CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. R2-2005-0012

UPDATED WASTE DISCHARGE REQUIREMENTS AND RECISSION OF ORDER NOS. 89-070 and 95-011 FOR:

OREGON STEEL MILLS, d.b.a. NAPA PIPE
NAPA PIPE CORPORATION

NAPA PIPE STEEL PIPE MANUFACTURING FACILITY
NAPA, NAPA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Water Board), finds that:

PURPOSE OF ORDER

1. The purpose of this Order is to (1) update site history, (2) update waste discharge requirements (WDRs) for Waste Management Units (WMUs) at the site, and (3) rescind previous Water Board Order Nos. 89-070 and 95-011, which are described in detail in Table 1 on page 4.

2. This Order specifically addresses three WMUs:

   a. Site 1, Southwest Fill Area / Class II WMU
   b. Site 4, Wastewater Treatment Pond (WWT Pond)
   c. Site 2/3, Biocells

   Waste Discharge Requirements for the Site 1 WMU (Southwest Fill Area / Class II WMU) consist of requirements for post-closure monitoring and maintenance. The Site 4 WWT Pond, and Site 2/3 Biocells have been clean closed. This Order documents the clean closure activities of the WWT Pond and Biocells and requires no further action for the two clean closed units. All three WMUs are described in more detail in Findings 17 through 27.

SITE DESCRIPTION AND LOCATION

3. Napa Pipe (herein the site) occupies 152 acres adjacent to the Napa River in the southern Napa Valley (Figure 1). In the early 1900s, C&H Sugar (a nearby facility) extracted groundwater for industrial supply from several wells located on and near the site. Some of these original wells still exist, including the Suscol well, which supplies industrial process water for Napa Pipe (Figure 2).

4. The site includes various buildings and equipment historically used for fabrication and

support of the production of large-diameter steel pipe and steel fabricating. Key facility infrastructure includes buildings/structures for pipe fabrication (a.k.a the mills), internal and external coating, double-pipe ending, ultrasonic testing, machining, maintenance, paint storage, and prefabrication. Auxiliary site features include the dry docks (currently not in service), and the Waste Water Treatment Plant (Figure 2).

5. The western boundary of the site is the Napa River. The perimeter is marked by a concrete seawall, which extends from the northern property boundary to the area just past the dry docks. A rip-rap berm extends south along the remainder of the western site boundary with the river (Figure 2). The opposing bank of the Napa River is marginal lowlands that are part of the Napa River Flood Control Project, and typically become inundated several times each year during peak storm/tidal events. The area is also periodically farmed during the dry summer months. The site is bounded to the north by CMH Properties, Bay Area Reinforcing, and Syar Industries, the latter of which operates a sand and gravel supply and concrete batch plant, and to the east by commercial / industrial lands of the Napa Valley Corporate Park. The corporate park was initially developed in the 1980s and is still undergoing build-out. The southern boundary falls just north of PG&E high voltage electrical transmission lines and is also in close proximity to Venture Commerce Center and PanAmSat.

OWNERSHIP

6. During World War II, the Basalt Corporation operated a shipyard and fabrication plant at the facility, which was later purchased and used by Kaiser Steel Corporation to manufacture fabricated steel products including steel pipe. Kaiser Steel Corporation ceased manufacturing operations by the end of 1986 and filed for bankruptcy in 1987. Gilmore Steel (now Oregon Steel Mills) purchased the property in October 1987 and resumed production of steel pipe through its wholly owned subsidiary Napa Pipe Corporation. The facility is now owned by Oregon Steel Mills d.b.a. Napa Pipe, and operated by Napa Pipe Corporation.

DISCHARGERS

7. As the current and sole owner of the site, Oregon Steel Mills, d.b.a. Napa Pipe, is hereinafter referred to as a Discharger.

8. As the current and sole operator of the site, Napa Pipe Corporation is hereinafter referred to as a Discharger.

9. The Water Board considers Oregon Steel Mills and Napa Pipe Corporation (Dischargers) to have continuing responsibility for correcting any problems which arise in the future as a result of past, present, or future waste discharges for as long as those waste discharges pose a threat to water quality.

REGULATORY HISTORY

10. Environmental site investigations began at the facility in 1979 with inspection and sampling of the Southwest Fill Area (now known as Site 1, Figure 2). Between 1979 and September

1987, additional site investigations were conducted. During this period, petroleum hydrocarbons, volatile organic compounds (VOCs), and metals were identified in soil and groundwater at the site.

11. Sample results from the investigations conducted between 1979 and 1987 led to Kaiser Steel signing a Stipulated Judgment with the Napa County District Attorney. Per the Stipulated Judgment, the California Superior Court ordered Kaiser Steel in November 1987 to develop an investigation plan to assess the extent of soil contamination at the facility and develop a remedial action plan. Since Napa Pipe had acquired the property one-month prior, it assumed responsibility for the investigation.

12. Based on results of previous soil and groundwater investigation, the Water Board issued WDR Order No. 89-070, which required the Dischargers to conduct a site-wide investigation to identify all sources of soil and groundwater pollution, determine the extent of their impacts, and develop a Corrective Action Plan (CAP). In response, the Dischargers conducted additional soil and groundwater investigations and began the process of planning corrective actions. A site-wide ***Site Investigation Report***, was prepared in 1990 and a ***Corrective Action Plan*** was prepared in 1991.

13. The 1990 site investigation report identified seven geographic areas referred to as "sites" (1 through 7) within the facility. The number of "sites" was later reduced to the following six: 1, 2/3, 4, 5, 6, and 7 (see Figure 2). Sites 1, 2/3, 4, and 6 contain different contaminants in soil and groundwater that cumulatively include petroleum hydrocarbons, chlorinated volatile organic compounds (CVOCs), and some metals. Sites 5 and 7 were found to be free of significant impacts and are considered representative of background conditions at the site.

14. In 1990, the Water Board issued Site Cleanup Requirements (SCRs) for implementation of a site-wide CAP. Implementation of remedial plans proposed in the CAP was prioritized for each site, beginning with Site 1 in 1991/92, and proceeding to Sites 2/3, 4, and 6 in the years following. Each site was addressed under Water Board oversight. Remedial programs based on the current industrial landuse are currently in place at Sites 1, 2/3, and 6. A remedial solution for Site 4 has been proposed and is pending Water Board approval.

15. In 1992, the Water Board issued WDR Order No. 92-035, which established requirements to close the Southwest Fill Area (Site 1) as a Class II WMU. Order No 92-035 was later superceded and rescinded by Order No. 95-011, which updated WDRs for Site 1 closure and post-closure monitoring and maintenance. Table 1 summarizes all previously adopted Water Board Orders for the site.

16. For reference, Table 2 summarizes the geographic investigation areas, WMUs, and operational areas of concern at the site. Areas where significant soil or groundwater quality concerns are being addressed may be regulated under a separate future cleanup order. Figure 3 shows monitoring well locations and the groundwater potentiometric surface associated with the site.

Table 1 Previously Adopted Water Board Orders for Napa Pipe

Order No.	Date	Purpose	Status
89-070	5/17/89	WDRs for closure of an unlined Waste Water Treatment Pond (WWT Pond) and requirements for site-wide investigation and development of a corrective action plan.	The WWT Pond was clean closed in 1990 under Water Board oversight. Order No. 89-070 is rescinded by this Order.
90-147	11/14/90	SCRs for the implementation of a site-wide corrective action plan for soil and groundwater impacts.	Order No 90-147 remains in effect until rescinded by a future SCR order update.
90-154	12/12/90	NPDES No. CA0027928 regulated storm water runoff and discharges from dry docks located along the Napa River.	NPDES permit No. CA0027928 expired in 1995. Storm water discharges at the site are now regulated under the State's General NPDES Permit (CAS000001) for Storm Water Discharges Associated with Industrial Activity.
92-035	4/15/92	WDRs for closure of the Southwest Fill Area (Site 1) as an engineered alternative Class II WMU.	Order No. 92-035 was rescinded by Order No. 95-011.
95-011	1/18/95	Updated WDRs for closure of the Southwest Fill Area (Site 1) as an engineered alternative Class II WMU.	Order No. 95-011 is rescinded by this Order.

Table 2 Geographical Investigation Areas, WMUs, and Operational Areas at the Napa Pipe Site

Geographic Investigation Area	WMUs / Operational Area	Order Where Previously Addressed	Current Regulatory Status
Site 1	Southwest Fill Area / Class II WMU	WDR 89-070; SCR 90-147; WDR 92-035; WDR 95-011	WDR 89-070 and SCR 90-147 required investigation of Site 1 and development of a Corrective Action Plan (CAP). Subsequently, in 1990, the corrective action proposed for the Southwest Fill Area included constructing an engineered alternative for closure as a Class II WMU. The engineered alternative included an asphaltic cement cap placed over the existing waste, a surface water drainage system, and a contingency groundwater extraction trench for hydraulic containment. The extraction trench would only be operated if conditions warranted. To date, operation of the groundwater extraction trench has not been necessary. WDR 92-035 established requirements for implementation of the engineered alternative and in 1994, the Class II equivalent WMU was constructed. WDR 95-011, which rescinded and superceded WDR 92-035, required post-closure maintenance and monitoring for the WMU. WDR 95-011 also required development of a Water Quality Protection Standard (WQPS) per State land disposal regulations. Groundwater monitoring has been performed since 1995 and is currently conducted semi-annually.
Site 2/3	Biocells	SCR 90-147	In 1990, 10,500 cubic yards of soil and sludge were removed from the WWT Pond during clean closure and placed in lined, engineered biocells in the southeast portion of Site 2/3, where it underwent bioremediation until 2002. At that time, the soil was characterized as non-hazardous waste and disposed of at a Class III landfill. Groundwater monitoring has occurred annually from one nearby well (MW-9R) to check for hydrocarbon impacts to groundwater.
	Southeast Storage Area Waste Piles	WDR 89-070; SCR 90-147	Waste Piles were removed and disposed of offsite.

	Abandoned Drainage Ditch	WDR 89-070; SCR 90-147	Used flux, mill scale, and copper sand blast waste historically placed in the abandoned drainage ditch was removed in 1994 and placed beneath the asphaltic cement cap in the Site 1 WMU.
	External Coating Bldg.	WDR 89-070; SCR 90-147	A 40-ft long x 10-ft deep extraction trench currently controls migration of petroleum hydrocarbons (TPH-d) and chlorinated VOCs in groundwater surrounding the External Coating bldg. Upon demolition of the building, a contingency plan will be implemented to evaluate the threat from soils beneath the building and address as necessary.
Site 4	Waste Water Treatment Pond (WWT Pond)	WDR 89-070; SCR 90-147	In 1989, 10,500 cubic yards of soil/sludge was excavated from the WWT Pond. The WWT Pond was backfilled and certified clean-closed in 1990. A portion of the pond location was also paved. The soil/sludge removed from the WWT Pond was placed in biocells on Site 2/3 where it underwent bioremediation until 2002 when the soil was characterized and disposed of at a Class III landfill. Although petroleum hydrocarbons and chlorinated volatile organic compounds (CVOCs) have been detected in groundwater at Site 4, monitoring specific to the WWT Pond is no longer performed since it was clean closed.
	Two USTs: 1-7500 gal gasoline; 1-1500 gal diesel	WDR 89-070; SCR 90-147	The USTs were removed in 1986 and 1987, respectively. 308 cubic yards of associated soil were removed, treated, and disposed of in the Site 1 WMU. The tank excavation was backfilled with clean imported fill and paved with asphalt.
	Central and Western Area CVOCs and Petroleum Hydrocarbons from Unidentified Source(s)	WDR 89-070; SCR 90-147	The Site 4 Characterization and Remedial Action Plan prepared in 2002 proposes: 1. No Further Action for TPH in soil and groundwater, and 2. Monitored Natural Attenuation for CVOCs in groundwater These proposed remedies are currently under review by the Water Board.
Site 5	Materials Storage; Painting Operations	None	Site 5 is considered a background location since soil and groundwater at Site 5 are not significantly impacted by industrial operations.

Site 6	Machine Shop and Former Drum Storage Area	WDR 89-070; SCR 90-147	Per the Site 6 Characterization and Remedial Action Plan approved by the Water Board in July 1996, a groundwater extraction trench (45 ft long x 9 ft deep) was constructed in 1997 to maintain hydraulic control of CVOCs and petroleum hydrocarbons in groundwater. A deep monitoring well was also installed to monitor changes in CVOC concentrations at depth. The remedial solution also included a contingency plan to be implemented upon demolition of the machine shop. The contingency plan will identify if additional controls or excavation work is needed to address potentially impacted soils that were previously inaccessible.
Site 7	None	None	No environmental issues have been identified at Site 7. This site is considered to represent background soil and groundwater conditions.

WASTE MANAGEMENT UNITS ADDRESSED BY THIS ORDER

Site 1 – Southwest Fill Area

17. Site 1 (Figure 2) is a Class II WMU that has been inactive since 1979 when Kaiser Steel ceased filling operations. Prior to 1979, Site 1 historically received an estimated 20,000 cubic yards of mill scale, welding flux, and other wastes. Soil testing since 1987 indicated the presence of metals in soils at concentrations above background levels but below hazardous waste levels for barium, copper, chromium, lead, and zinc. Heavy-range total petroleum hydrocarbons (TPH-oil) were also detected in shallow soils. Results of these investigations are summarized in the following reports: ***Site Investigation Report***, dated January 1990; ***Corrective Action Plan***, dated November 1990 and revised in 1991; and ***Technical Support of Variance Request for Site 1***, dated January 1992.

18. Historic concentrations of barium, chromium and lead in groundwater at Site 1 were slightly above drinking water maximum contaminant levels (MCLs). However, since 1991, analytical results for these constituents in groundwater have generally been less than the method detection limits and/or the MCLs. The Dischargers believe that the earlier exceedences of MCLs were likely the result of incomplete filtering of the groundwater samples for particulate matter (i.e., suspended solids) rather than a true representation of dissolved metals. Organic constituents detected in groundwater at Site 1 have included TPH-oil and 1,1-dichloroethane (1,1-DCA). Both compounds were detected at levels just above the detection limit and/or MCL. Details of groundwater sample results are provided in the ***Site Investigation Report***, dated January 1990; the ***Corrective Action Report***, dated November 1990 and revised in 1991; and quarterly monitoring reports since 1989.

19. The 1991 CAP for Site 1 proposed an engineered alternative to the prescriptive standards for closure as a Class II WMU. Strict compliance with the Class II WMU closure standards was considered impractical because it was economically burdensome ($12 million in capital

costs) and was unnecessary in light of site conditions. Therefore, an engineered alternative for closure was proposed that would achieve equivalent water quality protection. The proposed closure alternative included the following:

a. Placement of a low-permeability asphaltic concrete (AC) cap over the entire site;
b. Installation of a storm water control system;
c. Construction of an earthen barrier along the wetlands-fill boundary at the southern end of the site;
d. Installation of a 462-foot long by 10-foot deep extraction trench capable of hydraulic containment and groundwater collection should it become necessary;
e. Continued monitoring of groundwater quality within the WMU.

20. In 1992, the Water Board issued WDR Order No. 92-035, which established requirements for implementation of the proposed engineered alternative. Construction of the class II equivalent WMU was certified in the report titled ***Site 1 As-Built Landfill Design Report***, dated January 1994.

21. In 1995, the Water Board issued WDR Order No. 95-011, which superceded and rescinded Order No. 92-035 and required post-closure maintenance and monitoring for the WMU and development of a Water Quality Protection Standard (WQPS). The WMU is currently operated per the procedures set forth in the March 1995 ***Site 1 Waste Management Unit Closure and Postclosure Maintenance Plan***, dated March 1995. The groundwater extraction trench has not been operated since installation.

22. In accordance with WDR Order No. 95-011, the Site 1 WMU has been inspected annually to ensure cap integrity and maintenance of monitoring and control facilities. Water quality monitoring has also occurred in accordance with the ***Site 1 Groundwater Monitoring Plan and Extraction Facility Implementation Plan***, dated July 1992, and as modified by WDR Order No. 95-011. Since 1995, the monitoring program has consisted of statistical comparison of groundwater sample results from two downgradient compliance wells (MW-47 and MW-48) with sample results from two upgradient background wells (MW-5 and MW-7). Groundwater monitoring is performed semiannually (Figure 4).

Site 4 – Waste Water Treatment Pond (WWT Pond)

23. Since 1958, an unlined wastewater treatment pond (WWT Pond) was used at the site to hold and evaporate process wastewater before discharge to the Napa Sanitation District. In 1989, the Water Board issued Waste Discharge Requirements (WDR Order No. 89-070) for closure of the WWT Pond. In response, the Dischargers replaced the WWT Pond with a mechanical pretreatment system within a larger onsite wastewater treatment plant and ceased discharges to the WWT Pond. The former WWT Pond and the current wastewater treatment plant are located within Site 4 and are shown on Figure 2.

24. In 1990, the WWTP was clean-closed in accordance with WDR Order No. 89-070. About 10,500 cubic yards of soil and sludge were removed from within and below the WWT Pond (including the earthen berms) and placed in lined cells located within Site 2/3 (Figure 2) to undergo bioremediation. Soil samples were collected from the excavation to demonstrate complete removal of residual pollution. A liner consisting of a geotextile and 30-mil

geomembrane was laid at the base of the excavation and "1-inch minus" crushed stone was used as backfill material. The backfilled excavation was then paved over with asphalt. Certification of clean closure is provided in the report titled ***As-Built Report for Impoundment Closure***, dated 17 December 1990. Additional details of the WWT Pond closure are provided in the following documents: ***Design Report for Impoundment Closure***, dated 12 September 1990; ***Pond Closure Plan***, dated 12 April 1990; and ***Addendum Pond Closure Plan***, dated 5 September 1990.

25. Petroleum hydrocarbons and CVOCs have historically been identified in groundwater in the eastern portion of Site 4 near the former WWT Pond location, but have generally demonstrated decreasing trends. These pollutants may or may not be related to historic releases from the former WWT Pond. Investigation and cleanup of these pollutants is not addressed in this Order and may be addressed under a separate Water Board Order (Site Cleanup Requirements) as necessary.

Site 2/3 - Biocells

26. During clean closure of the WWT Pond, about 10,500 cubic yards of non-hazardous soil and sludge containing metals and hydrocarbons were removed. These soils were placed in three lined "biocells" located in the southeastern corner of the facility, now referred to as Site 2/3 (Figure 2). The biocells were constructed on bare ground with a base liner system consisting of a 60-mil geomembrane with 6 inches of sand both underlying and overlying the geomembrane. The geomembrane was keyed into crushed stone berms surrounding each biocell that were 2½ feet high. Cells ranged from 380 to 470 feet long by 80 to 150 feet wide. A leak detection system consisting of 2-inch slotted pipe and collection sump was installed within the sand layer beneath the geomembrane in each cell. Details of the design and construction of the biocells were provided in the report titled ***As-Built Report for Impoundment Closure***, dated 17 December 1990.

27. From 1990 until January 2002, the excavated soil/sludge within each cell underwent bioremediation. In February 2002, the soil was re-characterized and confirmed to be non-hazardous and disposed of at the NW-Hay Road Class II/III landfill in Vacaville, California where it was used for daily cover.

HYDROLOGY & HYDROGEOLOGY

28. The site is located adjacent to the Napa River and east of Horseshoe Bend, an abandoned meander of the river, in southern Napa Valley (Figure 1). The river is approximately 250 feet wide adjacent to the site and is considered a mature, meandering, and tidally influenced river system.

29. Hydrostratigraphic units of interest in the southern Napa Valley area from oldest (structurally deep) to youngest (structurally shallow) include bedrock volcanics, older alluvium, younger alluvium, and fill. Water production wells in the Napa area are typically screened within the Bedrock Volcanics. This unit typically contains several hundred feet of highly conductive materials owing to both primary porosity from depositional features, and secondary porosity from joints and fractures. Groundwater from these units is generally considered to have overall good quality and characteristically good to excellent yield.

Water-bearing strata within the older and younger alluvium are locally used for domestic purposes, although it is generally not considered sufficient for industrial, irrigation, or municipal uses. Water quality and yield within the alluvium is highly variable. Water within the younger alluvium and fill are generally not considered for water supply purposes because of high chloride and low yield..

30. The occurrence of groundwater at the site is generally divided into the Shallow and Deep Groundwater Zones. Groundwater within the Shallow Zone is typically unconfined, and generally occurs at a depth of approximately 2 to 7 feet below ground surface (bgs). Groundwater levels vary seasonally, and are typically the highest in the spring following winter precipitation. The Shallow Zone coincides with water-bearing zones in fill placed during development of the site, and the upper portion of the younger alluvium. The Deep Zone refers to coarser-grained sand lenses below a depth of 20 feet bgs, which are separated from the Shallow Zone by a low permeability, locally cemented claystone and/or siltstone layer. Historic differences in water chemistry, conductivity, and groundwater elevations indicate that a degree of hydraulic separation exists between the two zones. The groundwater in each well is confined, rising to approximately 3 to 4 feet bgs. Groundwater elevations in the Deep Zone are less influenced by seasonal precipitation cycles than by the Shallow Zone wells.

31. There are three groundwater supply wells at the site, including the Suscol Well (860 feet total depth) within Site 6, the Syar Well (800 feet total depth) within Site 5, and a well recently referred to as the Bio-Cell Well (450 feet total depth) within Site 2/3 (Figure 2). A fourth production well (Well No. 3) is located north of Site 6, but it was capped at the surface and is not in use. The wells draft groundwater from areas of high hydraulic conductivity within the bedrock volcanics, typically several hundred feet below the shallow alluvial aquifers. The wells are under confined pressure and groundwater typically rises to within 10 feet of the ground surface. The Suscol Well has historically flowed under artesian conditions following extended periods of non-pumping. Shallow groundwater is effectively isolated from these wells by steel conductor casings that extend completely through the alluvial sediments and into the Sonoma Volcanics in each well.

BASIN PLAN AND RESOLUTIONS

32. The Water Board adopted a revised Water Quality Plan for the San Francisco Bay Basin (Basin Plan) in June 21, 1995. This updated and consolidated plan represents the Water Board's master water quality control planning document. The State Water Resource Control Board and the Office of the Administrative Law approved the revised Basin Plan on July 20 and November 13, respectively, of 1995. A summary of regulatory provisions is contained in Section 3912, Title 23 of the California Code of Regulations. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface water and groundwater.

33. The Basin Plan provides that all groundwaters are considered suitable, or potentially suitable, for municipal or domestic water supply (MUN) and that, in making any exceptions, the Water Board will consider the criteria referenced in Water Board Resolution No. 89-39, "Sources of Drinking Water", where:

(a) The total dissolved solids exceed 3,000 mg/l (5,000 μS/cm, electrical conductivity), and it is not reasonably expected by the Water Board that the groundwater could supply a public water system, or

(b) There is contamination, either by natural processes or human activity (unrelated to the specific pollution incident), that cannot reasonably be treated for domestic use using best management practices or best economically achievable treatment practices, or

(c) The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day.

BENEFICIAL USES OF SURFACE WATER AND GROUNDWATER

Groundwater

34. The site resides within the boundaries of the Napa Valley Groundwater Basin, as defined in the Basin Plan. The existing and potential beneficial uses identified for groundwater in this basin, according to the Basin Plan, include:

    a. Municipal and Domestic Supply (MUN)
    b. Industrial Process Supply (PROC)
    c. Industrial Service Supply (IND)
    d. Agricultural Supply (AGR)

35. Based on the hydrogeologic characterization and water quality data for the site, groundwater underlying the site qualifies as a potential source of drinking water in accordance with Water Board Resolution No. 89-39. Therefore, all of the above current and potential beneficial uses apply to groundwater beneath the site.

Surface Water

36. Existing or potential beneficial uses identified for surface water in the Napa River and San Pablo Bay, according to the Basin Plan, include:

    a. Ocean, Commercial, and Sport Fishing (COMM)
    b. Preservation of Rare and Endangered Species (RARE)
    c. Water Contact Recreation (REC1)
    d. Non-Water Contact Recreation (REC2)
    e. Fish Migration (MIGR)
    f. Fish Spawning (SPWN)
    g. Wildlife Habitat (WILD)
    h. Estuarine Habitat (EST)
    i. Navigation (NAV)
    j. Freshwater Replenishment (FRSH)
    k. Areas of Special Biological Significance (ASBS)
    l. Agricultural Supply (AGR)
    m. Cold Freshwater Habitat (COLD)
    n. Warm Freshwater Habitat (WARM)

o. Municipal and Domestic Supply (MUN)

CALIFORNIA ENVIRONMENTAL QUALITY ACT

37. This action relates to permitting existing waste management units and is thus categorically exempt from the provision of the California Environmental Quality Act pursuant to Section 15301, Title 14 of the California Code of Regulations.

NOTIFICATION AND PUBLIC MEETING

38. The Water Board has notified the Dischargers and interested agencies and persons of its intent to update waste discharge requirements and has provided them with an opportunity to submit their written views and recommendations.

39. The Water Board in a public meeting heard and considered all comments pertaining to the proposed waste discharge requirements for the site.

IT IS HEREBY ORDERED pursuant to the authority in Division 7, Section 13263 of the California Water Code (CWC), Title 27, Division 2, Subdivision 1 of the California Code of Regulations (Title 27), that the Dischargers, its agents, successors, and assigns shall meet the applicable provisions contained in Title 27 and Division 7 CWC, and shall comply with the following:

A. PROHIBITIONS

1. Wastes shall not be exposed at the surface.

2. Wastes shall not create a condition of pollution or nuisance as defined in Section 13050 (1) and (m) CWC.

3. Wastes shall not be relocated to any location where they can be discharged into waters of the State or of the United States.

4. Wastes shall not be in contact with any form of surface water including, but not limited to, storm water runoff or runon, rainfall, or water from streams or tributaries that is diverted due to flooding or other natural or manmade actions. Nor shall surface water contact or flow through any wastes as it percolates to the groundwater table.

5. Excavation within or reconfiguration of any waste is prohibited without prior concurrence of Water Board staff. Minor excavation or reconfiguration activities such as for installation of signs or landscaping, or for routine maintenance and repair do not require prior staff concurrence.

6. Any wastes related to historic disposal activities at the site that are discovered outside the boundary of an engineered WMU, shall be immediately removed, relocated, or covered in accordance with a remedial action plan approved by Water Board staff.

7. Water that has contacted waste shall not be discharged to waters of the State or of the United States unless specifically authorized under an NPDES permit.

8. Untreated or inadequately treated groundwater shall not create a condition of pollution or nuisance as defined in Section 13050(m) CWC, nor degrade the quality of waters of the State or of the United States.

9. The treatment, storage, or discharge of groundwater shall not create a condition of pollution or nuisance as defined in Section 13050(m) CWC, nor degrade the quality of waters of the State or of the United States.

10. The Dischargers shall not cause the following conditions to exist in waters of the State or of the United States at any place outside a WMU boundary:

    a. Surface Waters:

        (1) Floating, suspended, or deposited macroscopic particulate matter or foam
        (2) Bottom deposits or aquatic growth
        (3) Adverse changes in temperature, turbidity, or apparent color beyond natural background levels
        (4) Visible, floating, suspended, or deposited oil or other products of petroleum origin
        (5) Toxic or other deleterious substances to exist in concentrations or quantities that may cause deleterious effects on aquatic biota, wildlife, or waterfowl, or that render any of these unfit for human consumption either at levels created in the receiving waters, or as a results of biological concentrations

    b. Groundwater:

        (1) Further degradation of groundwater quality and/or substantial worsening of existing groundwater impacts
        (2) Further significant migration of pollutants through subsurface transport

B. SPECIFICATIONS

1. Monitoring activities shall be conducted according to the Self Monitoring Program (SMP) attached to this Order, and as may be amended by the Executive Officer, to verify the effectiveness of WMU closure systems for groundwater and surface water containment, collection, treatment, and removal.

2. Any reasonable monitoring devices for groundwater or surface water, shall be installed to fulfill the terms of this or any future SMP issued by the Executive Officer for the site.

3. All monitoring and control devices for groundwater or surface water shall be routinely inspected and repaired or replaced as necessary to comply with this or any future SMP issued by the Executive Officer for the site.

4. Containment, collection, drainage, and monitoring systems for groundwater or surface water, shall be maintained and operated as long as waste is present at the site and poses a threat to water quality.

5. The site shall be protected, to the extent feasible, from any washout or erosion of wastes due to inundation that could occur as a result of a 100-year, 24-hour precipitation event, or as the result of flooding with a return frequency of 100 years.

6. The WMU foundation and associated structures or devices for erosion control and groundwater or surface water containment and monitoring shall be constructed and maintained to withstand conditions generated during the maximum probable earthquake.

7. Final and interim covers for WMUs shall be graded and maintained to promote lateral runoff of precipitation and prevent ponding or infiltration of water.

8. For each WMU, a Detection Monitoring Program (DMP) shall be implemented pursuant to Title 27, Section 20420. The DMP shall be designed to identify any water quality impacts from the WMU. The DMP shall also be designed to demonstrate compliance with the Water Quality Protection Standard (WQPS), which is required pursuant to Title 27, Section 20390. The SMP attached to this Order is intended to constitute the DMP for each WMU under regulation at the site.

9. The WQPS for each WMU shall include the following:

   a. Constituents of Concern: The list of Constituents of Concern (COCs) for the WMU as identified in this Order or in this or any future SMP attached to this Order.

   b. Concentration Limits: The concentration limits (CLs) applicable at all Points Of Compliance for all COCs. CLs for each COC shall be based on background concentrations pursuant to Title 27, Section 20400. CLs may be calculated using statistical or non-statistical methods (e.g., concentration trend analyses and comparison to practical quantitation limits), as appropriate, and updated with each sampling event.

   c. Points of Compliance: The Points of Compliance (POCs) for each WMU. Every point located along the perimeter of the edge of waste within a WMU is considered a POC. Each POC extends vertically to the deepest aquifer or water-bearing zone beneath the WMU. At a minimum, each monitoring well and sampling point at the site that is located along the edge of the waste within a WMU shall represent a POC.

10. Whenever there is "measurably significant" evidence, or significant physical evidence of a release, an Evaluation Monitoring Program (EMP) shall be implemented pursuant to Title 27, Section 20425, and at the direction of the Water Board. In such a case, the DMP shall also continue uninterrupted as prescribed in this or any future SMP attached to this Order. If required, the EMP shall be implemented to determine the nature and extent of any release detected by the DMP.

11. At any time, the Dischargers may file a written request (including supporting documentation) with the Executive Officer, proposing modifications to the attached SMP. If

the proposed modifications are acceptable, the Executive Officer may issue a letter of approval that incorporates the proposed revisions into the SMP.

12. All devices installed in accordance with this Order shall be maintained such that they continue to operate as intended without interruption.

13. The Dischargers shall notify the Water Board immediately of any failure occurring in the WMU. Any failure that threatens the integrity of containment or control features or structures in the WMU shall be promptly corrected after approval of the method and schedule by the Executive Officer.

14. When there are multiple landowners or lease holders involved, the Dischargers shall provide reasonable access to any property they own or lease at the site to allow for installation, sampling, monitoring, etc., of all devices and equipment necessary for compliance with the requirements of this Order.

15. The Dischargers must comply with all applicable provisions of Title 27 that are not specifically referred to in this Order.

16. All reports submitted pursuant to this Order shall be prepared under the supervision of and signed by appropriately licensed professionals, such as a California registered civil engineer, registered geologist, and/or certified engineering geologist.

C. PROVISIONS

1. **Self-Monitoring Program**: The Dischargers shall comply with the Self-Monitoring Program (SMP) attached to this Order (Part A and Part B) and as may be amended by the Executive Officer. The attached SMP is intended to constitute a Detection Monitoring Program (DMP) pursuant to Title 27, Section 20420 and is designed to identify significant water quality impacts from the specified WMU and demonstrate compliance with the Water Quality Protection Standard (WQPS) established pursuant to Title 27, Section 20390 for the WMU. The attached SMP may be amended as necessary at the discretion of the Executive Officer.

COMPLIANCE DATE: Immediate

2. **Report of Waste Discharge:** The Dischargers shall submit a technical report, acceptable to the Executive Officer, describing any proposed material change in the character, location, or volume of a discharge, or in the event of a proposed change in use or development of a WMU [CWC Section 13260(c)]. The technical report shall describe the project, identify key changes to the design that may impact any portion of the WMU, and specify components of the design necessary to maintain integrity of the WMU cover and prevent water quality impacts.

COMPLIANCE DATE: 120 days prior to any material change

3. **Financial Assurance:** The Dischargers shall submit to this Board evidence of an Irrevocable Post-closure Fund acceptable to the Executive Officer, to ensure monitoring,

maintenance, and any necessary remediation actions. Every five years, for the duration of the post-closure monitoring period, the Dischargers shall submit a report that includes an outline of the financial assurance mechanism and verification that the fund has been created. The Fund value should be supported by calculations, to be included with this submittal, providing cost estimates for all post-closure monitoring, maintenance, repair and replacement of WMU containment, cover, and monitoring systems. Additionally, cost estimates must be provided for any future corrective action measures that may be required at the facility. The fund value should be based on the sum of these estimates. The cost estimates and funding should be updated to reflect change to monitoring systems as they occur. The post-closure maintenance period shall extend as long as the wastes within the WMU pose a threat to water quality

COMPLIANCE DATE: September 30, 2005, then every five years thereafter

4. **Storm Water Control Plans for Industrial Activities:** The Dischargers shall maintain an updated Storm Water Pollution Prevention Plan (SWPPP) in accordance with the State Water Resources Control Board General Permit for Storm Water Discharges Associated with Industrial Activities (NPDES Permit No. CAS000001). The SWPPP shall incorporate Best Management Practices (BMPs) for the control of storm water throughout the site. A copy of the SWPPP shall be posted at the Site and shall be made available upon request to Water Board staff.

COMPLIANCE DATE: Immediate

5. **Storm Water Control Plans for Construction Activities:** For each grading or development project proposed greater than one acre in size, the Dischargers shall submit a Notice of Intent to the State Water Resources Control Board, submit a Storm Water Pollution Prevention Plan acceptable to the Executive Officer, and implement Best Management Practices (BMPs) for the control of storm water, in accordance with requirements specified in the State Water Resources Control Board General Permit for Storm Water Discharges Associated with Construction Activities (NPDES Permit No. CAS000002). The Dischargers will be deemed in compliance with this provision if another party constructing improvements on property owned by the Dischargers, pursuant to an easement granted by the Dischargers, has obtained coverage under the General Permit.

COMPLIANCE DATE: 30 days prior to construction

6. **Availability**: A copy of these waste discharge requirements shall be maintained by the Dischargers and shall be made available by the Dischargers to all employees or contractors performing work (maintenance, monitoring, repair, construction, etc.) at the WMU or landfill. [CWC Section 132631]

7. **Change In Ownership**: The Dischargers must notify the Executive Officer in writing at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new Discharger. The notice must include a written agreement between the existing Dischargers and the new Discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current Dischargers and the new Discharger. This agreement shall include an acknowledgment of which Dischargers are liable for violations

up to the transfer date and which Dischargers are liable from the transfer date on. [CWC Sections 13267 and 13263]

8. **Revision**: These waste discharge requirements are subject to review and revision by the Water Board. [CCR Section 13263]

9. **Termination**: Where a Discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Water Board, it shall promptly submit such facts or information. [CWC Sections 13260 and 13267]

10. **Vested Rights**: This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the Dischargers from liability under Federal, State or local laws, nor do they create a vested right for the Dischargers to continue the waste discharge. [CWC Section 13263(g)]

11. **Severability**: Provisions of these waste discharge requirements are severable. If any provisions of these requirements are found invalid, the remainder of these requirements shall not be affected. [CWC 9213]

12. **Operation and Maintenance**: The Dischargers shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Dischargers to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this order. [CWC Section 13263(f)]

13. **Reporting of Hazardous Substance Release**: If a reportable quantity of hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the Dischargers shall report such discharge to the Water Board by calling (510) 622-2300 during regular office hours (Monday through Friday, 8:00 to 5:00). A written report shall be filed with the Water Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

14. **Entry and Inspection**: The Dischargers shall allow Water Board staff or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

    a. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this order
    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this order

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this order or as otherwise authorized by the California Water Code, any substances or parameters at any location. [CWC Section 13267]

15. **Discharges To Navigable Waters**: Any person discharging or proposing to discharge to navigable waters from a point source (except for discharge of dredged or fill material subject to Section 404 of the Clean Water Act and discharge subject to a general NPDES permit) must file an NPDES permit application with the Water Board. [CCR Title 2 Section 223571]

16. **Endangerment of Health or the Environment**: The Dischargers shall report any noncompliance that may endanger health or the environment. Any such information shall be provided orally to the Executive Officer, or an authorized representative, within 24 hours from the time the Dischargers becomes aware of the circumstances. A written submission to the Water Board shall also be provided within five days of the time a Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

17. **Document Distribution**: Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the following agencies:

    a. San Francisco Bay Water Board
    b. Napa County Department of Environmental Management, (Local Enforcement Agency)

    The Executive Officer may modify this distribution list as needed.

18. **Duty to Comply**: The Dischargers shall comply immediately, or as prescribed by the time schedule below, with all Prohibitions, Specifications and Provisions of this Order. All required submittals must be acceptable to the Executive Officer. The Dischargers must also comply with all conditions of these waste discharge requirements. Violations may result in enforcement actions, including Water Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Water Board. (CWC Section 13261, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350).

19. **Requests for Technical Reports**: All technical and monitoring reports required by this Order are requested pursuant to Section 13267 of the California Water Code. Failure to submit reports in accordance with schedules established by this Order or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer may subject the Dischargers to enforcement action pursuant to Section 13268 of the California Water

Code. Evidence relating to the Discharger's past discharges is located in the Water Board files.

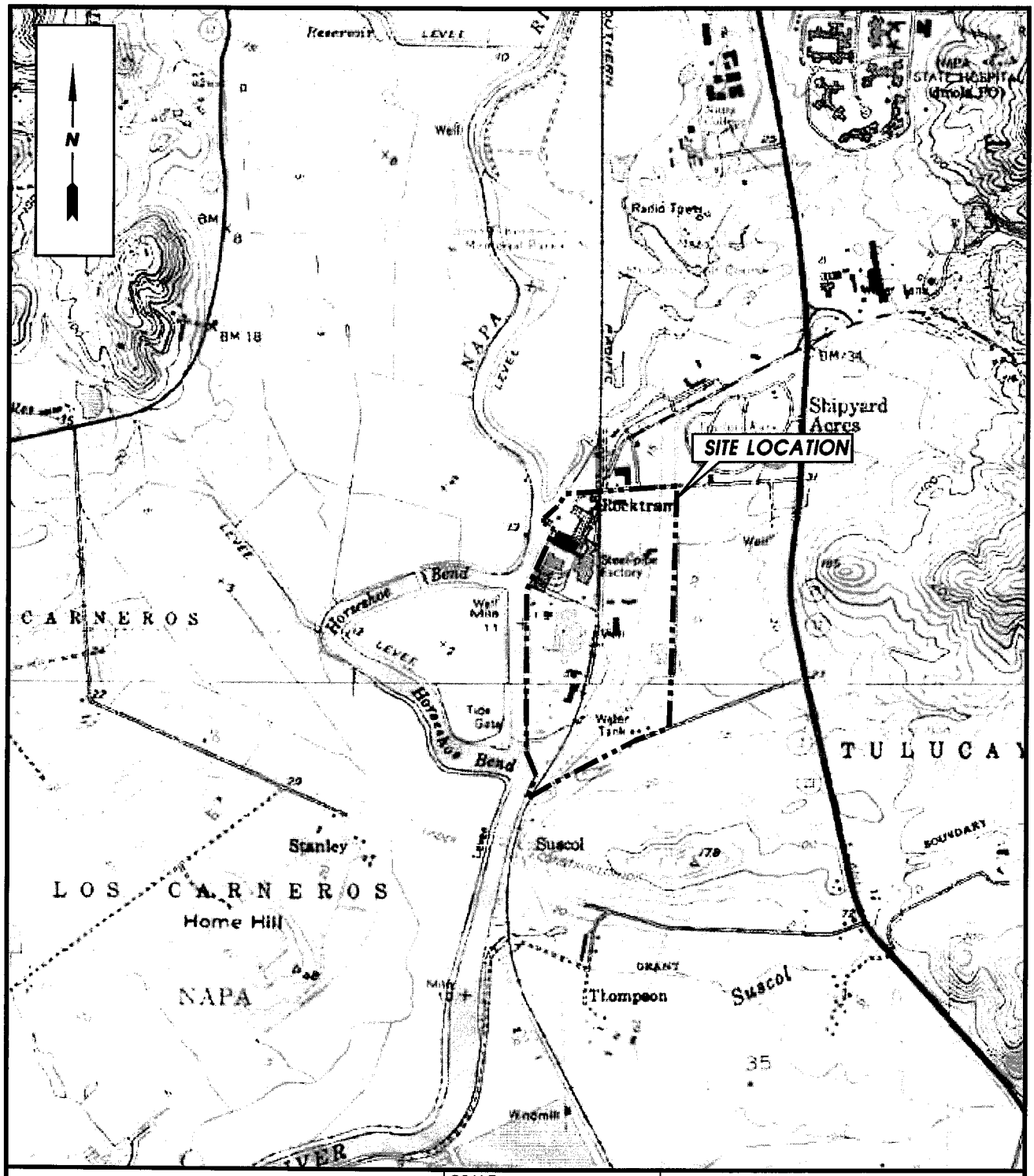
20. **Electronic Reporting Format**: In addition to print submittals, all reports submitted pursuant to this Order must be submitted as electronic files in **PDF format**. The Water Board has implemented a document imaging system, which is ultimately intended to reduce the need for printed report storage space and streamline the public file review process. Documents in the imaging system may be viewed, and print copies made, by the public, during file reviews conducted at the Water Board's office. PDF files can be created by converting the original electronic file format (e.g., Microsoft Word) and/or by scanning printed text, figures & tables. Data tables containing water level measurements, sample analytical results, coordinates, elevations, and other monitoring information shall also be provided electronically in **Microsoft Excel® or similar spreadsheet format** to provide an easy to review summary, and to facilitate data computations and/or plotting that Water Board staff may undertake during their review. Data tables submitted in electronic spreadsheet format will not be included in the case file for public review. All electronic files must be submitted on CD or diskette and included with the print report.

21. This Order supersedes and rescinds Order Nos. 89-070 and 95-011.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 20, 2005.

Bruce H. Wolfe
Executive Officer

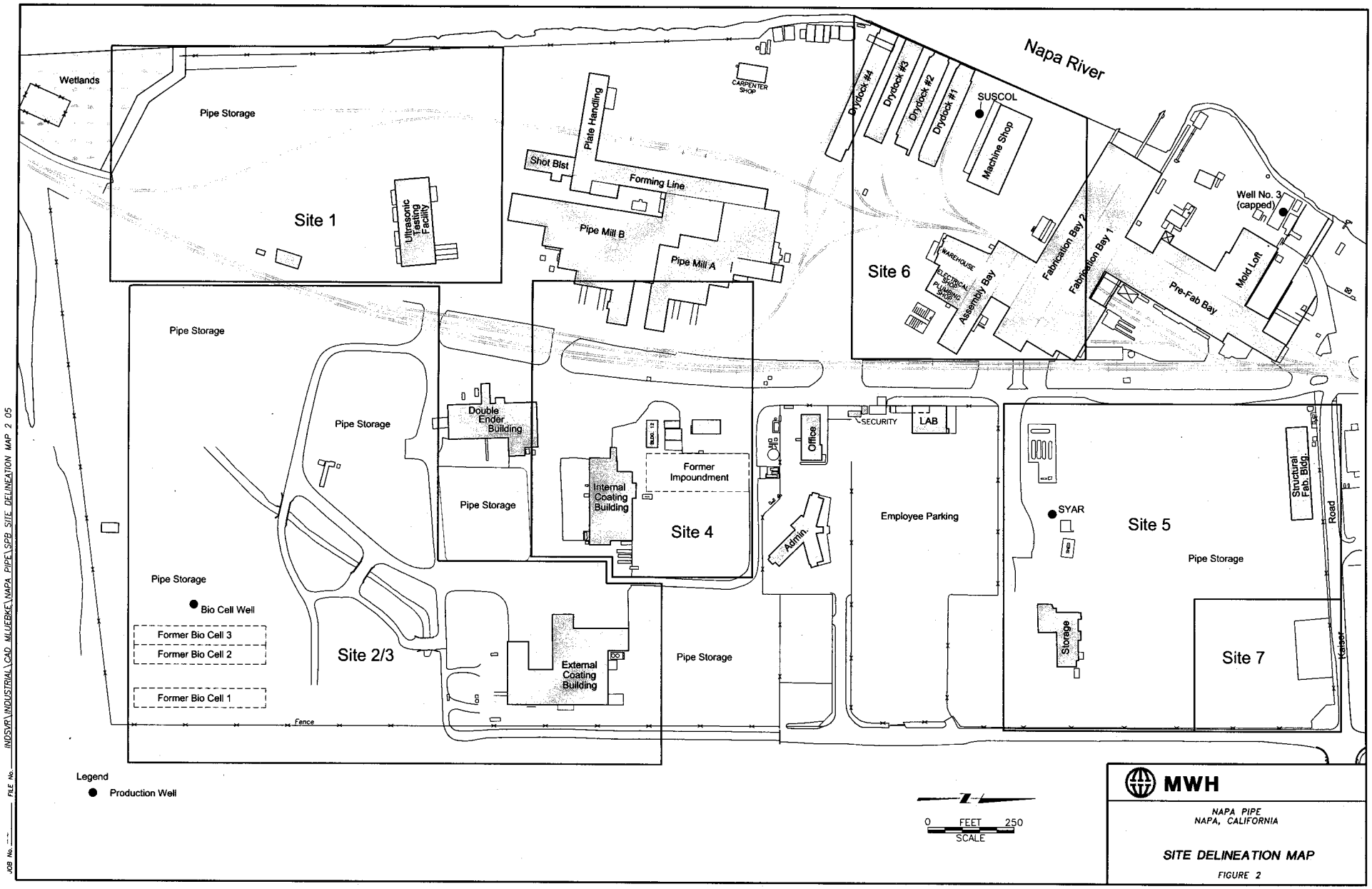
Attachments:
Figure 1 – Site Location Map
Figure 2 - Site Delineation Plan
Figure 3 – Site-Wide Groundwater Potentiometric Surface Map
Figure 4 – Site 1 Groundwater Potentiometric Surface Map
Self Monitoring Program (Part A and Part B)

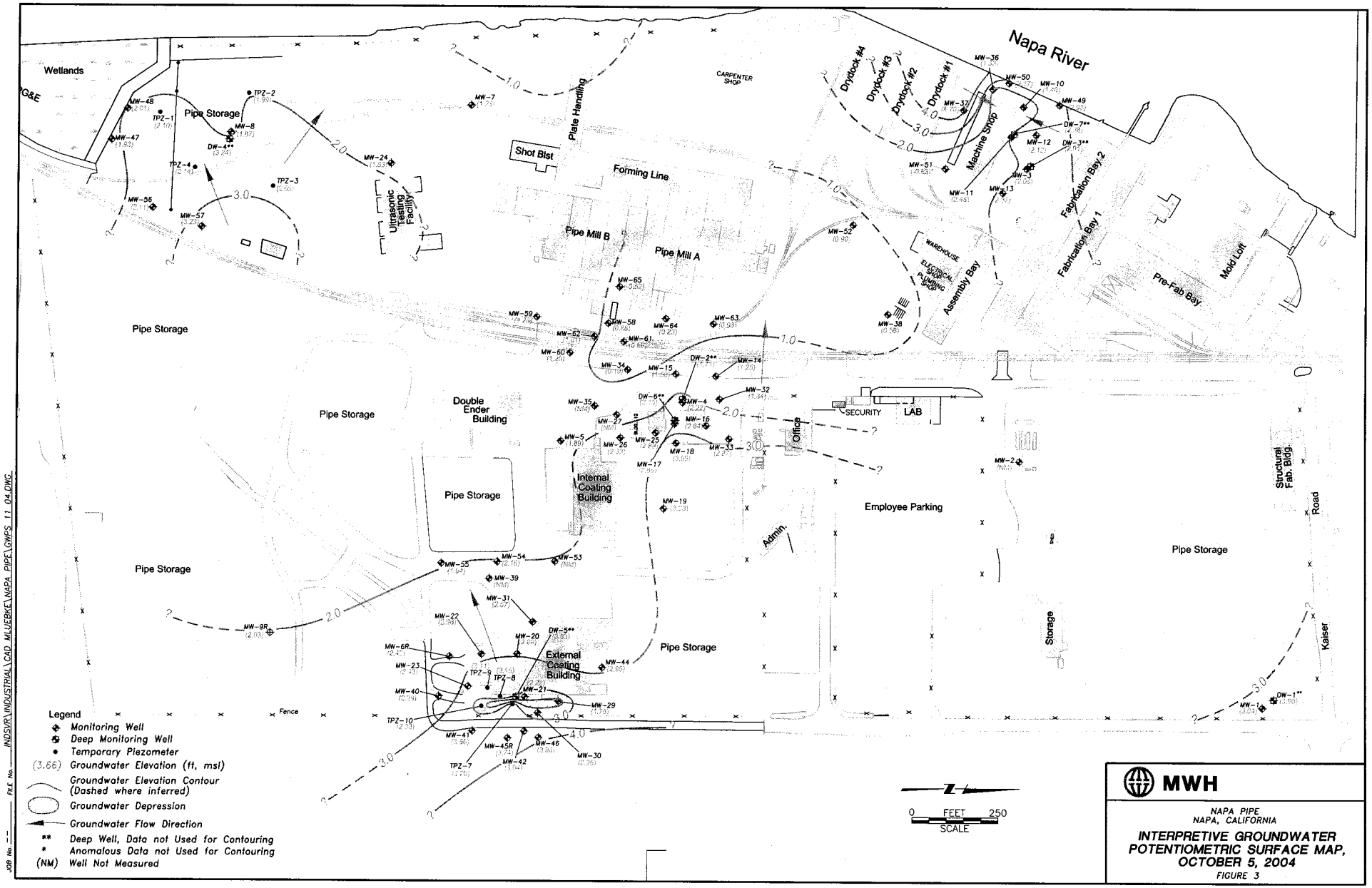


MWH

SOURCE: U.S.G.S. 7.5' QUAD SHEET
NAPA, CALIFORNIA
PHOTOREVISED 1980

SCALE: 0 FEET 2000	**SITE LOCATION MAP**
CLIENT: NAPA PIPE	DATE: 8/7/03
LOCATION: NAPA, CALIFORNIA	FIGURE: 1


Napa River
Wetlands
Pipe Storage
Site 1
Ultrasonic Testing Facility
Shot Blst
Plate Handling
Forming Line
Pipe Mill B
Pipe Mill A
CARPENTER SHOP
Drydock #4
Drydock #3
Drydock #2
Drydock #1
SUSCOL
Machine Shop
Site 6
WAREHOUSE
ELECTRICAL PLUMBING SHOP
Assembly Bay
Fabrication Bay 2
Fabrication Bay 1
Pre-Fab Bay
Mold Loft
Well No. 3 (capped)
Pipe Storage
Pipe Storage
Double Ender Building
Pipe Storage
Internal Coating Building
Former Impoundment
Site 4
Office
SECURITY
LAB
Admin.
Employee Parking
SYAR
Site 5
Pipe Storage
Structural Fab. Bldg.
Road
Kaiser
Storage
Site 7
Pipe Storage
Bio Cell Well
Former Bio Cell 3
Former Bio Cell 2
Former Bio Cell 1
Site 2/3
External Coating Building
Pipe Storage
Fence
Legend
Production Well
0 FEET 250
SCALE
MWH
NAPA PIPE
NAPA, CALIFORNIA
SITE DELINEATION MAP
FIGURE 2
JOB No. FILE No. INDSVR\INDUSTRIAL\CAD MLUEBKE\NAPA PIPE\SPB SITE DELINEATION MAP 2 05



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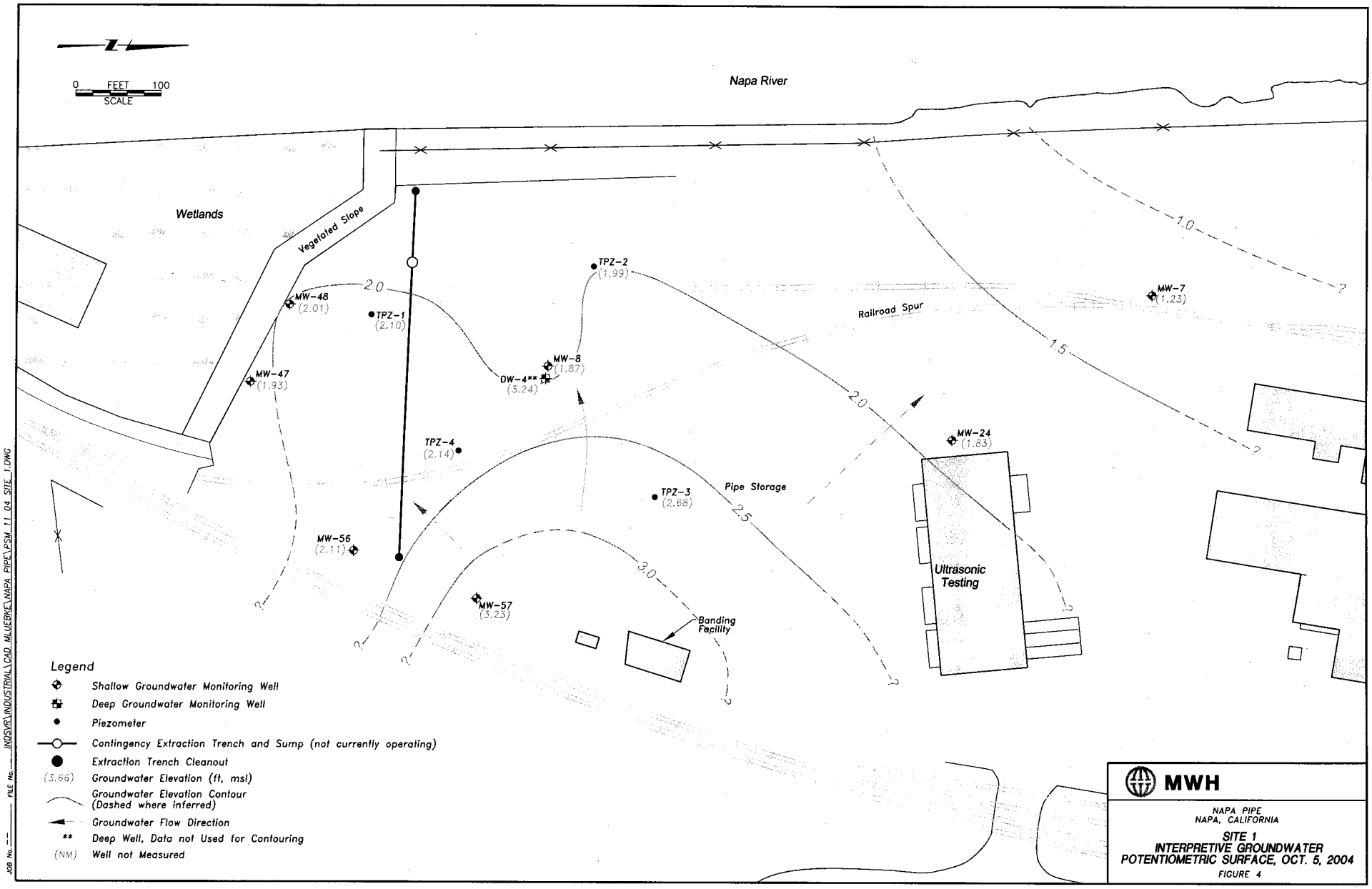
NAPA PIPE
NAPA, CALIFORNIA

INTERPRETIVE GROUNDWATER POTENTIOMETRIC SURFACE MAP, OCTOBER 5, 2004

FIGURE 3

JOB No. -- FILE No. INDSVR\INDUSTRIAL\CAD_MLUEBKE\NAPA_PIPE\GWPS_11_04.DWG



MWH

NAPA PIPE
NAPA, CALIFORNIA

SITE 1
INTERPRETIVE GROUNDWATER
POTENTIOMETRIC SURFACE, OCT. 5, 2004

FIGURE 4

JOB No. — FILE No. INDSVR\INDUSTRIAL\CAD_MLUEBKE\NAPA_PIPE\PSM_11_04_SITE_1.DWG

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

OREGON STEEL MILLS d.b.a. NAPA PIPE
NAPA PIPE CORPORATION

NAPA PIPE STEEL PIPE MANUFACTURING FACILITY
NAPA, NAPA COUNTY

ORDER NO. R2-2005-0012

CONSISTS OF

PART A

AND

PART B

PART A

A. AUTHORITY AND PURPOSE

For discharges of waste to land, water quality monitoring is required pursuant to the California Code of Regulations, Division 2, Title 27, Subdivision 1, Chapter 3, Subchapter 3, Sections 20380 through 20435. The principal purposes of a self-monitoring program (SMP) are: (1) to document compliance with waste discharge requirements and prohibitions established by the Water Board, (2) to facilitate self-policing by the waste Discharger in the prevention and abatement of pollution arising from the waste discharge, (3) to develop or assist in the development of effluent standards of performance, and toxicity standards, and (4) to assist the Discharger in complying with the requirements of Title 27.

B. MONITORING REQUIREMENTS

Monitoring refers to the measurement and sampling of environmental media, the making of standard observations in and around waste management units (WMUs), the inspection of containment and control facilities, and the monitoring of waste disposed in each WMU. Part B of this SMP indicates the specific types of monitoring required as well as the monitoring frequency and reporting schedule. The following defines the types of monitoring that may be required in Part B of this SMP.

Monitoring of Environmental Media

The Water Board may require monitoring of groundwater and surface water and any other environmental media that may pose a threat to water quality or provide an indication of a water quality threat at the site.

Sample collection, storage, and analyses shall be performed according to the most recent version of EPA-approved methods or in accordance with an approved sampling and analysis plan. Water and waste analyses shall be performed by a California State approved laboratory for the required analyses. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Water Board.

All monitoring instruments and devices used to fulfill the prescribed SMP shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year, or more frequently, to ensure continued accuracy of the devices.

Standard Observations

Standard observations refers to observations within the limits of each WMU, at their perimeter, and of the receiving waters beyond their limits. Standard observations include:

1. WMUs:

    a. Evidence of ponded water at any point on the WMU

b. Evidence of odors, including their presence or absence, characterization, source, and distance of travel from source
c. Evidence of erosion and/or daylighted waste

2. Perimeter of WMUs:

a. Evidence of liquid leaving or entering the WMU, estimated size of affected area and flow rate (show affected area on map)
b. Evidence of odors, including their presence or absence, characterization, source, and distance of travel from source
c. Evidence of erosion and/or daylighted waste

3. Receiving Waters:

a. Floating and suspended materials of waste origin: including their presence or absence, source, and size of affected area
b. Discoloration and turbidity: description of color, source, and size of affected area
c. Evidence of odors, presence or absence, characterization, source, and distance of travel form source
d. Evidence of beneficial use: presence of water associated with wildlife
e. Flow rate
f. Weather conditions: wind direction and estimated velocity, total precipitation

Facilities Inspections

Facilities inspections refers to the inspection of all containment and control structures and devices associated with WMUs. Containment and control facilities may include the following:

1. Asphalt or earthen covers
2. Perimeter drainage or diversion channels
3. Detention ponds or collection tanks

C. REPORTING REQUIREMENTS

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Water Board's Resolution No.73-16 and Order No. 93-113. The monitoring frequency and reporting schedule are indicated in Part B of this SMP. Each monitoring report shall include the following information:

1. **Transmittal Letter**: A letter transmitting essential points shall be included in each monitoring report. The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall also certify the completion of all monitoring requirements. The letter shall be signed by the Discharger's principal executive officer or his/her duly authorized representative, and shall include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.

2. **Compliance Evaluation Summary**:

   a. A summary and certification of completion of all environmental media monitoring, standard observations, and facilities inspections
   b. A graphic presentation of the direction of groundwater flow under/around each waste management unit, based upon the past and present water level elevations and pertinent visual observations
   c. A graphic demonstration (e.g., piezometric surface contour maps) of hydraulic containment and/or separation from groundwater beneath and around the perimeter of waste management units where required
   d. The quantity and types of wastes disposed of during the past quarter, and the locations of the disposal operations, if applicable
   e. A description of the waste stream including the percentage of each waste type (e.g., residential, commercial, industrial, construction/demolition, etc.), if applicable
   f. Map(s) or aerial photograph(s) showing observation and monitoring station locations
   g. The signature of the laboratory director whose name appears on the laboratory certification, indicating that he/she has supervised all analytical work in his/her laboratory

3. **Appendices:** Include the following information in appendices, unless the information is already contained in an approved Sampling and Analysis Plan. Print copies of the following information need not be included in the report if the information is submitted in electronic (e.g., PDF) format. The appendices need not include the actual laboratory analytical data sheets and QA/QC report summary, however, this information shall be provided upon request.

   a. New boring and well logs
   b. Method and time of water level measurements
   c. Purging methods and results including the type of pump used, pump placement in the well, pumping rate, equipment and methods used to monitor field pH, temperature, and conductivity, calibration of the field equipment, pH, temperature,

conductivity, and turbidity measurements, well recovery time, and method of disposing of the purge water

d. Sampling procedures, field and travel blanks, number and description of duplicate samples, type of sample containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other relevant observations

e. Documentation of laboratory results, analytical methods, detection limits, and Quality Assurance/Quality Control (QA/QC) procedures for the required sampling, including:

(1) Laboratory statements of results of analyses
(2) Descriptions of analytical methods used (note, if methods other than EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and approval by the Executive Officer prior to use)
(3) Actual detection limits for each sample results (note, detection limits must be appropriate for the expected concentrations)
(4) Laboratory quality assurance/quality control (QA/QC) information and results including analytical methods, detection limits, recovery rates, explanations for low recovery rates (less than 80%), equipment and method blanks, spikes and surrogates, and QA/QC sample frequency

D. ANNUAL REPORTING

The Discharger shall submit an annual self-monitoring report to the Water Board covering the previous calendar year. The annual report must summarize all monitoring, investigation, and remedial activities that have occurred in the previous year. The annual report shall include the following information **for each monitoring event during the year** required pursuant to this self-monitoring program. If the annual report contains new monitoring results/data not previously presented in a report (e.g. 2nd semi-annual results, 4th quarter results, etc.), then the annual report shall also include the information required under Sections C.1, C.2, and C.3 of this self-monitoring program for the new results/data. Information in appendices may be presented in electronic format rather than print copy.

1. **Graphic Presentation**: Include site maps that are drawn to a scale that remains constant from reporting period to reporting period. These maps shall include the following information, if applicable:

a. Known or probable contaminant sources
b. Well locations
c. Groundwater elevation contours
d. Inferred groundwater flow direction(s)
e. Extent of phase-separated product (NAPL)
f. Extent of dissolved chemical constituents (e.g., isoconcentration maps)
g. Appropriate analytical results

Line or bar graphs are helpful to illustrate variations in groundwater elevations, phase-separated product thickness, and dissolved chemical concentrations with time. Geologic cross sections are required if new data is available and/or the previous

interpretation of subsurface conditions has changed. When required, geologic cross sections shall include the following:

h. Vertical and lateral extent of contamination
i. Contaminant sources
j. Geologic structures
k. Soil lithology
l. Water table/piezometric surfaces
m. Sample locations
n. Sample analytical results
o. Subsurface utilities and any other potential natural or manmade conduits for contaminant migration

2. **Tabular Presentation**: Present all of the following data (if applicable to the site) in one or more tables to show a chronological history and allow quick and easy reference:

a. Well designations
b. Well location coordinates (latitude and longitude)
c. Well construction (including top of well casing elevation, total well depth, screen interval depth below ground surface, and screen interval elevation)
d. Groundwater depths
e. Groundwater elevations
f. Horizontal groundwater gradients
g. Vertical groundwater gradients (including comparison wells from different zones)
h. Phase-separated product elevations
i. Phase-separated product thicknesses
j. Current analytical results (including analytical method and detection limits for each constituent)
k. Historical analytical results (including the past five years unless otherwise requested)
l. Measurement dates
m. Groundwater extraction, including:
   (1) Average daily extraction rate
   (2) Total volume extracted for monitoring period
   (3) Cumulative total volume extracted since system inception
n. Contaminant mass removal, including:
   (1) Average daily removal rate
   (2) Total mass removed for monitoring period
   (3) Cumulative total mass removed since system inception

3. **Discussion**: Provide a discussion of the field and laboratory results that includes the following information:

a. Data Interpretations
b. Conclusions
c. Recommendations
d. Newly implemented or planned investigations & remedial measures
e. Data anomalies

f. Variations from protocols
g. Conditions of wells
h. Effectiveness of leachate monitoring and control facilities

E. CONTINGENCY REPORTING

1. The Discharger shall report by telephone to the Water Board, any discharge from the disposal area immediately after it is discovered. The Discharger(s) shall submit a written report with the Water Board within five days of discovery of any discharge. The written report shall contain the following information:

   a. A map showing the location(s) of discharge
   b. Approximate flow rate
   c. Nature of effects (e.g., all pertinent observations and analyses)
   d. Corrective measures underway or proposed

2. The Discharger shall submit a written report to the Water Board within seven days of determining that a statistically significant difference occurred between a self-monitoring sample set and an approved Water Quality Protection Standard (WQPS). The written report shall indicate what WQPS(s) have been exceeded. The Discharger shall immediately resample at the compliance point(s) where this difference has been found.

3. If re-sampling and analysis confirms the earlier finding of a statistically significant difference between self-monitoring results and WQPS(s) the Discharger shall, upon determination by the Executive Officer, submit to the Water Board an amended Report of Waste Discharge as specified in Title 27, Section 20420 for establishment of an Evaluation Monitoring program meeting the requirements of Title 27, Section 20425.

F. ELECTRONIC REPORTING FORMAT

In addition to print submittals, all reports submitted pursuant to this self-monitoring program must be submitted as electronic files in **PDF format**. The Water Board has implemented a document imaging system, which is ultimately intended to reduce the need for printed report storage space and streamline the public file review process. Documents in the imaging system may be viewed, and print copies made, by the public, during file reviews conducted at the Water Board's office. PDF files can be created by converting the original electronic file format (e.g., Microsoft Word) and/or by scanning printed text, figures & tables.

Monitoring results, including water level measurements, sample analytical results, coordinates, elevations, etc., shall also be provided electronically in **Microsoft Excel® or similar spreadsheet format** to provide an easy to review chronological summary, and to facilitate data computations and/or plotting that Water Board staff may undertake during their review. Data tables submitted in electronic spreadsheet format will not be included in the case file for public review. Electronic tables submitted in spreadsheet format shall include the following information, if applicable:

1. Well designations
2. Well location coordinates (latitude and longitude)
3. Well construction (including top of well casing elevation, total well depth, screen interval depth below ground surface, and screen interval elevation)
4. Groundwater depths (water levels)
5. Groundwater elevations
6. Phase-separated product elevations
7. Phase-separated product thicknesses
8. Current analytical results by constituent of concern (including detection limits for each constituent)
9. Historical analytical results (including the past five years unless otherwise requested)
10. Measurement dates

All electronic files, whether in PDF or spreadsheet format, shall be submitted on CD or diskette and included with the print report.

G. MAINTENANCE OF WRITTEN RECORDS

Dischargers shall maintain information required pursuant to this Self-Monitoring Program for at least five years. The five-year period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Water Board.

PART B

A. MONITORING LOCATIONS AND FREQUENCY

1. Environmental Media

   Groundwater shall be monitored at the locations shown on Figure B-1 and at the frequency specified in Table B-1.

2. Standard Observations

   Standard observations shall be made semi-annually for Site 1.

3. Facilities Inspections

   Facilities inspections shall be made annually for Site 1.

B. REPORTING SCHEDULE

The Dischargers shall submit self-monitoring reports per the schedule indicated in Table B-2. Reports due at the same time may be combined into one report for convenience, as long as monitoring activities and results pertaining to each monitoring period are clearly distinguishable. All monitoring reports shall be submitted to the Water Board in accordance with the schedule indicated in Table B-2.

Table B-2 Reports and Due Dates

Report Type	Reporting Frequency	Report Due Dates
Groundwater Monitoring	Semi-Annually	Aug 15, Feb. 15
Standard Observations & Facilities Inspections	Semi-Annually	Aug 15, Feb. 15

I, Bruce H. Wolfe, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Water Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Water Board's Order No. R2-2005-0012.

2. Is effective on the date shown below.

3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer.

Bruce H. Wolfe
Executive Officer

Date Ordered: April 20, 2005

Attachments: Table B-1
Figure B-1

Table B-1
Napa Pipe, Self Monitoring Program (SMP) for Order No. R2-2005-0012

Monitoring Location / Well ID	Well Construction Details					Parameters and Monitoring Frequency		
	Date Installed	Date Destroyed	Total Depth (ft bgs)	Screen Interval (ft bgs)	Strata Screened	Head	TPH-E or D [3]	Metals [4]
Site 1								
MW-5[1]	8/17/1988	NA	14	9-14	peat, silty clay	S-2,4	S-2,4	S-2,4
MW-7[1]	8/16/1988	NA	10.5	5-10	silty clay, peat, organic clay	S-2,4	A-4	A-4
MW-8	8/16/1988	NA	11	6-11	oranic clay	S-2,4	A-4	A-4
MW-24	9/25/1989	NA	10.5	5.5-10.5	sandy gravel, silty clay	S-2,4	NA	NA
MW-47[2]	11/12/1993	NA	16	5-16	silty sand, peat, organic clay	S-2,4	S-2,4	S-2,4
MW-48[2]	11/12/1993	NA	16	5-16	silty sand, peaty clay	S-2,4	S-2,4	S-2,4
TPZ-1	5/17/1991	NA	16.5	7-16	clay, peat	S-2,4	NA	NA
TPZ-2	5/17/1991	NA	18	7-18	peaty clay, peat	S-2,4	NA	NA
TPZ-3	5/16/1991	NA	12	7-12	clay, silty clay	S-2,4	NA	NA
TPZ-4	5/19/1991	NA	12	7-12	clay, silt	S-2,4	NA	NA
DW-4	9/27/1989	NA	38	33-38	sand	S-2,4	NA	NA
MW-56	10/1/1999	NA	14	4-14	gravel with sand	S-2,4	NA	NA
MW-57	10/1/1999	NA	15.5	5-15	silty sand	S-2,4	NA	NA
Site 5								
MW-2	8/17/1988	NA	12	5-10	peat & organic clay, silty clay, silt	S-2,4	NA	NA
DW-1	9/18/1989	NA	35	30-35	sand, silty sand, silty clay	S-2,4	NA	NA
Site 7								
MW-1	8/15/1988	NA	15	10-15	sand, gravel	S-2,4	A-4	A-4

Notes:

(1) Upgradient/background well or location.

(2) Downgradient Well or location.

(3) TPH-E or D - Total Petroleum Hydrocarbons in the extractable or diesel range - - Extractable for all well,Diesel for Site 2/3 wells with exception of 'MW-9R which will be done in Extractable range.

TPH-E - Total Petroleum Hydrocarbons in the extractable range (C_{15} - C_{40}) by EPA Method 8015M.

TPH-D - Total Petroleum Hydrocarbons in the diesel range (C_{10} - C_{24}) by EPA Method 8015M.

(4) Metals to include Al, As, Ba, Cr, Cu, Pb, Se, Zn by EPA Method 6020; Hg by EPA Method 7470.

NA = Not Applicable

-- = No Data

blank = no sampling required

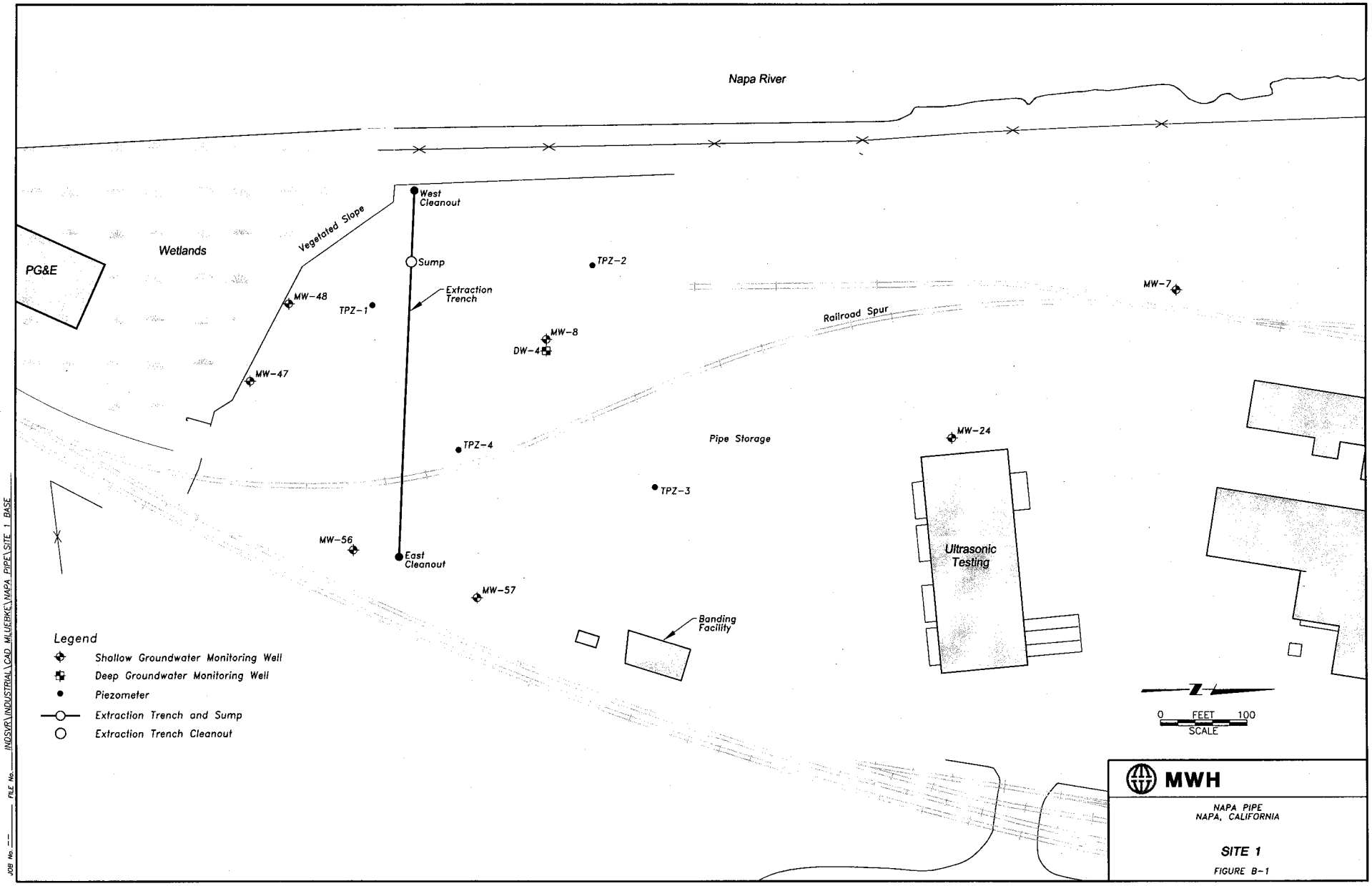
Q – quarterly

S – semiannually

A – annually

2A - biennially

1,2,3,4 - Quarter in which monitoring occurs.



JOB No. --- FILE No. INDSVR\INDUSTRIAL\CAD_M\UEBKE\NAPA_PIPE\SITE_1_BASE