DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA CORRECTIVE ACTION
ENVIRONMENTAL INDICATOR (EI) RCRIS CODE (CA750)
MIGRATION OF CONTAMINATED GROUNDWATER UNDER CONTROL

Facility Name: **Port Mobil Terminal**
Facility Address: **4101 Arthur Kill Road, Staten Island, NY 10309**
Facility EPA ID #: **NYD 000824516**

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determination status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

   X If yes - check here and continue with #2 below.

   ___ If no - re-evaluate existing data, or

   ___ If data are not available, skip to #8 and enter "IN" (more information needed) status code.

Site Background:

The Port Mobil Terminal is a petroleum bulk storage facility utilized for the distribution of gasoline (70%) and distillate fuels (30%). The storage capacity at the site is 125 million gallons with an annual throughput of approximately 1.4 billion gallons. The site encompasses approximately 200 acres of which 120 acres are currently utilized for site operations. Operations at the facility include above ground tank storage, storm water management and treatment, and material transfer activities. Additionally, the terminal maintains and operates an above ground piping network that transfers petroleum products to the operating portions of the facility (Fluor Daniel GTI, June 1998).

Port Mobil is located on the eastern shore line of the Arthur Kill on Staten Island in the city of New York. It is bounded to the North and West by the Arthur Kill, residential and industrial areas (Charleston section) to the South, and the Clay Pit Pond State Park Preserve to the East. Waters within the Arthur Kill near the site have been designated SD class surface waters as defined in NYCRR, Title 6, Chapter X, subpart 701.14. This designation refers to saline surface water conditions with a restricted use. Best usage of SD class surface waters is for fishing, and is suitable for fish survival. As subpart 701.14 states: "This classification may be given to those waters that, because of natural man-made conditions, cannot meet the requirements for primary and secondary contact recreation and fish propagation." The Final RFA Report (A.T. Kearney, July 1993) indicated that there are no known potable water wells on Staten Island. The nearest potable source is reportedly a surface water body located approximately ten miles northeast of the facility. The Risk Assessment prepared by Fluor Daniel GTI, June 1998 presents the Site Location Map (Ref. 3, Fig. 1) and the Site Map (Ref. 3, Fig. 2).

A total of 62 solid waste management units (SWMUs) and one area of concern (AOC) were identified and evaluated during the RCRA Facility Assessment (RFA) and RCRA Facility Investigation (RFI). The Final RFA Report (Ref. 4, Appendix C) shows the SWMUs and AOC identified at the Port Mobil facility. The 62 SWMUs include, among others, two surface impoundments (SIs), 40 above ground petroleum storage tanks, three API separators, and two vacuum tanks. One of the SIs was used for the management of benzene-contaminated wastewater at concentrations that characterized the wastewater as a hazardous waste. The AOC was a former poly-chlorinated biphenyl (PCB) transformer site (A.T. Kearney, July 1993).

Port Mobil submitted a RCRA Part B permit application for both SIs on September 25, 1991. Port Mobil ceased introducing hazardous waste into the SIs in September 1993, thereby negating the need for a RCRA Part B operating permit. The two SIs underwent partial closure in 2001

whereby all the waste and sediment was removed from the SIs and the synthetic liner at the bottom of the SIs was decontaminated.

For purposes of site investigation and remediation, the facility was divided into 3 areas: the Bulkhead Area, the Tank Farm Area, and the Surface Impoundment/North Beach Area. Previous facility investigations and reports completed under the RCRA Corrective Action program and used in this evaluation are listed in the references section of this report.

2. Is **groundwater** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

   X If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.

   ___ If no - skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."

Rationale and Reference(s):

Groundwater impacts at the Port Mobil Terminal consist of petroleum related contaminants resulting from various historical releases during facility operations. The Port Mobil Terminal had in the past at least three incompletely characterized groundwater contamination plumes. The first two of these plumes were detected by facility personnel in October 1978. The North Beach Groundwater Plume is located along the northern shore area of the facility between the tank farm and the Arthur Kill. The Tank Farm Groundwater Plume is located within the tank farm area. A third groundwater contamination plume, the Southern Groundwater Plume, was identified by a separate contractor in November 1981. This plume was located in the southern end of the facility between the terminal office and the warehouse (A.T. Kearney, July 1993).

Groundwater at the facility has been thoroughly investigated during an Interim Corrective Measures Investigation (ICMI) and a RCRA Facility Investigation (RFI) conducted at the site. The results of these investigations were presented in an ICMI Report (Fluor Daniel GTI, April 1997) and a RFI Report (Fluor Daniel GTI, July 1997). The RFI concluded that groundwater contamination at the facility consisted of dissolved phase BTEX (benzene, toluene, ethylbenzene, and xylene), petroleum-related polynuclear aromatic hydrocarbons (PAHs), and lead. Light non-aqueous phase liquid (LNAPL) petroleum contaminants were also detected in a few monitoring wells and Geoprobe points across the site. The above Contaminants of Concern (COCs) were detected at varying concentrations at each sampling area. Several COCs had concentrations above the New York State Ambient Groundwater Quality Standards as documented in the ICMI prepared by Fluor Daniel GTI, April 1997 (Ref.1, Tables 6a-6c). Groundwater monitoring has been conducted since these investigations, including an on-going Monitored Natural Attenuation (MNA) program performed by Mobil on a voluntary basis and as part of its Corrective Measures Study (CMS) initiated in July 2000.

The total BTEX concentrations found in the ground water as of January 2002 are presented in the CMS Report prepared by Woodard & Curran dated April 2002 (Ref. 5, Fig.3-12).

Footnotes:

[1] "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater"[2] as defined by the monitoring locations designated at the time of this determination)?

X If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the "existing area of groundwater contamination"[2]).

___ If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination"[2]) - skip to #8 and enter "NO" status code, after providing an explanation.

___ If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

The groundwater contour monitoring well map, including water table elevations as of January 2002 is depicted in the April 2002 CMS Report (Ref. 5, Fig. 3-6). The water table elevations confirm that ground water flows in a westerly direction toward the Arthur Kill.

The ICMI Report (Fluor Daniel GTI, April 1997) indicates on page 16 that the bottom of the surficial water bearing zone is apparently bounded by a clay unit encountered during the installation of three deep borings. As a result, the surficial aquifer is reported to be approximately 20 to 25 feet thick. The Port Mobil Terminal Risk Assessment Report, dated December 1998, states on page 27 that "based upon 1994 pre-dredging soundings adjacent to the Port Mobil Terminal Bulkhead, the maximum, minimum, and average depth of the Arthur Kill are approximately 35 feet, 17 feet and 26 feet mean low water, respectively." The surficial aquifer is 25 feet thick and the Arthur Kill is at least 35 to 40 feet deep (after dredging). Any contaminated groundwater in the surficial water table aquifer would discharge directly to the Arthur Kill; however, the Bulkhead containment wall, including the on-going Interim Corrective Measure (ICM) and the monitored natural attenuation program have effectively contained and/or reduced the migration of contaminated plume in the southern portion of the facility (CMS Report Woodard & Curran, April 2002). As shown in the contaminated plume maps presented in Figures 3-7 through 3-18 of the CMS report, there is a decreasing trend of benzene and total BTEX concentrations and the consistently low concentrations of COCs detected in perimeter GW monitoring wells located adjacent to the Arthur Kill demonstrate that the "existing area of contaminated groundwater" is considered stabilized.

2 "existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

4. Does "contaminated" groundwater **discharge** into **surface water** bodies?

X If yes - continue after identifying potentially affected surface water bodies.

___ If no - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.

Rationale and Reference(s):

Contaminated groundwater in the surficial aquifer discharges to the Arthur Kill, which forms the northern and western property boundaries of the site. The net flow in the Arthur Kill is from north to south, with some tidal influence. A Water Table Elevation Map provided by Woodard & Curran (Ref. 5, Figure 3-6), illustrates groundwater contours and flow direction. Based upon groundwater elevation data collected from 45 on-site monitoring wells as part of the sampling visit (SV)/RFI, groundwater flows generally west toward and discharges to the Arthur Kill (Fluor Daniel GTI, June 1998).

5. Is the **discharge** of "contaminated" groundwater into surface water likely to be **"insignificant"** (i.e., the maximum concentration[3] of each contaminant discharging into surface water is less than 10 times their appropriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

___ If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration[3] of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

X If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration[3] of each contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations[3] greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

___ If unknown - enter "IN" status code in #8.

[3] As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

Rationale and Reference(s):

The Arthur Kill River bounds the northwestern portion of the site and groundwater beneath the site generally flows to the northwest toward the Arthur Kill. The site's boundary with the river, however, is divided into two very different groundwater discharge environments with different potentials for impact to surface water. The southwestern half of the site's boundary with the river is comprised of a bulkhead that covers approximately 2,200 feet and a GW trench collection and pumping system which effectively contains most of the groundwater on-site. In the northwestern half of the site boundary the groundwater discharges to a mudflat (ICMI Report, Fluor Daniel GTI, April 1997). Contaminated groundwater discharge along the northwestern half of the boundary was the subject of a detailed evaluation in the Screening Level Ecological Risk Assessment (SLERA) Report. Table 5-6 of the SLERA Report (May 2002) shows average and diluted groundwater concentrations compared to groundwater standards. A summary of the ERA findings is presented in Question 6 below.

Maximum values of Contaminants of Concern (COCs) in groundwater perimeter wells along the northwestern half of the boundary, where discharge to the Arthur Kill could potentially occur, were all below groundwater standards except for three VOCs and 4 PAHs which were found in one well, RFI - 8 (Tables 5-1 and 5-2 of the ERA, May 2002). The table below presents the maximum detected concentrations and the appropriate promulgated or guidance value for each detected constituent in the groundwater.

Constituent	Maximum GW Concentration (ppb)	GW Standards (ppb)
Benzene	370	1
Ethylbenzene	140	5
Total Xylenes	890	5
Naphthalene	250	10*
Acenaphthylene	48	20*
1 Methylnaphthalene	63	No standard
2 Methylnaphthalene	94	No standard

* guidance value

It should be noted that maximum values (not the average values) were compared to groundwater standards. These maximum groundwater values generally overestimated potential loadings from the groundwater into the receiving waters. Biodegradation, volatilization, and dilution would dramatically reduce the concentrations in surface water of all of the compounds discussed above. The CMS report, prepared by Woodard & Curran, April 26, 2002 (Ref. 5, Table 3-3) presents monitored natural attenuation, ICMI and RFI groundwater analytical results.

The CMS report also provides maps (e.g., groundwater contour maps) depicting monitoring well locations and groundwater contaminant plumes, Total BTEX Concentrations in Groundwater - December 1995 (Ref. 5, Fig. 3-7) and Total BTEX Concentrations in Groundwater - January 2002 (Ref. 5, Fig. 3-12). The following table presents the maximum concentrations of benzene in two groundwater monitoring wells in the Southwestern portion of the facility adjacent to the Arthur Kill.

	ICM - 7	**ICM - 10**
Benzene (ppb)	45 *(Jan-02)*	14 *(Jan-02)*

As shown in the above table, concentrations of the key COC (benzene) exceed the groundwater quality standards of 0.7 and 1 parts per billion (NYS Ambient Groundwater Quality Standards, and NYS Part 703 Rules, respectively) by more than 10 times. However, these concentrations in wells are stable or decreasing significantly (Draft CMS Report, April 2002).

Although concentrations in all monitoring wells at the border of the Arthur Kill show that groundwater migration into the river has contaminants at more than 10 times but less than 100 times the appropriate groundwater concentration, the discharge of contaminated groundwater into the Arthur Kill, for purposes of answering this question, is potentially significant.

6. Can the **discharge** of "contaminated" groundwater into surface water be shown to be "**currently acceptable**" (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented[4])?

X If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment,[5] appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

___ If no - (the discharge of "contaminated" groundwater can not be shown to be "**currently acceptable**") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

___ If unknown - skip to 8 and enter "IN" status code.

Rationale and Reference(s):

The actual migration of COCs, mainly total BTEX (ug/l), from the site to the Arthur Kill are shown in the following nine monitoring wells installed near the shore line of the Arthur Kill (Figures 1-3 to 1-8 and Figure 3-1 of the May 2002 Ecological Risk Assessment Report): RFI-8 (1442), MH-1 (ND), ICM-1 (276.9), RFI-9 (5.85), ICM-2 (0.45), ICM-3 (2.32), ICM-5 (1.5), ICM-7 (46.92) and ICM (23.8).

As shown above, elevated concentrations of COCs at the site were associated primarily with monitoring wells RFI-8 and ICM-1. However, in July 2003 the area surrounding RFI-8 was excavated in order to remove more than 110 cubic yards of impacted soils which were the source of BTEX contamination in groundwater. Subsequent groundwater sampling results obtained from well RFI-8R in August 2003 (RFI-8R well was installed as a replacement of well RFI-8 which was destroyed during the excavation activities) showed that benzene and BTEX concentrations decreased to an average of 59 and 729 ug/L (mainly xylenes) respectively (Table 1 and Figure 2, Monitoring Well RFI-8 Area Investigation and Remediation, ExxonMobil August 28, 2003). These concentrations are well below the average concentrations of benzene and BTEX used in the Human Health Risk Assessment (HHRA) prepared by the facility and approved by EPA . The presence of elevated BTEX concentration at well ICM-1 is linked to a reported spill that occurred from an underground siphon line upgradient of ICM-1. Contaminated soils were excavated from the ICM-1 source area to levels below the risk assessment numbers in July 2000. Continued monitoring of groundwater has been conducted since completion of the ICMI and the RFI, including the on-going MNA sampling performed by Mobil as part of a CMS program initiated in

July 2000. A draft CMS Report (Woodard & Curran, April 2002) evaluated the results of this MNA program to assess the effectiveness of natural attenuation in containing contaminant plumes and reducing contaminant concentrations. A summary of these MNA, ICMI, and RFI groundwater analytical results are presented in Table 3-3 of the CMS Report. As shown in Table 3-3 of the CMS Report, concentrations of BTEX components have typically decreased or remained steady in all monitoring wells. However, when compared to 1995 ICMI and 1997 RFI results, the data collected during the MNA program demonstrates a clear trend downward in BTEX concentrations in all plume areas since the mid 1990s. In addition, perimeter wells, including those wells installed on the border of the Arthur Kill, typically exhibited non-detect or marginal concentrations of benzene and BTEX. As highlighted in the contaminant plume maps presented in Figures 3-7 through 3-18 of the CMS Report, this decreasing trend in benzene and total BTEX concentrations and the consistent non-detections or minimal perimeter detections indicate that the plumes are stable or decreasing. In addition, the orders of magnitude attenuation of BTEX over short distances downgradient of higher concentration zones is indicative that a natural attenuation process is taking place. Relatively stable levels of total BTEX ranging from non-detect in well MH-1 to 277 ug/L in ICM-1 were recorded during the CMS program from monitoring wells located immediately adjacent to the Arthur Kill and downgradient of all areas of identified contamination. The groundwater sampling at ICM-1 will be sampled quarterly to ensure that continued decreases occur in the GW. Inspections and sampling conducted in this area to date have not detected any evidence of significant contaminant migration to the river. This indicates that these areas of identified contamination do not currently pose a threat to discharge into the Arthur Kill, and eventually, once the ICM system and the NMA program meet their objectives, all contaminated groundwater will be contained on-site or remediated.

In addition, maximum groundwater concentrations were compared to surface water benchmarks (Table 5-1 of the ERA) and the estimated sediment concentrations were compared to sediment benchmarks are shown in Table 5-2 of the ERA . The conclusion of the ERA was that the GW discharge did not pose a threat to surface water standards or sediment standards.

In conclusion, the small area of groundwater discharge and likelihood of considerably lower exposure concentrations suggest that this groundwater migration is not significant. Moreover, the historical source of this contamination has been removed and concentrations are expected to decline significantly as the residual dissipates. This will be documented through the continuing groundwater monitoring effort that is part of the on-going corrective action program.

[4] Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

[5] The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

__X__ If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."

___ If no - enter "NO" status code in #8.

___ If unknown - enter "IN" status code in #8

Continued monitoring of groundwater has been conducted since completion of the ICMI and RFI. On-going MNA sampling and liquid level gauging for LNAPL has been performed as part of the CMS program initiated in July 2000. The MNA program has included the collection of semi-annual groundwater samples from a comprehensive network of monitoring wells across the Mobil site. The CMS Report evaluated the results of this MNA program and determined that MNA results clearly show containment of the plumes throughout most of the facility while also showing mass removal through natural attenuation. The ICM system as well as the MNA program, which includes source removal, eventually will reduce or eliminate contaminant migration to the Arthur Kill. Therefore, long-term groundwater monitoring (including liquid level gauging) and the ICM will continue as developed during the CMS program. The details of this program are detailed in the CMS Workplan (Mobil Consultant Woodard & Curran, July 2000) and the CMS Report (Woodard & Curran, April 2002). Tables 3-1 and 3-2 of the CMS Report presents a summary of the groundwater monitoring program and the parameter list, degradation process for each COCs and their expected trends.

8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

__X__ YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified.

Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the Port Mobil Terminal (Mobil) facility, EPA ID # NYD 000824516, located in Staten Island, NY 10309. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

___ NO - Unacceptable migration of contaminated groundwater is observed or expected.

___ IN - More information is needed to make a determination.

References

1. Fluor Daniel GTI, Inc. April 17, 1997. Interim Corrective Measures Investigation Report. Port Mobil Terminal, Staten Island, New York.

2. Fluor Daniel GTI, Inc. July 2, 1997 (revised June 18, 1998). RCRA Facility Investigation (RFI) Draft Report. Port Mobil Terminal, Staten Island, New York.

3. Fluor Daniel GTI, Inc. June 1998. Risk Assessment. Port Mobil Terminal, Staten Island, New York.

4. Kearney, A. T. July 16, 1993. Final RCRA Facility Assessment Report.

5. Woodard & Curran, Inc. April 26, 2002. Corrective Measures Study Report. Port Mobil Terminal, Staten Island, New York.

6. Woodard & Curran, Inc. May 2002. Ecological Risk Assessment Report. Port Mobil Terminal.

Completed by:_____ Date:_____

Wilfredo Palomino, EPA Project Manager

Reviewed by: _____ Date:_____

James Reidy, Chief, NY RCRA Section, EPA Region 2

Approved by: Original signed by: Date: 9/30/2003

Adolph Everett, Acting Chief, RCRA Programs Branch

EPA Region 2

Locations where references may be found:

References reviewed to prepare this EI determination are identified after each response. Reference materials are available at the USEPA Region 2, RCRA Records Center, located at 290 Broadway, 15th Floor, New York, New York.

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