FINAL PLAN OF REMEDIAL ACTION

CHRYSLER NEWARK ASSEMBLY PLANT SITE – OPERABLE UNIT 2
(-AKA- University of Delaware's Science, Technology and Advanced Research Campus)

550 South College Avenue — *June 12, 2012*
Newark, Delaware — *DNREC Project No. DE-0105*

This Final Plan of Remedial Action (Final Plan) presents the Department of Natural Resources and Environmental Control's (DNREC's) intention to address environmental contamination at the Chrysler Newark Assembly Plant Site – Operable Unit 2.

DNREC issued public notice of the Proposed Plan of Remedial Action (Proposed Plan) for Operable Unit 2 (OU-2) of the Site on May 20, 2012 and opened a 20-day public comment period. The Proposed Plan is attached. There were no comments from the public; therefore, the Proposed Plan is adopted as the Final Plan.

Approval:
This Final Plan meets the requirements of the Hazardous Substance Cleanup Act.

Timothy T. Ratsep, Program Administrator
Site Investigation and Restoration Section

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PROPOSED PLAN OF REMEDIAL ACTION

Chrysler Newark Assembly Plant Site – Operable Unit 2
[-AKA- University of Delaware's Science, Technology, and Advanced Research (STAR) Campus]
Newark, Delaware
DNREC Project No. DE-0105

May 2012

Delaware Department of Natural Resources and Environmental Control
Division of Waste and Hazardous Substances
Site Investigation & Restoration Section
391 Lukens Drive
New Castle, Delaware 19720

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PROPOSED PLAN OF REMEDIAL ACTION

Chrysler Newark Assembly Plant Site (OU-2)
Newark, Delaware
DNREC Project No. DE-0105

Approval:
This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

Approved by:

Marjorie A. Crofts, Director
Division of Waste and Hazardous Substances

5.16.02
Date

Chrysler Newark Assembly Plant Site (OU-2)

What is the Proposed Plan of Remedial Action?

The Proposed Plan of Remedial Action (Proposed Plan) summarizes the clean-up (remedial) actions that are being proposed to address contamination found at the Site. The Proposed Plan is issued to solicit public comment. A legal notice is published in the newspaper for a 20-day comment period. DNREC considers and addresses all public comments received and publish a Final Plan of Remedial Action (Final Plan) for the Site.

What is the Chrysler Newark Assembly Plant Site (OU-2)?

Operable Unit 2 (OU-2) is part of the larger Site, identified as the Chrysler Newark Assembly Plant, which has been divided into operable units or smaller areas to more easily manage its investigation and cleanup. This proposed plan specifically addresses OU-2 of the Site. The boundaries of OU-2 are depicted on Figure 2.

OU-2 is the former location of the MOPAR Parts Distribution Center and is located at 1 Mopar Drive, Newark, Delaware. It consists of one tax parcel (18-039.00-002) totaling ~27.1 acres (Figure 1). The nearest intersection to OU-2 is Mopar Drive and South College Avenue (Route 896). OU-2 consists of the concrete floor slab of the former MOPAR automotive parts storage warehouse and paved parking areas and is zoned commercial (Figure 2).

What happened at the Chrysler Newark Assembly Plant Site (OU-2)?

Prior to the late 1940s/early1950s, the Site was utilized for agricultural purposes. The MOPAR automotive parts storage warehouse was operated from the 1950's until 2008.

What is the environmental problem at the Chrysler Newark Assembly Plant Site (OU-2)?

Portions of the Site have been the subject of previous subsurface evaluations related to underground storage tanks (USTs) containing petroleum products.

The following environmental investigations were performed on the OU-2 portion of the Site:

- 1989 - 1990: DNREC-TMB (Tank Management Branch) project N9702016 corresponded to the removal of eight USTs (five 12,000-gallon No. 4 fuel oil USTs, one 12,000-gallon diesel UST), one 1,000-gallon gasoline UST, and one 5,000-gallon gasoline or fuel-oil UST. These tanks were removed between 1989 and 1990. Soil samples indicated the presence of total petroleum hydrocarbons (TPH). During tank excavation, approximately 80,000 gallons of impacted groundwater were collected and transported to an industrial waste treatment plant. In addition, approximately 2,000 cubic yards of impacted soil were excavated and transported off site and filled with clean fill. Monitoring wells were installed to evaluate groundwater impact. Subsequent groundwater evaluations performed in 1991 and 1999 indicated concentrations of DNREC-TMB constituents

detected in groundwater were below the DNREC Uniform Risk-Based Remediation Standard (URS) for groundwater. DNREC-TMB issued a No Further Action (NFA) for project N8702016.

- 1999: DNREC-TMB project N9910218 corresponded to the removal of two 10,000-gallon No. 4 heating oil USTs. No evidence of release was encountered during tank removal. DNREC-TMB issued a NFA letter for project N9910218.

- 2008: Duffield Associates, an environmental consulting firm, conducted a limited Environmental Site Assessment (ESA) of the Science and Technology Campus on behalf of 1743 Holdings, LLC. The ESA included limited soil and groundwater sampling in OU-2. The results of the investigation indicated no significant soil and groundwater impact in OU-2.

- 2010: Duffield Associates conducted a Brownfield Investigation (BFI) consisting of soil and groundwater sampling on the OU-2 portion of the Site. Eighty-two soil samples were collected and analyzed. Nine monitoring wells were installed and sampled. Contaminants of concern for surface soil were identified as: benzo(a)pyrene, aluminum, iron, nickel, and vanadium; subsurface soil: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, aluminum, iron, manganese, and nickel; and groundwater: dibenzofuran, 2-methylnaphthalene, naphthalene, aldrin, dieldrin, aluminum, iron, lead, manganese, and vanadium.

What does the owner want to do at the Chrysler Newark Assembly Plant Site (OU-2)?

The entire Site is the future location of the University of Delaware's Science, Technology and Advanced Research Campus. Future development within OU-2 likely will include buildings, underground utilities, access roads and parking.

What additional clean-up actions are proposed at the Chrysler Newark Assembly Plant Site (OU-2)?

DNREC proposes the following remedial actions for the Site, which need to be completed before a Certificate of Completion of Remedy (COCR) can be issued:

1. An Environmental Covenant, consistent with Delaware's Uniform Environmental Covenants Act (Title 7, Del. Code Chapter 79, Subtitle II) (UECA), will be recorded in the office of the Recorder of Deeds to include the following:

    - Land Use Restrictions (Restrict land use to Commercial/Industrial);
    - Prohibit Interference with Remedy;
    - Identify the Site as located within a Groundwater Management Zone;
    - Prohibit land disturbing activities without prior written approval by DNREC;
    - Comply with the Long Term Stewardship Plan;

- Prohibit the installation of groundwater wells for drinking water purposes without the prior written approval of DNREC; and
- Comply with the Contaminated Materials Management Plan (CMMP).

2. Maintenance of physical barriers that are in place to limit human contact with soils. When earth disturbing activities are performed in OU-2, a barrier such as pavement, building slab or one foot clean soil cap will be re-installed with marker fabric.
3. Development and implementation of a DNREC-approved Long-Term Stewardship (LTS) Plan. The LTS Plan will detail: a) the groundwater monitoring network and schedule to be followed in order to monitor the attenuation of the groundwater COCs, and b) the inspection schedule to be followed in order to ensure the long-term integrity of the cap placed atop impacted soil left in place.
4. Development and implementation of a DNREC-approved Contaminated Materials Management Plan (CMMP) to ensure that contaminated materials encountered during intrusive activities are handled properly.

What are the long term plans for the Site after the cleanup?

The Site use will be restricted to non-residential (commercial/industrial). The groundwater monitoring schedule set forth in the DNREC-approved LTS Plan will be followed, as well as, continued adherence to the environmental covenant to be recorded on the property deed. The CMMP will be completed and available for the Site.

How can I find additional information and/or comment on the Proposed Plan?

The complete file on the Site, including the Environmental Site Assessment and the Brownfield Investigation report, is available at the DNREC office located at 391 Lukens Drive in New Castle. Most documents are also found on: http://www.nav.dnrec.delaware.gov/DEN3/

The 20-day public comment period begins on Sunday, May 20, 2012, and ends at close of business (4:30 pm) on Monday, June 11, 2012. Please send written comments to the DNREC office at 391 Lukens Drive, New Castle DE 19701 to Lindsay Hall or Wendy March, Project Managers, or Robert Newsome, Public Information Officer.

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Glossary of Terms Used in this Proposed Plan

Contaminants of Concern (COC)	These are potentially harmful substances at concentrations above acceptable levels (e.g. metals and PAHs).
Certification of Completion of Remedy (COCR)	A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.
Final Plan of Remedial Action	DNREC's adopted plan for cleaning up a hazardous site.
Hazardous Substance Cleanup Act (HSCA)	Delaware Code Title 7, Chapter 91. The law that enables DNREC to identify parties responsible for hazardous substances releases and requires cleanup with oversight of the Department.
Proposed Plan of Remedial Action	DNREC's initial plan for cleaning up a hazardous site, which is subject to public comment before being adopted as final.
Site Inspection (SI)	Environmental study of a site which includes the sampling of soils, groundwater, surface water, sediment and/or wastes on the property, as appropriate. This evaluation is performed on behalf of the United States Environmental Protection Agency (U.S. EPA).
Brownfield Investigation (BFI)	Thorough environmental study of a site which includes 1) sampling of site environmental media and/or wastes on the property and 2) conducting a preliminary risk assessment using the data collected to determine the risk posed to human health and the environment.
Risk	Likelihood or probability of injury, disease, or death.
Brownfield Development Agreement (BDA)	This legal agreement is between a potential developer of a Delaware-certified Brownfields Site and the DNREC. The developer agrees to investigate and cleanup a Brownfields property under the oversight of the Department in exchange for liability protection.
Uniform Environmental Covenant Act (UECA)	Deed restrictions on the site. These can include restrictions on soil intrusion, groundwater usage or usage of the site based on the extent of the cleanup.
Uniform Risk-Based Remediation Standards (URS)	A set of concentration criteria for various contaminants potentially present in site media that are developed for protection of human health and the environment

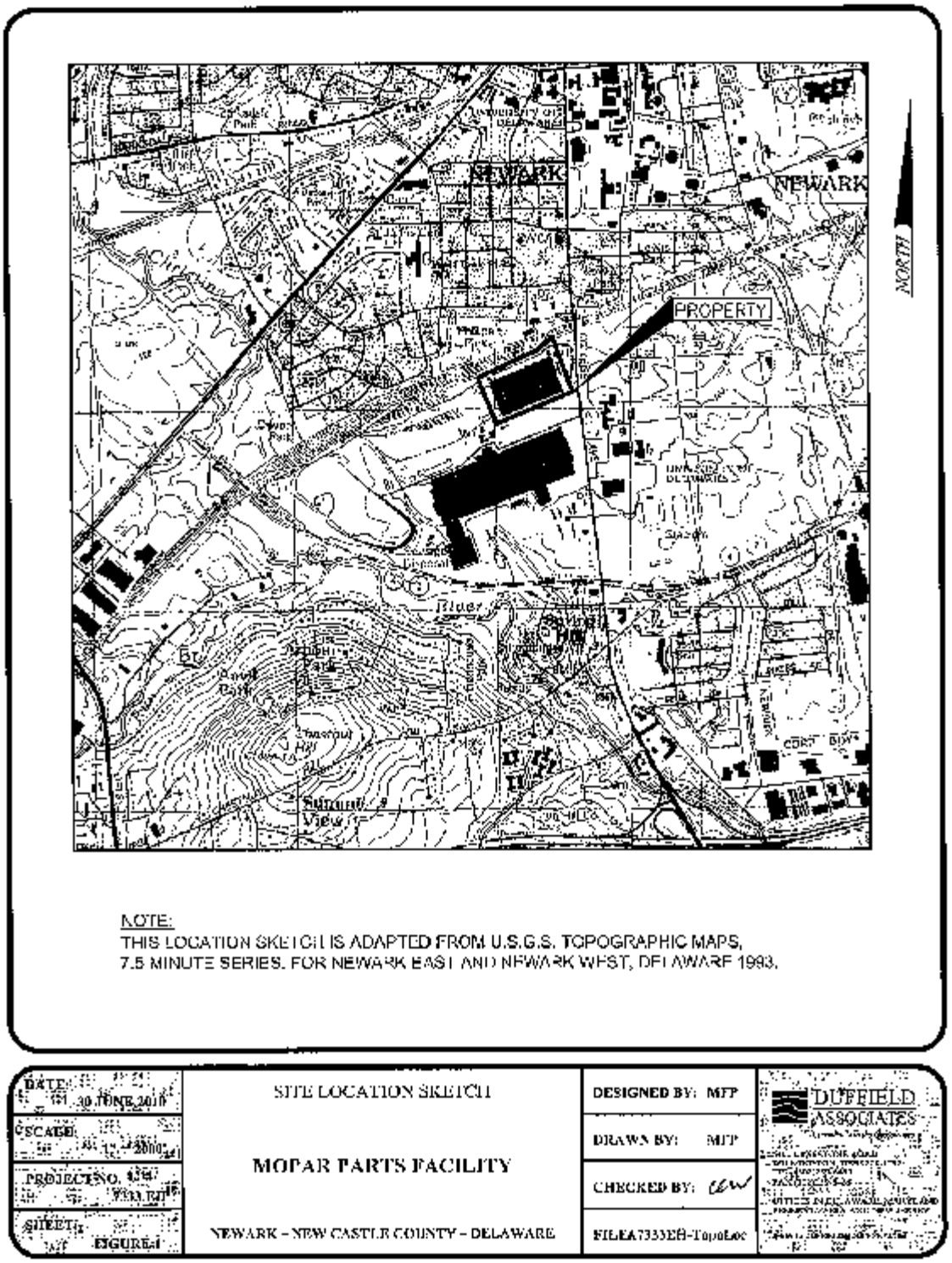

Figure 1: Site Location Map

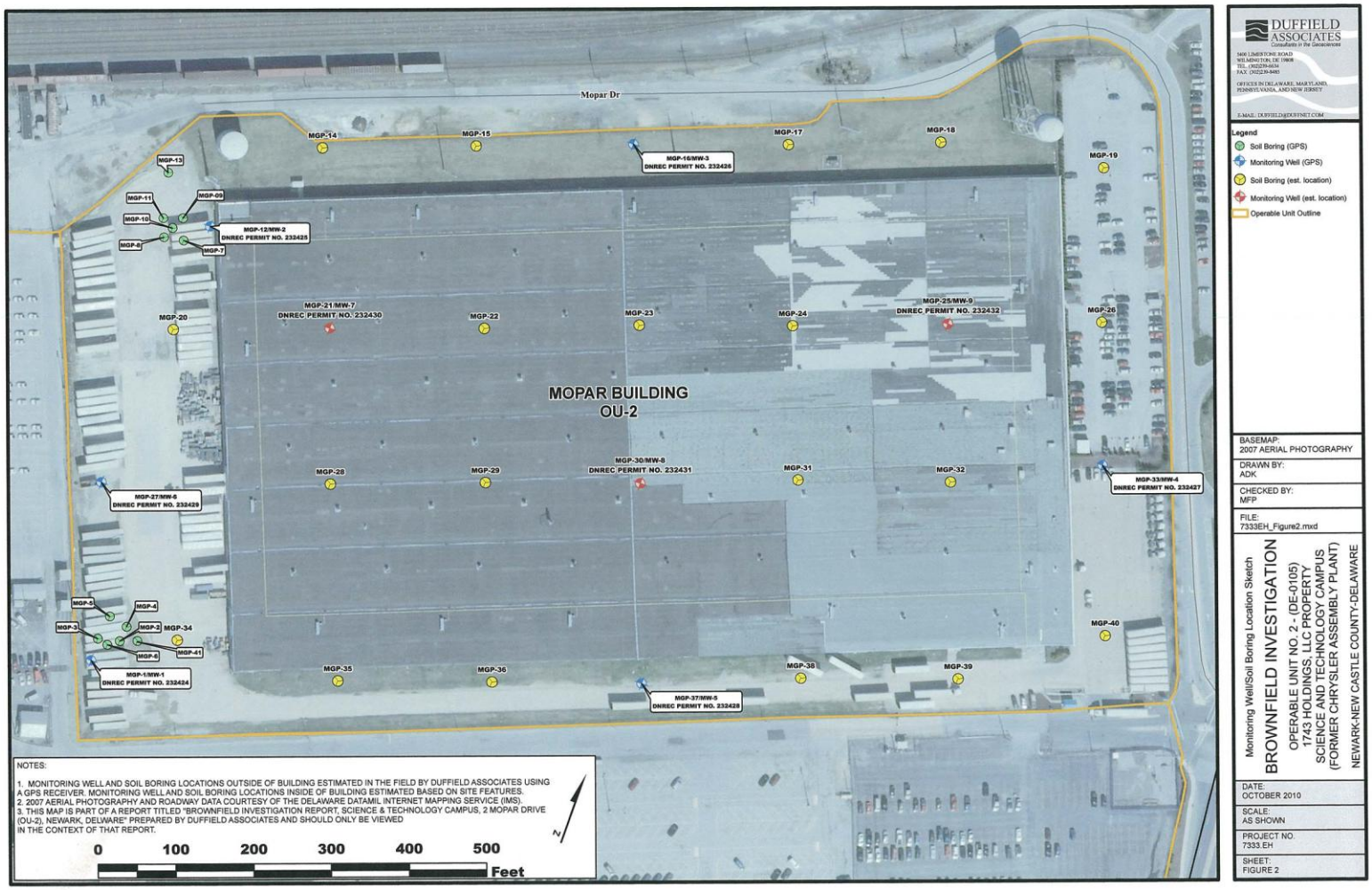

Figure 2: OU-2 Location Map

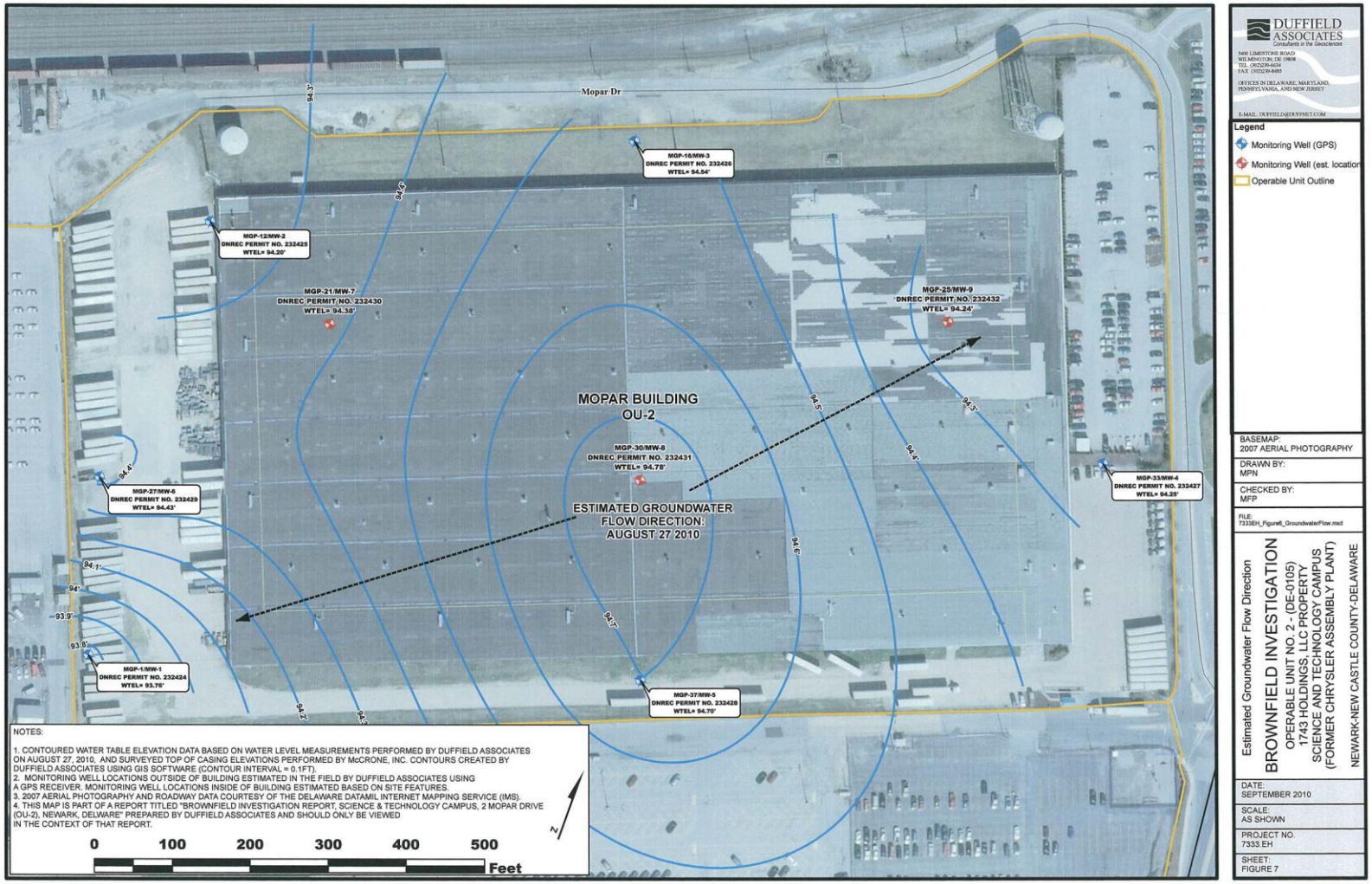

Figure 3: OU-2 Groundwater Contour Map