# ENVIRONMENTAL COVENANT

# GRANTOR: <u>Honeywell International Inc.</u> PROPERTY ADDRESS: <u>1001 Hill Street, Emlenton, PA, 16373</u>

This Environmental Covenant is executed pursuant to the Pennsylvania Uniform Environmental Covenants Act, Act No. 68 of 2007, 27 Pa. C.S. §§ 6501 - 6517 (UECA). This Environmental Covenant subjects the Property identified in Paragraph 1 to the activity and/or use limitations in this document. As indicated later in this document, this Environmental Covenant has been approved by the Pennsylvania Department of Environmental Protection (Department).

1. <u>**Property affected**</u>. The property affected (Property) by this Environmental Covenant is located in Emlenton, Venango County. Department Primary Facility No. PF#663565.

The postal street address of the Property is: 1001 Hill Street, PO Box 660

The County Parcel Identification No. of the Property is: Book 341, Page 58, Parcel No.09005001.

The latitude and longitude of the center of the Property affected by this Environmental Covenant is:

41° 10' 47" North Latitude and 79° 42' 59" West Longitude.

The Property has been known by the following name(s): Emlenton Refining Company, Quaker State Oil Refining Corporation, Petrowax Wax Plant, Pennzoil Quaker State (PQS) Wax Plant, Astor Wax Plant, AlliedSignal Wax Plant, Honeywell Specialty Chemicals Emlenton Wax Manufacturing Facility.

A complete description of the Property is attached to this Environmental Covenant as Exhibit A. A map of the Property is attached to this Environmental Covenant as Exhibit B.

2. <u>Property Owner / Grantor</u>. Honeywell International Inc. is the Grantor and current Owner of the Property. The mailing address of Honeywell International Inc. is 101 Columbia Road, Morristown, NJ 07960.

3. <u>Holder(s)</u> [if any other than Owner] / **GRANTEE**. There are no holders identified for the Property.

4. <u>Description of Site Impacts and Remedy</u>. The Site Remedial Investigation (RI) identified three areas of impacts that require remedial measures.

(a) <u>Terrace Surface Soils</u>. An area located in the lowest terrace, measuring approximately 70 feet by 25 feet contained trimethylbenzene concentrations exceeding the nonresidential Statewide Health Standard. The remedy in this area consisted of the excavation and off-site disposal of these soils to meet the nonresidential standards and the excavation was backfilled with clean fill. This remedy was completed June 8, 2009.

(b) <u>Former Waste Disposal Area</u>. The Former Waste Disposal Area, located on the upper terrace in the extreme northeastern corner of the Site, includes an area with waste measuring approximately 65 feet by 185 feet that contains buried waste materials such as plastics, metal and other debris. The remedy for the Former Waste Disposal Area will include construction of drainage diversion ditches, area grading and leveling, and revegetation and institutional controls prohibiting excavation of the waste as set forth in Section 5 below.

(c) <u>Volatile Organic Compounds.</u> Certain volatile organic compounds (VOCs) in the groundwater exceed the honresidential Statewide Health Standards, but meet the Site Specific Standard. The VOCs that exceed the Statewide Health Standards include 1,2,4-trimethylbenzene, benzene, chloromethane, naphthalene, and total xylenes. These concentrations however meet Site Specific Standards. The separate phase liquid plumes are identified on the map included as Exhibit B. The remedy in this area consisted of the recovery of separate phase liquid to the extent practicable, and installation of a phytobarrier of hydrocarbon-degrading plants along the seasonal high-water mark along the River. Institutional controls will be implemented against groundwater and residential use as set forth in Section 5 below.

5. <u>Activity and Use Limitations</u>. The Property is subject to the following activity and use limitations, with which each Owner of the Property shall abide:

The Grantor hereby imposes the following activity and use limitations on the Property, which shall be covenants running with the land binding upon Grantor during its ownership period, any future Owners during their respective ownership periods, the tenants or licensees of any portion of the Property, and the respective authorized agents, successors, assigns, employees or persons acting under their direction or control of the foregoing:

(a) No person may withdraw or make use of any groundwater underneath the Property for any purposes unless and until such groundwater meets the applicable Pennsylvania Land Recycling and Remediation Standards Act of 1995 (Act 2) standards and written approval for such groundwater use is obtained from the Department. This restriction shall not preclude the extraction of groundwater for any necessary investigational or remedial activities approved by the Department.

(b) No person may use or occupy any portion of the Property, either temporarily or permanently, for any residential use of any kind or nature (including, without limitation, any use by individuals or families for purposes of personal living, dwelling, or overnight

accommodations, whether such uses are in single family residences, apartments, duplexes, or other multiple residential dwellings, trailers, trailer parks, camping sites, motels, hotels, or any other dwelling use of any kind); or any child care, school, nursing home, or recreational area use or other residential-style facilities as identified in Section 103 of Act 2 of 1995; provided, for avoidance of doubt, this Section 5(b) shall not be deemed to bar the use of the Rails to Trails Area at the location designated on Exhibit B.

(c) Former Waste Disposal Area.

(i) The persons obligated to comply with this Section 5 shall have a continuing duty to maintain the vegetative cover and surface drainage systems at the Former Waste Disposal Area and ancillary or accessory equipment, structures, or enclosures, if any.

(ii) No person shall develop the Former Waste Disposal Area without prior written approval from the Department.

(iii) No person shall perform excavation activities in or within 50 feet of the of the Former Waste Disposal Area demarked on the map provided as Exhibit B without prior written approval from the Department.

(d) Following closure of the Former Waste Disposal Area and demonstration that separate phase liquid has been recovered to the maximum extent practicable, a Final Report will be prepared and submitted to the Department. Upon completion of remediation and Department approval of the Final Report, all monitoring wells and piezometers at the Property as shown on Exhibit B will be properly abandoned.

(e) Since March 2004, separate phase liquid has not been detected at depths greater than 20 feet below the ground surface. Therefore, excavation of soils underlying all or any portion of the separate phase liquid plume areas shown on Exhibit B is prohibited at depths below fifteen (15) feet without prior approval of the Department and without following a Department approved Soil Management Plan.

(f) In addition to the foregoing activity and use limitations and any and all other applicable requirements, the persons obligated to comply with this Section 5 shall comply with the requirements set forth in the Post-Remediation Care – Subsurface Pipe Management Plan attached hereto as Exhibit C, and any subsequent amendments thereto approved by the Department, regarding the practices to be followed if excavations encounter buried pipes.

(g) The portion of the Site formerly containing a railroad bed has been compacted, covered with fine gravel and paved for use as a bicycle and walking path. This path provides a barrier prohibiting ecological exposure to constituents that may exist beneath it. This portion of the Site is identified with signs. The persons obligated to comply with this Section 4 shall have a continuing duty to maintain the signs identifying the area and ancillary or accessory equipment, structures, or enclosures, if any.

6. <u>Notice of Limitations in Future Conveyances</u>. Each instrument hereafter conveying any interest in the Property subject to this Environmental Covenant shall contain a notice of the activity and use limitations set forth in this Environmental Covenant and shall provide the recorded location of this Environmental Covenant.

7. **Compliance Reporting**. By the end of every January following the Department's approval of this Environmental Covenant, the then current owner of the Property shall submit, to the Department and any Holder listed in Paragraph 3, written documentation stating whether or not the activity and use limitations in this Environmental Covenant are being abided by. This includes performing and documenting visual inspections of the soil cap covering the Former Waste Disposal Area at least once annually. The then current owner shall repair as soon as practicable holes or damage that compromise the integrity of the soil cap. In addition, within one (1) month after any of the following events, the then current owner of the Property shall submit, to the Department and any Holder listed in Paragraph 3, written documentation: noncompliance with the activity and use limitations in this Environmental Covenant; transfer of the Property; changes in use of the Property; or filing of applications for building permits for the Property and any proposals for any site work, if the building or proposed site work will affect the contamination on the Property subject to this Environmental Covenant.

8. <u>Access by the Department</u>. In addition to any rights already possessed by the Department, this Environmental Covenant grants to the Department a right of access of the Property in connection with implementation or enforcement of this Environmental Covenant.

9. <u>Enforcement</u>. In the event that Grantor is no longer the Owner, Grantor nonetheless shall have the right to maintain a civil action for injunctive or other relief for violation of this environmental covenant.

10. <u>Recordation & Proof & Notification</u>. Within 30 days after the date of the Department's approval, Honeywell International Inc. shall file this Environmental Covenant with the Recorder of Deeds for each County in which the Property is located, and send a file-stamped copy of this Environmental Covenant to the Department within 60 days of recordation. Within that time period, Honeywell International Inc. also shall send a file-stamped copy to each of the following: each Municipality and County in which the Property is located; any Holder identified in this Environmental Covenant; each person holding a recorded interest in the Property; and other persons as required by the Department.

11. <u>Termination or Modification</u>. This environmental covenant may only be terminated or modified in accordance with Section 9 of UECA, 27 Pa. C.S. § 6509, except that the Post-Remediation Care – Subsurface Pipe Management Plan attached hereto as Exhibit C may be modified with the written approval of the Department.

12. **Department's address**. Communications with the Department regarding this Environmental Covenant shall be sent to:

Environmental Cleanup Program Manager, 230 Chestnut Street, Meadville, PA 16335.

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ACKNOWLEDGMENTS by Owner and the Department, in the following form:

Date: 9/ 10/09 East 1/4/09

Date: 11/9/09

[Name of Ownerb"Grantor" By: <u>Ruber</u> W. Malbur Name: <u>KichARC W.</u> G-AllowAy Title: <u>Remediation</u> MANAYER Honey well

APPROVED, by Commonwealth of Pennsylvania, Department of Environmental Protection By: <u>ERIC A. GUSTAF SON</u> Title: <u>RECIONAL MANAGELECC</u>

STATE OF NEW JERSEY	)
	)
COUNTY OF MORRIS	) SS:

On this 10<sup>th</sup> day of \_\_\_\_\_\_, 20<u>0</u>, before me, the undersigned officer, personally appeared \_\_\_\_\_\_ [Owner, Grantor] who acknowledged himself/herself to be the person whose name is subscribed to this Environmental Covenant, and acknowledged that s/he executed same for the purposes therein contained.

CHERYL L. TOLES State of New Jersey County of Passaic Expiration Date: 10/27/2010 ID # 2336504

Notary Public

COMMONWEALTH OF PENNSYLVANIA ) COUNTY OF (RAwFord) ) SS:

On this <u>9</u><sup>th</sup> day of <u>November</u>, 2009, before me, the undersigned officer, personally appeared <u>Enic Gustap</u> [Qwner, Grantor] who acknowledged himself/herself to be the person whose name is subscribed to this Environmental Covenant, and acknowledged that s/he executed same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.

In witness whereof, I hereunto set my hand and official seal.

hidil (fm Moser Notary Public

COMMONWEALTH OF PENNSYLVANIA NOTARIAL SEAL Judith Ann Moser, Notary Public City of Meadville, Crawford County My Commission Expires Mar. 2, 2013

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09/01/09

Legal Description of Property

# BK0341PG0062

EXHIBIT A Legal Description

all of the following traces or parcels of land situate in the Borough of Eulenton, County of Venango, Commonwealth of Pennsylvania and more particularly described as follows:

#### Parcel No. 1

Beginning at a point on the northerly side of Tanth Street, where the said street warts the Aliegheny River as shown on a plan of said Borough made by H.W. Sage in 1877; thence North 37 degrees 47 minutes East along the sortherly bounds of said Touth Street, passing through the right-of-way in favor of the Penneylvania Railroad Company a distance of 1316.94 feet to a rebar in the westarly bounds of Kerr Avenue, formerly known as Shippen Avanue; thence North 29 degrees 26 minutes 24 seconds Nest along the said westarly bounds of Kerr Avenue a distance of 50.0 fest to a rebar at tha northanet corner of lands now or fermerly owned by George B. Morrison; thence South 60 degrees 33 minutes 36 seconds West a distance of 100.0 minutes to a reber; thence Forth 29 degrees 25 minutes 24 seconds West & distance of 75.0 minutes to a rebart thence North 60 degrees 33 minutes 36 seconds Rast, a distance of 100.00 minutes to a rebar set in the said westerly bounds of Kerr Avenue; thence continuing slong said Kert Avenue North 29 degrees 26 minites 24 seconds West & distance of 94.0 fest to = reber; theses continuing along said Kart Avenue North 05 degrees 41 minutes East, a distance of 38.0 feet to a rebar; thunce North 57 degrees DO minutes West mixing the south bounds of lands now or forwarly owned by the Gathulic Genetery a distance of \$26.05 feat to the southwest corner of said Cathelic Genatery; thence North 05 degrees 00 minutes East along the west bounds of said Catholic Cemetery a distance of 293.39 feet to a rebar at the southwest corner of lands now or formerly owned by the Emlenton Cametery; thence northerly and northemsterly along the top of a bank as occupied by the said Emienton Constanty & distance of 453.3+ feet to a rebar in the northerly bounds of the Boraugh of Emlentont thence North 36 degrees 22 minutes 12 seconds West along the mortharly bounds of said Borough through the londs of the Pannsylvania Railroad Company a distance of 594.04+ fact to the waters edge of the Allegheny River; thence southerly along the Allegheny River a distance of 2745+ feet to the point or place of beginning.

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#### Parcel Bo, 2(A)

Bounded on the North by a Isne, streat or allay, on the sast by lands Formerly of M.B. Jacobs, on the south by the Allegheny River, and on the westby Lot #113, hereinefter described, said premises being Lots Mumbers 105 to 112, both inclusive, in H.W. Sega's survey and plan of the Borough of Emlepton wade in A.D. 1877, the same lots being designated as number <u>113 to</u> 120, both inclusive, in J.S. Devlin's survey of the lots in said Borough. A.D. 1868, lot designated Humber 105 in the Sage Europy being described an romber 170 in the Devlin Survey.

EXCEPTING AND RESERVING from the above-described parcel that certain piece or parcel of land being marked and designated as Lots Hos. 104 and 105 on the N.V. Sage Fien of the Borough of Emienton, 1877, conveyed by Quaker State Oil Refining Corporation to John G. Ritchey and Ross M. Ritchey, his wife and dated June 23, 1977, and recorded in the Office of the Recorder of Dweds in and for Vanango County, Pennsylvania, in Deed Book 799, Page 164, which parcel is more particularly bounded and described as follows:

SECIMITING At a point, which point is located at the northeast corner of Lot No. 104 in the M.W. Sege Plan of the Borough of Emission, which is also the northwest corner of Lot No. 10) and being at the point of intersection between the division line of Lot No. 104 and No. 103 and the southern wide of the Allegheny Valley right-of-way, now the Tann Central right-of-way or Contail; thence north 71 degrees 6 minutes West glong the southern wide of said Allegheay Valley right-of-way, a radional right-of-way, SD feet to a point; thence North 65 degrees 28 minutes West slong the Southern aide of said right-of-way, 30 feet to a point being the northwest corner of Lot No. 105 in said plan and being slat located at the point of intermeation between the division line of Lot No. 108 and Ng. 105 and the southern side of the Allegheny Valley Reilroad right-of-way; theses is a southwesterly direction slong the division line between Lot No. 106 and No. 105 in the Sage Survey 129.5 fact to the low vater mark of the Allaghany River; thence in a southeasterily direction slong the low water mark of the Allegheny River by its various courses and distances, 113.75 fast, more or less, to the point of intersection between the division line of Lot No. 104 and No. 103 in said Sage Flan aforesaid extended to the low water mark of the Allegheny River; thence in a northeascerly direction from said point sufficient distance slong the division line between Lots 103 and 104 as excended and the suid division line, exflicient distance, being 137,47 feet, more or less, to the Acuthern eide of the Allegheny Valley Reilroed right-of-way.

#### Farcel No. 2(1):

All the undivided one-helf interest in that certain lot of land mituate in the horough of Emienton, County of Venango, Commonwealth of Fenneylvenia, bounded and described as follows:

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On the North by a lang, street or allay, on the sast by the lands next above described, on the south by the Allaghany River, and on the west by the "Les Lot," and being Lot Number <u>113</u> in M.W. Sage's survey and plan of said Borough of Walenton made in A.D., 1877, or number 112 in J.S. Devlin's survey of the lots in the said Borough, A.D., 1853.

#### Parcel Ho. 2(C):

On the north by a guenty (20) foot roadway; on the east by lands of Hrs. A.C. Mackin; on the south by the Allegheny River; and on the user by lands now or formarly owned by the heirs of J.C. Forterfield and the heirs of John McCombst and comprising all of lots numbered <u>121</u>, <u>122</u>, <u>123</u>, <u>124</u> and <u>123</u> in 'J.S. Davlin's survey of said Borough, the same being numbered <u>100</u>, <u>101</u>, <u>102</u>, <u>103 and 104</u> eccording to N.W. Sags's plan of said Borough.

EXCEPTING AND RESERVING, that part of Lots Mumbers 100, 101 and 102 seconding to the M.W. Sage Plan of said Berough, as conveyed to George A. Braene, and that part of said lots as excepted and reserved in deed dated March 31, 1947, from George A. Breens, <u>st</u> <u>s1</u>., to Willis J. Sloan and reported on March 31, 1947, in Deed Book 524, Page 93.

EXCEPTING AND RESERVING, that portion of Lot 102 and Lot 103 conveyed to Breene, <u>et us</u>, by Deed dated July 19, 1955, and recorded in Deed Book 596, Fage 72, and also that certain Lot 106 conveyed to Grafo Colloide Corporation by deed dated May 25, 1988, and recorded in Deed Book 905, Page 1012.

The lots herein conveyed are the following lots as marked and numbered on the M.W. Sage Plan of the morough of Emlanton: 107, 108, 109, 110, 111, 112, and an undivided one-half of Lot Wo. 113.

SEING & part of corrests property conveyed by Elean, at ux. to Quaker State 011 Mefining Corporation by Dead dated April 23, 1931 and recorded in -the storageid Recorder's Offics in Deed Book Volume 354, page 303.

### Tarcal No. 3:

BEGINWING at a point on the southerly wide of Hill Avenus at the northeast corner of Lot No. 132 and the northwest corner of Lot No. 133 as marked and numbered on the M.V. Sage Plan of the Sorough of Eslanton; thence in a southerly direction along the line dividing Lot No. 132 and Lot No. 133, one hundred sixty-four (154) freet, more or less, to the right of way of the Pennsylvania Mailroad Company. formerly the Allagheny Valley Railroad Company; thence along said right of way two hundred (200) freet, more or less, to the line dividing Lot No. 136 and 137; thence in a mortherly direction along said dividing line one hundred forty-sight (148) fast, more or lass, to the southerly side of Hill Avenue two hundred (200) freet, more or lass, along the woutherly side of Hill Avenue two hundred (200) freet, more or lass, to the place of beginning.

BitHO all of Lot Hos. 133, 134, 135 and 136 as marked and numbered on the hap or plan of the Borough of Ewlenton laid out in 1877 by M.V. Soge, and bounded on the North Uy Hill Street, on the Zest by Lot No. 137, on the South by right of way of the Feonsylvenia Railroad Company, and on the West by Lot No. 132.

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EXCEPTING AND RESERVING, that part of Lot No. 136 as marked and numbered on the map or plan of the Borough of Emlanton leid out in 1877 by H.W. Sage, conveyed by Quakar State Dil Refining Corporation to Edward D. Work and Hildred J. Work, his wife, by deed dated August 23, 1955, and recorded in the Office of the Recorder of Deeds in and for Venengo County, Pennsylvania. in Deed Book 397, Page 121, which parcel is more particularly bounded and described as follows:

BECINFING at a point, the northeset corner of Lot Humber 136 as marked and numbered on the plan of lots of the said Borough of Emienton as surveyed by M.W. Sama in 1877; thends Morth 52 degrees 13 minutes west mlong the north line of lot number 136, 25 feet to a point therein; thence mouth 37 degrees 67 minutes west, 60 feat to a point; thence south 32 degrees 13 minutes west, 25 feet to a point in the east line of lot number 136 as marked and numbered on said plan of lots as aforesaid; thanks by the east line of said lot number 136, north 37 degrees 47 minutes east, 60 feet to a point, the place of beginning. The parcel of land hereintonveyed being a lot of land having a frontage of 25 feet on Rill Street and extending wortherly therefrom a uniform width for a distance of 60 feet, and is part of lot number 136 se marked and numbered on the plan of lots of the wait Borough of Zelepton as marked and numbered on the plan of lots of the sait Borough of Zelepton as marked and bumbered on the plan of lots of the sait Borough of Zelepton as

#### Parcal No. At

BEDINFIELD at a point on the southerly side of Chestnut Strast at the intersection of the line dividing Lot Nos. 307 and JDS, as marked and numbered on the plan of N.W. Sage laid out in 1877, and the southerly line of said Street; theres houth 47 degrees 47 minutes Hest one hundred twenty (120) feat, more of less, to an alley: thence is a westerly direction along the northerly side of said Alley, two hondred fifty (230) feat to the emsterly line of Lot No. 316 on said H.W. Sage Flan; thence north 37 degrees 47 minutes East along the line dividing Lot Nos. 316 and 315, one hundred twenty (120) feat, more of less, to Chestnut Strast; thence in an easterly direction along the southerly side of Chestnut Strast, two hundred fifty (230) feat to the place of beginning. BEING all of Lot Nos. 307, 108, 311, 312 and 313 as marked and numbered on the M.W. Sage Flan of the Borough of Emlanton laid out in 1877.

STING the same property conveyed by McCombs to Quaker State Oil Refining Corporation by Deed deted April 22, 1941 and recorded in the sforeseld Recorder's Office in Deed Book Volume 480, page 210.

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### Parcal No. 5(A)

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BEDINNING at a point on Mill Avanue, said point marking the mortheastern corner of Lot No. 129 and the northwestern corner of Lot No. 130 as werked and sumbered on the map or plan of lots of the Morough of Emlenton, loid out by M.W. Segs, C.B., in 1877; thence mouth along the line dividing Lot Nos. 129 and 130, one hundred sixty-two (162) feat ten (10) inches, more or less, to the right-of-way of the Pennsylvania Railroad Company, formerly the Allegheny Valley Railway Company; thence South 48 degrees 41 minutes west along said right-of-way to the line dividing Lot Nos. 130 and 131; thence north 37 degrees 47 minutes cast along line dividing Lot No. 138 and 131, one hundred sixty-five (165) fast eleven (11) inches, more or less, to Will Avenue; thence North 52 degrees 13 minutes West 50 feet along Kill Avenue to the place of beginning.

SEING all of Lot No. 130 as marked and numbered on the M.W. Soge Flan of the Borough of Epigaton,

#### PARCEL NO. 5(B):

BEGINNING at a point, said point marking the tortheast corner of Lot No. 130 and the northwest corner of Lot We. 131 on the plan or map of Lots of the Borough of Emission, laid out by M.W. Sage, C.E., in 1877; thence south along the line dividing Lot Nos. 130 and 131, one hundred sixty-five (165) fest, slaven (11) inches, more or lass, to the right of way of the Pennsylvania Railroad Company, forwarky the Allegheny Valley Railroad Company; thence South 53 degrees 18 minutes east, filty (50) fest along said right-of-way to the line dividing Lot Nos. 131 and 132; thence morth 37 degrees 47 minutes dast along the line dividing Lot Nos. 131 and 132 one hundred sixty-five (185) fest, more or less, to Hill Avenue; themes North 32 degrees 13 minutes West, along Hill Avenue, fifty (50) fast to the place of beginning.

BEING all of Lot No. 131 as marked and numbered on the M.R. Sege Map or Fism of the Borough of Emission,

BEING the same property conveyed by MaGoubs to Quakar Stats Dil Refiring Corporation by Daed dated April 11, 1942 and recorded in the aforesaid Recorder's Office in Deed Book Yoluss 485, page 38.

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#### PARCEL NO. 6:

ALL of that certain piece of land mituate in the maid Borough of Emission, including all of Lors Now. <u>125</u>, <u>126 and 127</u> according to the survey of M.W. Sage, A.D., 1877, and extending, between perallel lines one hundred. fifty (130) feet spart, southward from Mill Avenue to the right-of-way of the Pennsylvenia Medirose Gompany, and bounded on the east by lands formarly of Micholas Kakie: on the vest by lands of Quaker State Oil Rufining Corporation, forwarly of Willie W. Shores.

BEINC the same property conveyed by McCombs to Quaker State Dil Refining Corporation by Deed dated January 20, 1942 and recorded in the aforeanid Recorder's Office in Deed Book Volume 486, page 30.

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#### FARCEL ND. 7:

BEGINNING at the intersection of the southerly side of Elm Street with the assterly side of Tenth Strent; thence South 32 degrees 13 minutes east along the southerly side of Elm Street 200 feet to lands now or formerly of L.L. Levy: thence south 37 degrees 47 minutes west 127 feet along line of lands of L.L. Levy and being the line dividing Lot Wo. 359 and 362 on the wortherly side of an alley known as Locust Alley; thence along the mortharly side of said Alley morth 52 degrees 13 minutes west 200 feet to Tenth Street; thence north 37 degrees 47 minutes wast along the easterly aide of Tenth Street, 120 Feet, more or lass, to the place of beginning.

BEING LOTS Now. 334, 335, 358 and 359 as warked and numbered on the N.V. Sage Fish of the Borough of Emission.

BEING the each property conveyed by McCombs <u>et al</u>. to Quekar State Oil Refining Corporation by Dead dated September 27, 1960 and recorded in the sforewald Macorder's Office in Deed Book Volume 650, page 317,

#### PARCEL NO. B:

Lots Membased <u>314-317</u> on the map of plan of the Borough of Emlenton. Isid out is 1877 by H.W. Sage, and being bounded on the North by Cherry Alley, on the East by Lot Membar 313, on the south by Kill Street, and on the Must by Tenth Street.

SEING the same property conveyed by HoGombe to Qualar State 011 Refining Corporation by Deed dated February 28, 1940 and recorded in the aforasaid Recorder's Office in Deed Book Volume 475, page 112.

PARCEL NO. 9(A)

Lot designated No. <u>119</u> on the M.W. Saga Survey and plan of lute of the said Borough of Emlecton, and bounded on the North by lands of Promsylvenia Railroad Company; on the East by lunds now or formerly OF T. Colligan Escate; ou the South by Allegheny River; and on the West by lands of Quaker State Oil Refining Corporation.

#### PARCEL NO. 9(8):

Undivided one-half (1/2) internet in lot designated No. 113 on the M.W. Saga survey and plan of lots of the said Borough of Emlenton, bounded on the North by Pennsylvania Railroad Company; on the East by lands of Quaker State Dil Rafining Corporation; on the South by Allaghany River; and on the West by Lot No. 115.

#### PARCEL NO. 9(C)

Lot designered <u>114</u> on the M.W. Sage survey and plan of lots of the said Borough of Emlanton, bounded on the North by Fennsylvania Bailroad Company; on the East by Lot No. 113; on the South by Allegheny River; and on the West by Lot No. 113, now or formerly of Steve Sanders.

BEING the same property conveyed by Runter to Queker State 011 Rafining Corporation by Deed dated October 20, 1961 and recorded in the aforeenid Recorder's Office in Deed Book Volume 636, page 467.



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### PARCEL NO. 10

Bounded on the Morrh by a road, streat or alley and the Pannsylvania Railroad; on the Eset by Lot \$115, now or formarly of George A. Breene; on the South by the Allegheny River; on the West by lands now or formerly of 1.H. Webb, F.L. and H.F. Stoan, and now of Quaker State Oil Refining Corporation and being Lot \$119, and nomprising all of Lors Nos. <u>116, 117 and 118</u> as marked and numbered on the N.W. Sage Flam of the Borough of Emlenton, Venames County, Pennsylvania.

BEING the same property couveyed by Colligan, <u>et al</u>, to Quaker State Oil Refining Corporation by Deed dated Pabruary 14, 1970 and recorded in the aforesaid Recorder's Office in Deed Book Volume 725, page 597.

PARCEL NO. 111

BOUNDED on the North by & street. Line or alley; on the east by C.A. Kreis, lot number 119; on the South by the Allegheny River and on the West by Tenth Street or by Lands now or formerly of the Eslanton Refluing Company, the weid premises comptising all of Lots Numbers 120, 121, 122 and 123, we surveyed and numbered by M.W. Sage, A.D. 1877.

SEEKE the same property conveyed by Rowis, <u>et ux</u>, to Quaker State 011 Refining Corporation by Dued dated October 20, 1982 and recorded in the sforeseid Recorder's Office in Deed Book Voluma 490, page 97.

### PARCEL NO. 121

BEGINNING at a point located on the northeastern cornet of Lot No. 116, which is also the northwastern corner of Lot No. 115. as said Lots are marked and numbered on the pism of lots of the E.W. Sage Fism of the Borough of Epientom 1816 out in 1877; thence along the line dividing said Lots Nos. 115 and 118, is a southerly direction, a distance of 99 feat and 11 inchas; more or lass, to a point on the bank of the Allegheny River; thence along said bank of the Allegheny River, South 55 degrass 57 minutes East, a distance of 61 feat and 4 inches, to a point located at the southeast corner of said Lot No. 115, which is also the southwest corner of Lot No. 114 in anid Flan; thence along the line dividing said Lots Nos, 115 and 114. In a northerly direction, a distance of 94 feat and 6 inches, more or lass, to the south line of the right-of-way of the Penn-Cautral Estimated Company, formerly the Pennsylwania Railroad Company; thence along said south line of maid Railroad Company's right-of-way North 35 degrass 37 minutes West, 1 distance of 50 feat to the place of beginning.

BZING all of Lot No. 115 as warked and numbered on the plum of lots of the Borough of Emienton as surveyed and laid out by M.W. Sage in 1877.

BEING the same property conveyed by Ritchey <u>et us</u>. to Quaker State 011 Refining Corporation by Deed Gated July 1, 1977 and recorded in the effort and Recorder's Office in Dued Book Volume 800, page 135.

POOR COPY

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BK0341PG0069

#### PARCEL NO. 131

# ALL that certain place or parcel of land situate in the Borough of Emlenzon, County of Venango, Cosmonweelth of Pannaylvania, known and designated as Lot Number 88 in the J.E. Davidn Survey or plan of lots of the Borough of Emlenton and size designated as Lot Number <u>132</u> on the H.W. Fage plan and survey of the Borough of Emlenton as laid out in 1877. Being bounded on the North by Hill Avabuan on the Bouth by the right-of-way of the Pennsylvania Railroad Company: and on the East and West by lends now or formarily of Quaker State Oil Refining Corporation, formarily of Forterfield and HcComba.

SKING the same property conveyed by Elina to Quakar State Oil Mefining Corporation, by Deed dated September 29, 1942 and recorded in the efforancid Recorder's Office in Deed Book Volume 483, page 207.

#### PARCEL NO. 14:

Hounded on the morth by Kill Avanue, on the east by Lot No. 130, now of formerly of Elizabeths S. McCombs, on the south by Pennsylvania Railroad right-of-way, and on the west by other lands of the Quekar State Oil Refining Corporation. The said presides are those designated as Lots Nos. <u>128 and 129</u> on the M.W. Sage Survey of the said Borough of Emlenton, ands in 1877, A.D.

BEING the same property conveyed by Middleton to Quaker State Oil Refining Corporation, by Quitclaim Deed dated May 19, 1941 and recorded in the aforesaid Recorder's Office in Deed Book Volume 487, page 115.

#### PARCEL NO. 151

Bounded on the north by Nill Avenue; on the sest by lands of Elizabeths 5. McCombs; on the south by the right-of-way of the Panneylvenia Railcond Company and on the Wast by Tanth Street, being all of lot designated No. <u>126</u> in a plan and map of lots in the said Borough of Delenton, made by N.W. Sage, A.D. 1877.

BEING the same property conveyed by Shotes to Quakar State Dil Rafining Corporation by Deed dated September 14, 1940 and recorded in the sforesaid Recorder's Diffice in Deed Book Volume 478, page 176.

#### PARCEL NO. 151

Nounded on the south by Hill Avenus; on the east by lands of the estats of James J. Sheehan; on the west by lands of the Quaker State Oil Refining Corporation and on the worth by an alley, the said premises having an extent of one hundred (100) feet on both the said Hill Avenus and the said alley, and one hundred and twenty (120) fast on the cost and wast lines, comprising all of Lots Nos. 306 and 309, as surveyed and numbered by N.W. Sage.

BEING the same property conveyed by O'Brisn at un. to Queker State Oil Refining Corporation by Deed deted March 20, 1939 and recorded in the aforewald Recorder's Office in Deed Book Volume 470, page 349.

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## PARCEL NO. 17:

All of those two certain edjoining places of land ellusted in the Borough of Balanton, designated Lot No. 310 and Lot No. 313, in M.W. Saga's Survey and plan of the said Borough made A.D. 1377, having a frontage of one · hundred (100) feat on Mill Avenus and extending therefrom northward, between parallel lines, one hundred and twenty (120) feat to an ellay, being bounded on the east by lands now or formerly of Peter J. O'Srien. st ux. and on the west by lands now or formerly of Elizabeths 5. HeCombs and hairs of John C. Porterfield, doceaned,

BEING the same property conveyed by O'Brian at us. to Quaker State Dil Refining Corporation by Deed dated August 16, 1938 and recorded in the aforesaid Recorder's Office in David Book Volume 467, page 396.

#### PARCEL NO. 18:

Bounded on the north by an alley; on the asst by louds now or formerly of M.J. Siyon; on the south by Chestnut Street; and on the west by Tenth Street, the said premises having a frontage of 150 feet on Chastmut Streat and an extent of one buddred and twenty (120) feet on Tenth Street, being designated Lot Nos. 353, 356 and 357 in the general plan of the Borough of Delenton.

BEING the same property conveyed by Starling Oil Company to Quaker State Oil Refining Corporation by Dued dated December 2, 1936 and recorded in the aforessid Recorder's Office in Deed Book Voluma 459, page 307.

Emlenton Borough map # 09-005-001

Being the same premises which Quaker State Corporation by Deed dated 4-24-90 and recorded 5-2-90 in Venango County in Record Book 925. Page 476 conveyed unto Petrowax PA Inc., a Delaware corporation; which by Certificate of Amendment dated 12-30-95, a copy of which was recorded in Venango County 10-2-96 at Book 62, page 307, changed its name to Astor Corporation.

Reserving and Excepting therefrom and thereout to (the extent if at all, they affect the above-described premises) the premises conveyed by the following deeds:

1) 368/328, dated 4/14/21, J. B. Case et ux to J.W. Case et al, Lots 106, 107, 108 and 109, from 285/224. (copy)

2) 457/585, dated 9/3/35, recorded 1/12/37, Elsabetha S. McCombs et al, a tract, from 145/124.

3) 463/439, dated 1/10/38, recorded 2/9/38, Emma V. Watson et al to George Klingler, Lots 469 to 475 inclusive, from 145/124.

4).464/462, dated 5/6/38, recorded 6/9/38, Quaker State Oil Refining Corp to Joseph A. Birrocco et al, northern part of Lots 81 and 82, from 459/307. (copy)

5) 474/356, dated 8/5/35, recorded 2/21/40, Elisabetha S. MoCombs et al to A.E. Middleton, a tract. No recital.

6) 475/148, dated 4/2/40, recorded 4/23/40, Elizabetha S. MaCombs, by her AIF to J. Irvin Wetzel et ux, Lots 137 and 138, from 474/318 and 474/323.

7) 475/209, dat4ed 6/18/40, recorded 6/25/40, Elisabetha S. McCombs by bet AIF to Lloyd L. Levy, Lots 361, 364, 365, 362, 363 and 366, from 474/318 and 474/323.

8) 487/386, dated 7/6/40, recorded 7/13/42, Elisabetha S. McCombs by AIF to Merritt L. Sloan, et ux, Lot 457, from 474/318 and 474/323.

9) 517/221, dated 8/19/45, recorded 8/23/46, Elisabetha S. McCombs by AIF to Raymond J. Desimon, Lot 458, from 474/318 and 474/323.

# BK0341PG0071

10) 528/31, dated 6/16/47, recorded 6/18/47, Willis J. Sloan et ux to George A. Breene, parts of Lots 100, 101 & 102, from 495/481. (copy)

11) 534/46, dated 10/18/47, recorded 5/17/48, Richard McCombs to Paul V. Mohney et ux, lots 451 & 452, from 520/229.

12) 546/286, dated 3/3/50, recorded 3/29/50, Richard McCombs to Lawrence S. Grieff, part of Lot 450, from 520/229.

13) 579/542, dated 11/19/53, recorded 12/4/53, Quaker State Oil Refining Corp to George A. Breene et ux, an 8' strip, from 554/303.

14) 580/529, dated 11/28/53, recorded 1/28/64, Richard McCombs to The Borough of Emlenton. a tract. No recital

15) 596/72, dated 7/19/55, recorded 8/5/55, Quaker State Oil Refining Corp to George A. Breene et ux, lot 103 and part of Lot 102, from 554/303.

Work, part of Lot 136. No recital.

17) 641/351, dated 9/19/47, recorded 2/19/60, Richard R. McCombs to John Troy et ux, Lot 367, from 520/229.

18) 645/126, dated 5/31/60, recorded 6/24/60, Quaker State Refining Corp to Thomas F. Parks et ux, Lot 457 and easterly 14'of Lot 456, from 485/214; 423/91 and 440/331.

19) 737/729, dated 9/29/67, recorded 9/24/71, Quaker State Refining Corp to Rova S. Sheffer, a tract, from 647/499.

. . . 20) 799/764, dated 6/29/77, recorded 5/1/79, Qusker State Refining Corp to John C. Ritchey et ux, a tract, from 554/303.

21) 905/1012, dated 5/25/88, recorded 8/1/88, Quaker State Corp. formerly Quaker State Off Refining Corp to Girato Colloids Corp. Lot 106, from 554/303.

22) 923/1076, dated 3/21/90, recorded 3/26/90, Quaker State Corp to Emlenton Cemetery Cp, Inc, .63 acre, from 440/331.

23) 63/667, dated 9/26/96, Astor....to Eric Vensel et ux, 1) Lots 354, 355, 358 and 359 and 2) Lots 353/356 and 357, from 925/476. (copy)

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09/01/09

# Exhibit **B**

# **Map of Property**

- ALTA Survey 1. Former WDA
  - 2. SPL Plumes
  - 3. Controls
  - 4. Rails to Trails Area
  - 5. MWs & Piezometers





B HOR

50,00'

(50' WIDE)

#### AS SURVEYED DESCRIPTION

All those certain pieces, parcels or lots of land situated in the borough of Emilenton, count of venanco and commonwealth of pennsylvana, bounded and descrebed as follows:

BEOMINING AT A POINT OF INTERSECTION OF THE NORTHERLY BOUNDS OF THE BOROUGH OF EMLENTON WITH EASTERLY EDGE OF THE ALLEGHENY RIVER;

THENCE S 58"22'12" E ALONG THE NORTHERLY BOUNDS OF THE BOROUGH OF EMLENTON A DISTANCE OF 600.56 FEET TO A POINT;

THENCE ALONG THE WESTERLY BOUNDS OF THE EMLENTON CEMETERY THE FOLLOWING COURSES AND DISTANCESS 55144515 W A DISTANCE 111.05 FIELT TO A POINT, S 454428° W A DISTANCE 117.00 FIELT TO A POINT, S 243308° W A DISTANCE 73.32 FIELT TO A POINT, S 0943'09° W A DISTANCE 150.21 FIELT TO A POINT AT THE DIMISION LINE OF THE EMLENTON CEMETERY AND THE CATHOLIC CEMETERY;

THENCE S 00'00'00" W ALONG THE SOUTHERLY BOUNDS OF THE CATHOLIC CEMETERY A DISTANCE OF 424.05 FEET TO A POINT ON THE WESTERLY BOUNDS OF HERR AVENUE;

Thence along the bounds of Kerr avenue the following courses and distances; s obtained by a distance of 38.00 feet, s borgator was distance of 100.00 feet to point on the bounds of lands of roberts.

THENCE ALONG THE BOUNDS OF GUTHERIE THE FOLLOWING COURSES AND DISTANCES; S 80'33'36' W A DISTANCE OF 100.00 FEET, S 29'26'24' E A DISTANCE OF 73.00 FEET, N 80'33'36' E A DISTANCE OF TO.000 FEET TO POINT ON THE SOUTHNEES TOLY BOUNDS OF KORR AVENUE;

Thence s 29'26'24" e along the southwesterly bounds of Kerr avenue a distance of 50.00 feet to a point;

THENCE S 37'47'00" W ALONG THE NORTHWESTERLY BOUNDS OF TENTH STREET 'NOT OPEN) A DISTANCE OF 323.97 FEET TO POINT;

THENCE S 52"13"00" E A DISTANCE OF 50.00 FEET TO A POINT, SAID POINT BEING THE NORTHERLY CORNER OF LOT 354 A SHOWN IN PLAN OF EMILENTON BY ILW. SAGE DATED 1877;

THENCE S 52'13'00" E ALONG THE BOUNDS OF LOT 316 A DISTANCE OF 50.00 FEET TO A POINT, SAUD POINT BEING THE SOUTHERLY CORNER OF LOT 316 OF SAUD PLAN OF EMILENTON;

THENCE N 37'47'00" E ALONG THE BOUNDS OF LOT 316 A DISTANCE OF 145.00 FEET TO A POINT ON THE SOUTHERLY BOUNDS OF CHESTNUT STREET;

THENCE S & 2713'00" E ALONG THE SOUTHERLY BOUNDS OF CHESTNUT STREET A DISTANCE OF 280.00 FEET TO A POINT, SAID POINT BEING THE EASTERLY CORNER OF LOT 307 OF SAID PLAN OF DALLENTON;

THENCE S 37"47"00" W ALONG THE BOUNDS OF LOTS 307 & 306 A DISTANCE OF 310.00 FEET TO A FORT ON THE SOUTHWESTERLY BOUNDS OF HILL STREET, SAID POINT BEING THE NORTHERLY CORRER OF LOT 129 OF SAID FUNI OF BULLENTON;

THENCE S 52'13'00" E ALONG THE SOUTHWESTERLY BOUNDS OF HILL STREET A DISTANCE OF 325.00 FEET TO A POINT;

THENCE S 37'47'00" W A DISTANCE OF 60.00 FEET TO A POINT;

Thence 5 52°13′00" e a distance of 25.00 feet to a point on the southeasterly bounds of Lot 135 of Said plan of Emilenton;

THENCE S 3747'00" W ALONG THE SOUTHEASTERLY BOUNDS OF SAID LOT 136 A DISTANCE OF 80.16 FEET TO A POINT ON THE NORTHEASTERLY BOUNDS OF THE FORMER PENNSYLVAMA RAILROAD ROMT OF WAY, SAID POINT BEING THE SOUTHERLY CORNER OF LOT 135 OF SAID PLAN OF SMLENTON;

THENCE S 37"47"00" W A DISTANCE OF 68.59 FEET TO A POINT ON THE SOUTHWESTERLY BOUNDS OF THE PENNSYLVANIA RALROAD ROHT OF WAY;

THENCE ON A CURVE TO THE LEFT HAWING A CHORD BEARING OF 5 62265'33" E, CHORD DISTANCE OF 1964,49 FEET AND A RADULS OF 2043,43 FEET TO A PONT, SAID FORT BEING THE INGRINERRY CONFIRT OF LOT 106 OF SAID PLAY OF DELETION;

THENCE S 25'08'17" W ALONG THE NORTHWESTERLY BOUNDS OF 106 A DISTANCE OF 128,11 PERT TO A POINT SAID POINT BEING THE WESTERLY CORNER OF LOT 106 OF SAID PLAN OF EMILIPHTON;

THENCE S 25'09'17" W A DISTANCE OF 85.96 FEET TO A POINT AT THE SOUTHWESTERLY EDGE OF THE ALLECHEM' RIVER; THENCE IN A NORTHERLY DIRECTION UP THE ALLECHEMY RIVER A DISTANCE OF 3,710.1 FEET MORE OR LESS TO THE POINT OF BECOMMING.

CONTAINING 52,7054 ACRES OF LAND INCLUDING THE PENNSYLVANIA RAILROAD RIGHT OF WAY MORE OR LESS.



Exhibit C

Post-Remediation Care – Subsurface Pipe Management Plan

# POST REMEDIATION CARE SUBSURFACE PIPE MANAGEMENT PLAN

1

FORMER EMLENTON WAX PLANT EMLENTON, PENNSYLVANIA

Prepared for:

HONEYWELL INTERNATIONAL, INC. Morristown, New Jersey

July 2009

# POST REMEDIATION CARE SUBSURFACE PIPE MANAGEMENT PLAN

# FORMER EMLENTON WAX PLANT EMLENTON, PENNSYLVANIA

**Prepared for:** 

HONEYWELL INTERNATIONAL, INC. Morristown, New Jersey

ne M. Crowley, P.G. **Chief Scientist** 

Eric Weiler Staff Scientist

MACTEC Engineering and Consulting, Inc. Pittsburgh, Pennsylvania

July 2009

Project 3410090671

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# FIGURES

APPENDIX A

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# Figure

- 1. Areas of Removed Underground Piping
- 2. Site Plan Test Pit and Pipe Location Detail

 $\label{eq:piper} P:PROJECTS \label{eq:piper} Werden and \label{eq:piper} Piper Pip$ 

### **1.0 INTRODUCTION**

MACTEC Engineering and Consulting, Inc. (MACTEC) has prepared this Post Remediation Care – Subsurface Pipe Management Plan (Pipe Management Plan) to provide guidance for the likely future redevelopment activities at the Former Emlenton Wax Plant facility located at 1001 Hill Street, Emlenton, Pennsylvania (site). This plan addresses aspects of future development relating to the potential contact with underground pipes and management of activities associated with potential future site development. This plan is to be included with the Site Post Remedial Care Plan (PRCP). The PRCP will also address other site issues described in the Remedial Investigation and Risk Assessment Report and the Site Cleanup Plan to be developed at a later date.

### **1.1 BACKGROUND**

The former Emlenton Wax Plant site occupies approximately 45 acres of land and is located along the terraced valley of the Allegheny River (Figure 1). The facility operated as a petroleum refinery and/or wax plant for over 100 years under a series of ownerships. In February 2000, production operations at the plant ceased. Between 2000 and 2003, demolition activities at the site removed the remaining aboveground tanks, associated aboveground piping, and all but two buildings. Foundations of the demolished buildings remain in place. Since 2003, Pennzoil-Quaker State (PQS) and Honeywell have combined efforts to complete a Remedial Investigation at the site. A Remedial Investigation and Risk Assessment (RIRA) has been completed and a report (MACTEC, August 2008) has been submitted to the Pennsylvania Department of Environmental Protection (PADEP) on behalf of Pennzoil-Quaker State (PQS) and Honeywell International (Honeywell).

## **1.2 INTERIM REMEDIAL ACTIONS – PIPE REMOVAL**

Interim remedial actions have been undertaken at the site to drain and remove underground pipes and to recover groundwater and separate phase liquid (SPL) contained in them. Pipe removal activities were completed between 2001 and 2008, resulting in the removal and/or tapping, draining and sealing of all identified pipes. In some areas, that activity has left isolated and sealed pieces of pipe in the ground. Because future development at the site may encounter pieces of pipelines, standard environmental engineering practices must be used when those pipes are encountered. Therefore, this document provides guidance for future management of any unidentified or abandoned subsurface pipes remaining at the site.

### 2.0 PIPE REMOVAL SUMMARY

Since the closure of the facility in 2000, multiple projects occurred that focused on the removal of pipes and aboveground storage tanks from the site. Those projects included site demolition in 2000 and 2001, pipe removal in 2005, pipe abandonments in 2006, and pipe abandonment in 2007. Six above ground storage tanks, which had been closed in place prior to site demolition were addressed along with pipe removal activities completed in 2007. During the excavation activities completed in 2005, 2006, and 2007 very few pipes were found that contained liquids or wax. Demolition of the refinery did not address removal of subsurface pipes.

# 2.1 PIPE REMOVAL ACTIVITY 2005

Excavation of underground piping began in the platformer unit and former tank farm area on the middle terrace in early 2005. Piping was removed in these areas over a period of several months. The area addressed by this action included the portions of the property that border other properties to the south and east of the refinery. MACTEC made periodic visits to the site to collect soil samples from subsurface soil where visual impact was observed. Pipe removal completed during this time also included removal of a former crude oil pipeline, which was located on the lowest terrace at the site. Entire runs of pipes that were identified during this excavation were excavated and removed from the site. Figure 1 shows the areas of underground pipe that were removed from the site and the approximate location of the former crude oil pipe that was removed in 2005.

### 2.2 PIPE REMOVAL ACTIVITY 2006

Pipe abandonment and removal was conducted during 2006 in two phases. The first phase, completed on June 2, 2006, was to excavate a continuous test trench along the former railroad bed (now a paved bicycle trail) and a series of perpendicular trenches to locate buried piping. The buried piping was marked for removal at a later date. The test trench was excavated to a depth of five feet with 50 feet long cross trenches every 200 feet (Figure 1). The project identified 35 locations in which pipes were buried that crossed the former railroad. An additional 23 locations were observed where pipes were exposed in the terrace slope to the west of the former railroad.

The second phase of work was conducted between July 31, 2006 and August 11, 2006 to remove the pipes previously observed during the first phase of the project. Additionally, where pipes were visually noted to protrude from below the former railroad terrace to the terrace below, excavations were cut deeper to cut and drain those deeper pipes. During that time a total of 80 pipes were removed from 28 locations below the proposed Rails to Trails pathway (Figure 2). The type, size, location, and depth of pipes that were located were then recorded. The pipe locations were recorded using a distance in feet from the zero point which was established at the northern end of the line. When a pipe was located it was drilled using a pneumatic drill. A photoionization detector (PID) and lower explosive limit (LEL) meter were then used to determine what safety precautions were necessary to cut the pipe. If fluids were present in the pipe, they were vacuumed into a 55-gallon drum and the pipe was cut and capped. Caps consisted of a fernco cap, or cement for larger pipes. Pieces of pipe that had been located below the railroad bed were removed during this activity, leaving capped ends on either side of the railroad.

### 2.3 PIPE AND TANK REMOVAL ACTIVITIES 2007

Six above ground storage tanks (ASTs) that had been formally closed prior to demolition of the site were removed between December 3, and 11, 2007. The tanks were located at the base of a hillside and the eastern side of the tanks had been covered with soil, which was moved to facilitate tank removal (Figure 2). The six ASTs (approximately 10,000 gallon, horizontal tanks on concrete supports) were closed in place during the operation of the refinery. Each AST was drained and filled with inert material, which met requirements for closure of the tanks under Pennsylvania Regulations.

Fill materials on the soil on top and around the sides of the tanks was removed and stockpiled on the site. Because this soil was not impacted (based on previously completed site assessment activities), the stockpiled soil was returned to the work area upon completion of the project and graded. When the fill placed along the east ends of the tanks was moved, the top half of the tanks was cut with a torch to allow access to the inert material. During the AST removal and prior to cutting, the inside of the tanks were monitored for explosive vapors with an LEL/O2 meter. The inert materials inside each tank were removed and stockpiled on-site on 6-mil plastic sheeting. MACTEC field screened the inert material using a PID, and samples of the inert material were collected and analyzed according to PADEP clean fill regulations. As such, MACTEC submitted two samples to STL Laboratories for analysis of VOCs, SVOCs, ignitability, and metals. Results of the analyses of the samples were used to determine that the fill could be used at the site as fill. The tank hulls were emptied, and removed from the site. The soil and brick around the tanks was graded with fill material from the site.

In addition to the removal of the ASTs, between January 7, and 18, 2008, MACTEC oversaw the removal of underground pipes at two additional locations on site (Figure 1). During that time a total of 54 pipes were removed from a trench located at the lowest terrace on the site (Line 1), and two pipes were removed from a trench located on the upper terrace (Line 2). Line 1 consisted of a 700 feet long trench to a depth of seven feet deep. Three cross trenches, approximately 50 feet long each, were excavated to determine whether any pipes were buried that were oriented parallel to the primary trench. Line 2 consisted of a 400 feet long trench to a depth of seven feet. The same steps were followed as described in 2006 pipe removal activities for handling and excavation of the pipes and their contents.

### 3.0 FUTURE PIPE MANAGEMENT

Known, suspected and identified underground pipes have been excavated, and removed or excavated, tapped, drained, cut and capped. To the degree practical, subsurface pipes at the site have been addressed during the completed interim actions; however, future activities at the site could encounter buried pipes. Therefore, this management plan has been prepared to guide the appropriate course of action to be taken in the event that pipes are encountered during future development activities.

The pipes that have been previously removed were steel or cast iron pipes. There are also pipes made of terracotta and concrete onsite, however they have been used for water drainage purposes. Additionally, water service lines exist on site, which are currently inactive. The pipes observed at the site ranged in size from 1- to 36-inch diameter and larger diameter pipes may contain multiple smaller pipes inside. The pipes were found at depths ranging from six inches to six feet deep.

# 3.1 LOCATIONS OF CAPPED PIPES

When sections of pipe were removed and the ends of the remaining pipes were capped, the remaining length of pipe was abandoned in place. The locations of those pipes that were cut and capped (during the activities completed in 2006 and 2007) are illustrated on Figure 2. This figure provides an illustration of the locations of pipes that were encountered and provides a description of the pipes that were identified. While each of these pipes have been cut and drained, it should be noted that if one of these pipes is encountered during future site activities, it should be managed as though it had not previously been addressed and the developer should treat the pipe with care until it is reconfirmed that the individual pipe does not contain liquid. This guidance is provided for safety of the individuals working at the site and is established as a standard environmental engineering practice but should not be considered the only method referenced in developing and following safe work procedures and standard environmental practices.

Prior to completing any site development activities, the individuals completing that work should review Figure 2 and identify the work area with respect to previously addressed pipes. When reviewing the attached figure, it should be noted that pipes could be present that are not illustrated on this figure.

# 3.2 FUTURE EXCAVATION WORK AT THE SITE

If excavation work is to be completed within the former refinery, it should be noted that buried pipes may exist. Although reasonable and appropriate steps have been taken to remove subsurface pipes or to render them empty and sealed, site workers must prepare to complete subsurface work assuming that pipes may be encountered and that they may contain flammable liquid. Work should proceed only after it has been confirmed that such pipes do not contain liquids of any kind.

This management plan assumes that individuals working at the site, who may encounter subsurface pipes, are properly equipped with personal protective equipment and have been appropriately trained to complete subsurface work. Tools to be used when an unknown pipe is encountered should be non-sparking in case of flammable liquids in the pipe. It is also assumed that anyone conducting such work uses appropriate screening instruments to measure the explosive limit and concentrations of volatile organics in air and appropriate actions will be determined based on the results of that screening.

Any pipe or series of pipes planned to be excavated should be exposed over a sufficient length of piping to permit safe tapping of the individual pipes. Included in the work should be the lay-back of any excavation walls as necessary to permit safe access to any exposed pipes, consistent with requirements for safe trenching and shoring work. Non-sparking tools should be used to tap each pipe to ascertain its contents. If the pipe is found to contain any liquid, that liquid should be drained or pumped into a tank provided for that purpose. Each pipe found to contain liquids should be drained at the lowest elevation encountered and portions of the pipe at lower levels should be pumped to remove any free liquid. A suction hose may be inserted into the pipe and the liquid below the level of the cut may be vacuumed out into an appropriate container for later disposal.

Following draining of a pipe, that pipe should again be monitored for explosive vapors. If no explosive vapors are present, the pipe may be cut and a section removed or the entire run of pipe may be removed at the discretion of the developer. When pipes are to be abandoned in place, it is recommended that permanent plugs or threaded caps will be placed at each cut end of pipe to blind the ends left in place. Permanent plugs or caps should be of a material that will continue to act as a seal into the future. In the event that a steel pipe has been found to contain no fluids or gas and screening indicates that no explosive atmosphere is present in the vicinity of the pipe, the pipe may be sealed by welding a permanent cap onto the pipe.

Pipes found to contain water may be indicative of a leakage of water into the pipe and may be plugged by welding or threading a cap onto the pipe. In cases where a welded or threaded cap may not be safely or practically applied to the pipe, options to be considered should include but not be limited to; a bentonite cement slurry may be injected into the pipe to seal at least 10 lineal feet. It may be practical to place a physical plug into the pipe at a known distance from the cut end of the pipe and then apply the bentonite cement slurry.

Pipe removed from the subsurface may be removed from the site for appropriate disposal or recycling

Storm water drainage piping, including terracotta piping may be encountered. Care should be exercised to ensure that any damaged pipe is repaired or replaced "in kind" as determined appropriate. Additionally, other underground utilities such as telecommunications, electrical, water supply, etc. that become damaged during the excavation work should be repaired or replaced "in kind" as required or appropriate.

## 3.3 SOIL ASSOCIATED WITH PIPING

Completion of the Remedial Investigation identified soil associated with the removal of pipes in the former railroad area, which contained petroleum odors. Sampling of that soil indicated that it meets the cleanup standards used for this site under Act 2. Soil not associated with piping and the procedures for handling onsite any soil not associated with piping are described in Appendix A. As soil is managed in excavations, it should be noted that in general, subsurface soil should not be placed at the surface. In the course of completing any excavation work at the site, subsurface soil (from a depth greater than 2 feet) should not be placed at ground surface, but may be returned to the excavation from which it originated, assuming that two feet of soil is placed above it.

In the event that a spill of any kind occurs during the excavation of pipes at the site, the spill should be reported as appropriate and impacted soil should be sampled to determine whether remedial actions are required. Completion of the remedial action and reporting required by the PADEP will be the responsibility of the site owner and/or the individual who caused the release. Neither Honeywell nor any predecessor company shall have any responsibility for any future releases. If impacted soil is to be removed from the site, it must be transported and disposed in a manner consistent with Local, State, and Federal Laws.

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Figures























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Appendix A

Soil Not Associated with Piping

# Soil Not Associated with Piping

If any instance of soil exhibiting physical signs (visual appearance and odor) of petroleum impact that is not associated with piping is encountered during future Site development, a progression of response actions similar to as those described in Section 3.3 of this plan should be implemented. Management of any potentially impacted soils must conform to all applicable Local, State and Federal regulations. All sampling and response work should be conducted by technically qualified personnel.

Suspect soils that exhibit physical characteristics of possible petroleum impact should be handled as if the soil is impacted. Qualified personnel should be used to achieve the following:

- Upon discovery, visually delineate the area.
- Collect a sufficient number of samples to characterize the suspect area.
- Analyze the samples by appropriate analytical methods to determine if that soil meets the cleanup standards used for this Site under Act 2.
- Segregate any suspected impacted soils to avoid potentially impacting non-impacted soils.
- Upon analytical verification that soils are impacted in excess of Act 2 cleanup standards identify, isolate, remove and replace impacted soils.
- If temporary staging is necessary, it should be done on a non-permeable staging area such that impacts are not spread to adjacent soil or groundwater.
- Sample the limits of the excavation (i.e., sidewalls and bottom) to verify the removal of all soils in excess of the Act 2 standard.
- Impacted soils should be transported from the Site and disposed in a manner consistent with all applicable Local, State, and Federal Laws.
- Backfill the excavated area as required for the intended land use with fill material that meets all applicable laws and regulations.
- Soil imported to the site should meet Pennsylvania Clean Fill requirements or soil originating from another portion of the property should meet the established Site Specific Standards.
- Pending future use of the area in question, a more stringent set of criteria (e.g., vapor analysis) may apply.

All results should be provided to all applicable Local, State, and Federal officials who will review the results of the removal action.

Finally, it is recommended that the area where the impacted soil was identified and removed should be noted on the Site map for future reference. Neither Honeywell nor any predecessor company shall have any responsibility for changes to the Site that alter the exposure scenarios described in the Site's Remedial Investigation/ Risk Assessment report.

Prepared by URS Corporation (July 2009).