PROPOSED REMEDIAL ACTION PLAN

Precision Concepts, Inc.
Operable Unit Number 02: Off-Site Groundwater Plume
State Superfund Project
Shirley, Suffolk County
Site No. 152158
February 2015

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

PROPOSED REMEDIAL ACTION PLAN

Precision Concepts, Inc.
Shirley, Suffolk County
Site No. 152158
February 2015

SECTION 1: SUMMARY AND PURPOSE OF THE PROPOSED PLAN

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), is proposing a remedy for Operable Unit 2 (OU2) of the above referenced site. Based on the findings of the Remedial Investigation, the Precision Concepts OU2 does not pose a threat to public health and the environment due to past disposal of hazardous wastes and hazardous material at the site. Therefore, the remedy proposed by this Proposed Remedial Action Plan (PRAP) is No Action.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375. This document is a summary of the information that can be found in the site-related reports and documents in the document repository identified below.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all PRAPs. This is an opportunity for public participation in the remedy selection process. The public is encouraged to review the reports and documents, which are available at the following repository:

Longwood Public Library
1241 Middle Country Road
Middle Island, NY 11953
Phone: (631) 924-6400

A public comment period has been set from:

February 27, 2015 to March 30, 2015

A public meeting is scheduled for the following date: March 11, 2015 at 7:30 PM

Public meeting location:

Community Library
407 William Floyd Parkway
Shirley, NY 11967

At the meeting, the findings of the remedial investigation (RI) will be presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period will be held, during which verbal or written comments may be submitted on the PRAP.

Written comments may also be sent through to:

Heather Bishop
NYS Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233
heather.bishop@dec.ny.gov

The Department may modify the proposed remedy presented in this PRAP based on new information or public comments. Therefore, the public is encouraged to review and comment on the proposed remedy identified herein. Comments will be summarized and addressed in the responsiveness summary section of the Record of Decision (ROD). The ROD is the Department's final selection of the remedy for this site.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The Precision Concepts site is located in a suburban area at 26 Precision Drive (aka Natcon Drive) in the Hamlet of Shirley, Town of Brookhaven, Suffolk County.

Site Features: The site is approximately six acres in size. The site is situated immediately south of the Long Island Expressway and about 1,000 feet east of William Floyd Parkway.

Current Zoning and Land Use: The site is currently occupied by Luitpold Pharmaceuticals, which

is pharmaceutical distributor. Brookhaven National Laboratory (BNL), a National Priority List site is located to the north of the site. The site is currently zoned industrial. The surrounding parcels are currently used for a combination of industrial and residential.

Past Use of the Site: Precision Concepts occupied the site from the original construction of the building in 1985 until 1993. Industrial activity at the site included metal stamping, punching, light grinding, and metal cleaning, including the use of organic solvents 1,1,1-trichloroethane (TCA) and 1,1-dichloroethane (DCA). No spills are documented at the site. However, evidence of contamination sources were initially observed by the Suffolk County Department of Health Services (SCDHS) in 1988.

Samples collected in 1988 by SCDHS from industrial and sanitary pools on-site showed low concentrations of metals and elevated levels of volatile organic compounds (TCA at 1,200 parts per billion[ppb]). In 1990, TCA was detected at 9,300 ppb at 31 feet to 40 feet below the water table in one temporary off-site downgradient groundwater sampling point. This sampling was done prior to any on-site removal action by SCDHS.

In 1990, TCA was detected at 9300 ppb at 31 feet to 40 feet below the water table in one temporary off-site downgradient groundwater sampling point. Two aboveground tanks and a number of drums were removed in January 1991.

In July 1996, approximately two cubic yards of contaminated soil were removed from the pit, and analysis of the endpoint samples were in compliance with New York State soil cleanup guidance (TAGM 4046). Approximately 8,000 gallons of waste was pumped out of the septic system in May 1992

In 2000, as part of the Spills investigation unrelated to Precision Concepts, the Department sampled ten groundwater wells along River Road, at 10 feet to 20 feet below ground surface. No evidence of site-related contamination was found in this sampling event. In November 2001, SCDHS sampled in a location on River Road slightly to the north of the location sampled in 2000 and found 270 ppb TCA.

In the off-site portion, a series of wells were installed and sampled by the NYSDEC's Regional Spills program in October 2003 as part of a petroleum spills project. TCA and DCA were detected in wells located between the William Floyd Parkway and the Carmans River. The Department collected five surface water samples and two sediment samples from the Carman's River in November 2001 as part of the Spills investigation. TCA was detected at 2 ppb in one surface water sample. No VOCs were detected in the sediment sample collected from the same location.

As part of a larger Spills investigation in 2003, monitoring wells downgradient of the Site were sampled from the west of William Floyd Parkway to Carmans River. The highest TCA levels were found along Decatur Avenue at 530 ppb at 145 feet below ground surface. Another well that was located along the Carmans River found TCA at 140 ppb 35 feet below ground surface. Elsewhere along the investigation area, TCA concentrations ranged from 10 ppb to less than 150 ppb

Operable Units: The site was divided into two operable units. An operable unit represents a portion

of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination.

Operable Unit 1 (OU1) encompasses on-site soil and groundwater within the boundary of the Precision Concepts facility. OU2 consists of the off-site groundwater contamination.

Site Geology and Hydrogeology: The water table is approximately 40 feet below ground surface. The site geology is mainly sandy soils. A confining layer exists on-site at around 100 feet to 120 feet below ground surface which separates the Upper Glacial Aquifer from the underlying Magothy Aquifer. Some areas off-site has deeper confining layer at around 200 feet below ground surface. The groundwater flows mainly to the south but takes a south-westerly turn as it passes William Floyd Parkway due to the influence of Carmans River.

Operable Unit (OU) Number 02 is the subject of this document.

A Record of Decision was issued previously for OU 01 in March 2002.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

Precision Concepts, Inc.

The PRPs are subject to legal actions by the state for recovery of all response costs the State has incurred.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- groundwater

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCGs in the footnotes. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified for this Operable Unit at this site is/are:

1,1,1-TRICHLOROETHANE 1,1-DICHLOROETHANE

Based on the investigation results, comparison to the SCGs, and an evaluation of potential public health and environmental exposure routes, no remediation is required for this site. More complete information can be found in the RI Report and Exhibit A.

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision.

There were no IRMs performed at this site during the RI.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU 02.

Nature and Extent of Contamination:

For OU 1: On-site Areas

Remediation is complete for onsite areas. Prior to remediation the primary contaminants of concern were 1,1,1-trichloroethane (TCA) and 1,1-dichloroethane (DCA).

For OU 2: Off-site Areas

The primary contaminants of concern for OU 2 were previously determined to be TCA and DCA.

Groundwater - During the Remedial Investigation a series of vertical profile borings were completed to determine whether TCA contamination in OU 2 groundwater still existed. No VOCs were found at levels exceeding the Class GA groundwater standard for TCA of 5 parts per billion (ppb).

Surface Water and River Sediment –

Since no TCA or DCA was found in groundwater during the OU2 RI, no samples were collected from the river water or sediments.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

Measures taken have eliminated to potential to contact site related contaminants. Volatile organic compounds in the soil vapor (air spaces within the soil), which may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for soil vapor intrusion in the on-site building to occur, however, monitoring results indicate no impact to indoor air.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

There are no remedial action objectives necessary for this site.

SECTION 7: SUMMARY OF PROPOSED REMEDY

Based on the findings of the Remedial Investigation, the Precision Concepts OU2 does not pose a threat to public health and the environment due to past disposal of hazardous wastes and hazardous material at the site. Therefore, the remedy proposed by this Proposed Remedial Action Plan (PRAP) is No Action.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation (RI) for Operable Unit 2 (OU-2) for all environmental media that were evaluated. Samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium for which contamination was identified, a table summarizes the findings of the investigation for operable unit OU-2. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/ polychlorinated biphenyls (PCBs), and inorganics (metals and cyanide). For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use.

Waste/Source Areas

In September 1996 Precision Concepts was listed in the Registry of Inactive Hazardous Waste Disposal Sites (Registry) and was assigned a Class 2 designation. Industrial activity at Precision Concepts included metal stamping, punching, light grinding, and metal cleaning, including the use of organic solvents 1,1,1-trichloroethane (TCA) and 1,1-dichloroethane (DCA). A Remedial Investigation for OU-1 was conducted by the Potentially Responsible Party's (PRP) engineering consultant; with oversight by the Department, between June 1999 and January 2001. Based on the findings of the RI, which took into account previous investigations/actions conducted by the SCDHS and the Department for OU-1, the Department determined that OU-1 did not pose a significant threat to human health and the environment and selected "No Action" for OU-1 as documented in the ROD dated March 2002. The ROD; however, designates a separate Operable Unit (OU-2) to evaluate potential impacts to groundwater, surface water and sediment downgradient of OU-1.

As described in the RI report, waste/source materials that were previously identified at the site and removed during several prior removal actions were not found to be impacting the OU-2 off-site groundwater.

Groundwater

Figure 2 presents the groundwater sampling locations.

Table # - Groundwater

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
VOCs			
	Below Class ga	5	0 of 139
SVOCs			
	Below Class ga		0 of 7
Inorganics			
			5 of 5

Commented [MR1]: O out of 139? Include the total number of samples analyzed.

Commented [CEH2]: Not true, naturally occurring metals above GA.

Formatted: Font color: Auto

Formatted: Font color: Auto

Formatted: Font color: Auto

Formatted: Font color: Auto

Formatted: Font color: Auto

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
iron, manganese, and sodium	1,100 to 89,900 at or below inorganic background levels	300 300 20,000	5 of 5
Pesticides/PCBs			
	Below Class ga		0 of 7

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.
b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).
c- except for naturally occurring metals

VOCs in Groundwater (Direct Push Groundwater Sampling)
A total of 139 grab groundwater samples were collected from the 21 soil borings advanced in the OU-2 area, and all were analyzed for VOCs. Several VOCs were detected in the groundwater samples; however, there were no VOCs detected at concentrations above Class GA Values.

SVOCs, Pesticides and PCBs in Groundwater
Seven groundwater samples were selected for analysis for SVOCs, pesticides and polychlorinated biphenyls (PCBs). There were no SVOCs, pesticides or PCBs detected at concentrations above the laboratory reporting limits or Class GA Values in the groundwater samples.

Unfiltered and Filtered Metals in Groundwater
Five groundwater samples were analyzed for unfiltered and filtered. Groundwater samples were selected from borings located both up-gradient and down-gradient of the Precision Concepts property in order to determine if historic operations resulted in metals-related impacts to groundwater. Metals were detected in both unfiltered and filtered groundwater samples at concentrations above Class GA Values in each of the five groundwater samples. However, only the typically naturally occurring metals iron, manganese, and sodium were detected above Class GA Values in the filtered samples.

Based on historic investigations completed for Precision Concepts OU-1 and ongoing groundwater monitoring conducted by the Brookhaven National Laboratory, site #152009, the predominant direction of groundwater flow in OU-2 is expected to be to the south/southwest, towards the Carmans River. Specific conclusions regarding groundwater quality conditions are presented below.

Commented [MR3]: The nearby Brookhaven National Laboratory site (ID No. XXXXXX)?

The analytical results were reviewed by the Department which indicated VOC's, SVOC's , pesticides, filtered metals and PCB's were below Class GA standards or guidance values. Based on these findings, and the inferred groundwater flow direction (south/southwest), it does not appear that a source with the potential to cause discharges to the Carmans River of contaminated groundwater, originating from the Precision Concepts property at 26 Precision Drive, exist between OU-1 and River Road. Therefore, no additional investigation activities, including the originally planned monitoring well installation and the collection of surface water and sediment samples, was necessary for OU-2.

Formatted: Font color: Auto
Formatted: Font color: Auto
Formatted: Font color: Auto
Formatted: Font color: Auto
Formatted: Font color: Auto

No site-related groundwater contamination of concern was identified during the RI for OU-2. Therefore, no remedial alternatives need to be evaluated for groundwater.

Based on the findings of the RI, the past disposal of hazardous waste has not resulted in the contamination of groundwater.

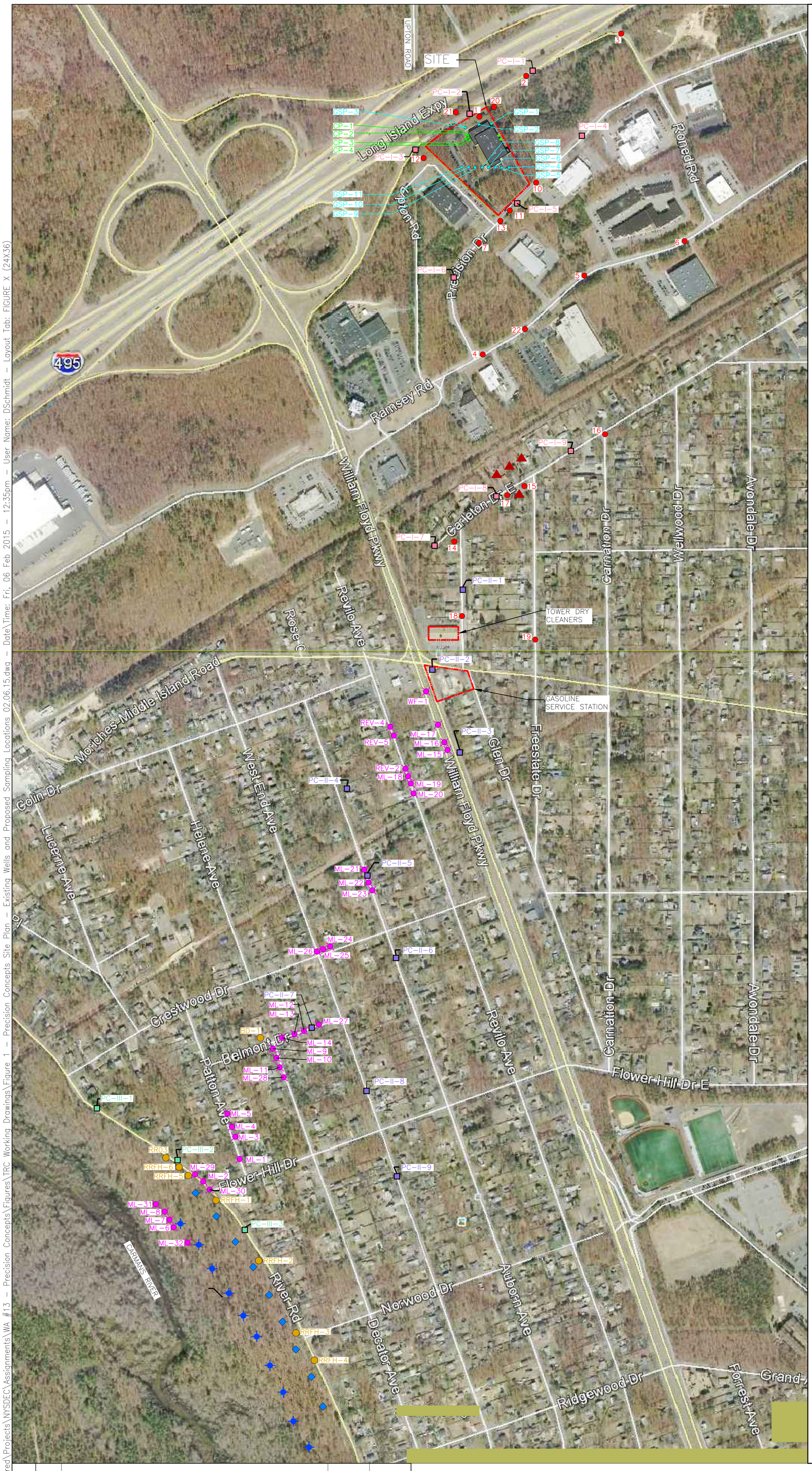
Formatted: Font color: Auto

Formatted: Font color: Auto

Formatted: Font color: Auto

Formatted: Font color: Auto

Formatted: Font color: Auto



LEGEND (SYMBOLS NOT TO SCALE):

- 1 ● SCDHS GROUNDWATER INVESTIGATION OFF-SITE WELLS, 1990
- ▲ SCDHS GROUNDWATER INVESTIGATION RESIDENTIAL WELLS (1,1,1-TCA > 50 PPB), 1990
- CP-X ◎ ON-SITE CESSPOOL SAMPLE LOCATION AND IDENTIFICATION NUMBER, OCTOBER 2000
- GSP-X ● TEMPORARY ON-SITE GROUNDWATER SAMPLING LOCATION AND IDENTIFICATION NUMBER (NOW ABANDONED), SUPPLEMENTAL REMEDIAL INVESTIGATION, OCTOBER 2000
- ✚ NYSDEC CARMANS RIVER GROUNDWATER INVESTIGATION, DECEMBER 2000
- RRXX ● SCDHS GROUNDWATER INVESTIGATION WELL AND IDENTIFICATION NUMBER, NOVEMBER 2001
- ◆ NYSDEC SOIL AND SEDIMENT LOCATIONS, NOVEMBER 2001
- WF-1 / ML-X / REV-4 ✳ NYSDEC GROUNDWATER SPILL INVESTIGATION WELL AND IDENTIFICATION NUMBER (SPILL #01-25275), DECEMBER 2001 – APRIL 2003 (MULTI-LEVEL WELLS)
- GROUP I / GROUP II / GROUP III / PC-XX-XXX NYSDEC – PRECISION CONCEPTS OU-2 SAMPLE LOCATIONS, 2013
- APPROXIMATE SITE BOUNDARY

NOTES:

1. WELL AND SAMPLE LOCATIONS OBTAINED FROM SCANNED IMAGES AND MAPS PREPARED BY OTHERS. LOCATIONS SHOWN ARE APPROXIMATE.
2. BASE AERIAL PHOTOGRAPH FROM GOOGLE EARTH 2013.
3. SCDHS – SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
4. NYSDEC – NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

REVISIONS			
NO.	DESCRIPTION	BY	DATE

0 350 700 FT.
APPROXIMATE SCALE: 1"=350'

TRC
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018
212-221-7822

DESIGNED BY: MEF / RST
DRAWN BY: HD
CHECKED BY: DSG
DATE: SEPTEMBER 2013
SCALE: AS SHOWN
PROJECT NUMBER: 205023.0000.0000

PROJECT NAME:
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PRECISION CONCEPTS SITE - SITE NO.1-52-158
HAMLET OF SHIRLEY, NEW YORK 11967

DRAWING TITLE:
PRECISION CONCEPTS SITE PLAN
ON & OFF-SITE SAMPLING LOCATIONS

FIGURE
1

Path\Name: \\NTAPA-NYC\Environmental\Shared\Projects\NYSDEC\Assignments\WA #13 – Precision Concepts\Figures\TRC Working Drawings\Figure 1 – Precision Concepts Site Plan – Existing Wells and Proposed Sampling Locations 02.06.15.dwg – Date\Time: Fri, 06 Feb 2015 – 12:35pm – User Name: DSchmidt – Layout Tab: FIGURE X (24X36)

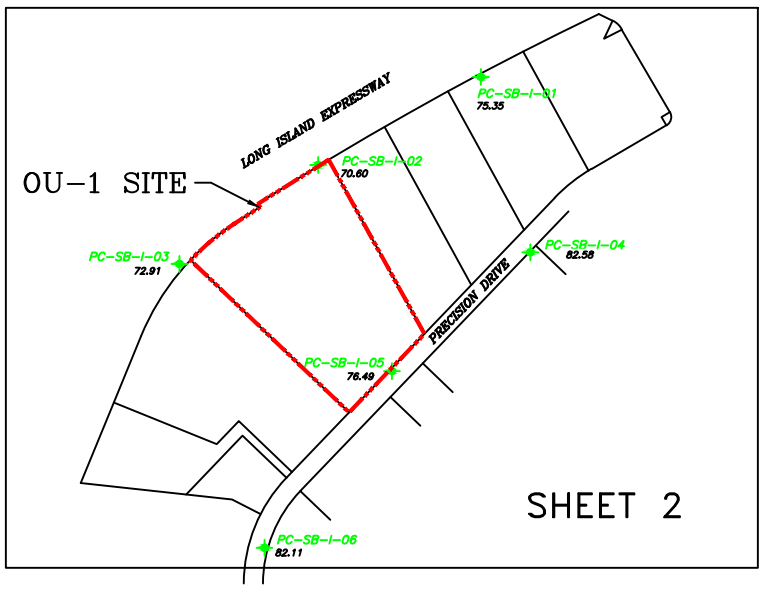
LEGEND

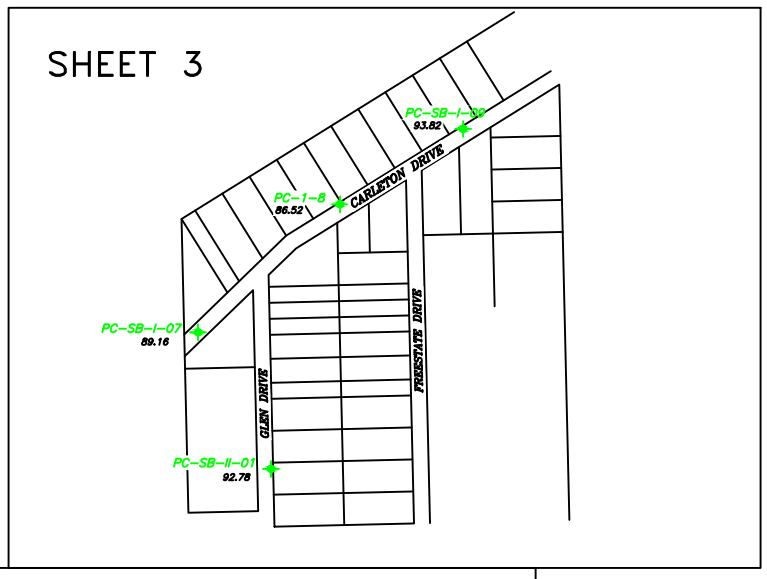
GEOPROBE SAMPLE LOCATION W/ELEVATION

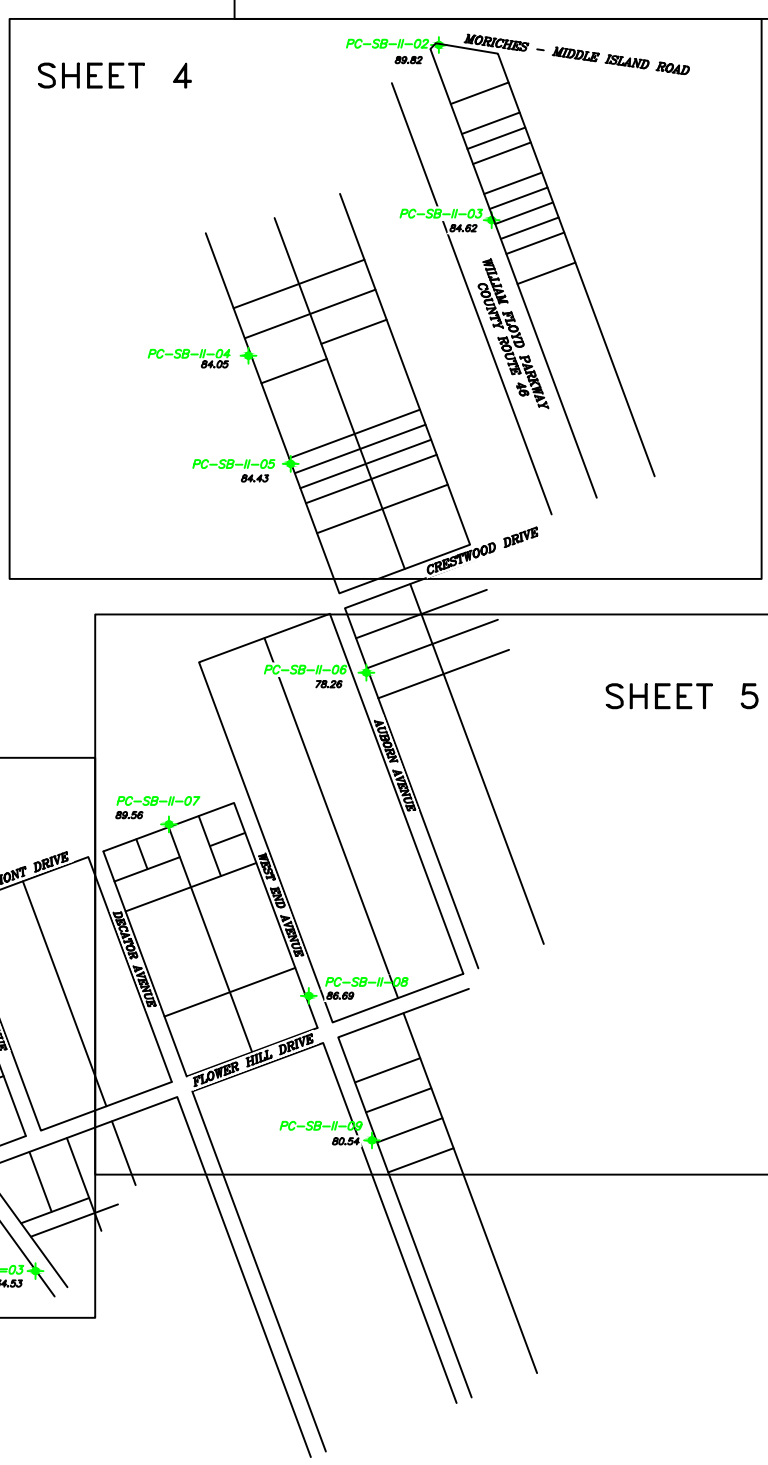
APPROX PROPERTY LINE FROM TAX MAPS

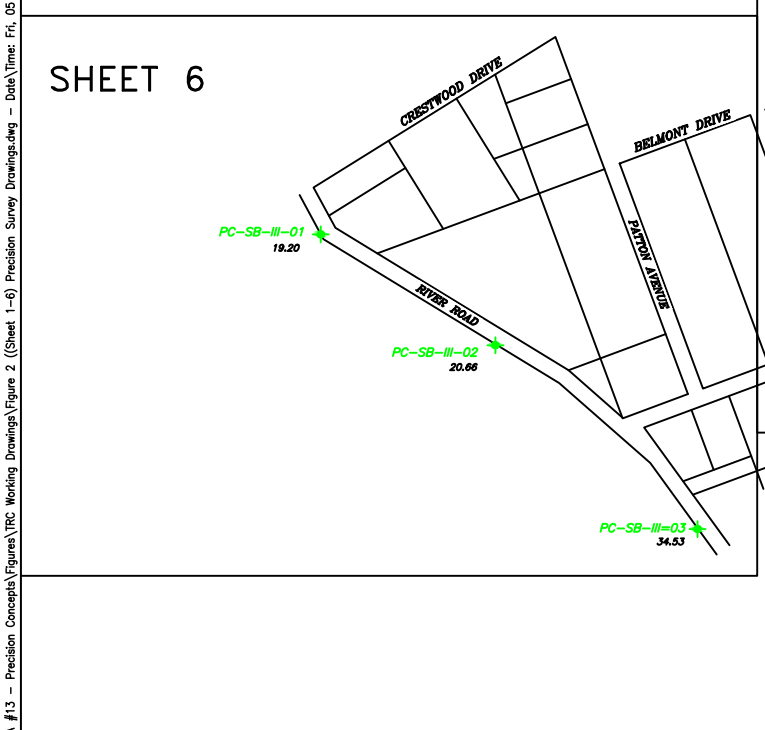
NOTES

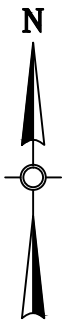
1. SURVEY COMPLETED MAY 2, 2014 BY JOHN DAMIANO, LS.
2. GRID NORTH ESTABLISHED FROM THE NEW YORK STATE PLANE COORDINATE SYSTEM, LONG ISLAND ZONE, NAD83, FEET.
3. VERTICAL DATUM IS NAVD 88.











0 600 1200 FT.

APPROXIMATE SCALE: 1"=600'

PAPER SIZE: 11" x 17"

TRC

1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018

DESIGNED BY: MEF	PROJECT NAME: NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PRECISION CONCEPTS, INC., OU-2 SITE - SITE NO.1-52-158 HAMLET OF SHIRLEY, NEW YORK 11967
DRAWN BY: HD	
CHECKED BY: DSG	
DATE: SEPTEMBER 2014	DRAWING TITLE: SITE PLAN - KEY
SCALE: AS SHOWN	
PROJECT NUMBER: 205023.0000.0000	

FIGURE 2
SHEET
1

Path\Name: I:\Projects\NYSDEC\Assignments\WA #13 - Precision Concepts\Figures\TRC Working Drawings\Figure 2 ((Sheet 1-6) Precision Survey Drawings.dwg - Date\Time: Fri, 05 Sep 2014 - 12:23pm - User Name: hdelgado - Layout Tab: SHEET 1