeding the Site-specific soil cleanup level of 3,871 mg/kg was initiated. Excavation began in the TP-15 area and continued north of TP-15 and northwest of the large soil stockpile. Five abandoned product lines were encountered and removed during excavation activities. Soil near the product lines appeared to be impacted to depth of approximately 2.5 to 3 feet. Excavation continued in the TP-15 area until field screening indicated that the petroleum-impacted soil had been removed.

Approximately 10 cubic yards of impacted soil were excavated from the TP-4 area. About 40 cubic yards of impacted soil near HA-8 (from the 1989 investigation) were also excavated. Soil samples were collected from the excavation to confirm removal of contaminated soil.

Soil samples were analyzed for gasoline-, diesel-, and oil-range hydrocarbons and BTEX. Gasoline-range hydrocarbons and BTEX were not detected in any sample. Diesel and oil-range hydrocarbons were detected at concentrations below the Site-specific TPH cleanup level of 3,871 mg/kg.

Based on data obtained during remedial activities at the Site, soil within 15 feet of the ground surface with TPH concentrations exceeding the Site-specific soil cleanup level of 3,871 mg/kg have been removed from the Site. One soil sample (VP-4) collected from 18 feet below ground surface during the 1989 investigation contained gasoline at a concentration of 4,200 mg/kg. A sample collected in the same location but at 33 feet was non-detect.

It was determined that the Site would be eligible for a no further action determination if institutional controls were implemented in the form of a Restrictive Covenant which would prevent the exposure of contaminated soils remaining at the Site and notify future property owners of the remaining contamination.

2.3 Restrictive Covenant

A Restrictive Covenant was recorded for the Site in 2002 which imposes the following limitations:

- 1. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the area of VP-4 (MW-4) below 5 feet include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, bulldozing or earthwork, or any activities that may cause migration of the hazardous substances.
- 2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.
- 3. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.
- 4. The Owner of the property must give thirty (30) days advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.
- 5. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions on the use of the Property.

- 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.
- 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action, to take samples, to inspect remedial actions conducted at the property, and to inspect records that are related to the Remedial Action.
- 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

A copy of the Restrictive Covenant for the Site is available as Appendix 6.3.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

Based on a Site visit conducted by Ecology on May 12, 2010, the Site is currently occupied by a used car dealership and a storage unit rental facility. Site access is limited by security fencing. A combination of asphalt and compacted gravel surface serve as a cap for the Site and eliminate the human exposure pathways (ingestion, contact) to contaminated soils. The asphalt surface is in acceptable condition, but holes in the asphalt remain where excavation took place during remedial activities. No repair, maintenance, or contingency actions have been required. A photo log is available as Appendix 6.4.

The Restrictive Covenant for the Site was recorded and is in place. This Restrictive Covenant prohibits activities that will result in the release of contaminants contained as part of the cleanup without Ecology's approval, and it prohibits any use of the property that is inconsistent with the Covenant. This Restrictive Covenant serves to ensure the long term integrity of the surface cover.

3.2 New scientific information for individual hazardous substances for mixtures present at the Site

There is no new pertinent scientific information for the contaminants related to the Site.

3.3 New applicable state and federal laws for hazardous substances present at the Site

Although cleanup levels changed for many contaminants as a result of modifications to MTCA in 2001, contamination likely remains at the Site above MTCA Method A cleanup levels and below calculated Site-specific cleanup levels.

A table containing MTCA Method A cleanup levels from 1991 and 2001 is available below:

Analyte	1991 MTCA Soil Cleanup Level (ppm)	2001 MTCA Method A Soil Cleanup Level (ppm)
ТРН	NL	NL
TPH-Gas	100	100/30*
TPH-Diesel	200	2000
TPH-Oil	200	2000

Table 1: Changes to MTCA Method A Cleanup Levels

* The second value is used if benzene is present.

3.4 Current and projected Site use

The Site is currently used for commercial purposes. There have been no changes in current or projected future Site or resource uses.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous materials, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial action were capable of detection well below MTCA Method A cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

4.0 CONCLUSIONS

- The cleanup actions completed at the Site are protective of human health and the environment.
- Soils cleanup levels have not been met at the Site; however, the cleanup action does comply with cleanup standards at the time of the action, since the long-term integrity of the containment system is ensured and the requirements for containment technologies have been met.
- The Restrictive Covenant for the property is in place and will be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this periodic review, the Department of Ecology has determined that the requirements of the Restrictive Covenant are being met. No additional actions are required by the property owner. It is the property owner's responsibility to continue to inspect the Site to ensure that the integrity of the surface cover is maintained.

4.1 Next Review

The next review for the Site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

5.0 **REFERENCES**

GeoEngineers. Report of Geoenvironmental Services. November 15, 1989.

GeoEngineers. Report of Geoenvironmental Services. February 9, 1995.

GeoEngineers. Report of Site Cleanup. September 27, 1999.

Ecology. VCP Review. March 16, 2000.

Ecology. Restrictive Covenant. December 16, 2002.

Ecology. No Further Action Determination. January 13, 2003.

Ecology. Site Visit. May 12, 2010.

6.0 APPENDICES

6.1 Vicinity Map



6.2 Site Plan



6.3 Restrictive Covenant

RECORDING REQUESTED BY: Chicago Title Company 1800 Columbia Center 701 Fifth Avenue Seattle, WA 98104 RETURN RECORDED DOCUMENT TO: Union Oil Company of California 376 South Valencia Avenue, AD-315 Brea, CA 92823 ATTN: KAZEN BRUTON

______uditor File #: 2002 0266279

COVEN

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on 12/16/2002 at 11:35

Total of 6 page(s) Fee: \$ 24.00

PEND OREILLE COUNTY, WASHINGT(ANN SWENSON, AUDITOR

LBLORE

RESTRICTIVE COVENANT

FORMER UNOCAL BULK PLANT 0738 (0528)

This Declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by Union Oil Company of California (hereafter referred to as

"Unocal"), its successors and assigns, and the State of Washington Department of Ecology, its

successors and assigns (hereafter referred to as "Ecology").

An independent remedial action (hereafter referred to as "Remedial Action") occurred at the property that is the subject of this restrictive covenant (hereafter referred to as "Restrictive Covenant"). The Remedial Action conducted at the property is described in the following

documents:

1.

2.

3.

Report of Geotechnical Services - Subsurface Contamination Study, Bulk Plant 0528, Newport, Washington, for Unocal: GeoEngineers, November 15, 1989.

Report of Geoenvironmental Services – Subsurface Contamination Study, Unocal Bulk Plant 0738, Newport, Washington: GeoEngineers, February 9, 1995.

Report of Site Cleanup – Subsurface Contamination and Soil Stockpiles, Former Unocal Bulk Plant 0738, Newport, Washington: GeoEngineers, September 27, 1999.

These documents are on file at Ecology's Eastern Regional Office (ERO).

2002 0266279 PAGE 1 OF 6

This Restrictive Covenant is required because the Remedial Action resulted in residual concentrations of petroleum hydrocarbons at 18 feet below grade in the area of VP-4 (MW-4) which exceed the Model Toxics Control Act Method B Residential Cleanup Levels for soil established under WAC 173-340-740.

The undersigned, Unocal, is the fee owner of the real property in the County of Pend Oreille, State of Washington (hereafter referred to as "Property"), that is subject to this Restrictive Covenant. The Property is legally described in Attachment A of this Restrictive Covenant, attached hereto and incorporated herein by this reference.

Unocal makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law, and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter individually and collectively referred to as "Owner").

Section 1. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the area of VP-4 (MW-4) below 5 feet include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the ground with a rod, spike or similar item, bulldozing or earthwork, or any activities that may cause migration of the hazardous substances.

Bulk Plant No. 0738 111 West Pine Street Newport, Washington

2002 0266279 PAGE 2 OF 6

2

Section 2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

<u>Section 3</u>. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.

<u>Section 4</u>. The Owner of the Property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.

Section 5. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions on the use of the Property.

<u>Section 6</u>. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.

Section 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action; to take samples, to inspect remedial activities conducted at the Property, and to inspect records that are related to the Remedial Action.

Bulk Plant No. 0738 111 West Pine Street Newport, Washington 3

2002 0266279 PAGE 3 OF 6

<u>Section 8</u>. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

9 02 Dated: 4

UNION OIL COMPANY OF CALIFORNIA a California corporation

3 By: Its: tac Attorney

Bulk Plant No. 0738 111 West Pine Street Newport, Washington 4

2002 0266279 PAGE 4 OF (PEND OREILLE COUNTY, WASHINGTON

ATTACHMENT A Legal Description of the Property That certain real property situate in the County of Pend Oreille, State of Washington, as follows: Lots 1,2,3, and 4 in Block 1 of Koch's Addition to Newport, Pend Oreille County, Washington; also the east one-half of the vacated alley running north and south through said Block 1. .5 . . Bulk Plant No. 0738. 111 West Pine Street Newport, Washington 2002 0266279 PAGE 5 O PEND OREILLE COUNTY, WASHINGTON PAGE 5 OF 6



6.4 Photo log

Photo 1: Former Unocal Bulk Plant Property - from the north

Photo 2: Unocal Bulk Plant Property – from the northwest





Photo 3: Rental Storage Units - from the north

Photo 4: Chevron/Unocal Boundary Fence - from north

