



**California Environmental Protection Agency
Department of Toxic Substances Control
HAZARDOUS WASTE POST CLOSURE FACILITY
PERMIT**

Facility Name:

CONOCOPHILLIPS COMPANY
SAN FRANCISCO REFINERY
1380 San Pablo Avenue
Rodeo, California 94572

Owner Name:

CONOCOPHILLIPS COMPANY
600 North Dairy Ashford Drive
Houston, Texas 77079

Operator Name:

CONOCOPHILLIPS COMPANY
600 North Dairy Ashford Drive
Houston, Texas 77074

Facility EPA ID Number:
CAD009108705

Effective Date: February 21, 2012

Expiration Date: February 20, 2022

Pursuant to California Health and Safety Code section 25200, this Resource Conservation and Recovery Act (RCRA)-equivalent Hazardous Waste Post Closure Facility Permit is hereby issued to: ConocoPhillips Company

The Issuance of this Permit is subject to the terms and conditions set forth in the Approved Application dated January 30, 2009 and the subsequent revision dated January 8, 2010. The Permit consists of 22 pages including Figures 1, 2, 9 and 13, and Figure 2 of Appendix M of the Approved Application.

//Original signed by//

Farshad Vakili, P.E., Acting Chief
Office of Permitting
Department of Toxic Substances Control
Date: January 19, 2012

**CONOCOPHILLIPS COMPANY, SAN FRANCISCO REFINERY
1380 SAN PABLO AVENUE, RODEO, CALIFORNIA 94572
EPA ID NUMBER CAD009108705
HAZARDOUS WASTE POST CLOSURE FACILITY PERMIT
PRIMARY BASIN**

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PART I. DEFINITIONS

All terms used in this Permit shall have the same meaning as those terms have in the California Health and Safety Code, division 20, chapter 6.5 and California Code of Regulations, title 22, division 4.5, unless expressly provided otherwise by this Permit.

1. **“DTSC”** as used in this Permit means the California Department of Toxic Substances Control.
2. **“Facility”** as used in this Permit means all contiguous land and structures, other appurtenances, and improvements on the land used for the treatment, transfer, storage resource recovery, disposal or recycling of hazardous waste. A hazardous waste Facility may consist of one or more treatment, transfer, storage, resource recovery, disposal or recycling operational units or combinations of these units.

For the purpose of implementing corrective action under California Code of Regulations, title 22, division 4.5, a hazardous waste Facility includes all contiguous property under the control of the owner or operator required to implement corrective action.

3. **“Permittee”** as used in this Permit means the Owner and Operator.
4. **“RCRA”** as used in this Permit means the Resource Conservation and Recovery Act (42 U.S.C. §6901 et seq.).

PART II. DESCRIPTION OF THE FACILITY AND OWNERSHIP

1. **Owner of Facility**
CONOCOPHILLIPS COMPANY
600 North Dairy Ashford Drive
Houston, Texas 77079

2. **Owner of Real Property**
CONOCOPHILLIPS COMPANY
600 North Dairy Ashford Drive
Houston, Texas 77079

3. **Operator of Facility**
CONOCOPHILLIPS COMPANY
1380 San Pablo Avenue
Rodeo, California 94572

4. **Location**
The ConocoPhillips Company San Francisco Refinery (the Facility) is an oil refinery located at 1380 San Pablo Avenue, Rodeo, California. A map showing the location of the Facility relative to its surrounding features is included as Figure 1 of the Approved Application. The Facility is an approximately 1,100-acre oil refinery including a 495-acre industrial area where the refining facilities and equipment are located. The remaining 605 acres are undeveloped lands. The Facility is located on the eastern shore of San Pablo Bay in Contra Costa County, California, north of the community of Rodeo. The Facility is mostly contained within a northwest-southeast trending valley known as the Central Refinery Valley, and the accompanying ridge to the northeast which is referred to as Tormey Ridge. The Central Refinery Valley and Tormey Ridge are intersected by the Interstate 80 (I-80) freeway.

Contra Costa County zoned the Facility primarily for heavy industrial use and reserved some of its easternmost acres as agricultural. The closest residential area is about 700 feet southwest of the Primary Basin, with additional residential area in the town of Rodeo, located approximately ½ mile to the southwest.

The Primary Basin is a below-grade, open-air surface impoundment with a concrete pad bottom and gunite sides, which is used for temporary storage of process and/or stormwater during operating emergencies. The Primary Basin is located in the subarea of the Facility known as Unit 100, Waste Water Treatment Plant (WWTP) Area. See Primary Basin location on Figure 2 of the Approved Application. Unit 100 is located in the southern portion of Facility along refinery Road 4. The Primary Basin is located at 38° 02' 26" north latitude, 122° 15' 30" west longitude, Township 2N, Range 4W, Mount Diablo Baseline.

5. Description of Facility Operations

Petroleum refining operations began at this site in 1896. Currently, the refinery processes approximately 100,000 barrels per day of crude oil into a variety of products including butane, several grades of gasoline, diesel fuel, jet fuel, fuel oil, petroleum coke, and sulfur. The Permittee receives crude oil and other feedstocks by vessels and pipelines. The Permittee delivers refined products to customers via tanker barge, rail cars, trucks, and pipelines. USEPA classifies the Facility in its current configuration as a Subcategory B (Cracking) refinery, according to the definition provided in 40 CFR §419.40. Wastewater from the refining processes, during emergency circumstances, and most of the stormwater that is generated during rainfall events, is captured by the refinery sewer system and routed to Unit 100.

The Primary Basin continues to operate as an emergency discharge impoundment for wastewater and stormwater during its 30-year post-closure period. Wastewater enters the Primary Basin when there are operating emergencies within the process and storm water treatment system. Specific emergencies that have historically been identified are:

1. A major power failure at Facility;
2. Equipment or system failure in portions of the WWTP;
3. High storm water flow exceeding the pumping capacity of the WWTP sumps; and,
4. Long duration storm events that cause the cumulative storage capacity of the storage and equalization aboveground tanks to be consumed.

If the 2.3 million gallon maximum capacity of the Primary Basin is exceeded, diverted water overflows into the 7.2 million gallon Main Storm Basin. The Main Storm Basin and the Primary Basin are connected by a weir and a valve, allowing drainage by gravity. Flow from the Primary Basin to the Main Storm Basin occurs when the waste water level in the Primary Basin reaches the top of the weir located 2.5 feet freeboard of the ground level. Water that accumulates in the Main Storm Basin flows back to the Primary Basin by gravity, once the water level is below that in the Main Storm Basin, and the Unit 100 operator has opened a valve.

6. Facility History

The Facility is owned and operated by ConocoPhillips Company. The Facility was operated by Unocal Corporation and its predecessors (principally Union Oil Company) from its inception until April 1997, when it was purchased by Tosco Corporation (Tosco). Tosco was acquired by Phillips Petroleum Company in September 2001. Phillips Petroleum Company later merged with Conoco Inc. on August 30, 2002 to form ConocoPhillips, the current ownership entity, ConocoPhillips Company.

The Primary Basin has been authorized by DTSC for temporary storage of hazardous waste water since 1996. The Primary Basin has been intermittently used for storage of wastewater during emergency circumstances including storm events that exceed the storage capacity of the three process wastewater and stormwater equalization and storage tanks or during electrical or equipment failures that incapacitate the pumping/storage system.

The Permittee elected to conduct closure for the Primary Basin by retrofitting it with a synthetic liner system comprised of an XR-5 Geomembrane top liner and underlying leachate collection/leak detection geogrid drainage net above the existing concrete substrate that forms the impoundment.

DTSC issued the Facility a post closure permit for the Land Treatment Area (LTA) (#04-BRK-01) on March 8, 2004 and is effective until April 15, 2014. On October 26, 2005, DTSC acknowledged closure certification for the Bulk Container Storage Unit, and the Permittee continues to store hazardous waste in the Bulk Container Storage Unit for a period of ninety (90) days under its generator status.

7. Facility Size and Type for Fee Purposes

The Facility is categorized as a large post-closure facility pursuant to Health and Safety Code section 25205.7(d)(5). For the purpose of Health and Safety Code section 25205.4, the post-closure period for the Facility's Primary Basin shall be deemed to have started from the effective date of this Post Closure Permit. DTSC may extend the post-closure monitoring period beyond 30 years to protect human health and the environment.

PART III. GENERAL CONDITIONS

1. PERMIT APPLICATION DOCUMENTS

The Part "A" Application dated January 30, 2009 and the DTSC-approved Post Closure Permit Application dated January 30, 2009 and the subsequent revisions dated September 18, 2009 and January 8, 2010 (Approved Application) are hereby made a part of this Permit by reference.

2. EFFECT OF PERMIT

- (a) The Permittee shall comply with the terms and conditions of this Permit and the provisions of the Health and Safety Code and California Code of Regulations (Cal. Code Regs.), title 22, division 4.5. The issuance of this Permit by DTSC does not release the Permittee from any liability or duty imposed by federal or state statutes or regulations or local ordinances, except the obligation to obtain this Permit. The Permittee shall obtain the permits required by other governmental agencies, including but not limited to, those required by the applicable land use planning, zoning, hazardous waste, air quality, water quality, and solid waste management laws for the construction and/or operation of the Facility's Primary Basin.
- (b) The Permittee is permitted to operate, monitor and maintain this Facility's Primary Basin post closure activities in accordance with the terms and conditions of this Permit and the Approved Application. Any management of hazardous wastes not specifically authorized in this Permit or otherwise authorized by DTSC is strictly prohibited.
- (c) Compliance with the terms and conditions of this Permit does not constitute a defense to any action brought under any other law governing protection of public health or the environment, including, but not limited to, one brought for any imminent and substantial endangerment to human health or the environment.
- (d) DTSC's issuance of this Permit does not prevent DTSC from adopting or amending regulations that impose additional or more stringent requirements than those in existence at the time this Permit is issued and does not prevent the enforcement of these requirements against the Permittee.
- (e) Failure to comply with any term or condition set forth in the Permit in the time or manner specified herein will subject the Permittee to possible enforcement action including but not limited to penalties pursuant to Health and Safety Code section 25187.

- (f) Failure to submit any information required in connection with the Permit, or falsification and/or misrepresentation of any submitted information, is grounds for revocation of this Permit (Cal. Code Regs., tit. 22, §66270.43).
- (g) In case of conflicts between the Approved Application and the Permit, the Permit conditions take precedence.
- (h) This Permit includes and incorporates by reference any conditions of waste discharge requirements issued to the Facility by the State Water Resources Control Board or any of the California Regional Water Quality Control Boards (RWQCB) and any conditions imposed pursuant to section 13227 of the Water Code.

3. COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

A Notice of Exemption has been prepared in accordance with the requirements of Public Resources Code, section 21000 et seq. and the California Environmental Quality Act Guidelines, which are codified in title 14, California Code of Regulations, section 15070 et seq.

4. ENVIRONMENTAL MONITORING

The Permittee shall comply with the applicable environmental monitoring and response program requirements of California Code of Regulations, title 22, division 4.5, chapter 14, articles 6 and 17.

- (a) For the purpose of title 22, California Code of Regulations, section 66264.91(b), the elements of the Groundwater Monitoring and Response Program (GWMRP) for the Facility are those described in Section 5 and Appendix M (Primary Basin Groundwater Monitoring Program) of the Approved Application.
- (b) For the purpose of title 22, California Code of Regulations, section 66264.92, the Water Quality Protection Standard for the Facility is described in Section 5 and in Appendix M of the Approved Application.
- (c) For the purpose of title 22, California Code of Regulations, section 66264.93, the Constituents of Concern (COC) for the Facility's Primary Basin are described in Section 5.5 and in Section 2.2 of Appendix M of the Approved Application. During future sampling events, if the Facility finds constituents listed in title 22 California Code of Regulations, Chapter 14, Appendix IX, in the groundwater that are not already identified in the GWMRP as COCs, the Facility shall add them to the list of COCs in Appendix M.

- (d) For the purpose of title 22, California Code of Regulations, section 66264.94, the Concentration Limits for the Facility are the RWQCB-established site-wide cleanup standards for the Facility. In the absence of such standards, the California Maximum Contaminant Levels (MCLs) for drinking water and the Water Quality Basin Plan Objectives shall be used as the Concentration Limits.
- (e) For the purpose of title 22, California Code of Regulations, section 66264.95, the Monitoring Points and Points of Compliance for the Facility's Primary Basin are described in Section 5 and in Section 2 of Appendix M of the Approved Application.
- (f) For the purpose of title 22, California Code of Regulations, section 66264.96 the Compliance Period for the Facility's Primary Basin shall be 30 years beginning with the date of the issuance of the post closure permit. DTSC may extend the post-closure monitoring period beyond 30 years to protect human health and the environment.
- (g) For the purpose of title 22, California Code of Regulations, section 66270.31, the monitoring, recording, and reporting program for the Facility is described in Section 5 and Appendix M of the Approved Application. The Permittee shall collect groundwater level measurements and monitoring data as required in the Approved Application and by California Regional Water Quality Control Board San Francisco Bay Region Order No. R2-2005-0026 Updated Waste Discharge Requirements and Rescission of Order No. 97-027 for ConocoPhillips Company San Francisco Refinery 1380 San Pablo Ave., Rodeo, CA Contra Costa County(Order) issued in June 2005 and any other future order or requirement by the RWQCB. Data for key monitoring parameters and COCs obtained from the designated Primary Basin compliance monitoring wells (upgradient wells: MW-26A and MW-27; downgradient wells: MW-24, MW-231, and MW-232) shall be shown on separate graphs. At a minimum, these constituents shall include: benzene, ethylbenzene, toluene, xylenes, naphthalene (as a volatile organic compound), methylnaphthalene, 2-methylphenol, 4-methylphenol and phenol. Additionally, once every five years, each of the compliance monitoring wells shall be sampled and analyzed for the constituents listed in title 22 California Code of Regulations, Chapter 14, Appendix IX.
- (h) The Facility shall comply with the requirements of the RWQCB under the Order issued in June 2005 and any other future order or requirement by the RWQCB. A copy of all the groundwater monitoring and corrective action reports shall also be submitted to DTSC simultaneously.

5. ANNUAL HAZARDOUS WASTE REDUCTION AND MINIMIZATION CERTIFICATION

The Permittee shall certify annually that it has a hazardous waste reduction and minimization program and method in place and shall keep the annual certification as part of its Operating Record in accordance with California Code of Regulations, title 22, section 66264.73(b)(9).

6. ACCESS

- (a) DTSC, its contractors, employees, agents, and/or any United States Environmental Protection Agency representatives are authorized to enter and freely move about the Facility for the purposes of interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts relating to the Facility; reviewing progress of the Permittee in carrying out the terms of Part VI of the Permit; conducting such testing, sampling, or monitoring as DTSC deems necessary; using a camera, sound recording, or other documentary-type equipment; verifying the reports and data submitted to DTSC by the Permittee; or confirming any other aspect of compliance with this Permit, Health and Safety Code, division 20, chapter 6.5, and California Code of Regulations, title 22, division 4.5. The Permittee shall provide DTSC and its representatives access at all reasonable times to the Facility and any other property to which access is required for implementation of any provision of this Permit, Health and Safety Code, division 20, chapter 6.5, and California Code of Regulations, title 22, division 4.5, and shall allow such persons to inspect and copy all records, files, photographs, documents, including all sampling and monitoring data, that pertain to work undertaken pursuant to the entire Permit or undertake any other activity necessary to determine compliance with applicable requirements.
- (b) Nothing in this Permit shall limit or otherwise affect DTSC's right to access and entry pursuant to any applicable State or federal laws and regulations.

PART IV. PERMITTED UNITS AND ACTIVITIES

This Permit authorizes the operation, monitoring and maintenance of the unit and activities listed below. The Permittee shall not treat, store or otherwise manage hazardous waste in any unit, other than those specified in this Part IV, unless otherwise authorized by DTSC. Any modifications to a unit or activity authorized by this Permit require the written approval of DTSC in accordance with the permit modification procedures set forth in California Code of Regulations, title 22, division 4.5.

For the purpose of title 22, California Code of Regulations, section 66270.1(c) and other similar, unit-specific regulatory requirements, this Facility has one post closure Hazardous Waste Management Unit for the purpose of this Permit. This unit is described in detail in the Approved Application and is as follows:

UNIT NAME:

Primary Basin

LOCATION:

The Primary Basin is located in the subarea of the Facility known as Unit 100. Unit 100 is located in the southern portion of Facility along refinery Road 4 as shown in Figure 2 of the Approved Application. The Primary Basin is located east of the wastewater treatment facility of Unit 100 and west of the three pre-treatment equalization/surge aboveground tanks. The Primary Basin is adjacent to the Main Storm Basin, which is directly south of Unit 100's wastewater treatment system.

ACTIVITY TYPE:

Conduct closure activities, groundwater monitoring, liner and leachate collection/leak detection system inspection and maintenance, and emergency storage.

ACTIVITY DESCRIPTION:

The Permittee shall conduct closure activities at the Primary Basin in accordance with the closure plan in Appendix R of the Approved Application by retrofitting it with a synthetic liner system comprised of an XR-5 Geomembrane top liner and underlying leachate collection/leak detection geogrid drainage net above the existing concrete substrate that forms the impoundment. The synthetic liner collection and evacuation system will isolate liquids that accumulate on top of the liner during normal precipitation events or as a result of emergency discharges to the surface impoundment. A sub-liner "leachate collection and removal system" will remove any water that collects beneath the liner. The components of the synthetic liner system are described in Section 9 and Section 2 of Appendix R of the Approved Application.

The Post-Closure Plan provides for the operation and maintenance of a synthetic liner system, management of emergency discharges of wastewater to the Primary Basin, groundwater monitoring to detect releases, and ongoing Corrective Action conducted under the authority of the RWQCB.

After closure of the Primary Basin, the Facility shall carry out three types of post-closure monitoring activities: 1) groundwater, 2) the Primary Basin and its synthetic liner system, and 3) the Primary Basin's leachate and leak detection system. Facility shall perform post closure monitoring activities as described in Sections 5 and 6, and Appendices H, M and R of the Approved Application and incorporated herein.

The Permittee has an extensive groundwater monitoring and remediation system. This groundwater monitoring and remediation system is ongoing in accordance with Order and any future orders and requirements by the RWQCB. Upgradient wells MW-26A and MW-27 and downgradient wells MW-24, MW-231 and MW-232 have been designated as the Point of Compliance (POC) wells for post closure monitoring. See Figure 2 of the Appendix M of the Approved Application for the Primary Basin and Main Storm Basin Well Locations.

The Permittee will continue to operate the Primary Basin as an emergency discharge impoundment for wastewater and stormwater during its 30-year post-closure period. Wastewater enters the Primary Basin when there are operating emergencies within the process and storm water treatment system. See Figure 13 of the Approved Application for the potential wastewater flows through the Primary Basin. Specific emergencies that have historically been identified are:

1. A major power failure at Facility;
2. Equipment or system failure in portions of the WWTP;
3. High storm water flow exceeding the pumping capacity of the WWTP sumps; and,
4. Long duration storm events that cause the cumulative storage capacity of the storage and equalization aboveground tanks to be consumed.

PHYSICAL DESCRIPTION:

The Primary Basin is a below-grade, open-air surface impoundment with a concrete pad bottom and gunite sides, that is used for temporary storage of a combination of process water and stormwater during operating emergencies. The Primary Basin occupies a surface area of approximately 1.1 acres, and is approximately 7 feet deep. The maximum storage capacity of the Primary Basin is 2.3 million gallons, as limited by a weir that maintains 2.5 feet of freeboard. The weir connects to the 7.2 million gallon earthen Main Storm Basin that is regulated by the RWQCB.

The Primary Basin is underlain by relatively thick, low permeability silts and clays. The Plot Plan of Primary Basin is provided in Figure 9 of the Approved Application. The Primary

Basin's existing floor consists of 6-inch thick Portland cement concrete with welded wire fabric reinforcement. This is underlain by approximately 12 inches of crushed gravel and a perforated geofabric. The sides of the Primary Basin are covered with gunite and slope down from grade at a slope of approximately 2:1. As part of RCRA closure, the Primary Basin will be retrofitted with a synthetic liner system.

MAXIMUM CAPACITY:

The maximum capacity of the Primary Basin is 2.3 million gallons.

WASTE SOURCES:

Wastewater enters the Primary Basin when there are operating emergencies within the process and storm water treatment system. Wastewater diverted to the Primary Basin is drained back into the WWTP system via the wet weather sump as soon as there is sufficient capacity in either the treatment process or the storage or equalization tanks. Soil is deposited from the environment into the Primary Basin.

WASTE TYPES:

The RCRA hazardous waste temporarily contained in the Primary Basin includes both listed and characteristic waste. The Primary Basin waste water contains benzene, a RCRA Characteristic waste (D018) when its concentration exceeds 0.5 mg/l (TCLP). The sludge, defined as primary oil/water/solids separation sludge, is a RCRA listed waste (F037) can occur when process water is diverted to the Primary Basin.

RCRA WASTE CODES:

D018, F037

UNIT-SPECIFIC SPECIAL CONDITIONS:

- (a) The Permittee shall conduct the closure of the Primary Basin in accordance with Appendix R of the Approved Application. The Primary Basin will be closed by installing a synthetic liner system. The synthetic liner system will be installed over the existing concrete floor and gunite side walls, and a leachate collection/leak detection system will be situated between the liner and the existing concrete basin floor and gunite side walls. Construction activities will be implemented during the dry season within 12 months of effective date of this permit. Within sixty (60) days of the completion of closure, the Permittee shall submit closure certification in accordance with section 2.7, Appendix R of the Approved Application. The Closure Certification Report will be signed by the owner or operator, and an independent professional engineer registered in the State of California.
- (b) The Permittee shall conduct Inspection, visual monitoring, and maintenance during the post closure care period as described in Section 5 and Appendices H, M and R of the Approved Application.
- (c) The Permittee shall monitor the groundwater in accordance with the Order and any subsequent order and in accordance with Section 5 and Appendix M (Primary Basin Ground Water Quality Sampling and Analysis Plan) of the Approved Application. The Permittee shall simultaneously provide to DTSC a copy of all the submittals required by the RWQCB.
- (d) The Permittee shall only operate the Primary Basin during the following emergencies:
 - 1. A major power failure at the Facility;
 - 2. Equipment or system failure in portions of the Waste Water Treatment Plant (WWTP);
 - 3. High storm water flow exceeding the pumping capacity of the WWTP sumps; and,
 - 4. Long duration storm events exceeding the cumulative storage capacity of the storage and equalization aboveground tanks.
- (e) The Permittee shall not store any hazardous waste other than benzene D018 in the wastewater and/or F037 in the sludge in the unit. The Permittee shall only store benzene D018 in the wastewater and/or F037 in the sludge in the unit temporarily following an emergency. The Permittee shall immediately test storm or process water in the Primary Basin following an emergency and commence immediate pumping of the storm or process water, after sampling, back into the WWTP storage and treatment systems when capacity is available. If the sludge is determined to be a hazardous waste, the Permittee shall send it offsite for treatment or disposal at an authorized hazardous waste treatment or disposal facility.

- (f) The Permittee shall maintain a minimum of 2-feet of freeboard when the Primary Basin is in use.
- (g) The Permittee shall maintain the Primary Basin so that it is free of cracks, spalling, and gaps upon visual inspection of the liner. The Permittee shall immediately repair all cracks, spalling and gaps upon detection in the liner and/or the basal structure of the Primary Basin.
- (h) The Permittee shall immediately pump, properly treat, recycle or properly dispose of waste water and sludge from the Primary Basin after each use.
- (i) The Permittee shall notify the DTSC project manager by telephone and e-mail within 48 hours when the Primary Basin is used. The Permittee shall submit a notification to the DTSC assigned project manager within 30 calendar days after the Primary Basin is used.

The notification shall include but not be limited to the following:

- 1) Date of use;
 - 2) Storage duration;
 - 3) Volume of wastewater;
 - 4) Analytical results of wastewater (If the sampling results shows benzene concentrations exceeding 0.5 mg/L, the report shall explain the reasons and sources of the higher benzene concentrations in the wastewater or storm water;)
 - 5) Air monitoring results; and,
 - 6) Type of emergency which required the use of the Primary Basin.
- (j) When the Primary Basin exceeds its maximum capacity of 2.3 million gallons and wastewater flows into the 7.2 million gallon Main Storm Basin, the Permittee shall immediately test the wastewater for benzene concentration. If test results show that concentrations of benzene exceed the toxic characteristic (D018) threshold concentration of 0.5 mg/L in wastewater or if readings show a concentration at or above 0.5 ppm benzene in the breathing zone at the entry point of wastewater to the Main Basin, DTSC and the RWQCB will be immediately notified and the Contingency Plan will be implemented as described in Section 7, Appendices H and O of the Approved Application.

PART V. SPECIAL CONDITIONS

1. The Permittee shall comply with the requirements specified in California Code of Regulations, title 22, section 66264.75 in each year's Annual Report to be submitted each March 1. The Annual Groundwater Monitoring and Response Program Report may be submitted simultaneously to DTSC and RWQCB by each March 31.
2. The Permittee shall comply with Notification and Record keeping as described in Section 7 of the Approved Application.
3. The Permittee shall ensure that the wastewater treatment system meets all local, state, and federal regulations and requirements.
4. Pursuant to Civil Code section 1471(c), DTSC has determined that a land use covenant is reasonably necessary to protect present or future human health or safety or the environment as a result of the presence on land of hazardous materials as defined in Health and Safety Code section 25260. Within 12 months of the effective date of this Permit, the Permittee shall have a DTSC-approved Land Use Covenant signed and recorded pursuant to California Code of Regulations, title 22, section 67391.1. The Permittee shall reimburse DTSC for its costs incurred in implemented and enforcing the Land Use Covenant, including costs incurred in conducting inspections, preparing inspection reports, and reviewing any Soil Management Plan or Health and Safety Plan as may be required by the Land Use Covenant. The Permittee's payments of DTSC's costs shall be made within 60 days of the date of billing statement by check payable to the Department of Toxic Substances Control and shall be sent to: Accounting Unit, Department of Toxics Substances Control, P.O. Box 806, Sacramento, California 95812-0806. All checks shall reference the name and address of the Facility.

PART VI. CORRECTIVE ACTION

A. SUMMARY OF THE CORRECTIVE ACTION AND GROUNDWATER REMEDIATION

Based on the findings of a RCRA Facility Assessment on February 24, 1989, the EPA issued an Administrative Order (EPA Docket No. RCRA 09-89-0012) under RCRA Section 3008(h.) This Administrative Order required investigation and, if necessary, corrective action for releases to the environment from six Solid Waste Management Units (SWMUs) at the Facility. The requirements of the EPA Order were subsequently modified and incorporated into the 1991 Post-Closure Permit for the Land Treatment Area (LTA).

The RWQCB has issued a series of Waste Discharge Requirements requiring monitoring for leaks or spills from the refinery's surface impoundments and landfills. The most recent of these Waste Discharge Requirements is Order No. R2-2005-0026. As part of corrective action pursuant the Waste Discharge Requirements, the RWQCB adopted Site Cleanup Requirements (Order No. R2-2006-0065) that required investigation and remediation at several areas of concern, as well as maintenance of a perimeter free product containment and removal system along the San Pablo Bay Shoreline. The specific requirements for corrective action at the Facility are incorporated in the Order and any subsequent order.

IMPLEMENTED CORRECTIVE ACTION AT AOCs

A free-phase liquid hydrocarbon (FPLH) recovery program and the following operating recovery systems serve to remediate and control contaminated groundwater and FPLH associated with the AOCs:

1. Interceptor Trench (Alignments A, B, C, and D);
2. B-Zone Extraction System;
5. Tank 302 Area Interceptor Trench (Alignment E);
6. Primary Basin/Main Storm Basin Extraction System;
7. Unit 76 Active Skimming System; and,
8. Tank 100 Area Interceptor Trench.

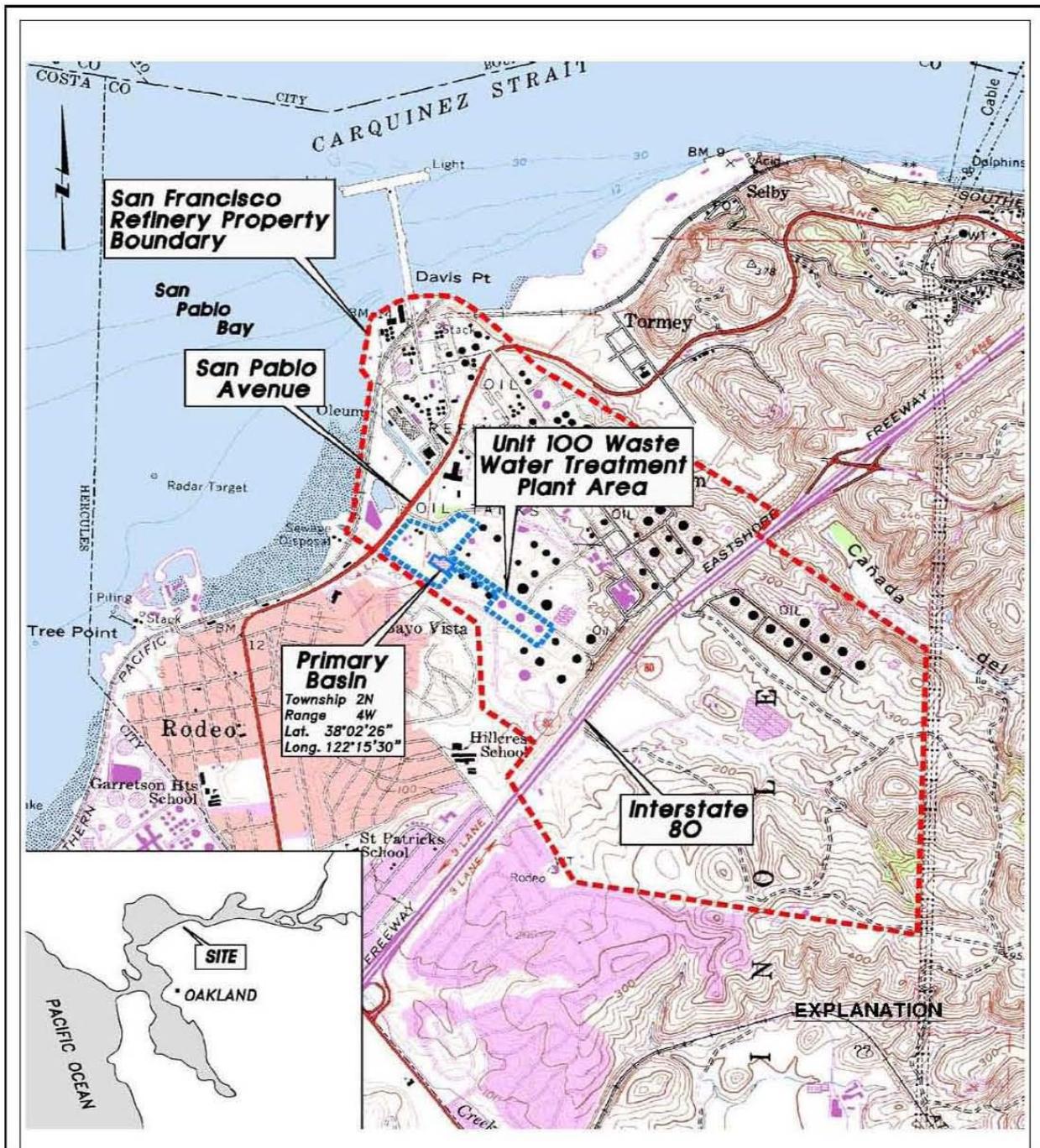
These systems and the FPLH recovery program were implemented as part of the overall Groundwater Quality Management Program for Facility. The Interceptor Trench and B-Zone Extraction Systems hydraulically control groundwater near the downgradient perimeter of the Facility. The Primary Basin/Main Storm Basin Extraction System and the Unit 76 Active Skimming System mitigate interior "hot spots" of impacted groundwater.

STATUS OF CORRECTIVE MEASURES

Each corrective measure required by the Order has been implemented at the Facility. An evaluation of the effectiveness of each of the corrective measures is provided to the RWQCB on a semi-annual basis, and in an annual summary.

B. CORRECTIVE ACTION CONDITIONS

1. The Permittee shall conduct corrective action at the Facility pursuant to Health and Safety Code sections 25187 and 25200.10. Corrective action shall be carried out under *the oversight of the Regional Water Quality Control Board (RWQCB) pursuant to the Order and any other subsequent orders or requirements by the RWQCB or USEPA.*



SOURCE: CONOCOPHILLIPS, 2005

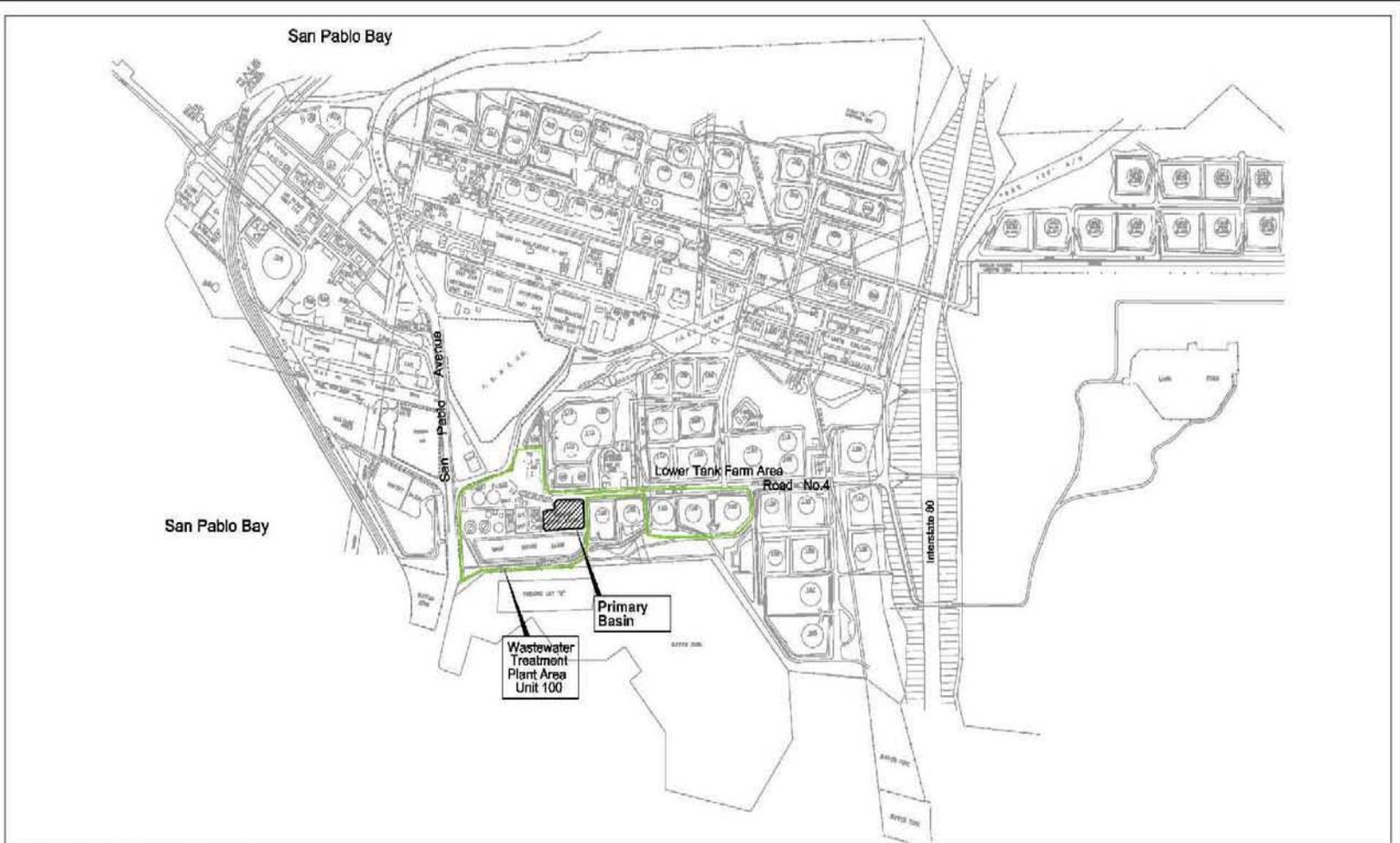


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FIGURE 1

SITE LOCATION AND VICINITY MAP

CONOCOPHILLIPS COMPANY
 SAN FRANCISCO REFINERY



SOURCE: CONOCOPHILLIPS, 2005



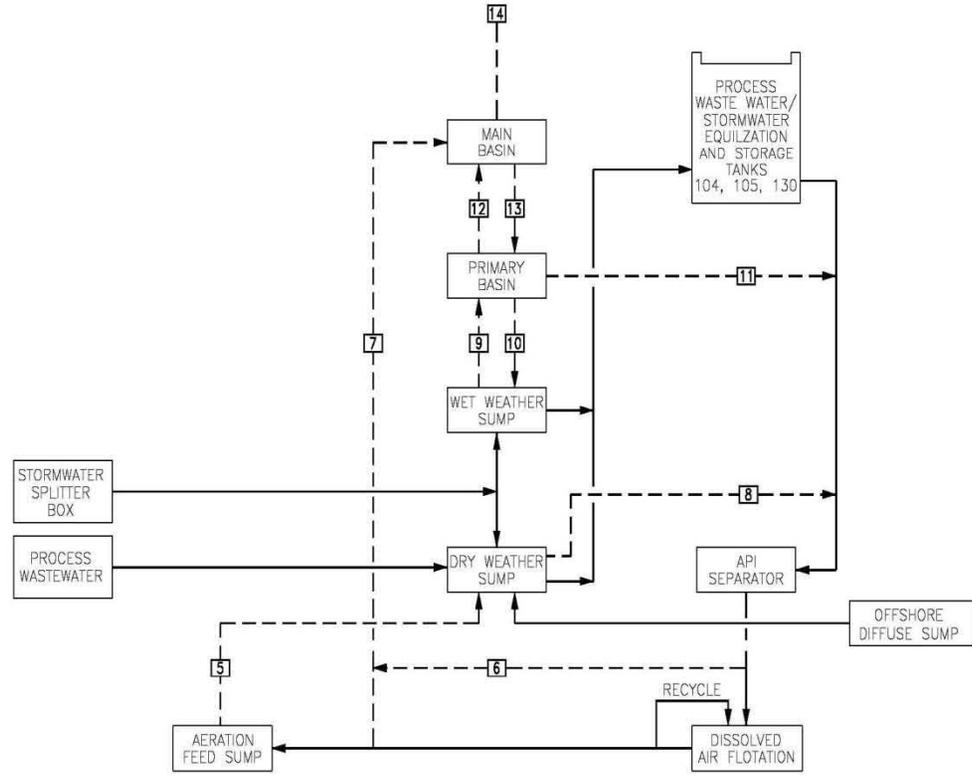
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 Laramie, Wyoming 82070
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 (P) 307.745.7474 (F) 307.745.7729

FIGURE 2

PRIMARY BASIN LOCATION

**CONOCOPHILLIPS COMPANY
 SAN FRANCISCO REFINERY**

Drawn By: KW	Checked By: HB	Scale: NONE	Date: 1/26/09	File: PRIMARYBASINLOC
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SOURCE: CONOCOPHILLIPS SAN FRANCISCO REFINERY, JULY 12, 2006, (Portion of Drawing No. SFR-YF-004-001 (Rev. 12))
 DIVERSIONS INFORMATION FROM: CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION, 2005

DIVERSION FOR EMERGENCY, MAINTENANCE OR STORM CONDITIONS - NORMALLY NO FLOW

FROM	CONDITIONS	ANNUAL FREQ.	TO
5 AERATION FEED SUMP	AFS PUMP FAILURE OR HC CONTAMINATION	0-4	DWS
6 API SEPARATOR OUT	DAF FAILURE	NEVER USED	MAIN BASIN
7 DISSOLVED AIR FLOTATION OUT	EQUALIZATION TANKS FULL WITH NO DISCHARGE TO THE BAY	NEVER USED	MAIN BASIN
8 DRY WATER SUMP	LINE TO EQUALIZATION TANKS IS NOT AVAILABLE / OUT OF SERVICE	NEVER USED	API IN
9 WET WEATHER SUMP	EQ TANKS FULL, RAINFALL > PUMPING CAPACITY, POWER OUTAGE OR WWS PUMP / LEVEL CONTROL FAILURE	0-1	PRIMARY BASIN
10 PRIMARY BASIN	PUMP OUT PRIMARY BASIN AFTER DIVERSION (GRAVITY FLOW)	0-1	WWS
11 PRIMARY BASIN	RETURN LINE TO WWS NOT AVAILABLE / OUT OF SERVICE	NEVER USED	API IN
12 PRIMARY BASIN	PRIMARY BASIN IS FULL - OVERFLOW TO MAIN BASIN	1/10	MAIN BASIN
13 MAIN BASIN	PUMP OUT MAIN BASIN AFTER DIVERSION (GRAVITY DRAIN)	1/10	PRIMARY BASIN
14 MAIN BASIN	MAIN BASIN IS FULL - OVERFLOWING TO SAFETY BASIN	1/25	SAFETY BASIN

EXPLANATION

- NORMAL FLOW
- - - DIVERSION FOR EMERGENCY, MAINTENANCE OR STORM CONDITIONS: NORMALLY NO FLOW.

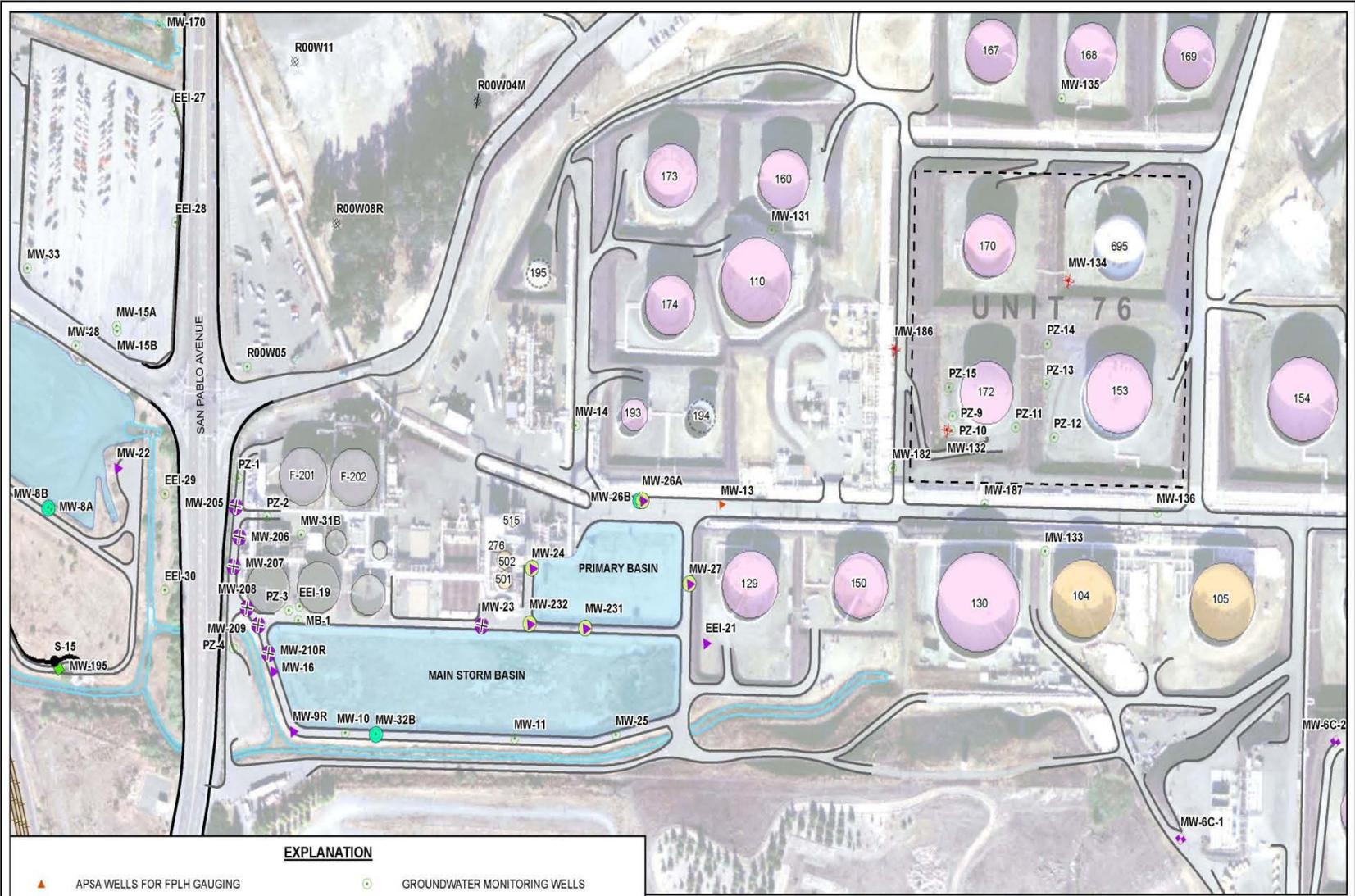


FIGURE 13

POTENTIAL WASTEWATER FLOWS THROUGH THE PRIMARY BASIN

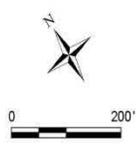
**CONOCOPHILLIPS COMPANY
SAN FRANCISCO REFINERY**

Drawn By: JLP Checked By: PD Scale: NONE Date: 1/5/09 File: 703SFR-YF-004-001-FIG13



EXPLANATION

- | | | | |
|---|--|---|---------------------------------------|
| ▲ | APSA WELLS FOR FPLH GAUGING | ○ | GROUNDWATER MONITORING WELLS |
| ▲ | ACTIVE WASTE MANAGEMENT WELLS | ■ | INACTIVE WASTE MANAGEMENT WELLS |
| ▲ | ACTIVE SKIMMER FPLH RECOVERY WELLS | ■ | INTERCEPTOR TRENCH DOWNGRADIENT WELLS |
| ⊕ | FORMER PACIFIC GAS & ELECTRIC OLEUM POWER PLANT MONITORING WELLS | ● | INTERCEPTOR TRENCH EXTRACTION SUMPS |
| ⊕ | FORMER PACIFIC GAS & ELECTRIC OLEUM POWER PLANT MONITORING WELLS - ABANDONED | ● | PRIMARY BASIN MONITORING WELLS |
| × | GROUNDWATER EXTRACTION WELLS | ● | PSB-MSB EXTRACTION WELLS |
| | | ● | B-ZONE WELLS |



 1253 Commerce Drive Laramie, WY 82070 www.tribhydro.com (P) 307/745.7474 (F) 307/745.7729	FIGURE 2 PRIMARY BASIN & MAIN STORM BASIN WELL LOCATIONS
	CONOCOPHILLIPS SAN FRANCISCO REFINERY RODEO, CALIFORNIA
Drawn By: BR Checked By: TB Scale: 1" = 200' Date: 7/28/09 File: Fig2_PSB_Wells_SAP.mxd	