PORT OF OAKLAND

July 27, 2001

AUG 0 2 2001

Mr. Barney Chan
Hazardous Material Specialist
Alameda County Health Care Services Agency
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

4020 # 2044

RE: Final Well Decommissioning Report for TOFC and UPMF Sites

Dear Mr. Chan:

The Port of Oakland is pleased to submit the *Final Monitoring and Extraction Well Decommissioning Report, TOFC and UPMF Sites, Former Union Pacific Intermodal Railroad, Oakland, California*, prepared by Camp Dresser & McKee Inc., and dated July 26, 2001.

This report documents well decommissioning activities conducted in March and July 2001. Fourteen wells were located and decommissioned by either pressure grouting or over drilling. However, as discussed in Section 4.0 of the Report, five wells could not be located. Based on the depth of the wells, the site geology, and the proximity of a groundwater extraction system, we believe the five wells not decommissioned do not pose a concern for vertical migration of groundwater.

If you have any questions, please do not hesitate to contact me at 510-627-1314 or John Prall at 510-627-1373.

Sincerely,

Delphine Prevost
Environmental Coordinator
Vision 2000 Program

CC: John Prall

CDM Camp Dresser & McKee Inc.

consulting engineering construction operations

One Walnut Creek Center
100 Pringle Avenue, Suite 300
Walnut Creek, California 94596
Tel: 925 933-2900 Fax 925 933-4174

July 26, 2001

Ms. Delphine Prevost
Port of Oakland
Environmental Health and Safety Compliance
530 Water Street 2nd Floor
Oakland, California 94607

Subject: Final Monitoring and Extraction Well Decommissioning Report
TOFC and UPMF Sites
Former Union Pacific Intermodal Railroad
Oakland, California

Dear Ms. Prevost:

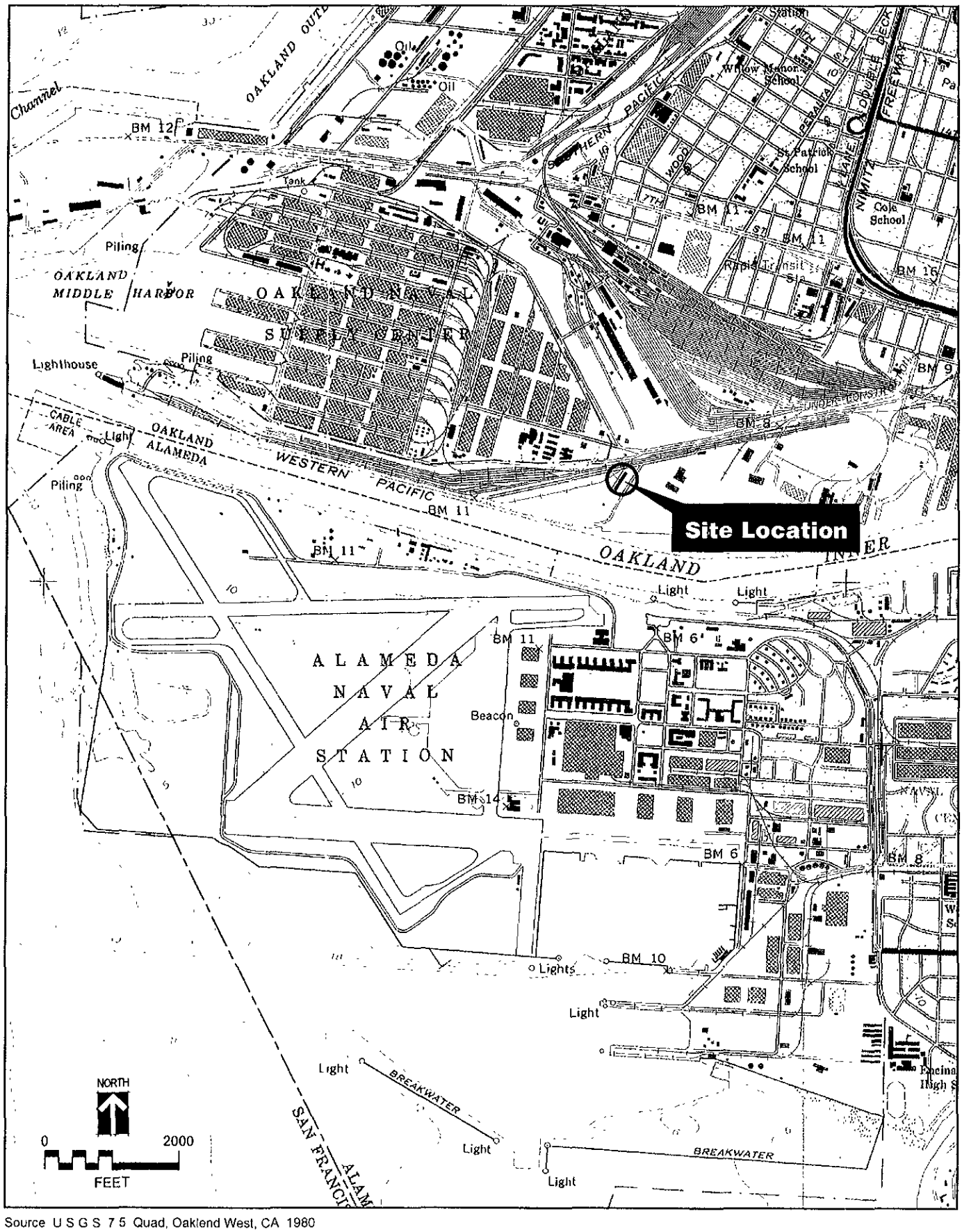
Camp Dresser & McKee Inc./F.E. Jordan Joint Association (CDM/FEJ) are pleased to submit the following report to the Port of Oakland describing the decommissioning of thirteen monitoring wells and one extraction well at the Trailer-On-Flat Car (TOFC), and Union Pacific Motor Freight (UPMF) sites, Former Union Pacific Intermodal Railroad (UPRR) in Oakland, California. On March 5 and July 5, 2001, the wells were decommissioned by pressure grouting and over drilling methods. CDM's original workplan, dated March 1, 2001, was modified to include surveying, excavating, and over drilling methods to locate and decommission wells buried by recent construction activities.

1.0 Site Description

The TOFC site is located at 1717 Middle Harbor Road and the adjacent UPMF site is located at 1750 Ferro Street in Oakland, California. The TOFC and UPMF sites are located within the northeastern portion of the former Union Pacific Railroad Facility, adjacent to the Oakland Inner Harbor (see Figure 1). The UPMF site and the southern portion of the TOFC site consisted of a flat area paved with asphalt. A truck repair shop, shipping warehouse, and a concrete batch plant are present at the UPMF site, and an office building occupied the eastern portion of the TOFC site. Due to the construction of a marine terminal yard and a groundwater extraction and treatment system, the northern portion of the TOFC site was under heavy construction through June of 2001. Construction activities, deep mud, and standing water prevented access to most wells on the TOFC site until July of 2001. The locations of the monitoring and extraction wells are shown in Figure 2.

2.0 Well Decommissioning Overview

In order to accommodate the expansion of the Oakland Inner Harbor, the conversion of the TOFC and UPMF sites into a container terminal, and the construction of a new groundwater extraction and treatment system at the TOFC site, the Port of Oakland



Source U S G S 7 5 Quad, Oakland West, CA 1980

Figure 1
Site Location Map
Well Decommissioning Program
TOFC and UPMF Sites
Port of Oakland, California

contracted with CDM to decommission 18 monitoring wells and 1 extraction well. Although additional wells were located in the TOFC and UPMF sites, some of these wells were previously decommissioned, or will remain for groundwater monitoring purposes. For example, extraction wells ORW-1, ORW-2, ORW-3, OMW-9, and OP-4 were previously decommissioned by the DNL Company, Inc. (DNL), a subcontractor to the Port of Oakland, during the demolition of the old groundwater extraction/treatment plant. OMW-6 was removed by Manson/Dutra, a Port contractor, during shoreline excavation. Table 1 presents a summary of wells located within and in the vicinity of the UPMF and TOFC sites, the use of the well, and the current status of each well. These wells are also shown on Figure 2.

Table 1
Summary of Wells at the TOFC and UPMF Sites
Port of Oakland

Well Location	*Well ID*	*Previous Use*	*Current Status*
UPMF	OKUS-W1	Monitoring	Decommissioned by CDM
UPMF	OKUS-W2	Monitoring	Decommissioned by CDM
UPMF	OKUS-W3	Monitoring	Decommissioned by CDM
UPMF	OKUS-W4	Monitoring	Decommissioned by UPRR
UPMF	OKUS-W5	Monitoring	Decommissioned by CDM
UPMF	OKUS-W6	Monitoring	Decommissioned by CDM
UPMF	OKUS-W7	Monitoring	Decommissioned by CDM
UPMF	OKUS-W8	Monitoring	Decommissioned by CDM
UPMF	RW	Extraction	Decommissioned by CDM
TOFC	OMW-1	Monitoring	Decommissioned by CDM
TOFC	OMW-2	Monitoring	Decommissioned by CDM
TOFC	OMW-3	Monitoring	Decommissioned by CDM
TOFC	OMW-4	Monitoring	To be decommissioned by CDM, but not found
TOFC	OMW-5	Monitoring	Decommissioned by CDM
TOFC	OMW-7	Monitoring	To be decommissioned by CDM, but not found
TOFC	OMW-8	Monitoring	To be decommissioned by CDM, but not found
TOFC	OMW-9	Extraction	Decommissioned by DNL
TOFC	OMW-10	Monitoring	Decommissioned by CDM
TOFC	OP-1	Monitoring	To be decommissioned by CDM, but not found
TOFC	OP-2	Monitoring	To be decommissioned by CDM, but not found
TOFC	OP-3	Monitoring	Decommissioned by CDM
TOFC	OP-4	Extraction	Decommissioned by DNL
TOFC	ORW-1	Extraction	Decommissioned by DNL
TOFC	ORW-2	Extraction	Decommissioned by DNL
TOFC	ORW-3	Extraction	Decommissioned by DNL
OTHER	OMW-6	Monitoring	Removed by Manson/Dutra
OTHER	APL/UP-W1	Monitoring	To remain for monitoring
OTHER	APL/UP-W2	Monitoring	To remain for monitoring

3.0 Field Activities

Due to active construction, deep mud and standing water at the TOFC site, the well decommissioning was carried out during two different months, March and July 2001. The first phase consisted of well decommissioning at the UPMF site on March 5, 2001,

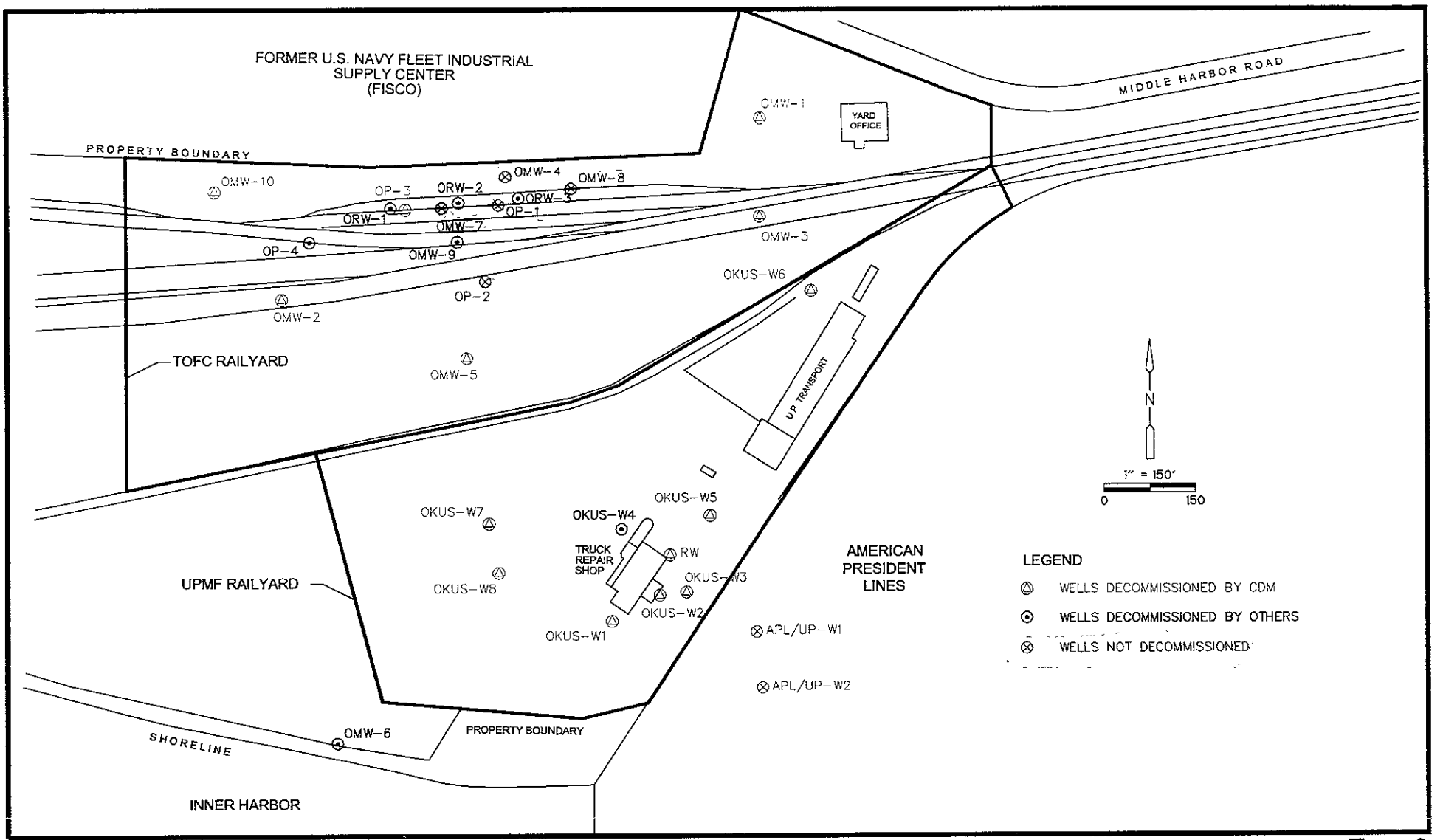


Figure 2

Well Location Map

Well Decommissioning Program
TOFC and UPMF Sites
Port of Oakland, California

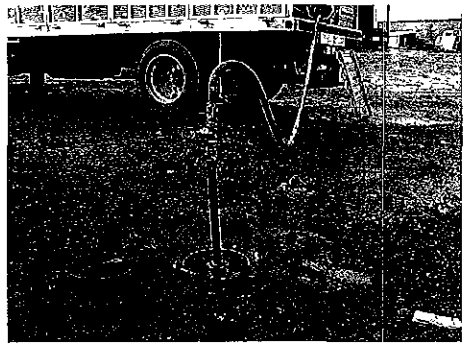
CDM/FEJ Joint Association

and the second phase consisted of well locating and decommissioning on July 2, 3, and 5, 2001. These activities are described below.

3.1 Decommissioning of Wells at the UPMF Site, March 2001

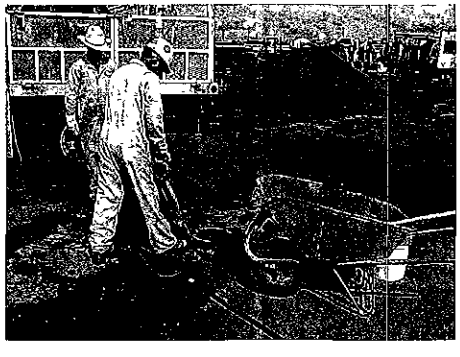
Prior to well decommissioning, CDM applied for Well Destruction Permits at the Alameda County Public Works Agency (ACPWA). The ACPWA issued permits W01-135 through W01-142 for the decommissioning of monitoring wells OMW-1, OKUS-W1, OKUS-W2, OKUS-W3, OKUS-W5, OKUS-W6, OKUS-W7, and OKUS-W8. On February 27, 2001 CDM conducted a site reconnaissance to confirm the location and access of each well slated for decommissioning.

On March 5, 2001, CDM directed Gregg Drilling and Testing Services to decommission these eight monitoring wells at the TOFC and UPMF sites, using pressure grouting methods. Neat cement was prepared by mixing one 94-pound bag of Portland Type I-II cement with 8 gallons of water. A truck mounted, gas powered grout pump was used to pump neat cement from a large mixing tank into the well casing. In order to minimize displacement of contaminated groundwater onto the ground surface, neat cement was initially pumped into the well from the top of the casing. Once the well casing was filled with neat cement, a pressure tight fitting was hammered onto the top of the casing and connected by rubber hose to the grout pump (see Photograph 1). The throttle of the grout pump was adjusted until a pressure of 30 pounds per square inch (psi) was achieved. Pressure was measured using a gauge attached to the pressure tight fitting (see Photograph 1). Neat cement was pumped into each of the eight monitoring wells at 30 psi for 5 minutes.



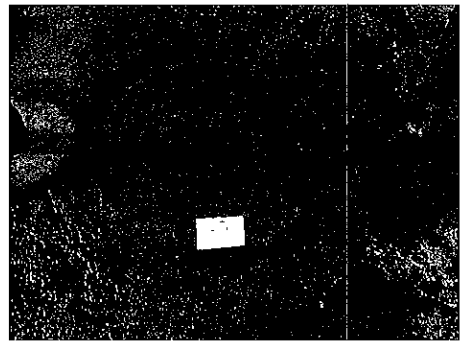
Photograph 1 shows the pressure tight fitting hammered onto the top of the well casing and connected with a rubber hose to the grout pump. Note the pressure gauge (OKUS-W5).

Following pressure grouting of all eight monitoring wells, the well boxes were removed. Well boxes consisted of a concrete cylinder capped with a steel ring and cap. The steel well caps were removed and an electric jackhammer was used to break out the steel rings, sheet metal lining, and upper 1-feet of the concrete cylinder (see Photograph 2). The resulting hole was filled to the surface with concrete and



Photograph 2 shows the removal of the well box of OKUS-W8 using an electric jackhammer. Concrete is hand mixed in the wheelbarrow for backfilling the removed well box hole.

worked flat with a trowel (see Photograph 3). The concrete was prepared by hand mixing one 60-pound bag of concrete ready-mix with two gallons of water. Material removed at each well box was disposed of by Gregg Drilling and Testing Services. Table 2 presents a summary of CDM's well decommissioning activities.



Photograph 3. The well box of OMW-1 has been removed, filled with concrete, and worked flat using a trowel.

3.2 Decommissioning of Wells at the TOFC and UPMF Site, July 2001

Prior to decommissioning the remaining wells at the TOFC and UPMF sites, CDM applied for Well Destruction Permits at the ACPWA. The ACPWA issued permits W01-498 through W01-506, and W01-543 for the decommissioning of wells OMW-2, OMW-3, OMW-4 OMW-5, OMW-7, OMW-8, OMW-10, OP-2, OP-3, and RW. Due to the large diameter (16 inches) of extraction well RW, the ACPWA approved the decommissioning of the well by pumping neat cement into the well from the bottom up.

Table 2
Summary of Well Decommissioning Activities
Port of Oakland

Well Location	*Well ID*	*Total Well Depth (feet)*	*Screened Interval (feet)*	*Casing Diameter & Material*	*Decommission Method*	*Estimated Volume Cement Placed (gallons)*	*Cement Pressure & Time (psi/minutes)*
UPMF	OKUS-W1	22.0	7-22	2-inch PVC	Pressure Grout	17	30/5
UPMF	OKUS-W2	22.0	7-22	2-inch PVC	Pressure Grout	17	30/5
UPMF	OKUS-W3	21.5	6-21.5	2-inch PVC	Pressure Grout	17	30/5
UPMF	OKUS-W4	21.0	6-21.0	2-inch PVC	Unknown	Unknown	Unknown
UPMF	OKUS-W5	21.0	6-21	2-inch PVC	Pressure Grout	15	30/5
UPMF	OKUS-W6	22.0	10-16	2-inch PVC	Pressure Grout	15	30/5
UPMF	OKUS-W7	20.0	15-20	2-inch PVC	Pressure Grout	17	30/5
UPMF	OKUS-W8	15.0	10-15	2-inch PVC	Pressure Grout	16	30/5
UPMF	RW	18 0	Unknown	16-inch steel	Grouted	420	NA
TOFC	OMW-1	13 0	3-13	2-inch PVC	Pressure Grout	15	30/5
TOFC	OMW-2	13.0	3-13	2-inch PVC	Over Drilling	24	NA
TOFC	OMW-3	13.0	3-13	2-inch PVC	Over Drilling	35	NA
TOFC	OMW-4	13.0	3-13	2-inch PVC	Not Found	NA	NA
TOFC	OMW-5	13.0	3-13	2-inch PVC	Pressure Grout	18	30/5
OTHER	OMW-6	15.0	3-15	2-inch PVC	Unknown	Unknown	Unknown
TOFC	OMW-7	13.5	3-13.5	2-inch PVC	Not Found	NA	NA
TOFC	OMW-8	13.5	3-13.5	2-inch PVC	Not Found	NA	NA
TOFC	OMW-9	14.0	3.5-14	2-inch PVC	Pressure Grout	Unknown	Unknown
TOFC	OMW-10	14.5	4-14	2-inch PVC	Pressure Grout	18	30/5
TOFC	OP-1	15	Unknown	2-inch PVC	Not Found	NA	NA
TOFC	OP-2	15	Unknown	2-inch PVC	Not Found	NA	NA
TOFC	OP-3	15	5-15	2-inch PVC	Over Drilling	50	NA
TOFC	OP-4	15	Unknown	4-inch PVC	Pressure Grout	Unknown	Unknown

Table 2 Summary of Well Decommissioning Activities Port of Oakland							
Well Location	*Well ID*	*Total Well Depth (feet)*	*Screened Interval (feet)*	*Casing Diameter & Material*	*Decommission Method*	*Estimated Volume Cement Placed (gallons)*	*Cement Pressure & Time (psi/minutes)*
TOFC	ORW-1	15	3-15	6-inch PVC	Pressure Grout	Unknown	Unknown
TOFC	ORW-2	13	3-13	6-inch PVC	Pressure Grout	Unknown	Unknown
TOFC	ORW-3	12	3-12	6-inch PVC	Pressure Grout	Unknown	Unknown
OTHER	APL/UPW1	22	15-22	2-inch PVC	Not Destroyed	NA	NA
OTHER	APL/UPW2	17	10-17	2-inch PVC	Not Destroyed	NA	NA

On April 30, 2001, CDM performed a site visit to assess accessibility to the monitoring wells and general site conditions. Due to recent construction activity, all of the wells at the TOFC site were obscured by soil cover. To facilitate well locating, CDM coordinated with a land surveyor (Cunha Survey) and with a construction firm (Manson Construction Co.) to locate and excavate the buried wells.

On July 2, 2001, each well location was surveyed and staked in the field. The survey was based upon benchmarks and well coordinates from a survey completed by PLS Surveys, Inc. in 1999. The elevation of each staked location was also surveyed in order to determine how much soil was covering each well box. A metal detector was used to identify the exact location of well boxes.

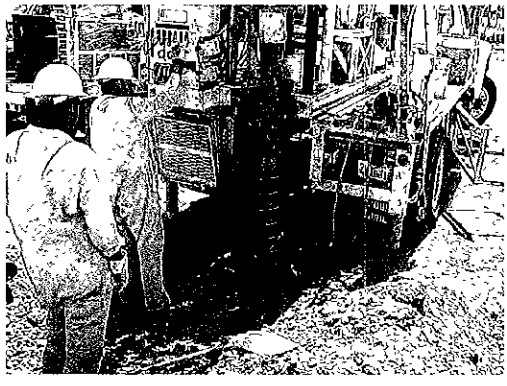
On July 3, 2001, CDM directed Manson to excavate at each surveyed well location. Underground Services Alert (USA) was notified in advance of the excavating activity at the TOFC site. Prior to excavating, CDM performed a site walk with Jim Nores of the DNL Company, Inc. (DNL) and Steve Koche of Consolidated Construction Management (CCM) to identify buried utilities associated with the new groundwater extraction/treatment system. According to DNL and CCM, the surveyed locations of wells OMW-4, OMW-8, and OP-1 were within a newly constructed utility trench and could not be excavated without risking damage to electrical wiring and groundwater conveyance piping. The surveyed locations of OP-2 and OMW-7 were excavated, however, the wells were not found and further digging was halted to prevent damage to the adjacent groundwater extraction trenches (Photograph 4). Monitoring wells OMW-2, OMW-3, OMW-10, and OP-3 were found buried beneath 2 to 5 feet of soil. The PVC casings and

Photograph 4 shows the area excavated at OP-2 (6 feet in depth).

well boxes had previously been broken off at all of the wells found, with the exception of OMW-10.

On July 5, 2001, CDM directed Gregg Drilling and Testing Services to decommission the wells discovered. Due to a number of damaged well casings, both pressure grouting and over drilling methods were necessary to decommission the wells. Pressure grouting and over drilling were completed on the same day.

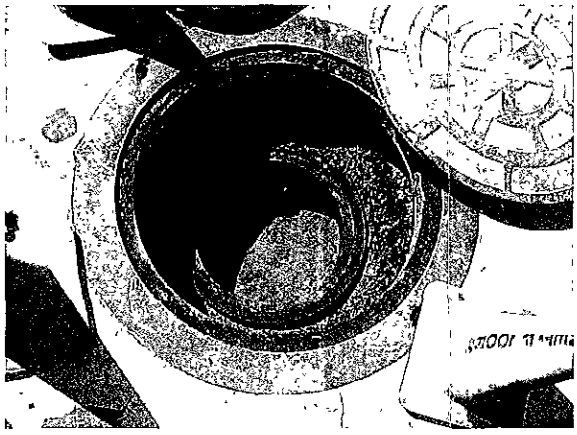
The over drilling of monitoring wells OMW-2, OMW-3, and OP-3 was accomplished using a Mobile B-61 hollow stem auger drill rig (Photograph 5). For wells OMW-2 and OMW-3, the PVC casing was first pulled out of the ground using a winch and cable. The resulting hole and well annulus material was over drilled using an 8-inch diameter auger, to a depth of 1 to 2 feet below the bottom of the well. The resulting borehole has filled to the surface with neat cement (1-94 lb bag of Portland Type I-II cement to 6 gallons of water). The volume of neat cement placed in each well is shown in Table 2. The casing of OP-3 was left in the ground and drilled out along with the surrounding annulus material. Once each borehole had been grouted, the surrounding excavation was backfilled with soil. Soil cuttings generated during over drilling were contained in a labeled 55-gallon drum and left on site adjacent to the new groundwater treatment plant building for future disposal by the Port of Oakland. Well casing material from wells OMW-2 and OMW-3 and decontamination water was disposed of by Gregg Drilling and Testing Services.



Photograph 5 shows the casing and annulus material being drilled out at OP-3.

Wells OMW-5 and OMW-10 were decommissioned by pressure grouting methods. Initially, neat cement was pumped into the well from the top of the casing. Once the well casing was filled with neat cement, a pressure tight fitting was hammered onto the top of the casing and connected by rubber hose to the truck mounted grout pump. According to Gregg Drilling and Testing Services, the grout pump was calibrated at normal idle speed to pump neat cement into a 2-inch well at a pressure of 25 to 30 psi. The neat cement was pumped at normal idle speed for 5 minutes. Approximately 18 gallons of neat cement (1-94 lb bag of Portland Type I-II cement to 6 gallons of water) was pumped into each well. A jackhammer was used to remove the steel cap, ring, and upper 1-foot of concrete at the well boxes of OMW-5 and OMW-10. At OMW-5 the resulting hole was filled with concrete and worked flat with a trowel, however, at OMW-10 the hole was backfilled with soil and gravel due to the location in the middle of a haul road. Materials removed at each well box were disposed of by Gregg Drilling and Testing Services.

Extraction well RW was decommissioned by pumping 420 gallons of neat cement (1-94 lb bag of Portland Type I-II cement to 6 gallons of water) into the well. The neat cement was pumped through a rubber hose held at the bottom of the well. The casing of RW was filled with neat cement to approximately 6-inches below the top of the casing (Photograph 6). The neat cement displaced minimal groundwater to the surface (less than 4 gallons) and the groundwater was mixed into the cement mix at the top of the well.



Photograph 6 shows well RW with the top of the neat cement column 6-inches below the top of the well casing.

4.0 Wells Not Decommissioned

Monitoring wells OMW-4, OMW-7, OMW-8, OP-1, and OP-2 were neither found nor decommissioned by CDM. According to DNL, during the construction of the groundwater treatment system, a 10-foot wide by 8-foot deep utility trench was excavated at the location of wells OMW-4 and OMW-8. DNL did not observe a well during excavation of the trench. In addition, an open trench was also excavated at the location of OP-1, and DNL reports observing no wells within the trench. On July 5, 2001 CDM excavated a 6-foot deep pit at the surveyed location of OP-2 (Photograph 6) and the well was not found. CDM also excavated at the surveyed location of OMW-7, however, the nearby groundwater extraction trench prevented excavating deeper than 2 feet.

The TOFC site is underlain by 12 to 15 feet of artificial fill (sand, gravel, and silt) which overlies a 15-20 foot thick sequence of low permeability clay, clayey/silty sand, and sandy clay of the Young Bay Mud Formation (Harding ESE, 2000). Boring logs of OMW-2 and OMW-3 indicate a gray basal silty clay unit at a depth of 11.5 feet bgs which correlates with the upper unit of the Young Bay Mud. The 5 wells not decommissioned terminate within a sand unit, above the basal clay unit. Because the remaining wells are shallow, adjacent to a groundwater extraction system, and underlain by low permeability clays of the Young Bay Mud, the potential for these wells to contribute to vertical migration of groundwater is considered to be low.

Program Summary

The Port contracted with CDM to decommission 19 wells. Because some wells could not be found, CDM decommissioned a total of 14 wells. On March 5 and July 5, 2001, CDM decommissioned thirteen 2-inch PVC monitoring wells and one 16-inch steel extraction well at the TOFC and UPMF sites using pressure grouting and over drilling methods. Modification of CDM's original workplan included surveying and excavating buried wells at the TOFC site, over drilling the wells with broken off casings, changing the

pressure and duration of grout injection to 30 psi for 5 minutes, and the non-pressure grouting decommissioning of well RW. After the wells were decommissioned, CDM completed State of California-required Well Completion Reports for the wells. CDM mailed the reports to Mr. James Yoo of the ACPWA, who will review and approve the reports. Once approved, the ACPWA will forward the reports to the State of California Water Resources Department. Copies of the Well Completion Reports are included in the Appendix. Monitoring wells OMW-4, OMW-7, OMW-8, OP-1, and OP-2 were not found due to nearby underground utilities and the groundwater extraction trench.

If you have any questions concerning information presented in this letter report, please contact us at (925) 933-2900.

Very truly yours,

CAMP DRESSER & McKEE INC.

Howard Young
Geologist

FOR Charlie O'Neill, R.G.
Project Manager

Appendix

Well Destruction Reports and Permits

References

Harding ESE, 2000: Work Plan for Groundwater Remediation Berths 58 and 59 Construction Vision 2000 Program, Port of Oakland, California, November 30, 2000.

W01/10605/005.doc

Appendix

Well Decommissioning Reports and Permits

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE
PERMIT NUMBER W01-135
WELL NUMBER
APN

LOCATION OF PROJECT TRAILER ON FLAT CAR SITE AND UNION PACIFIC MOTOR FREIGHT SITE LOCATED AT 1717 AND 1750 MIDDLE HARBOR ROAD, OAKLAND, CA.

CLIENT
Name JOHN PRALL (PORT OF OAKLAND)
Address 530 WATER ST. 2ND Floor Phone (510) 272-1100
City OAKLAND, Zip 94607

APPLICANT
Name HOWARD YOUNG (CAMP DRESSER & MCKEE)
Fax (925) 933-4174
Address 100 PRINGLE AVE STE 300 Phone (925) 296-8061
City WALNUT CREEK Zip 94596

TYPE OF PROJECT

		Geotechnical Investigation	
Well Construction	☐	General	☐
Cathodic Protection	☐	Contamination	☐
Water Supply	☐	Well Destruction	☒
Monitoring	☐		

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other NA	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐
Cable	☐	Other	☒ PRESSURE GROUTING
		Auger	☐

DRILLER'S NAME GREG DRILLING & TESTING, INC.
DRILLER'S LICENSE NO. (925) 313-5800
C-57-485165

WELL PROJECTS
Drill Hole Diameter 2 in. Maximum Depth 13 ft.
Casing Diameter 2 in. Owner's Well Number OMW-1
Surface Seal Depth ____ ft.

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum Depth ____ ft.
Hole Diameter ____ in.

ESTIMATED STARTING DATE 3/5/01
ESTIMATED COMPLETION DATE 3/5/01

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

(F) WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

→ ADDENDUM NO. 4 - Port of Oakland

APPROVED [signature] DATE 2-28-01 FAXED

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] DATE 2/28/01

PLEASE PRINT NAME HOWARD YOUNG

Rev. 5-13-99

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

PERMIT NUMBER W01-136
WELL NUMBER
APN

LOCATION OF PROJECT TRAILER ON FLAT CAR SITE AND UNION PACIFIC MOTOR FREIGHT SITE LOCATED AT 1717 AND 1750 MIDDLE HARBOR ROAD, OAKLAND, CA.

CLIENT
Name JOHN PRALL (PORT OF OAKLAND)
Address 530 WATER ST. 2ND FLOOR Phone (510) 272-1100
City OAKLAND Zip 94607

APPLICANT
Name HOWARD YOUNG (CAMP. DRESSER & MCKEE)
Fax (925) 933-4174
Address 100 PRINGLE AVE STE 300 Phone (925) 296-8061
City WALNUT CREEK Zip 94596

TYPE OF PROJECT

Well Construction	☐	Geotechnical Investigation	☐
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	☐	Well Destruction	☒

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other NA	☐

DRILLING METHODS

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	& PRESSURE GROUTING		

DRILLER'S NAME GREG DRILLING & TESTING, INC.
DRILLER'S LICENSE NO. (925) 313-5800
(C-57-485165

WELL PROJECTS
Drill Hole Diameter 2 in. Maximum Depth 22 ft.
Casing Diameter 2 in. Owner's Well Number OKUS-W1
Surface Seal Depth ft.

GEOTECHNICAL PROJECTS
Number of Borings Maximum
Hole Diameter in. Depth ft.

ESTIMATED STARTING DATE 3/5/01
ESTIMATED COMPLETION DATE 3/5/01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Howard Young DATE 2/28/01

PLEASE PRINT NAME HOWARD YOUNG

Rev.5-13-00

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

(F) WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS
NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.
→ Addendum NO. 4 - Port of Oakland.

APPROVED [signature] DATE 2-28-01

FAXED

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST, HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT TRAILER ON FLAT CAR SITE AND UNION PACIFIC MOTOR FREIGHT SITE LOCATED AT 1717 AND 1750 MIDDLE HARBOR ROAD, OAKLAND, CA.

CLIENT
Name JOHN PRALL (PORT OF OAKLAND)
Address 530 WATER ST. 2ND FLOOR Phone (510) 272-1100
City OAKLAND, Zip 94607

APPLICANT
Name HOWARD YOUNG (CAMP DRESSER & MCKEE)
Fax (925) 933-4174
Address 100 PRINGLE AVE STE 300 Phone (925) 296-8061
City WALNUT CREEK Zip 94596

TYPE OF PROJECT

		Geotechnical Investigation	
Well Construction		General	☐
Cathodic Protection	☐	Contamination	☐
Water Supply	☐	Well Destruction	☒
Monitoring	☐		

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other NA	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☒	PRESSURE GROUTING	

DRILLER'S NAME GREG DRILLING & TESTING, INC.
DRILLER'S LICENSE NO. (925) 313-5800
C-57-465165

WELL PROJECTS 2
Drill Hole Diameter 2 in. Maximum Depth 22 ft.
Casing Diameter 2 in. Owner's Well Number OKUS-W2
Surface Seal Depth 1 ft.

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum Depth ____ ft.
Hole Diameter ____ in.

ESTIMATED STARTING DATE 3/5/01
ESTIMATED COMPLETION DATE 3/5/01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Howard Young DATE 2/28/01

PLEASE PRINT NAME HOWARD YOUNG

Rev 5-15-00

FOR OFFICE USE

PERMIT NUMBER W01-137
WELL NUMBER
APN

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

Addendum No 4. Port of Oakland.

APPROVED [signature] DATE 2-28-01

FAXED

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

PERMIT NUMBER W01-138
WELL NUMBER
APN

LOCATION OF PROJECT TRAILER ON FLAT CAR. SITE AND UNION PACIFIC MOTOR FREIGHT SITE LOCATED AT 1717 AND 1750 MIDDLE HARBOR ROAD, OAKLAND, CA.

CLIENT
Name JOHN DRAIL (PORT OF OAKLAND)
Address 530 WATER ST. 2ND Floor Phone (510) 272-1100
City OAKLAND Zip 94607

APPLICANT
Name HOWARD YOUNG (CAMP DRESSER & MCKEE)
Fax (925) 933-4174
Address 100 PRINGLE AVE STE 300 Phone 925 296-8061
City WALNUT CREEK Zip 94596

TYPE OF PROJECT

		Geotechnical Investigation	
Well Construction		General	☐
Cathodic Protection	☐	Contamination	☐
Water Supply	☐	Well Destruction	☒
Monitoring	☐		

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other N/A	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☒	PRESSURE GROUTING	

DRILLER'S NAME GREG DRILLING & TESTING, INC.
DRILLER'S LICENSE NO. (925) 313-5800 C-57-485865

WELL PROJECTS
Drill Hole Diameter 2 in. Maximum Depth 21.5 ft.
Casing Diameter 2 in. Owner's Well Number OKUS-W3
Surface Seal Depth — ft.

GEOTECHNICAL PROJECTS
Number of Borings — Maximum Depth — ft.
Hole Diameter — in.

ESTIMATED STARTING DATE 3/5/01
ESTIMATED COMPLETION DATE 3/5/01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Howard Young DATE 2/28/01
PLEASE PRINT NAME HOWARD YOUNG

Rev.5-13-00

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

(F) WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

ADDendum No. 4 Port of Oakland.

APPROVED [signature] DATE 2-28-01

FAXED

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT TRAILER ON FLAT SAB SITE AND UNION PACIFIC MOTOR FREIGHT SITE LOCATED AT 1717 AND 1750 MIDDLE HARBOR ROAD, OAKLAND, CA.

CLIENT
Name JOHN PRALL (PORT OF OAKLAND)
Address 530 WATER ST. 2ND Floor Phone (510) 272-1100
City OAKLAND, Zip 94607

APPLICANT
Name HOWARD YOUNG (CAMP DRESSER & MCKEE)
Fax (925) 933-4174
Address 100 BRINGLE AVE STE 300 Phone (925) 256-8061
City WALNUT CREEK Zip 94596

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	☐	Well Destruction	☒

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other NA	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐
Cable	☐	Other	☒ PRESSURE GROUTING
		Auger	☐

DRILLER'S NAME GREG DRILLING & TESTING, INC.
DRILLER'S LICENSE NO. (925) 313-5800
C-57-485165

WELL PROJECTS
Drill Hole Diameter 2 in. Maximum Depth 21 ft.
Casing Diameter 2 in. Owner's Well Number OKUS-W5
Surface Seal Depth ____ ft.

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum Depth ____ ft.
Hole Diameter ____ in.

ESTIMATED STARTING DATE 3/5/01
ESTIMATED COMPLETION DATE 3/5/01

FOR OFFICE USE
PERMIT NUMBER W01-139
WELL NUMBER
APN

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and Industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

(F) WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS
NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.
Addendum No. 4 Port of Oakland.

APPROVED [signature] DATE 2-28-01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.
APPLICANT'S SIGNATURE [signature] DATE 2/28/01
PLEASE PRINT NAME HOWARD YOUNG

Rev.5-13-00

FAXED

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT TRAILER ON FLAT CAR SITE AND UNION PACIFIC MOTOR FREIGHT SITE LOCATED AT 1717 AND 1750 MIDDLE HARBOR ROAD, OAKLAND, CA.

CLIENT
Name JOHN PRALL (PORT OF OAKLAND) Phone (510) 272-1100
Address 530 WATER ST. 3RD FLOOR Zip 94607
City OAKLAND,

APPLICANT
Name HOWARD YOUNG (CAMP DRESSER & MCKEE) Fax (925) 933-4174
Address 100 PRINGLE AVE STE 300 Phone (925) 296-8061
City WALNUT CREEK Zip 94596

TYPE OF PROJECT

Well Construction	☐	Geotechnical Investigation	☐
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	☐	Well Destruction	☒

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other NA	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☒	PRESSURE GROUTING	

DRILLER'S NAME GREG DRILLING & TESTING, INC.
DRILLER'S LICENSE NO. (925) 313-5800
(C-57-485165

WELL PROJECTS
Drill Hole Diameter 2 in. Maximum Depth 22 ft.
Casing Diameter 2 in. Owner's Well Number OKUS-W6
Surface Seal Depth ft.

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum Depth ____ ft.
Hole Diameter ____ in.

ESTIMATED STARTING DATE 3/5/01
ESTIMATED COMPLETION DATE 3/5/01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.
APPLICANT'S SIGNATURE Howard Young DATE 2/28/01
PLEASE PRINT NAME HOWARD YOUNG

Rev. 5-13-00

FOR OFFICE USE
PERMIT NUMBER W01-140
WELL NUMBER
APN

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

(F) WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS
NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.
ADDendum NO. 4 - Port of Oakland,

APPROVED [signature] DATE 2-28-01

FAXED

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT TRAILER ON FLAT CAR SITE (TOFC) LOCATED AT 1717 MIDDLE HARBOR ROAD, PORT OF OAKLAND, OAKLAND, CA

CLIENT
Name JOHN PRALL (PORT OF OAKLAND)
Address 530 WATER ST. 2ND Floor Phone (510) 272-1100
City OAKLAND Zip 94607

APPLICANT
Name HOWARD YOUNG / CAMP DRESSER AND MCKEE Fax (925) 933-4174
Address 100 PRINGLE AVE STE. 300 Phone (925) 296-8061
City WALNUT CREEK Zip 94596

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	☐	Well Destruction	☒

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐
Cable	☐	Other	☒ PRESSURE GROUTING
		Auger	☐

DRILLER'S NAME GREGG DRILLING & TESTING

DRILLER'S LICENSE NO. (925) 313-5800

WELL PROJECTS
Drill Hole Diameter ____ in. Maximum Depth 13 ft.
Casing Diameter 2 in. Owner's Well Number OMW-5
Surface Seal Depth ____ ft.

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum Depth ____ ft.
Hole Diameter ____ in.

ESTIMATED STARTING DATE 7/5/01
ESTIMATED COMPLETION DATE 7/6/01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Howard Young DATE 6/21/01
PLEASE PRINT NAME HOWARD YOUNG

FOR OFFICE USE
PERMIT NUMBER W01-498
WELL NUMBER
APN

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS
NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.
See Attached Per fax on 6-21-01 by CDM

APPROVED [signature] DATE 6-22-01

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT TRAILER ON FLAT CAR SITE (TOFC) LOCATED AT 1717 MIDDLE HARBOR ROAD, PORT OF OAKLAND, OAKLAND, CA

CLIENT
Name JOHN PRALL (PORT OF OAKLAND)
Address 530 WATER ST. 2ND Floor Phone (510) 272-1100
City OAKLAND Zip 94607

APPLICANT
Name HOWARD YOUNG / CAMP DRESSER AND MCKEE Fax (925) 933-4174
Address 100 PRINGLE AVE STE. 300 Phone (925) 946-8061
City WALNUT CREEK Zip 94596

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	☐	Well Destruction	☒

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐
Cable	☐	Auger	☐
		Other ☒	PRESSURE GROUTING

DRILLER'S NAME GREGG DRILLING & TESTING

DRILLER'S LICENSE NO. (925) 313-5800

WELL PROJECTS
Drill Hole Diameter ____ in. Maximum Depth 13 ft.
Casing Diameter 2 in.
Surface Seal Depth ____ ft. Owner's Well Number OMW-2

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum Depth ____ ft.
Hole Diameter ____ in.

ESTIMATED STARTING DATE 7/5/01
ESTIMATED COMPLETION DATE 7/6/01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Howard Young DATE 6/21/01

PLEASE PRINT NAME HOWARD YOUNG

FOR OFFICE USE

PERMIT NUMBER W01-499
WELL NUMBER
APN

PERMIT CONDITIONS
Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
(2.) Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

(F.) WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

→ See Attached & Perfax on 6-21-01 by CDM

APPROVED [signature] DATE 6-22-01

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT TRAILER ON FLAT CAR SITE (TOFC) LOCATED AT 1717 MIDDLE HARBOR ROAD, PORT OF OAKLAND, OAKLAND, CA

CLIENT
Name JOHN PRALL (PORT OF OAKLAND)
Address 530 WATER ST. 2ND FLOOR Phone (510)272-1100
City OAKLAND Zip 94607

APPLICANT
Name HOWARD YOUNG / CAMP DRESSER AND MCKEE Fax (925) 933-4174
Address 100 PRINGLE AVE STE. 300 Phone (925) 946-8061
City WALNUT CREEK Zip 94596

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	0	General	0
Water Supply	0	Contamination	0
Monitoring	0	Well Destruction	X

PROPOSED WATER SUPPLY WELL USE

New Domestic	0	Replacement Domestic	0
Municipal	0	Irrigation	0
Industrial	0	Other	0

DRILLING METHOD:

Mud Rotary	0	Air Rotary	0	Auger	0
Cable	0	Other	X	PRESSURE GROUTING	

DRILLER'S NAME GREGG DRILLING & TESTING

DRILLER'S LICENSE NO. (925) 313-5800

WELL PROJECTS
Drill Hole Diameter ____ in. Maximum Depth 14.5 ft.
Casing Diameter 2 in. Owner's Well Number OMW-10
Surface Seal Depth ____ ft.

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum
Hole Diameter ____ in. Depth ____ ft.

ESTIMATED STARTING DATE 7/5/01
ESTIMATED COMPLETION DATE 7/6/01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Howard Young DATE 6/21/01

PRINT NAME HOWARD YOUNG

FOR OFFICE USE

PERMIT NUMBER W01-500
WELL NUMBER ____
APN ____

PERMIT CONDITIONS
Circled Permit Requirements Apply

(A) GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

(F) WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

(G) SPECIAL CONDITIONS
NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.
→ See Attached fax per fax on 6-21-01 by CDM

APPROVED [signature] DATE 6-22-01

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

OCATION OF PROJECT TRAILER ON FLAT CAR SITE (TOFC) LOCATED AT 1717 MIDDLE HARBOR ROAD, PORT OF OAKLAND, OAKLAND, CA

ENT
c JOHN PRALL (PORT OF OAKLAND)
ddress 530 WATER ST. 2ND FLOOR Phone (510) 272-1100
OAKLAND Zip 94607

PLICANT
ame HOWARD YOUNG / CAMP DRESSER AND MCKEE Fax (925) 933-4174
ress 100 PRINGLE AVE STE. 300 Phone (925) 946-8061
WALNUT CREEK Zip 94596

PE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
ater Supply	☐	Contamination	☐
onitoring	☐	Well Destruction	☒

ROPOSED WATER SUPPLY WELL USE

ew Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other	☐

LLING METHOD:

ud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☒	PRESSURE GROUTING	

LLER'S NAME GREGG DRILLING & TESTING

RILLER'S LICENSE NO. (925) 313-5800

LL PROJECTS
Drill Hole Diameter ____ in. Maximum Depth 15 ft.
Casing Diameter 2 in. Owner's Well Number OP-3
urface Seal Depth ____ ft.

OTECHNICAL PROJECTS
Number of Borings ____ Maximum
Hole Diameter ____ in. Depth ____ ft.

TIMATED STARTING DATE 7/5/01
TIMATED COMPLETION DATE 7/6/01

hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

PLICANT'S SIGNATURE Howard Young DATE 6/21/01

PRINT NAME HOWARD YOUNG

FOR OFFICE USE

PERMIT NUMBER W01-501
WELL NUMBER ____
APN ____

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

See Attached ltr per fax on 6-21-01 by CDM

APPROVED [signature] DATE 6-22-01

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT TRAILER ON FLAT CAR SITE AND UNION PACIFIC MOTOR FREIGHT SITE LOCATED AT 1717 AND 1750 MIDDLE HARBOR ROAD, OAKLAND, CA.

CLIENT
Name JOHN PRALL (PORT OF OAKLAND)
Address 530 WATER ST. 2ND Floor Phone (510) 272-1100
City OAKLAND, Zip 94607

APPLICANT
Name HOWARD YOUNG (CAMP DRESSER & MCKEE)
Address 100 PRINGLE AVE STE 320 Fax (925) 933-4174
City WALNUT CREEK Phone (925) 296-8061
Zip 94596

TYPE OF PROJECT

		Geotechnical Investigation	
Well Construction	☐	General	☐
Cathodic Protection	☐	Contamination	☐
Water Supply	☐	Well Destruction	☒
Monitoring	☐		

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other NA	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐
Cable	☐	Auger	☐
		Other	☒ PRESSURE GROUTING

DRILLER'S NAME GREG DRILLING & TESTING, INC.
DRILLER'S LICENSE NO. (925) 313-5800
C-57-485165

WELL PROJECTS
Drill Hole Diameter 2 in. Maximum Depth 20 ft.
Casing Diameter 2 in. Owner's Well Number OKUS-W7
Surface Seal Depth ____ ft.

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum Depth ____ ft.
Hole Diameter ____ in.

ESTIMATED STARTING DATE 3/5/01
ESTIMATED COMPLETION DATE 3/5/01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Howard Young DATE 2/28/01

PLEASE PRINT NAME HOWARD YOUNG

Rev.5-13-00

FOR OFFICE USE

PERMIT NUMBER W01-141
WELL NUMBER
APN

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

(F) WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

Addendum No. 4 - Port of Oakland.

APPROVED [signature] DATE 2-28-01

FAXED

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT TRAILER ON FLAT CAR SITE AND UNION PACIFIC MOTOR FREIGHT SITE LOCATED AT 1717 AND 1750 MIDDLE HARBOR ROAD, OAKLAND, CA.

CLIENT
Name JOHN PRALL (PORT OF OAKLAND)
Address 530 WATER ST. 2ND FLOOR Phone (510) 272-1100
City OAKLAND, Zip 94607

APPLICANT
Name HOWARD YOUNG (CAMP DRESSER MCKEE) Fax (925) 933-4174
Address 100 PRINGLE AVE STE 300 Phone (925) 296-8061
City WALNUT CREEK Zip 94596

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	☐	Well Destruction	☒

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other NA	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☒	PRESSURE GROUTING	

DRILLER'S NAME GREG DRILLING & TESTING, INC.
DRILLER'S LICENSE NO. (925) 313-5800 C-57-485165

WELL PROJECTS 2
Drill Hole Diameter ____ in. Maximum Depth 15 ft.
Casing Diameter 2 in. Owner's Well Number OKUS-W8
Surface Seal Depth ____ ft.

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum Depth ____ ft.
Hole Diameter ____ in.

ESTIMATED STARTING DATE 3/5/01
ESTIMATED COMPLETION DATE 3/5/01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.
APPLICANT'S SIGNATURE Howard Young DATE 2/28/01
PLEASE PRINT NAME HOWARD YOUNG

Rev.5-13-00

FOR OFFICE USE
PERMIT NUMBER WO1-142
WELL NUMBER
APN

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

(F) WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

Addendum NO. 4 - Part of Oakland

APPROVED [signature] DATE 2-28-01

FAXED

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT UNION PACIFIC MOTOR FREIGHT YARD (UPME) LOCATED AT 1750 FERRO ST., PORT OF OAKLAND, OAKLAND, CA

PERMIT NUMBER W01-506
WELL NUMBER
APN

CLIENT
Name JOHN PRALL (PORT OF OAKLAND)
Address 530 WATER ST. 2ND Floor Phone (510) 272-1100
City OAKLAND Zip 94607

APPLICANT
Name HOWARD YOUNG / CAMP DRESSER AND McKEE Fax (925) 933-4174
100 PRINDLE AVE. STE 300 Phone (925) 296-8061
Address
City WALNUT CREEK Zip 94596

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	☐	Well Destruction	☒

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☒	WELL DESTRUCTION BY GROUTING	

DRILLER'S NAME
DRILLER'S LICENSE NO.

WELL PROJECTS
Drill Hole Diameter ____ in. Maximum Depth 18 ft.
Casing Diameter 16 in. Owner's Well Number RW
Surface Seal Depth ____ ft.

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum Depth ____ ft.
Hole Diameter ____ in.

ESTIMATED STARTING DATE 7/5/01
ESTIMATED COMPLETION DATE 7/6/01

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS
NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.
See Attached & per fax on 6-21-01 by CDM

APPROVED [signature] DATE 6-22-01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Howard Young DATE 6/21/01

PLEASE PRINT NAME HOWARD YOUNG

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT TRAILER ON FLAT CAR SITE (TOEC), LOCATED AT 1717 MIDDLE HARBOR ROAD, PORT OF OAKLAND, OAKLAND, CA

CLIENT
Name JOHN PRALL (PORT OF OAKLAND)
Address 530 WATER ST, 2ND FLOOR Phone (510)272-1100
City OAKLAND Zip 94607

APPLICANT
Name HOWARD YOUNG (CAMP DRESSER & MCKEE INC.) Fax (925) 933-4174
Address 100 PRINGLE AVE. STE 300 Phone (925) 296-8061
City WALNUT CREEK Zip 94596

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	☐	Well Destruction	☒

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☒	DRILLING OUT WITH AUGER RIG	

DRILLER'S NAME GREGG DRILLING AND TESTING SERVICES

DRILLER'S LICENSE NO. C-57-485165

WELL PROJECTS
Drill Hole Diameter 2 in. Maximum Depth 13 ft.
Casing Diameter 2 in. Owner's Well Number OMW-3
Surface Seal Depth - ft.

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum
Hole Diameter ____ in. Depth ____ ft.

ESTIMATED STARTING DATE 7/5/01
ESTIMATED COMPLETION DATE 7/5/01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Howard Young DATE 7/11/01

PLEASE PRINT NAME HOWARD YOUNG

Rev.5-13-00

FOR OFFICE USE

PERMIT NUMBER WO1-543
WELL NUMBER ____
APN ____

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole above zone with concrete placed by tremie.

(F.) WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

(G.) SPECIAL CONDITIONS
NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.
After the Fact.

APPROVED [signature] DATE 7-11-01