FINAL
PRELIMINARY ASSESSMENT REPORT
FOR PERFLUORINATED COMPOUNDS
AT
CAPE CANAVERAL AIR FORCE STATION
CAPE CANAVERAL, FLORIDA

Note: There is an erroneous statement on page 1-4 (pdf page 16) indicating that drinking water is sent Patrick Air Force Base for chlorination before it is piped to Cape Canaveral Air Force Station. This statement is incorrect but was not caught prior to document finalization.
Drinking water is piped from the City of Cocoa water system directly to Cape Canaveral Air Force Station and is treated at Cape Canaveral Air Force Station before distribution.

Prepared for:

Air Force Civil Engineer Center
2261 Hughes Avenue, Suite 155
Lackland AFB, Texas 78236-9853

Contract No. FA8903-08-D-8772
Task Order 0065
CDRL A001A

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13. ABSTRACT (Maximum 200 words)

This is a Preliminary Assessment Report of locations at Cape Canaveral Air Force Station, Cape Canaveral, Florida where perfluorinated compounds may have been released to the environment through the use or discharge of aqueous film forming foam.

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LIST OF ACRONYMS AND ABBREVIATIONS

AFB	Air Force Base
AFFF	aqueous film forming foam
Air Force	U.S. Air Force
ASR	aquifer storage and recovery
AST	aboveground storage tank
bgs	below ground surface
CCAFS	Cape Canaveral Air Force Station
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EPA	Environmental Protection Agency
EPF	Eastern Processing Facility
FTA	Fire Training Area
HEF	high expansion foam
HGL	HydroGeoLogic, Inc.
IOMS	Infrastructure Operations and Maintenance Services
IRP	Installation Restoration Program
LUCs	land use controls
µg/kg	microgram per kilogram
µg/L	microgram per liter
MNA	monitored natural attenuation
PA	Preliminary Assessment
PFOA	perfluorooctanoic acid
PFOS	pefluorooctane sulfonate
PFC	Perfluorinated Compounds
PHA	provisional health advisory
POC	point of contact
PWS	public water supply
RFI/CMS	RCRA Facility Investigation/Corrective Measures Study
RSSLs	risk-based soil screening levels
SLC	space launch complex
SWMU	solid waste management unit

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1.0 INTRODUCTION

HydroGeoLogic, Inc. (HGL) has been contracted by the Air Force Civil Engineer Center to perform preliminary assessment (PA) activities at multiple U.S. Air Force (Air Force) and Air National Guard Fire Training Areas (FTAs) and Non-FTAs to determine locations of potential environmental release of perfluorinated compounds (PFCs). Specifically, the HGL Team is to complete PA activities to determine potential releases of PFCs at 82 Air Force and Air National Guard installations from FTAs and other known and suspected releases of PFCs from Aqueous Film Forming Foam (AFFF) usage or storage areas. This work is being performed by HGL under the existing 4P Architecture and Engineering contract, Contract No. FA8903-08-D-8772, Task Order 0065.

HGL conducted activities associated with this PA at Cape Canaveral Air Force Station (CCAFS) during the week of June 15, 2015, in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 Preliminary Assessment processes. CCAFS was established in 1949 by the Air Force with the primary mission to provide a site for launching National Aeronautics and Space Administration, Department of Defense, and commercial satellites into various earth orbits or deep space mission. CCAFS is operated by the 45th Space Wing, headquartered at Patrick Air Force Base (AFB), which conducts and supports space and missile launches and operates the Eastern Test Range. The airspace along the Florida east coast at CCAFS, as well as the commercial airways in the area, are controlled and monitored through the Patrick AFB Radar Approach Control Center (Engineering Sciences, 1992).CCAFS is located in Brevard County on the east coast of Florida, approximately 11 miles north of Patrick AFB. The installation occupies approximately 15,800 acres of coastal strip on a barrier island that is bounded by the Atlantic Ocean to the east and the Banana River to the west (Sky Research & Shaw Environmental, 2010 [Figure 1.1]). The CCAFS has 73 miles of paved roads connecting the various launch and support facilities with a centralized industrial area. A total of 36 launch complexes were constructed on the CCAFS. Only three are still active: Space Launch Complex (SLC)-37, SLC-40, and SLC-41. The installation includes cleared grounds consisting of turf grasses and herbaceous weeds; storage yards; a landfill; a skid strip; roadways and parking; and numerous administrative, processing, and missile launch facilities distributed throughout the installation.

1.1 BACKGROUND

PFCs are compounds used in the formulation of AFFF, which the Air Force has used in fire training exercises, suppressing aircraft and other vehicle fires, and in aircraft hangar fire

suppression systems. Although PFCs are not regulated under CERCLA or the Resource Conservation and Recovery Act, there is evidence that pefluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), which can be found in the environment following an AFFF release, may present potential, non-carcinogenic risks to human health and the environment (Chang et al., 2014; Porter, 2011; Rak et al., 2009).

Several federal government documents confirm the initial use of AFFF by the Air Force beginning in 1970:

- MILSpec for AFFF (MIL-F-24385) formally issued in 1969;
- General Accounting Office determination on sole source award protest to provide AFFF to the Navy in December 1969; and
- A History of Fire Protection Training at Chanute AFB, 1964-1976 (Coates, 1977).

Based on Air Force performance testing results on AFFF, the Air Force Director of Civil Engineering, M.G. Goddard, in 1970 issued authorization for the Air Force to procure AFFF. No usage within the Air Force is documented or suspected prior to 1970.

1.2 PURPOSE AND OBJECTIVES

The purpose and objective of this PA is to identify locations at CCAFS where PFCs may have been released to the environment and to conduct an initial assessment of possible migration pathways and receptors of potential contamination.

This PA report documents the known FTAs, as well as additional locations (non-FTAs) where AFFF may have been released to the environment at CCAFS (Table 1.1). Locations that are considered non-FTAs include, but are not limited to, hangars, fire stations, emergency response locations and any other location where the potential exists for AFFF to have been released into the environment. This PA report also differentiates between locations that pose little or no potential threat to human health and the environment from locations that warrant further investigation.

Table 1.1
FTAs and Non-FTAs Identified for Potential AFFF Releases

Fire Training Areas
Former Fire Training Area #1
Former Fire Training Area #2
Non-Fire Training Areas
Hangars
Hangar U
Hangar T
Hangar N
Hangar M
Hangar S
Hangar AF
Hangar K
Hangar J
Hangar I
Hangar D
Hangar R
Hangar G
Hangar H
Hangar E
Hangar F
Hangar C
Fire Stations
Fire Crash Rescue Station
Fire Station #2 [redacted]
Fire Station #3 [redacted]
Former Fire Station (Building 1608)
Emergency Response
Space Launch Complex 17
Other Spills and Releases
Eastern Processing Facility
Building 60723

1.3 BASEWIDE ENVIRONMENTAL SETTING

1.3.1 Geology

CCAFS is situated on the Canaveral Peninsula barrier island that is primarily composed of up to 300 subparallel relict beach ridges formed during the last 6,000 years. Individual beach ridge deposits are comprised of quartz sand with sea shell fragments. Shallow deposits underlying CCAFS consist of a mixture of Pleistocene and Holocene beach sand deposits that extend to a depth of 10 feet or more. Portions of the Anastasia Formation lie beneath the surficial sands; however, the formation is discontinuous and heavily weathered. The lithology of the Anastasia Formation underneath CCAFS is characterized by cemented sand and shell conglomerates (coquina) and sandy clay. Beneath the Anastasia Formation is a semi-confining zone, the Caloosahatchee Marl Formation. This formation of low permeability consists of marl, clays and silts with varying amounts of sand and shell fragments of Pleistocene age. Underlying this semi-confining zone is the limestone of the Tamiami Formation. Low-

permeability clays of the principal regional confining zone, the Hawthorn Formation of Miocene Age, are located below the Tamiami Formation. The Ocala Group and Avon Park Formation Limestone's of Eocene Age are located beneath the Hawthorn Formation. These formations are underlain at depth by a series of limestone formations several thousand feet thick. The depth to the top of the Ocala Limestone ranges from approximately 125 feet below mean sea level at the Kennedy Space Center to over 200 feet at Patrick AFB, south of CCAFS. Log data from the deep wells at CCAFS indicate that the top of the Hawthorn Formation is located at an average depth of 110 feet below ground surface (bgs) and the top of the Ocala Limestone is located at an average depth of 180 feet bgs (Shaw, 2006).

1.3.2 Hydrogeologic Setting

Groundwater occurs under confined (artesian) and unconfined (nonartesian) conditions at CCAFS. The unconfined or surficial aquifer is composed of Holocene and Pleistocene Age deposits of mostly marine sands mixed with shell fragments as well as some conglomerates of the Anastasia Formation. The surficial aquifer is recharged by rainfall along the coastal ridges and dunes located on the peninsula. Little recharge occurs to the surficial aquifer in the low, swampy area. The direction of groundwater flow in the surficial aquifer at CCAFS varies with location, tending westerly on the western side and easterly on the Atlantic coast side of the installation. Localized land features also influence the flow. Beneath the surficial aquifer, at a depth of approximately 30 ft bgs, is a discontinuous confining zone consisting of the Caloosahatchee Marl Formation. Underlying the Caloosahatchee Marl Formation are the limestones of the Tamiami Formation which contain a minor artesian aquifer. The Hawthorn formation, which consists primarily of clays, is located beneath the Tamiami formation and acts as the regional confining unit. The top of the Hawthorn Formation is located at a depth of approximately 110 ft bgs at CCAFS. Two minor artesian aquifers are located within this regional confining unit. The Ocala Limestone lies beneath the Hawthorn Formation, at a depth of 180 ft bgs or more, and contains the upper portion of the confined, semi-brackish, Floridan aquifer. The elevation of the hydraulic head of the Floridan aquifer and the other minor artesian aquifers present beneath CCAFS are typically all above the land surface. The low-permeability clays of the Hawthorn Formation coupled with the artesian conditions in the Floridan Aquifer tend to minimize the potential for contamination in the surficial aquifer to migrate downward into the Floridan aquifer (Shaw, 2006).

CCAFS receives potable water from the City of Cocoa, whose water supply is from a combination of groundwater wells, aquifer storage and recovery (ASR) wells, and surface water. The City of Cocoa is located approximately 11 miles from CCAFS. The groundwater is acquired from the intermediate and Floridian aquifer from 48 groundwater wells located in east Orange County. The city also stores approximately 1 billion gallons of treated water 300 feet underground in ASR wells. An additional source of water is surface water from the Taylor Creek Reservoir. The City of Cocoa treats ground and surface water at the Dyal Water Treatment Plant. The ground, ASR, and surface water are blended for distribution and provided first to Patrick AFB via underground piping. The water is further treated by the 45th Civil Engineering Squadron at Patrick AFB with the addition of chlorine and is then distributed to CCAFS via underground piping (Patrick AFB, 2013).

1.3.3 Hydrologic Setting

CCAFS is located on the Canaveral Peninsula barrier island situated along the east coast of Florida. The island is separated from the mainland by the Banana River on the west and is bounded on the east by the Atlantic Ocean. Inland dunal formations form the highest natural major ridge at 10 to 15 feet above mean sea level. From this point, the land slopes gradually west toward the Banana River. Therefore, most of the natural surface water runoff at CCAFS is to the west. Typical of barrier islands which comprises the installation, a dune line just inland from the Atlantic Ocean Beach is the natural drainage divide (Shaw, 2006). Some runoff discharges to the Atlantic Ocean; however, more than 90 percent flows into canals or percolates westward to the Banana River. Surface water runoff at CCAFS either infiltrates the ground surface or is controlled by a series of manmade ditches, culverts, and canals that collect runoff (Sky Research & Shaw Environmental, 2010).

The Banana River is a 31-mile long lagoon system that lies between Cape Canaveral and Merritt Island. Merritt Island is located west of the southern portion of the river and Cape Canaveral is located east of the northern portion of the river. The river is part of the Indian River Lagoon system and has only one outlet to the Atlantic Ocean (Banana River, Florida, n.d.).

1.3.4 Ecological Receptors

Ecological receptors include any living organisms other than humans, the habitat that supports such organisms or natural resources that could be adversely affected by environmental contaminations resulting by a release at or migration from an identified location.

CCAFS is located in Brevard County, Florida, and is surrounded by multiple wetlands and the Merritt Island National Wildlife Refuge. There are also several wetlands identified on the installation. These sensitive environments and the diversity of plants and animal species that inhabit them are considered primary ecological receptors for CCAFS (EDR, 2015c). Table 1.2 provides a list of endangered species for Brevard County that have the potential to inhabit the aforementioned sensitive environments.

Table 1.2
Endangered Species

BIRDS
Red-Cockaded Woodpecker
Piping Plover
Wood Stork
Florida Scrub Jay
PLANTS
Johnson's Seagrass
MAMMALS
West Indian (Florida) Manatee
Southeastern Beach Mouse

Table 1.2 (Continued)
Endangered Species

REPTILES
Loggerhead Sea Turtle
Leatherback Sea Turtle
Green Sea Turtle
Eastern Indigo Snake
Atlantic Salt Marsh Snake

1.4 PRELIMINARY ASSESSMENT METHODS

The performance of this PA included:

- Reviewing information and reports in the available Administrative Record.
- Reviewing documents related to Air Force use of AFFF.
- Conducting a PA visit at CCAFS.
- Conducting interviews with base environmental management personnel, CCAFS personnel, and aircraft hangar maintenance and operations personnel.
- Photographing locations where AFFF has been used.
- Performing an environmental data records search to document nearby populations, water supply well information, and wetlands.

If the operational history of an identified location indicates that AFFF was not used, then no exposure pathway could exist and the pathway and environmental hazard assessments within the PA will not be applicable.

1.5 REPORT ORGANIZATION

This PA report is organized as follows:

- Section 1.0, Introduction, includes a project overview, provides a basewide environmental setting, and describes the methods used to conduct the PA.
- Section 2.0, Fire Training Areas, describes the FTAs identified during the PA visit.
- Section 3.0, Non-Fire Training Areas, describes the non-FTAs identified during the PA visit.
- Section 4.0, Summary and Conclusions, summarizes conclusions for both FTAs and non-FTAs.
- Section 5.0, References, provides references consulted during the preparation of this PA report.
- Appendix A, Photo Documentation, provides photos taken during the PA visit.
- Appendix B, Field Documentation, provides the Potential Hazardous Waste Site Preliminary Assessment Forms.
- Appendix C, Records of Communications, provides records of all interviews conducted during the PA visit.

FIGURE

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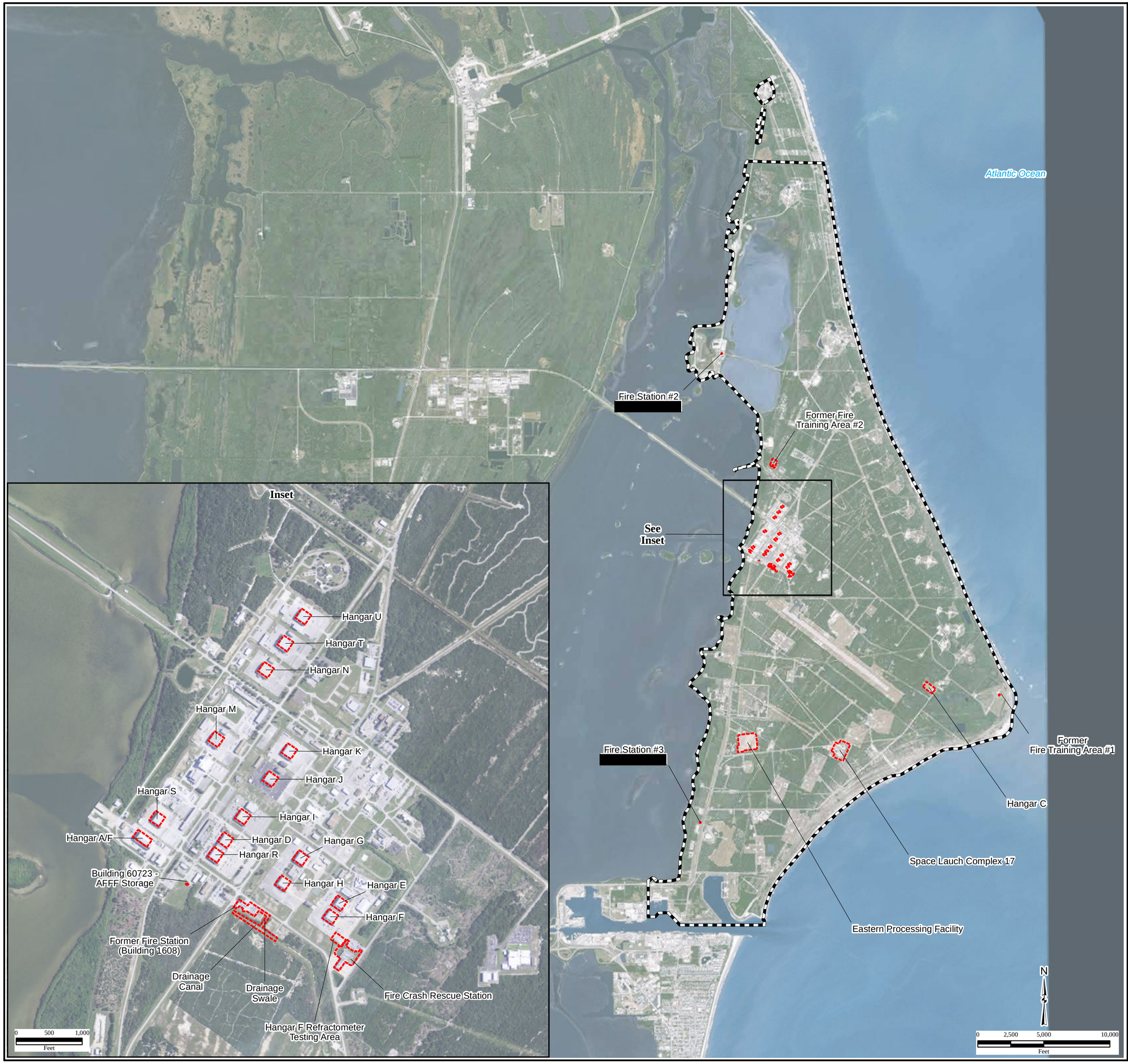
Figure 1.1
Cape Canaveral Air Force Station
Site Overview



Legend

- Inferred Location Boundary
- Cape Canaveral Air Force Station

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Source: HGL, CCAFS
ArcGIS Online Imagery

HGL HydroGeoLogic, Inc.

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2.0 FIRE TRAINING AREAS

2.1 FORMER FIRE TRAINING AREA #1 (SWMU NO. 032, IRP SITE FT016)

2.1.1 Description and Operational History

Former FTA #1 (Solid Waste Management Unit [SWMU] No. 032, Installation Restoration Program [IRP] Site FT016) was located along the east central portion of CCAFS (Figure 1.1). The former FTA operated from 1954 to 1965 and is currently occupied by Space Launch Complex (SLC) 46 (Figure 2.1). Petroleum waste, solvents, and contaminated fuels were applied directly to the ground surface and ignited during fire training operations. There have been a number of environmental investigations at Site FT016 since 1984. Target cleanup levels were achieved during long-term monitoring beginning in 1997 and the Florida Department of Environmental Protection approved a "No Further Action" status for Site FT016 on July 2011 (URS, 2005; FDEP, 2011a). There was no evidence of previous fire training activities at the location of the former FTA during the PA visit. The geographic coordinates of Former FTA 1 are [redacted].

The Assistant Fire Chief was not aware of the fire training activities performed at the former FTA as the operational period of Former FTA #1 was prior to his tenure as acting Assistant Fire Chief (Appendix C, Records of Communication). In addition, the operational timeframe of the former FTA was prior to the use of AFFF by the Air Force; therefore, it is not likely that the environmental media surrounding the former FTA is impacted by PFC contamination.

Photo documentation of Former FTA #1 is provided in Appendix A.

2.1.2 Waste Characteristics

Not Applicable.

2.1.3 Pathway and Environmental Hazard Assessment

Not Applicable.

2.1.3.1 Groundwater Pathway and Targets

Not Applicable.

2.1.3.2 Surface Water Pathway and Targets

Not Applicable.

2.1.3.3 Soil and Air Exposure Pathways and Targets

Not Applicable.

2.2 FORMER FIRE TRAINING AREA #2 (SWMU NO. 33, IRP SITE FT017)

2.2.1 Description and Operational History

Former FTA #2 (SWMU No. 033, IRP Site FT016) is located in the northwestern portion of CCAFS and operated from 1965 to 1985 (Figure 1.1). The former FTA is situated in a remote area northeast of Titan III Road and is surrounded by light to heavy vegetation. A burn pit was historically located at Former FTA #2; however, during the PA visit there was no physical evidence of the burn pit (Figure 2.2). The geographic coordinates of the former FTA are [redacted].

Photo documentation of Former FTA #2 is provided in Appendix A.

2.2.2 Waste Characteristics

The former FTA supported fire training exercises for the combustion of waste fuels and lubricating oils at an unlined burn pit. The burn pit consisted of an unpaved area approximately 1 foot deep and 75 feet in diameter. Combustible product was stored on site in aboveground storage tanks (ASTs) and fed to the burn pit via underground piping (O'Brien & Gere Engineers, Inc., 1995). Additionally, a trench located approximately 200 feet northeast of the burn pit was used for disposal of wastes as well as drums that contained waste fuels. As a result of these practices, environmental investigations found that soil and groundwater had become contaminated with fuels and chlorinated solvents (CORE, 2010). The environmental investigations did not include analysis for PFCs in soil or groundwater.

Several Interim Measures were implemented as part of a RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) to address petroleum and solvent contamination in groundwater and PCBs, metals, and solvents in soil. In 1994, 58 tons of metal-contaminated soil was excavated and a solvent extraction system to treat soils on-site was installed in 1997. The solvent extraction system treated 16,358 tons of soils before it was decommission in May 1999. In December 1996, a Horizontal Air Sparging System was installed and its continued operation, monitoring, and performance evaluation has become part of the final remedy for the site. Monitored natural attenuation (MNA) studies have also been performed to determine whether site conditions would facilitate natural degradation of groundwater and soil contamination. The Final RFI/CMS recommended MNA of the groundwater plume, long term operation and monitoring of the Horizontal Air Sparging System to ensure the plume does not impact nearby surface water, and land use controls (LUCs) on soil and groundwater. PFCs were not analyzed as part of these investigations.

It is likely that PFCs would have been excavated as part of the 1994 excavation; however, soils impacted with PFCs may not have been fully treated by the solvent extraction system. It is unknown whether a reduction in quantity or concentration of PFCs over time was observed during MNA since PFCs were not analyzed as part of the MNA remedy.

The Assistant Fire Chief was not aware of the fire training activities performed or if AFFF was used to extinguish fires at the burn pit of Former FTA #2 (Appendix C, Records of

Communication). Fires ignited during fire training activities may have been extinguished with AFFF after 1970, the year the Air Force began implementing its use. Therefore, the potential exists for PFC contamination to the environmental media at Former FTA #2 between the years of 1970 to 1985.

2.2.3 Pathway and Environmental Hazard Assessment

A complete exposure pathway typically includes the following components: a source of contamination (an environmental medium contaminated at the source or a release mechanism by which chemicals are released from a source medium and transported), an exposure medium by which a receptor comes into contact, and a route of intake for the contaminant into the receptor's body at the exposure point. If any of these elements are missing, the pathway is incomplete. Other release mechanisms resulting in exposure media for receptors may include the uptake of soil contaminants by plants and animals and the emission of soil contaminants into the air in association with dust particles (EPA, 1989).

2.2.3.1 Groundwater Pathway

The basewide geologic and hydrogeologic settings are provided in Section 1.3. Long-term monitoring events performed at the former FTA indicate that shallow groundwater is detected at depths ranging from 2.5 feet to 11.5 feet bgs and flows west/southwest toward the Banana River (CORE 2010). The Banana River is the closest body of water and is located approximately 1,150 feet to the west. The potential exists for human exposure to groundwater at one of the many monitoring wells at the former FTA while performing long-term monitoring activities; however, personal protective equipment is donned during sampling activities.

CCAFS and surrounding off-base communities receive drinking water from the City of Cocoa, which acquires water from groundwater in the Floridan aquifer, ASR wells, and surface water as discussed in Section 1.3.2. The closest public water supply (PWS) well is identified as FL3054024 and is located 5.45 miles west of the site. The PWS well is part of the John F. Kennedy Space Center system that serves a population of 9,500 residents (EDR, 2015a).

The combined on- and off-base population within a 4-mile radius from Former FTA #2 is approximately 1,986 residents (EDR, 2015b). The closest residential area is located off of the installation approximately 6.5 miles southwest of Former FTA #2.

2.2.3.2 Surface Water Pathway

The surface drainage at CCAFS flows in a west/southwest direction from the dune ridges on the east side of the installation toward the Banana River along the west side of the installation. The surface water runoff will either infiltrate the ground surface or is controlled by a series of manmade ditches, culverts, and canals that collect runoff. A drainage ditch that discharges to the Banana River is located approximately 850 feet southwest of former FTA #2. However, surface drainage from the former FTA #2 will likely infiltrate the surrounding ground surface and enter the underlying shallow groundwater before reaching the drainage ditch.

The closest sensitive environment adjacent to the surface water migration pathway is a wetland located along the southern portion of the site that is classified as PEM1C (P–Palustrine, EM–Emergent, 1–Persistent, C–Seasonally Flooded) (EDR, 2015c). Ingestion of surface water by wildlife that inhabits the wetland is a potential pathway for ecological receptors. The former FTA is not located within a flood plain and there are no surface water intakes or downstream fisheries adjacent to the surface water migration path 15 miles downstream from Former FTA #2 (EDR, 2015c; USGS, 2015).

2.2.3.3 Soil and Air Exposure Pathways

The FTA is inactive and located in a lightly to heavily vegetated area. There are LUCs in place that restrict access to the former FTA. There are no residents or workers, and the closest building with workers is located approximately 1,460 feet northwest. The well vegetated area surrounding the former FTA would preclude any fugitive dust emissions and potential exposure. The potential of soil exposure to burrowing animals and workers performing long term monitoring would exist. The closest residential area is located off of CCAFS, approximately 6.5 miles southwest of Former FTA #2. Population details of the residential areas within a 4-mile radius are discussed in the Section 2.2.3.1.

There are no daycare facilities or schools within a 200-foot radius of the former FTA. The closest school is Cape View Elementary School, located off base, approximately 7.87 miles south of Former FTA 2. The closest daycare is the Pen Pals Childcare Center located off base, approximately 7.0 miles southwest of the former FTA (EDR, 2015b).

FIGURES

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Figure 2.1
Former Fire Training Area #1
Cape Canaveral Air Force Station
Cape Canaveral, Florida

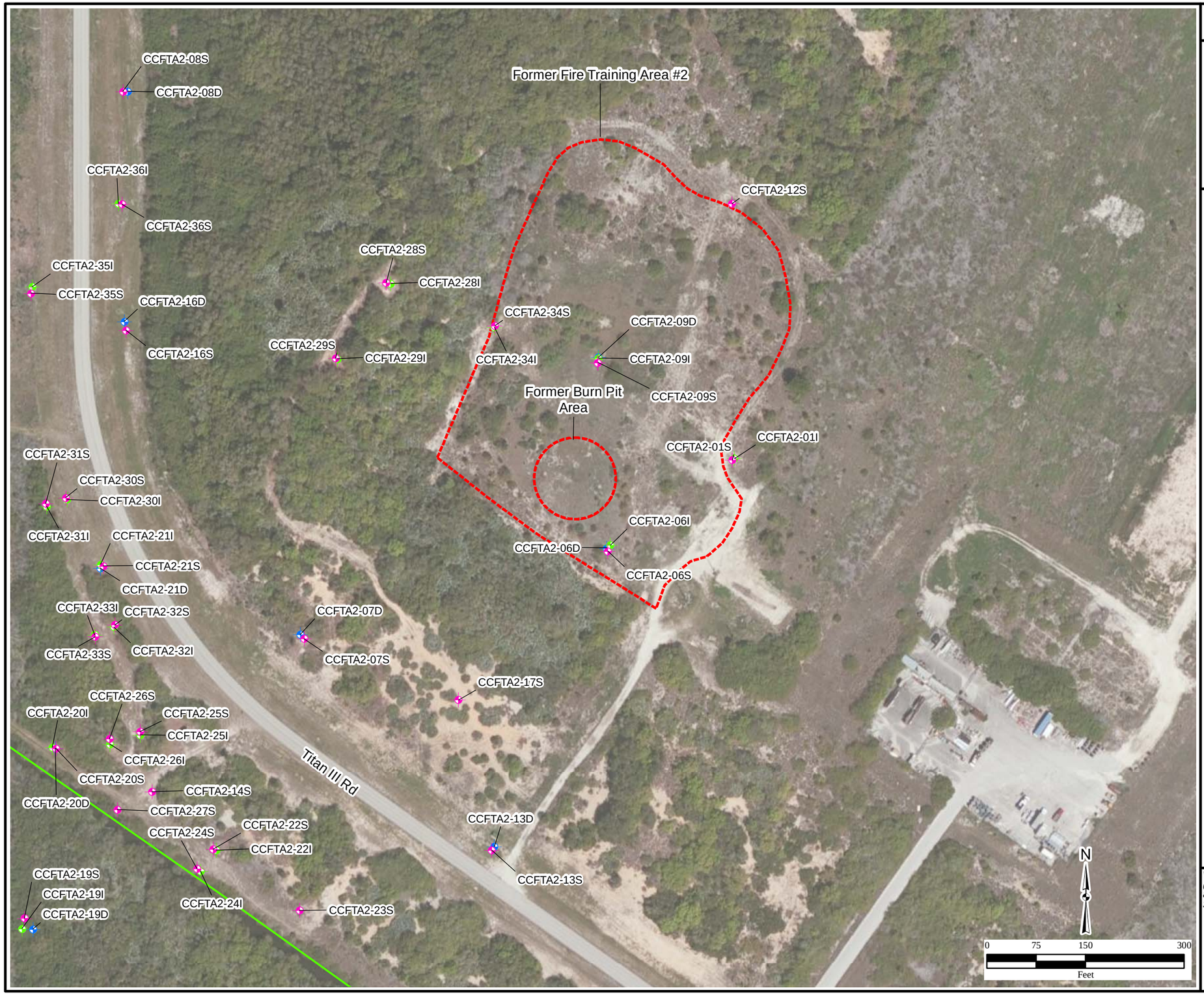
Legend

- Storm Sewer Inlet
- Storm Sewer Pipeline
- Storm Sewer Open Drainage
- Inferred Location Boundary

\\gst-srv-01\HGLGIS\PA_Sites\Cape_Canaveral_AFS\PA_Report
(2-01)Former_FTA_1.mxd
8/11/2015 SS
Source: HGL, CCAFS
ArcGIS Online Imagery

HGL HydroGeoLogic, Inc.

Figure 2.2
Former Fire Training Area #2
Cape Canaveral Air Force Station
Cape Canaveral, Florida



Legend

- Shallow Monitoring Well
- Intermediate Monitoring Well
- Deep Monitoring Well
- Storm Sewer Open Drainage
- Inferred Location Boundary

\\gst-srv-01\HGLGIS\PA_Sites\Cape_Canaveral_AFS\PA_Report\(2-02)Former_FTA_2.mxd
8/11/2015 MB
Source: HGL, CCAFS
ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

3.0 NON-FIRE TRAINING AREAS

3.1 HANGARS

3.1.1 Hangars AF, C, D, E, G, H, I, J, K, M, N, R, S, T, and U

3.1.1.1 Description and Operational History

The 16 hangars identified during the PA visit at CCAFS are presented below. All of the hangars with the exception of Hangar C are located along the west central portion of CCAFS in an area identified as the Industrial Area (Figure 1.1). Hangar C is located in the east central portion of CCAFS, north of the intersection of Control Tower Road and Lighthouse Road (Figure 1.1). According to interviews with the IRP Project Manager/CCAFS Point of Contact (POC), Infrastructure Operations and Maintenance Services (IOMS) System Maintenance Engineer, and the Assistant Fire Chief Remediation Program Manager, all hangars are either equipped with wet-pipe or wet-pipe and pre-action systems. The hangars are primarily used as maintenance shops or for storage of rockets/missiles and rocket/missile accessories. The fire suppressions systems at these hangars have never been retrofitted to an AFFF fire suppression system. There has been no reported or documented use or release of AFFF at these hangars (Appendix C, Records of Communication). Therefore, it is not likely that the environmental media surrounding these hangars is impacted by PFCs.

Table 3.1
Identified Hangars

Hangar ID	Status	Latitude	Longitude	Suppression System
Hangar AF	Active	[redacted]	[redacted]	Wet-pipe
Hangar C	Inactive	[redacted]	[redacted]	Wet-pipe
Hangar D	Active	[redacted]	[redacted]	Wet-pipe
Hangar E	Active	[redacted]	[redacted]	Wet-Pipe
Hangar F	Active	[redacted]	[redacted]	Wet-pipe
Hangar G	Active	[redacted]	[redacted]	Wet-pipe
Hangar H	Active	[redacted]	[redacted]	Wet-pipe
Hangar I	Active	[redacted]	[redacted]	Wet-pipe
Hangar J	Active	[redacted]	[redacted]	Wet-pipe
Hangar K	Active	[redacted]	[redacted]	Wet-pipe
Hangar M	Active	[redacted]	[redacted]	Wet-pipe
Hangar N	Active	[redacted]	[redacted]	Wet-pipe
Hangar R	Active	[redacted]	[redacted]	Wet-pipe
Hangar S	Inactive	[redacted]	[redacted]	Wet-pipe & pre-action
Hangar T	Active	[redacted]	[redacted]	Wet-pipe
Hangar U	Active	[redacted]	[redacted]	Wet-pipe

Photo documentation of the hangars is provided in Appendix A.

3.1.1.2 Waste Characteristics

Not Applicable.

3.1.1.3 Pathway and Environmental Hazard Assessment

Not Applicable.

3.1.1.3.1 *Groundwater Pathway*

Not Applicable.

3.1.1.3.2 *Surface Water Pathway*

Not Applicable.

3.1.1.3.3 *Soil and Air Exposure Pathways*

Not Applicable.

3.1.2 Hangar F Refractometer Testing Area

3.1.2.1 Description and Operational History

Hangar F is located in the west central portion of CCAFS in an area identified as the Industrial Area (Figure 1.1). According to interviews with the IRP Project Manager/CCAFS POC, IOMS System Maintenance Engineer, and the Assistant Fire Chief Remediation Program Manager, the hangar is equipped with a wet-pipe fire suppression system. The hangar is primarily used as a maintenance shop and for storage of rockets/missiles and rocket/missile accessories (Appendix C, Records of Communication). The geographic coordinates for the fire station are [redacted].

Photo documentation of Hangar F and the refractometer testing area is provided in Appendix A.

3.1.2.2 Waste Characteristics

According to the IOMS System Maintenance Engineer, the fire suppression system at Hangar F is a wet-pipe system, and the hangar has never been retrofitted to an AFFF fire suppression system. There has been no reported or documented use or release of AFFF within the hangar; however, the parking area associated with Hangar F has been used by the fire department to conduct refractometer testing of AFFF from fire engines. Refractometer testing requires the release of AFFF from the fire engines to determine the foam solution concentration, quality, and performance. Refractometer testing is conducted annually and has historically been performed at the Kennedy Space Center until 2012. As of 2013 and currently, refractometer testing is performed on the concrete parking area of Hangar F (Appendix C, Records of Communication).

The AFFF released to the Hangar F refractometer testing area either evaporates or drains to the ground surface surrounding the test area. Additionally, precipitation runoff from the refractometer testing area may contain residual AFFF that would drain into the surrounding

ground surface. The refractometer testing area is located approximately 361 feet southwest of Hangar F (Figure 3.1). The Assistant Fire Chief was not aware of the amount of AFFF released during refractometer testing each year (Appendix C, Records of Communication).

The potential exists for PFC contamination to the environmental media surrounding the Hangar F refractometer testing area from the release of AFFF during refractometer testing since 2013.

3.1.2.3 Pathway and Environmental Hazard Assessment

A complete exposure pathway typically includes the following components: a source of contamination (an environmental medium contaminated at the source or a release mechanism by which chemicals are released from a source medium and transported), an exposure medium by which a receptor comes into contact, and a route of intake for the contaminant into the receptor's body at the exposure point. If any of these elements are missing, the pathway is incomplete. Other release mechanisms resulting in exposure media for receptors may include the uptake of soil contaminants by plants and animals and the emission of soil contaminants into the air in association with dust particles (EPA, 1989).

3.1.2.3.1 *Groundwater Pathway*

The basewide geologic and hydrogeologic settings are provided in Section 1.3. Groundwater in the vicinity of Hangar F is assumed to follow the basewide groundwater flow within the shallow aquifer to the west. The closest body of water is an unnamed wetland located approximately 2,063 feet west of the hangar. The wetland is classified as PSS1C (P-Palustrine, SS-Scrub-Shrub, 1-Broad-Leaved Deciduous, C-Seasonally Flooded). AFFF runoff from the refractometer testing area could have infiltrated the surrounding ground surface. Based on the release of AFFF during refractometer testing, the potential exists for PFC contamination to the shallow groundwater underlying the Hangar F refractometer testing area.

CCAFS and surrounding off-base communities receive drinking water from the City of Cocoa, which acquires water from groundwater in the Floridan aquifer, ASR wells, and surface water as discussed in Section 1.3.2. The closest PWS well is identified as FL3054024 and is located 6 miles west/northwest of the hangar. The PWS well is part of the John F. Kennedy Space Center system that serves a population of 9,500 residents (EDR, 2015a).

The combined on- and off-base population within a 4-mile radius from Hangar F is approximately 1,194 (EDR, 2015b). The closest residential area is located off base, approximately 5.44 miles south of the hangar.

3.1.2.3.2 *Surface Water Pathway*

The surface drainage at CCAFS flows in a west/southwest direction from the dune ridges on the east side of the installation toward the Banana River along the west side of the installation. The surface drainage will either infiltrate the ground surface or is controlled by a series of manmade ditches, culverts, and canals that collect runoff. A drainage ditch is located

approximately 23 feet south/southeast of the refractometer testing area and is usually a dry ditch. Surface drainage from the refractometer testing area will likely flow south/southeast overland and discharge to the ground surface of the drainage ditch. Surface drainage will likely infiltrate the ground surface into the underlying shallow groundwater. However, the potential exists for surface drainage to continue flowing along the drainage ditch and discharge to a collection pond, approximately 540 feet downstream of the refractometer testing area. Surface water from the collection pond will then discharge to a drainage canal (Skid Strip Road Canal) located approximately 1,150 feet downstream from the refractometer testing area and ultimately releases to the Banana River. The Banana River is located approximately 6,086 feet downstream from the refractometer testing area and continues to flow in a southern direction over 15 miles (USGS, 2015).

The Banana River is identified as a wetland and is classified as E1UBL: (E)-Esturaine, (1)-Subtidal, (UB)-Unconsolidated Bottom, (L)-Subtidal. Multiple wetlands are also identified 15 miles downstream of the refractometer testing area along the banks of the Banana River (EDR, 2015c). Ingestion of surface water by wildlife at these wetlands is a potential pathway for ecological receptors. These wetlands are identified as an ecologically sensitive environment potentially adjacent to the surface water migration pathway. Additionally, the Banana River is known to be used for recreational activities including fishing and boating by residents or nearby communities, providing an exposure to humans through dermal contact and ingestion of fish (Banana River, Florida, n.d.).

The closest sensitive environment is the unnamed wetland described in Section 3.1.2.3.1. The Hangar F refractometer testing area is not located within a flood plain and there are no surface water intakes or downstream fisheries adjacent to the surface water migration path 15 miles downstream of the test area (EDR, 2015c).

3.1.2.3.3 *Soil and Air Exposure Pathways*

Hangar F refractometer testing area is an active test area with no access restrictions and is accessible to civilians and military personnel. The number of workers at the testing area is limited to the Fire Department personnel performing the refractometer testing. The closest occupied buildings are Hangar F, located approximately 333 feet northwest of the testing area, and the Fire Crash Rescue Station, and located approximately 280 feet southeast from the testing area. Although the potential exists for soil exposure to workers at the buildings, direct contact by workers with soil is not anticipated. The potential exists for soil exposure to burrowing animals. There are no residents at the hangar. The closest residential area is 5.44 miles south of the hangar. Population details of the residential areas within a 4-mile radius are discussed in the Section 3.1.2.3.1.

There are no daycare facilities or schools within a 200-foot radius of the hangar. The closest school is Cape View Elementary School, located off base approximately 6.34 miles south of Hangar F refractometer testing area. The closest daycare is the Pen Pals Childcare Center located off base, approximately 5.44 miles south of the testing area.

3.2 FIRE STATIONS

3.2.1 Fire Crash Rescue Station

3.2.1.1 Description and Operational History

The CCAFS Fire Crash Rescue Station [redacted] is located in the west central portion of the CCAFS, north of the intersection of West Skip Strip Road and Mercury Gemini Road (Figures 1.1 and 3.2). The station is currently active and has been in operation since 2004. The station is bordered to the northeast by a landscaped vegetated area followed by a parking lot, to the northeast and northwest by concrete driveways and grassy areas, and to the southwest by a collection pond (Figure 3.2). The geographic coordinates for the fire station are [redacted].

The fire station houses a 1,000-gallon foam trailer and three fire engines: a crash truck with a 56-gallon foam capacity, a P-19 fire engine with a 30-gallon foam capacity, and a P-23 fire engine with a 500-gallon foam capacity. The fire engines are refilled with foam at a vehicle maintenance bay at the Fire Crash Rescue Station with a pump, or manually using 5-gallon buckets. The vehicle bay has a secondary containment system in case of accidental spills. According to the Assistant Fire Chief, there have been no reported or documented releases of AFFF during refilling operations (Appendix C, Records of Communication).

The CCAFS fire department performs refractometer testing of AFFF from the fire engines at the concrete parking area of Hangar F, as discussed in Section 3.1.2. Additionally, the CCAFS fire department flushes out hoses with residual AFFF at the locations where an emergency response is required. According to the Assistant Fire Chief, the only emergency response by the Fire Department was at the former SLC 17, discussed in Section 3.3.1 (Appendix C, Records of Communication).

There have been no reported or documented releases of AFFF at the Fire Crash Rescue Station since the station began operating in 2004 (Appendix C, Records of Communication). As a result, it is not likely that the environmental media surrounding the Fire Crash Rescue Station is impacted by PFCs.

Photo documentation of the Fire Crash Rescue Station is provided in Appendix A.

3.2.1.2 Waste Characteristics

Not Applicable.

3.2.1.3 Pathway and Environmental Hazard Assessment

Not Applicable.

3.2.1.3.1 *Groundwater Pathway*

Not Applicable.

3.2.1.3.2 *Surface Water Pathway*

Not Applicable.

3.2.1.3.3 *Soil and Air Exposure Pathways*

Not Applicable.

3.2.2 Fire Station #2 [redacted]

3.2.2.1 Description and Operational History

Fire Station #2 [redacted] is located in the northwest portion of CCAFS, east of Titan III Road (Figure 1.1). The station is bordered to the northwest and northeast by lightly vegetated areas, to the southeast by a parking lot followed by an unnamed road, and to the southwest by a driveway followed by Titan III Road (Figure 3.3). The fire station houses a P-22 fire engine with a foam capacity of 50 gallons. According to the Assistant Fire Chief, AFFF is not stored at the fire station and there have been no reported or documented releases of AFFF at the station (Appendix C, Records of Communication). Therefore, it is unlikely that the environmental media surrounding the fire station is impacted by PFC contamination. The geographic coordinates for Fire Station #2 are [redacted].

Photo documentation of Fire Station #2 is provided in Appendix A.

3.2.2.2 Waste Characteristics

Not Applicable.

3.2.2.3 Pathway and Environmental Hazard Assessment

Not Applicable.

3.2.2.3.1 *Groundwater Pathway*

Not Applicable.

3.2.2.3.2 *Surface Water Pathway*

Not Applicable.

3.2.2.3.3 *Soil and Air Exposure Pathways*

Not Applicable.

3.2.3 Fire Station #3 [redacted]

3.2.3.1 Description and Operational History

Fire Station #3 [redacted] is located in the southwest portion of CCAFS, west of Samuel C. Phillips Parkway (Figure 1.1). The station is bordered to the north and west by light to heavy vegetated areas, to the east by a concrete driveway followed by Samuel C. Phillips Parkway, and to the south by a parking lot (Figure 3.4). The fire station houses a P-22 fire engine with a foam capacity of 50 gallons. According to the Assistant Fire Chief, AFFF is not stored at the fire station and there have been no reported or documented releases of AFFF at the station (Appendix C, Records of Communication). Therefore, it is not likely that the environmental media surrounding the fire station has been impacted by PFC contamination. The geographic coordinates for Fire Station #3 are [redacted].

Photo documentation of Fire Station #3 is provided in Appendix A.

3.2.3.2 Waste Characteristics

Not Applicable.

3.2.3.3 Pathway and Environmental Hazard Assessment

Not Applicable.

3.2.3.3.1 *Groundwater Pathway*

Not Applicable.

3.2.3.3.2 *Surface Water Pathway*

Not Applicable.

3.2.3.3.3 *Soil and Air Exposure Pathways*

Not Applicable.

3.2.4 Former Fire Station (Building 1608), SWMU No. 88

3.2.4.1 Description and Operational History

Building 1608 is a former fire station that is located in the west central portion of CCAFS within the Industrial Area, southeast of the intersection of West Skid Strip Road and Samuel C. Phillips Parkway (Figures 1.1 and 3.5). The former fire station operated from 1958 to 2003 and supported the operation and maintenance of firefighting equipment and vehicles. The geographic coordinates for the fire station are [redacted].

Photo documentation of Building 1608 is provided in Appendix A.

3.2.4.2 Waste Characteristics

The CCAFS Assistant Fire Chief was not aware of any AFFF releases associated with the former fire station as the operational period was prior to his tenure as acting Assistant Fire chief. He did mention that AFFF and fire engines that held AFFF were housed at the former fire station during its operational period (Appendix C, Records of Communication).

Historical reports indicated that a 300-gallon above ground foam loading tank (Building 1608B) was located east of the fire station. The tank was used to load fire trucks with fire suppression chemicals including AFFF. At the same location of the foam loading tank, fire trucks and other vehicles were washed using a water hose and detergent. Washing operations had reportedly occurred since Building 1608B was put into operation in 1968. Past operations included the emptying and rinsing of vehicles used to dispense pesticides and herbicides. The water generated while emptying and washing firefighting equipment and vehicles flowed into graded drains just east and west of the loading tank. The wash water that entered the graded drains flowed to a drainage swale located east of the wash area. The drainage swale ultimately discharges to a drainage canal (Skid Strip Road Canal) located approximately 123 feet southwest of the former fire station (Figure 3.5) (Parsons, 2000).

Additionally, accidental spills of AFFF during refilling operations were also discharged into the graded drains. According to an interview with a former Deputy Fire Chief, it was estimated that an average of five gallons was accidently spilled each year during refilling operations (Parsons, 1997). Previous environmental investigations sampled the environmental media surrounding Building 1608, including soil, sediment, surface water and groundwater. As a result a corrective measure of long-term monitoring to monitor MNA was recommended in conjunction with LUCs (Parsons, 2000). In July 2011, the Florida Department of Environmental Protection approved the recommendation to continue long-term monitoring and MNA (FDEP, 2011b). Although AFFF was identified as a contaminant of concern, PFCs were not sampled for during the previous environmental investigations. Consequently, the potential exists for PFC contamination to the environmental media surrounding the former fire station (Building 1608).

3.2.4.3 Pathway and Environmental Hazard Assessment

A complete exposure pathway typically includes the following components: a source of contamination (an environmental medium contaminated at the source or a release mechanism by which chemicals are released from a source medium and transported), an exposure medium by which a receptor comes into contact, and a route of intake for the contaminant into the receptor's body at the exposure point. If any of these elements are missing, the pathway is incomplete. Other release mechanisms resulting in exposure media for receptors may include the uptake of soil contaminants by plants and animals and the emission of soil contaminants into the air in association with dust particles (EPA, 1989).

3.2.4.3.1 *Groundwater Pathway*

The basewide geologic and hydrogeologic settings are provided in Section 1.3. According to environmental investigations, groundwater at the former fire station is detected at depths ranging from 5 to 13 feet bgs. Groundwater flow is south/southeast (3E Consultants, Inc., 2011). The closest body of water is the Banana River, located approximately 2,065 feet west of the station. The potential exists for PFC contamination to groundwater based on the discharge of AFFF from refilling and washing operations that released to the drainage swale east of the station.

CCAFS and surrounding off-base communities receive drinking water from the City of Cocoa, which acquires water from groundwater in the Floridan aquifer, ASR wells, and surface water as discussed in Section 1.3.2. The closest PWS well is FL3054024, which is located 5.75 miles west/northwest of the former fire station. The PWS well is part of the John F. Kennedy Space Center system that serves a population of 9,500 residents (EDR, 2015a).

The combined on- and off-base population within a 4-mile radius from the former fire station is approximately 1,194 (EDR, 2015b). The closest residential area is located approximately 5.91 miles west/southwest of the former fire station.

3.2.4.3.2 *Surface Water Pathway*

The surface drainage at CCAFS flows in a west/southwest direction from the dune ridges on the east side of the installation toward the Banana River along the west side of the installation. The surface water runoff will either infiltrate the ground surface or is controlled by a series of manmade ditches, culverts, and canals that collect runoff. A drainage swale is located approximately 83 feet east of Buildings 1608 and 1608B. AFFF discharged during washing and refilling operations flowed east into the drainage swale where it would likely have infiltrated the ground surface and entered the underlying shallow groundwater. However, the potential exists for surface drainage to continue flowing along the drainage swale and discharge to a drainage canal (skid strip drainage canal) approximately 350 feet downstream of the former fire station. Surface water from the drainage canal will ultimately release to the Banana River located approximately 1.3 miles downstream from the former fire station. The Banana River will continue to flow in a southern direction over 15 miles downstream (USGS, 2015).

The Banana River is identified as a wetland and is classified as E1UBL: (E)-Estuarine, (1)-Subtidal, (UB)-Unconsolidated Bottom, (L)-Subtidal. Multiple wetlands are also identified 15 miles downstream of the refractometer testing area along the banks of the Banana River (EDR, 2015c). Ingestion of surface water by wildlife at these wetlands is a potential pathway for ecological receptors. These wetlands are identified as an ecologically sensitive environment potentially adjacent to the surface water migration pathway. Additionally, the Banana River is known to be used for recreational activities including fishing and boating by residents or nearby communities, providing an exposure to humans through dermal contact and ingestion of fish (Banana River, Florida, n.d.).

The closest sensitive environment is a wetland located approximately 730 feet west/southwest of the station. The wetland is classified as PSS1C (P-Palustrine, SS-Scrub-Shrub, 1-Broad-Leaved Deciduous, C-Seasonally Flooded). The former fire station is not located within a flood plain and there are no surface water intakes or downstream fisheries adjacent to the surface water migration path 15 miles downstream of the former fire station (EDR, 2015c).

3.2.4.3.3 *Soil and Air Exposure Pathways*

The former fire station is no longer an active fire station and is currently being used as an office space. The former station has no access restrictions and is accessible to civilians and military personnel. The number of workers in the vicinity of the former fire station is unknown. Although the potential exists for soil exposure to workers at the former fire station, direct contact by workers with soil is not anticipated. Landscape workers who perform mowing at the former fire station could potentially be exposed to soil through the emission of soil contaminants into the air as dust particles while mowing. The potential does exist for soil exposure to burrowing animals. There are no residents at the former fire station, and the closest residential area is 5.91 miles west/southwest. Population details of the residential areas within a 4-mile radius are discussed in the Section 3.2.4.3.1.

There are no daycare facilities or schools within a 200-foot radius of the station. The closest school is Cape View Elementary School, located off base approximately 6.34 miles south of the former fire station. The closest daycare is the Pen Pals Childcare Center located approximately 5.47 miles south of the former fire station.

3.3 EMERGENCY RESPONSE

3.3.1 Space Launch Complex 17

3.3.1.1 Description and Operational History

SLC 17 is located in the southern portion of the CCAFS and covers approximately 60 acres (Figure 1.1). The SLC was constructed in 1956 with two launch pads (SLC17A and SLC17B) for the Thor missile program (Figure 3.6). Active launch testing for the Thor missile program began on SLC17B in January 1957 and on SLC17A in July 1957. The final launch at the SLC was a Delta II rocket that was launched on September 10, 2011. During the SLC 17 operational period, the facility was modified several times and numerous launches were performed at the launch pads. The SLC is currently inactive and access is restricted and controlled by a fenced and monitored perimeter (SCF, 2014). The geographic coordinates for SLC 17 are [redacted].

Photo documentation of SLC 17 is provided in Appendix A.

3.3.1.2 Waste Characteristics

In October 2013, a site reconnaissance was conducted to identify potential PFC usage areas and to select locations for further evaluation. SLC 17 was identified as a location for further investigation based on discharges of AFFF from fire training activities and extinguishing fires

from a Delta II rocket explosion. The CCAFS Fire Chief/Project Manager was interviewed during the 2013 site reconnaissance and he indicated that between 1985 and 1998 AFFF was discharged into flame buckets at the SLC while performing refractometer testing. Approximately 5 gallons of AFFF was released each year as a result of the testing. In addition, several fires were extinguished with AFFF on and around the launch pads as a result of multiple rocket launches. In 1997, a Delta II rocket exploded mid-launch and burning debris spread across the SLC. The burning debris was put out with large amounts of AFFF at several areas of the SLC (SCF, 2014). The 1997 rocket explosion was confirmed by the CCAFS IRP Project Manager/CCAFS POC, and the Assistant Fire Chief (Appendix C, Records of Communication).

On April 28, 2014, four subsurface soil samples, three groundwater samples, two sediment samples, and one surface water sample were collected at SLC 17 as part of a site investigation that followed the 2013 site reconnaissance (SCF, 2014). Soil analytical results indicated that PFOA was the only analyte detected in one of the four soil samples collected. PFOS was not detected in any of the soil samples collected. The PFOA detections were reported below its Environmental Protection Agency (EPA) Residential Soil Screening Level (RSSL) of 16,000 micrograms per kilogram (µg/kg).

The groundwater analytical results indicated that PFOA was detected in all three groundwater samples and PFOS was detected in two of the three groundwater samples. The PFOA and PFOS detections were reported below their respective EPA provisional health advisory (PHA) values of 0.4 micrograms per liter (µg/L) and 0.2 µg/L.

The sediment analytical results indicated that PFOA was detected in all three sediment samples collected and PFOS was detected in one of the three sediment samples collected. The PFOA and PFOS detections were reported below their respective EPA RSSLs of 16,000 µg/kg and 6,000 µg/kg.

The surface water analytical results indicated that PFOA and PFOS were detected in the collected surface water sample. The PFOA detection was reported above its EPA PHA value of 0.4 µg/L and the PFOS detection was reported below its EPA PHA value of 0.2 µg/L.

PFC contamination to the environmental media surrounding SLC 17 was confirmed through the 2014 site investigation.

3.3.1.3 Pathway and Environmental Hazard Assessment

A complete exposure pathway typically includes the following components: a source of contamination (an environmental medium contaminated at the source or a release mechanism by which chemicals are released from a source medium and transported), an exposure medium by which a receptor comes into contact, and a route of intake for the contaminant into the receptor's body at the exposure point. If any of these elements are missing, the pathway is incomplete. Other release mechanisms resulting in exposure media for receptors may include the uptake of soil contaminants by plants and animals and the emission of soil contaminants into the air in association with dust particles (EPA, 1989).

3.3.1.3.1 *Groundwater Pathway*

The basewide geologic and hydrogeologic settings are provided in Section 1.3. Groundwater in the vicinity of SLC 17 is at a depth of 6.5 feet bgs with a groundwater flow to the north/northwest (SCF, 2014). The closest body of water is the Atlantic Ocean located approximately 3,909 feet south/southeast of the SLC. The sampling performed in April 2014 confirmed the presence of PFCs in shallow groundwater underlying the SLC (SCF, 2014).

CCAFS and surrounding off-base communities receive drinking water from the City of Cocoa, which acquires water from groundwater in the Floridan aquifer, ASR wells, and surface water as discussed in Section 1.3.2. The closest PWS well is FL3054024 and is located approximately 8 miles northwest of the SLC. The PWS well is part of the John F. Kennedy Space Center system that serves a population of 9,500 residents (EDR, 2015a).

The combined on- and off-base population within a 4-mile radius from SLC 17 is approximately 3,330 (EDR, 2015b). The closest residential area is located approximately 3.2 miles southwest of the SLC.

3.3.1.3.2 *Surface Water Pathway*

The surface drainage at CCAFS flows in a west/southwest direction from the dune ridges on the east side of the installation toward the Banana River along the west side of the installation. The surface water runoff will either infiltrate the ground surface or is controlled by a series of manmade ditches, culverts, and canals that collect runoff. SLC 17 is surrounded by drainage swales and two deluge basins. Discharges of AFFF at SLC 17 would have likely infiltrated the surrounding ground surface or would have drained over the land surface into the drainage swales that run from east of the deluge basins northward. The drainage swales continue north of SLC17A into a drainage canal that flows to the Banana River. The drain swales within the fenced area of SLC 17 only contain standing water during extended periods of heavy rainfall. Therefore, AFFF drainage would have likely infiltrated the ground surface at the drainage swales.

The closest sensitive environment is a wetland located approximately 236 feet southeast of the SLC and is classified as PEM1C (P-Palustrine, EM-Emergent, 1-Persistent, C-Seasonally Flooded) (EDR, 2015c). Ingestion of surface water by wildlife that inhabits the wetland is a potential pathway for ecological receptors. The SLC is not located within a flood plain and there are no surface water intakes or downstream fisheries adjacent to the surface water migration path 15 miles downstream of SLC 17 (EDR, 2015c).

3.3.1.3.3 *Soil and Air Exposure Pathways*

The SLC is currently inactive and access is restricted and controlled by a fence and monitored perimeter (SCF, 2014). The SLC is only accessible to authorized military personnel, the base fire department, or escorted guests. There are no workers or residents located at SLC 17. The potential exists for soil exposure to burrowing animals. The closest residential area is 3.2

miles southwest of the SLC. Population details of the residential areas within a 4-mile radius are discussed in the Section 3.3.1.3.1.

There are no daycare facilities or schools within a 200-foot radius of SLC 17. The closest school is Cape View Elementary School, located off base approximately 4.22 miles south/southwest of the SLC. The closest daycare is the Pen Pals Childcare Center located approximately 3.41 miles southwest of the SLC.

3.4 OTHER SPILLS AND RELEASES

3.4.1 Eastern Processing Facility [redacted]

3.4.1.1 Description and Operational History

The Eastern Processing Facility (EPF) is located in the southern portion of CCAFS, northeast of the intersection of Samuel C. Phillips Parkway and Lighthouse Road (Figures 1.1 and 3.7). The EPF was constructed in 2012 and is currently equipped with an HEF system. The HEF system consists of two 1,000-gallon ASTs that are charged with 3% HEF. According to the CCAFS POC, there was a foam release that occurred sometime in 2012 or 2013 as part of an acceptance test on the foam system at the EPF. The interviewees were not sure if the foam released was AFFF (Appendix C, Records of Communication).

In a subsequent interview, the IOMS contractor confirmed that the foam released during the May 9, 2012 acceptance test was HEF (Appendix C, Records of Communication). Therefore, it is not likely the environmental media surrounding the EPF is impacted by PFC contamination. The geographic coordinates for the EPF are [redacted].

Photo documentation of the EPF is provided in Appendix A.

3.4.1.2 Waste Characteristics

Not Applicable.

3.4.1.3 Pathway and Environmental Hazard Assessment

Not Applicable.

3.4.1.3.1 *Groundwater Pathway*

Not Applicable.

3.4.1.3.2 *Surface Water Pathway*

Not Applicable.

3.4.1.3.3 *Soil and Air Exposure Pathways*

Not Applicable.

3.4.2 Building 60723

3.4.2.1 Description and Operational History

Building 60723 is located in the west central portion of the CCAFS in an area identified as the Industrial Area (Figure 1.1). The building is bordered by a parking lot and Building 60748 to the northeast, by a lightly vegetated grassy area to the southeast, by lightly vegetated grassy areas followed by a baseball field to the southwest, and by a stilling basin to the northwest (Figure 3.8). The geographic coordinates for Building 60723 are [redacted]

Building 60723 is currently being used to store alcohol-resistant AFFF, AFFF, Purple K dry chemical and multipurpose dry chemical – fire extinguisher recharge. Approximately 110 gallons of AFFF is currently stored at the building. According to the Assistant Fire Chief, there have been no reported or documented releases of AFFF from the containers stored at the building (Appendix C, Records of Communication). Therefore, it is not likely that environmental media surrounding Building 60723 has been impacted by PFC contamination.

Photo documentation of Building 60723 is provided in Appendix A.

3.4.2.2 Waste Characteristics

Not Applicable.

3.4.2.3 Pathway and Environmental Hazard Assessment

Not Applicable.

3.4.2.3.1 *Groundwater Pathway*

Not Applicable.

3.4.2.3.2 *Surface Water Pathway*

Not Applicable.

3.4.2.3.3 *Soil and Air Exposure Pathway*

Not Applicable.

FIGURES

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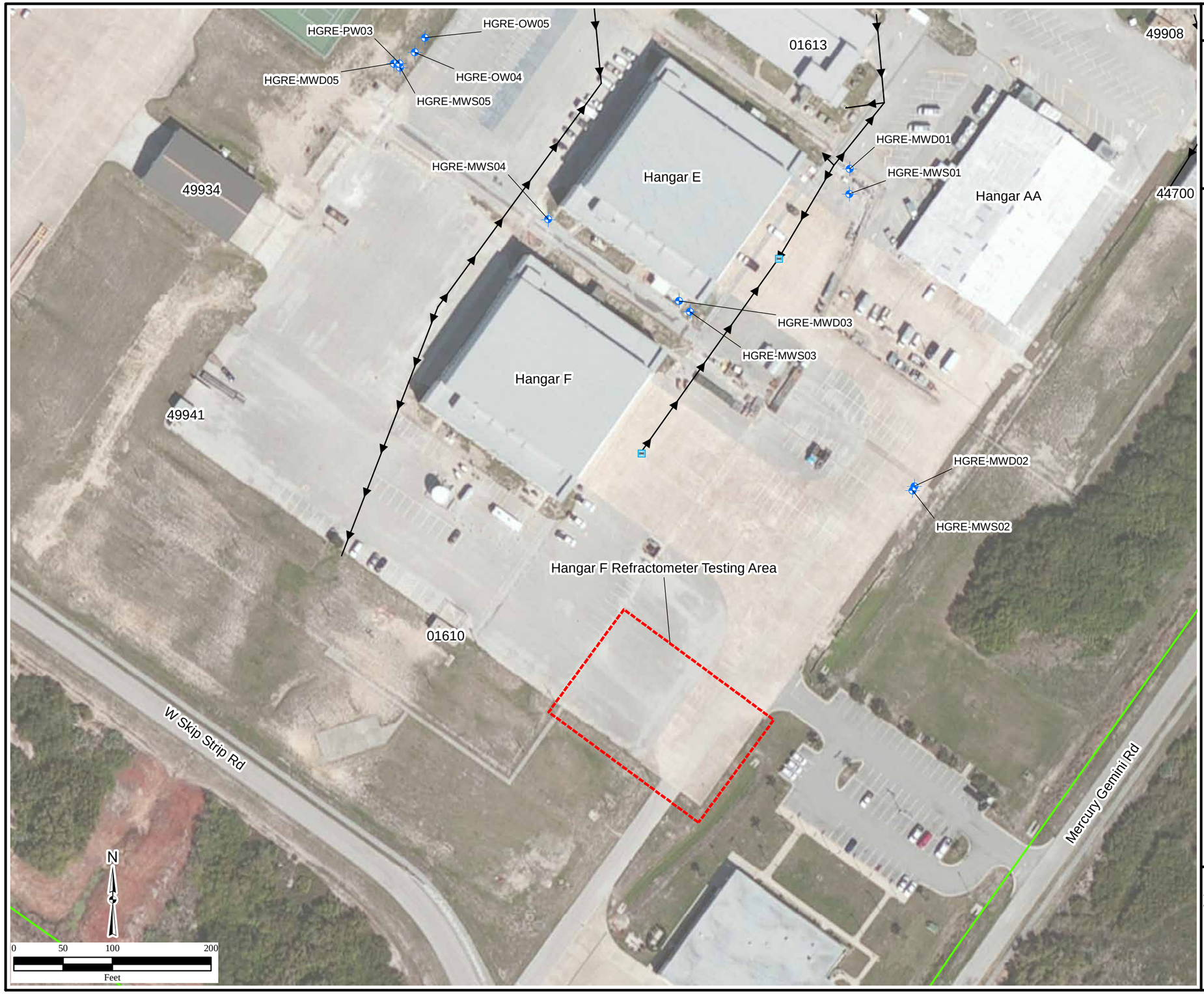
Figure 3.1
Hangar F Refractometer Testing Area
Cape Canaveral Air Force Station
Cape Canaveral, Florida



Legend

- Monitoring Well
- Storm Sewer Inlet
- Storm Sewer Pipeline
- Storm Sewer Open Drainage
- 44700 Building Number
- Inferred Location Boundary

\\Gst-srv-01\HGLGIS\PA_Sites\Cape_Canaveral_AFS\PA_Report\(3-01)Hangar_F_Refractometer_Testing_Area.mxd
8/11/2015 SS
Source: HGL, CCAFS ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

Figure 3.2
Fire Crash Rescue Station
Cape Canaveral Air Force Station
Cape Canaveral, Florida

Legend

- Monitoring Well
- Storm Sewer Inlet
- Storm Sewer Pipeline
- Storm Sewer Open Drainage
- 49941 — Building Number
- Inferred Location Boundary

\\gst-srv-01\HGLGIS\PA_Sites\Cape_Canaveral_AFS\PA_Report\(3-02)Fire_Crash_Rescue_Station.mxd
8/11/2015 MB
Source: HGL, CCAFS
ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

Figure 3.3
Fire Station #2 ([redacted])
Cape Canaveral Air Force Station
Cape Canaveral, Florida

Legend

- Monitoring Well
- Building Number
- Inferred Location Boundary

\\gst-srv-01\HGLGIS\PA_Sites\Cape_Canaveral_AFS\PA_Report\(3-03)Fire_Station_2_Bldg [redacted].mxd
8/11/2015 SS
Source: HGL, CCAFS
ArcGIS Online Imagery

HGL HydroGeoLogic, Inc.

Figure 3.4
Fire Station #3 ([redacted])
Cape Canaveral Air Force Station
Cape Canaveral, Florida

Legend

- Storm Sewer Inlet
- Storm Sewer Open Drainage
- Building Number
- Stilling Basin
- Inferred Location Boundary

\\gst-srv-01\HGLGIS\PA_Sites\Cape_Canaveral_AFS\PA_Report
(3-04)Fire_Station_3_Bldg_[redacted].mxd
8/11/2015 SS
Source: HGL, CCAFS
ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

Figure 3.5
Former Fire Station (Building 1608) and Drainage Canal
Cape Canaveral Air Force Station
Cape Canaveral, Florida

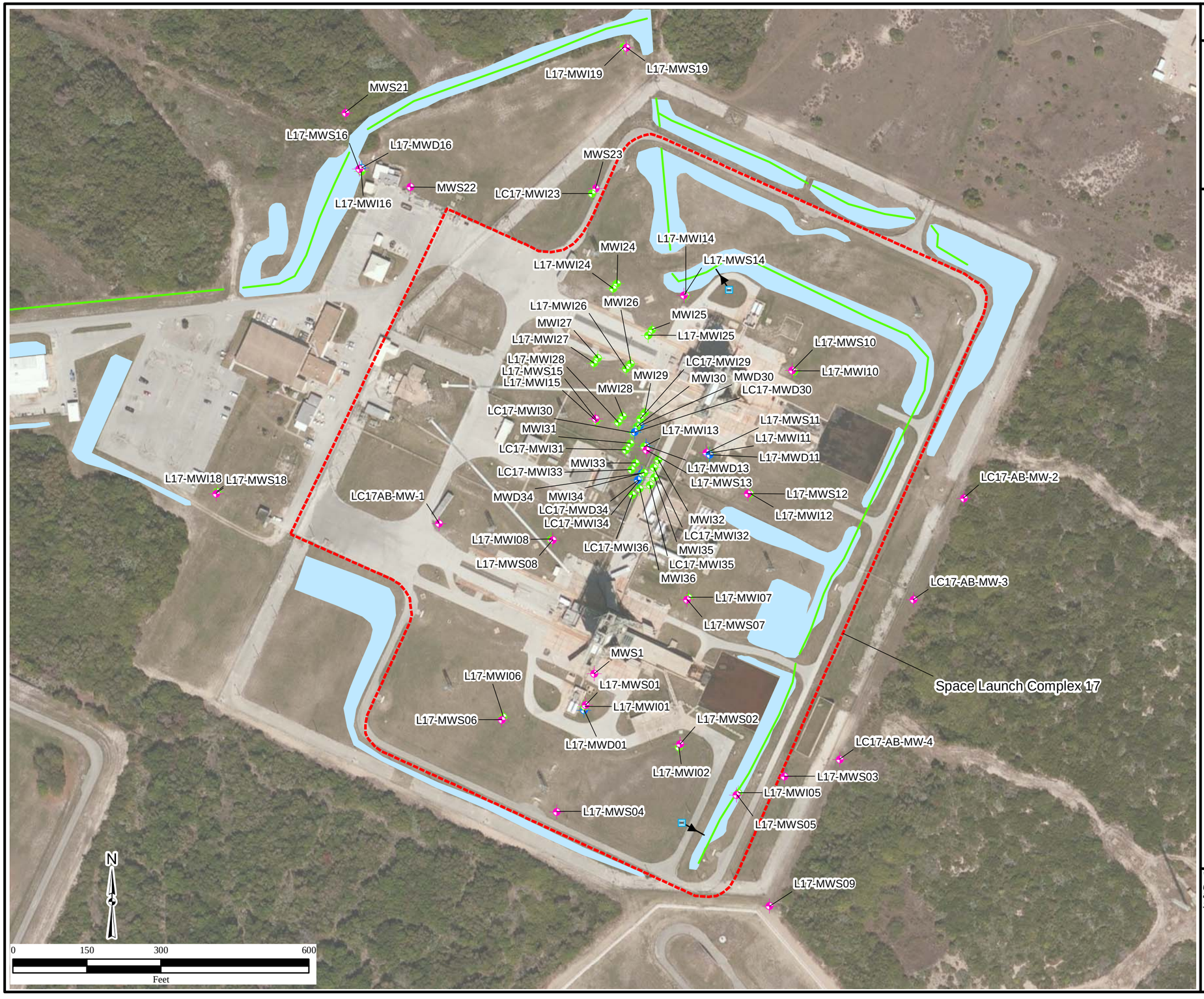
Legend

- Monitoring Well
- Storm Sewer Inlet
- Storm Sewer Open Drainage
- 1608B — Building Number
- Stilling Basin
- Inferred Location Boundary

\\gst-srv-01\HGLGIS\PA_Sites\Cape_Canaveral_AFS\PA_Report\(3-05)Former_Fire_Station_Bldg_1608_Drainage_Ditch.mxd
8/11/2015 SS
Source: HGL, CCAFS
ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

Figure 3.6
Space Launch Complex 17
Cape Canaveral Air Force Station
Cape Canaveral, Florida



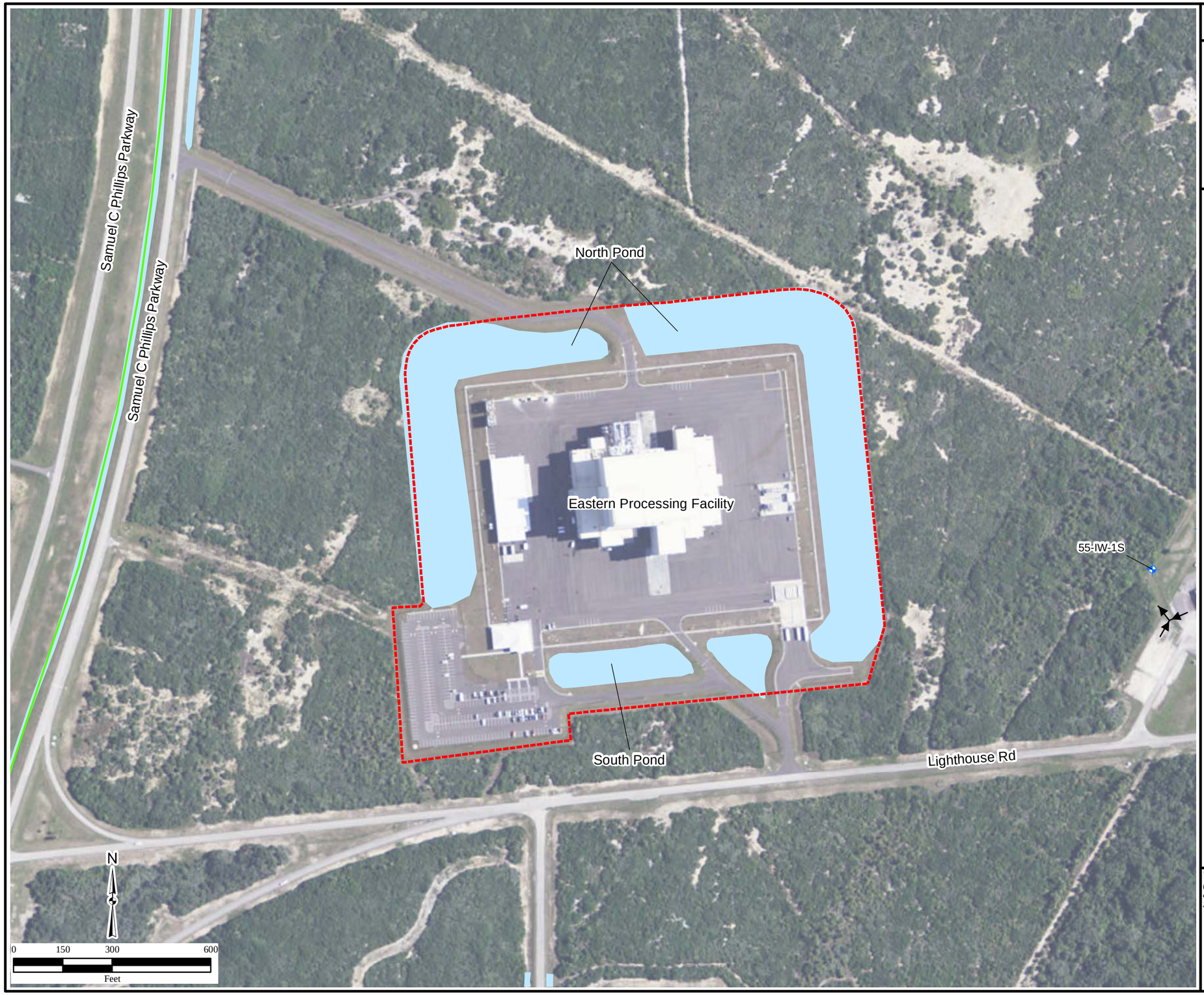
Legend

- Shallow Monitoring Well
- Intermediate Monitoring Well
- Deep Monitoring Well
- Storm Sewer Inlet
- Storm Sewer Pipeline
- Storm Sewer Open Drainage
- Stilling Basin
- Inferred Location Boundary

\\gst-srv-01\HGLGIS\PA_Sites\Cape_Canaveral_AFS\PA_Report
(3-06)Space_Launch_Complex_17.mxd
8/11/2015 SS
Source: HGL, CCAFS
ArcGIS Online Imagery

HGL HydroGeoLogic, Inc.

Figure 3.7
Eastern Processing Facility
Cape Canaveral Air Force Station
Cape Canaveral, Florida



Legend

- Monitoring Well
- Storm Sewer Pipeline
- Storm Sewer Open Drainage
- Stilling Basin
- Inferred Location Boundary

\\gst-srv-01\HGLGIS\PA_Sites\Cape_Canaveral_AFS\PA_Report\(3-07)Eastern_Processing_Facility.mxd
8/11/2015 SS
Source: HGL, CCAFS
ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

Figure 3.8
Building 60723-AFFF Storage
Cape Canaveral Air Force Station
Cape Canaveral, Florida

Legend

60705	Building Number
	Stilling Basin
	Inferred Location Boundary

\\gst-srv-01\HGLGIS\PA_Sites\Cape_Canaveral_AFS\PA_Report\(3-08)Building_60723_AFFF_Storage.mxd
8/11/2015 SS
Source: HGL, CCAFS
ArcGIS Online Imagery

HGL HydroGeoLogic, Inc

4.0 SUMMARY AND CONCLUSIONS

4.1 SUMMARY

4.1.1 Fire Training Areas

4.1.1.1 Fire Training Areas Closed Prior to 1970

FTAs that were closed prior to 1970 did not utilize AFFF and would not have been impacted by PFOA or PFOS from AFFF use. Former FTA #1 operated from 1955 to 1965, prior to the use of AFFF by the Air Force. Therefore, the environmental media surrounding Former FTA #1 is unlikely to have been impacted by PFCs.

4.1.1.2 Fire Training Areas Operational After 1970

Fire training activities occurred at Former FTA #2 from 1965 to 1985. The FTA consisted of an unlined burn pit where waste fuels and lubricating oils were ignited and extinguished. Although the Assistant Fire Chief was not aware of the fire training activities performed or if AFFF was used to extinguish fires, the potential exists for AFFF being used to extinguish fires between the years of 1970 and 1985. As a result, the potential exists for PFC contamination to the environmental media surrounding Former FTA #2.

4.1.2 Non-Fire Training Areas

4.1.2.1 Hangars

Hangars AF, C, D, E, G, H, I. J, K, M, N, R, S, T, and U have all been identified as being located at CCAFS and as being either equipped with wet-pipe or wet-pipe and pre action fire suppression systems. The hangars are primarily used as maintenance shops or for storage of rockets/missiles and rocket/missile accessories. The fire suppressions systems at these hangars have never included AFFF, and there have been no reported or documented use or release of AFFF at these hangars. Therefore, it is not likely that the environmental media surrounding these hangars is impacted by PFC contamination.

Hangar F is equipped with a wet-pipe fire suppression system and there have been no reported or documented releases of AFFF at the hangar. However, since 2013, the CCAFS Fire Department conducts refractometer testing of AFFF from the fire engines at the southeast corner of the Hangar F parking area. As a result of the testing, the potential exists for surface drainage of AFFF to the grassy areas southeast and southwest of the parking area. It is likely that the environmental media surrounding the Hangar F parking area is impacted by PFCs.

4.1.2.2 Fire Stations

There are three active fire stations and one inactive fire station associated with CCAFS. The CCAFS Fire Crash Rescue Station is an active station that began operations in 2004. The fire station houses a 1,000-gallon foam trailer and three fire engines: a crash truck with a 56-gallon

foam capacity, a P-19 fire engine with a 30-gallon foam capacity, and a P-23 fire engine with a 500-gallon foam capacity. The fire engines are refilled with foam at a vehicle maintenance bay at the Fire Crash Rescue Station with a pump or manually using 5-gallon buckets. According to the Assistant Fire Chief, there have been no reported or documented releases of AFFF during refilling operations.

Fire Station #2 [redacted] is located in the northwest portion of the CCAFS, east of Titan III Road. The fire station houses a P-22 fire engine with a capacity to store 50 gallons of AFFF. According to the Assistant Fire Chief, AFFF is not stored at the fire station and there have been no reported or documented releases of AFFF at the station.

Fire Station #3 [redacted] is located in the southwest portion of the CCAFS, west of Samuel C. Phillips Parkway. The fire station houses a P-22 fire engine with a capacity to store 50 gallons of AFFF. According to the Assistant Fire Chief, AFFF is not stored at the fire station and there have been no reported or documented releases of AFFF at the station.

The former fire station was identified as Building 1608 and is located in the west central portion of the CCAFS, southeast of the intersection of West Skip Strip Road and Samuel C. Phillips Parkway. Historical investigation and reports indicated that a 300-gallon above ground foam loading tank was used to load fire trucks with suppression chemicals including AFFF. Accidental spills of AFFF during refilling operations discharged to graded drains and were released to a drainage swale located east of the former fire station. Additionally, the loading area was also used as a washing facility where fire trucks and firefighting equipment were washed. The wash water that entered the graded drains also flowed to a drainage swale.

It is not likely that the environmental media surrounding the active fire stations is impacted by PFC contamination. However, the potential does exist for PFC contamination to the environmental media surrounding the former fire station.

4.1.2.3 Emergency Response

The CCAFS Fire Department responded to an emergency response at SLC 17 in 1997, when a Delta II rocket exploded mid-launch. As a result of the explosion, burning debris was spread across the SLC and was extinguished using AFFF. Subsequent investigations confirmed the presence of PFCs in groundwater, sediment, and surface water at the SLC. Additionally, refractometer testing of AFFF from fire engines was historically performed at the SLC. Approximately 5 gallons of AFFF was released each year to the environment as a result of the testing.

4.1.2.4 Other Spills or Releases

There have been no reported or documented releases of AFFF at the EPF. The EPF was constructed in 2012 and is currently equipped with an HEF system. The HEF system consists of two 1,000-gallon ASTs that are charged with 3% HEF. Therefore, it is not likely that the environmental media surrounding the EPF is impacted by PFC contamination.

Building 60723 is used as a storage facility for AFFF and other chemicals. Approximately 110 gallons of AFFF is currently stored at the building. According to the Assistant Fire Chief, there have been no reported or documented releases of AFFF from the containers stored at the building. Therefore, it is not likely that the environmental media surrounding Building 60723 is impacted by PFC contamination.

4.2 CONCLUSIONS

Table 4.1 summarizes the findings from this PA report and presents possible future management decisions. The identified locations are categorized by "group" in Table 4.1 as follows:

- Group 1 – High mass of AFFF released and probability of groundwater contamination.
- Group 2 – Unknown mass or medium mass of AFFF released.
- Group 3 – Low mass of AFFF released.
- Group 4 – No AFFF released.

Based on the "group" designation and rationale for each location, recommendations are provided in Table 4.1. In accordance with the EPA CERCLA Preliminary Assessment and Site Inspections Guidance documents, each of the identified locations are either recommended for implement removal action due to imminent threat; close out of the location due to no release; initiate a Remedial Investigation; or initiate a Site Inspection.

- Removal action, as defined in CERCLA Section 104, are actions taken to eliminate, control, or otherwise mitigate a threat posed to public health or the environment due to a release or threatened release of hazardous substances (EPA, 1991).
- Close out or no further remedial action planned is defined as a disposition decision that further response under the Federal Superfund is not necessary (EPA, 1991).
- Remedial Investigation is defined as a field investigation to characterize the nature and extent of contamination at a release location. The Remedial Investigation supports development, evaluation, and selection of the appropriate response alternative (EPA, 1991).
- Site Inspection is defined as an investigation to collect and analyze waste and environmental samples to support an evaluation of an identified or potential contaminant release location (EPA, 1992).

Table 4.1
Preliminary Assessment Report Summary and Findings

Locations	Group	Rationale	Recommendation
Former FTA #1	4	· Operational period from 1954 to 1965. · The operational timeframe of the former FTA was prior to the use of AFFF by the Air Force.	Close-out with no additional investigation.
Former FTA #2	2	· Operational period from 1965 to 1985. · The Assistant Fire Chief was not aware of the fire training activities performed or if AFFF was used to extinguish fires at the burn pit. · Unknown amount of AFFF released, if any. · AFFF may have been used to extinguish fires between the operational periods of 1970 to 1985.	Initiate a Site Inspection
Hangars AF, C, D, E, G, H, I. J, K, M, N, R, S, T, and U	4	· Hangars are all equipped with either a wet-pipe or a wet-pipe and a pre-action fire suppression system. · Hangars have never been equipped with AFFF fire suppression systems.	Close-out with no additional investigation.
Hangar F	2	· Refractometer testing performed on concrete parking area southeast of Hangar F beginning in 2013. · AFFF released to the concrete parking area will either evaporate or drain to the ground surface surrounding the concrete parking area. · Unknown amount of AFFF released during refractometer testing.	Initiate a Site Inspection
Fire Crash Rescue Station	4	· Operational period 2004 to the present · Station houses a 1,000-gallon foam trailer and three fire engines: a crash truck with a 56-gallon foam capacity, a P-19 fire engine with a 30-gallon foam capacity, and a P-23 fire engine with a 500-gallon foam capacity. · Fire engines are refilled with AFFF at a vehicle maintenance bay at the Fire Crash Rescue Station with a pump or manually using 5-gallon buckets. · The vehicle bay has a secondary containment system in case of accidental spills. · There have been no reported or documented releases of AFFF at the station.	Close-out with no additional investigation.
Fire Station 2 	4	· Fire station houses a P-22 fire engine with a 50-gallon foam capacity. · AFFF is not stored or filled at the fire station. · No reported or documented releases of AFFF at the station.	Close-out with no additional investigation.
Fire Station 3 	4	· Fire station houses a P-22 fire engine with a 50-gallon foam capacity. · AFFF is not stored or filled at the fire station. · No reported or documented releases of AFFF at the station.	Close-out with no additional investigation.

Table 4.1 (Continued)
Preliminary Assessment Report Summary and Findings

Locations	Group	Rationale	Recommendation
Former Fire Station (Building 1608)	3	· Operational period as a fire station from 1958 to 2003. · Fire station was used for washing operations for fire engines and equipment. · Water generated during washing operations may have contained AFFF while washing fire extinguishing equipment. The water drained into a drainage swale east of the station. · Ancillary building (Building 1608B) also used for loading and refilling fire engines with fire suppression chemicals including AFFF. · During refilling operations, AFFF accidentally spilled would drain into a drainage swale east of the station. · Approximately 5 gallons was accidently spilled each year during refilling operations (approximately 165 gallons from 1970 to 2003).	Initiate a Site Inspection
SLC 17	1	· Operational period from 1957 to 2011. · From 1985 to 1999, AFFF was discharged into flame buckets at the SLC while performing refractometer testing. · Approximately 5 gallon of AFFF was released each year while performing refractometer testing. · Several fires extinguished with AFFF on and around launch pads at the SLC. · In 1997, a Delta II Rocket exploded mid-launch and burning debris spread across the SLC. · Large amounts of AFFF were released to extinguish fires resulting from the explosion. · Environmental media was sampled for PFCs in April 2014 as part of the SCF investigation. The presence of PFCs in the environmental media surrounding the SLC was confirmed.	Initiate a Site Inspection
EPF	4	· EPF constructed in 2012 and equipped with an HEF fire suppression system. · There have been no reported or documented releases of AFFF at the EPF.	Close-out with no additional investigation.
Building 60723	4	· Building 60723 is currently being used to store alcohol resistant AFFF, AFFF, Purple K dry chemical, and multipurpose dry chemical – fire extinguisher recharge. · Approximately 110 gallons of AFFF is currently stored at the building. · There have been no reported or documented releases of AFFF at the building.	Close-out with no additional investigation.

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APPENDIX A

PHOTO DOCUMENTATION

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PHOTOGRAPH LOG

Team: John Sandoval	Date: 06/15/15
Project Number: AF5065.03.12	Observation Period: Start: 0825 Stop: 1020
Weather:	

Photo No.	*Time*	*View Direction*	*Location/Description*
1	0825	West	View of Former FTA #2
2	0829	South	View of Former FTA #2
3	0832	Southwest	View of Former FTA#2
4	0835	---	View of MW1R ID plate at Former FTA #2
5	0835	---	View of MW1R ID plate at Former FTA #2
6	0837	West	View of Former FTA #2
7	0847	Southwest	View of the Former Fire Station (Building 1608)
8	0908	Northwest	View of Former FTA #1
9	0909	Northeast	View of Former FTA #1
10	0927	Southeast	View of SLC 17
11	0928	Southeast	View of SLC 17B launch pad
12	0929	Southeast	View of SLC 17A launch pad
13	1018	South	View of collection pond west of industrial hangars
14	1020	South	View of storm drains west of the industrial hangars

PHOTOGRAPH LOG

Team: John Sandoval	Date: 06/17/15
Project Number: AF5065.03.12	Observation Period: Start: 0726 Stop: 0805
Weather:	

Photo No.	*Time*	*View Direction*	*Location/Description*
1	0726	Southeast	View of Wastewater Treatment Plant (WWTP)
2	0727	South	View of WWTP
3	0728	East	View of WWTP
4	0744	South	View of Former Fire Station (Building 1608)
5	0802	North	View of the Eastern Processing Facility (EPF)
6	0802	West	View of EPF entrance sign
7	0805	West	View of Fire Station #3

PHOTOGRAPH LOG

Team: John Sandoval	Date: 06/18/15
Project Number: AF5065.03.12	Observation Period: Start: 1059 Stop: 1136
Weather:	

Photo No.	Time	View Direction	Location/Description
1	1059	Southeast	View of Fire Engines housed at Fire Crash Rescue Station (FCRS)
2	1059	South	View of 1,000 gallon foam trailer located at FCRS
3	1119	South	View of Building 60723 ID
4	1120	---	View of AFFF storage at Building 60723
5	1120	---	View 55-gallon AFFF poly tanks stored in Building 60723
6	1121	---	View of Alcohol Resistant AFFF stored in Building 60723
7	1121	---	View of Alcohol Resistant AFFF stored in Building 60723
8	1121	---	View of Purple K Dry Chemical stored in Building 60723
9	1121	---	View of Multi-purpose Dry Chemical stored in Building 60723
10	1121	---	View of Purple K Dry Chemical stored in Building 60723
11	1122	---	View of Alcohol Resistant AFFF stored in Building 60723
12	1122	---	View 55-gallon AFFF poly tanks stored in Building 60723
13	1123	---	View fire extinguishing chemicals stored in Building 60723
14	1131	Southeast	View of Hangar F Refractometer Testing Area
15	1132	South	View of FCRS
16	1134	Southeast	View of FCRS
17	1136	South	View of Building 60723

PHOTOGRAPH LOG

Team: John Sandoval	Date: 06/19/15
Project Number: AF5065.03.12	Observation Period: Start: 0815 Stop: 1335
Weather:	

Photo No.	*Time*	*View Direction*	*Location/Description*
1	0830	North	View of Fire Station #2
2	0832	South	View of Fire Station #2
3	0841	---	View of wet-pipe fire suppression system at Hangar U.
4	0841	---	View of Hangar U
5	0910	---	View of wet-pipe fire suppression system at Hangar F
6	0924	---	View of wet-pipe fire suppression system at Hangar H
7	0938	---	View of wet-pipe system piping at Hangar S
8	0940	---	View of wet-pipe system piping at Hangar H
9	0950	---	View of wet-pipe system piping at Hangar F
10	0951	---	View of wet-pipe system piping at Hangar F
11	1308	Southeast	View of Hangar E facing southeast
12	1309	Northwest	View of Hangar F facing northwest
13	1310	Northwest	View of Hangar G facing northwest
14	1311	Northwest	View of Hangar H facing northwest
15	1314	Northwest	View of Hangar R facing northwest
16	1315	Northwest	View of Hangar D facing northwest
17	1318	Northwest	View of Hangar I facing northwest
18	1320	Northwest	View of Hangar J facing northwest
19	1321	Northwest	View of Hangar K facing northwest
20	1323	Northwest	View of Hangar N facing northwest
21	1325	Northwest	View of Hangar T facing northwest
22	1327	Northwest	View of Hangar F facing northwest
23	1327	---	View of wet-pipe system piping at Hangar U
24	1330	Northwest	View of Hangar M facing northwest
25	1331	Northwest	View of Hangar S facing northwest
26	1332	---	View of wet-pipe fire suppression system at Hangar S
27	1333	---	View of wet-pipe system piping at Hangar S
28	1335	Northwest	View of Hangar S facing northwest

Photo 1: View of Building 60723 facing southwest.

Photo 2: View of AFFF, ARAFFF, Purple K, and Multipurpose Dry Chemical stored at Building 60723.

Photo 3: View of 55-gallon 3% AFFF poly drum at Building 60723.

Photo 1: View of Eastern Processing Facility sign facing west.

Photo 1: View of Fire Crash Rescue Station facing south.

Photo 2: View of Fire Crash Rescue Station facing west/southwest.

Photo 3: View of fire engines at Fire Crash Rescue Station.

Photo 5: View of 1,000 gallon foam trailer located in the Fire Crash Rescue Station.

Photo 1: View of Fire Station #2 facing north.

Photo 2: View of Fire Station #2 facing south.

Photo 1: View of Fire Station #3 facing west.

Photo 1: View of Former Fire Station (Building 1608) facing south.

Photo 2: View of Former Fire Station (Building 1608) facing southwest.

Photo 1: View of Former FTA #1 facing northwest.

Photo 2: View of Former FTA #1 facing northeast.

Photo 1: View of Former FTA #2 facing southwest.

Photo 2: View of Former FTA #2 facing west.

Photo 1: View of Hangar AF facing west.

Photo 1: View of Hangar C facing northwest.

Photo 1: View of Hangar D facing northwest.

Photo 1: View of Hangar E facing southeast.

Photo 1: View of Hangar F facing northwest.

Photo 2: View of wet pipe sprinkler system at Hangar F.

Photo 3: View of wet pipe sprinkler system piping at Hangar F.

Photo 1: View of Hangar G facing northwest.

Photo 1: View of Hangar H facing northwest.

Photo 2: View of wet pipe sprinkler system at Hangar H.

Photo 3: View of wet pipe sprinkler system piping at Hangar H.

Photo 1: View of Hangar I facing northwest.

Photo 1: View of Hangar J facing northwest.

Photo 1: View of Hangar K facing northwest.

Photo 1: View of Hangar M facing northwest.

Photo 1: View of Hangar N facing northwest.

Photo 1: View of Hangar R facing northwest.

Photo 1: View of Hangar S facing northwest.

Photo 2: View of wet pipe sprinkler system at Hangar S.

Photo 3: View of wet pipe sprinkler system piping at Hangar S.

Photo 1: View of Hangar T facing northwest.

Photo 1: View of Hangar U facing northwest.

Photo 2: View of wet pipe sprinkler system at Hangar U.

Photo 3: View of wet pipe sprinkler system piping at Hangar U.

Photo 1: View of Space Launch Complex (SLC) 17A/17B facing southeast.

Photo 2: View of SLC 17B facing southeast.

Photo 3: View of SLC 17A facing southeast.

APPENDIX B

FIELD DOCUMENTATION

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Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Building 60723		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Building 60723

Site Description: Building 60723 is located in the west central portion of the CCAFS, in an area identified as the Industrial Area. Building 60723 is currently being used to store alcohol resistant aqueous film-forming foams , AFFF, Purple K dry chemical, and multipurpose dry chemical – fire extinguisher recharge. Approximately 110 gallons of AFFF is currently stored at the building. There have been no reported or documented releases of AFFF from the containers stored at the building.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:
Type of Ownership: ☐ Private ☑ Federal Agency Name: DOD ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____			Type of Ownership: ☐ Private ☐ Federal Agency Name: _____ ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____		

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Eastern Processing Facility		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Eastern Processing Facility

Site Description: The Eastern Processing Facility (EPF) is located in the southern portion of CCAFS, northeast of the intersection of Samuel C. Phillips Parkway and Lighthouse Road. The EPF was constructed in 2012 and is currently equipped with a high expansion foam (HEF) system. The HEF system consists of 2 1,000-gallon ASTs that are charged with 3% HEF.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:

Type of Ownership:

☐ Private ☐ County
☑ Federal Agency ☐ Municipal
Name: _DOD_ ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

Type of Ownership:

☐ Private ☐ County
☐ Federal Agency ☐ Municipal
Name: _____ ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type: (check all that apply) | **Source Waste Quantity:** (include unit) | **Tier*:**

- ☐ Landfill _____ ____
- ☐ Surface Impoundment _____ ____
- ☐ Drums _____ ____
- ☐ Tanks and Non-Dum Containers _____ ____
- ☐ Chemical Waste Pile _____ ____
- ☐ Scrap Metal or Junk Pile _____ ____
- ☐ Tailings Pile _____ ____
- ☐ Trash Pile (open drum) _____ ____
- ☐ Land Treatment _____ ____
- ☐ Contaminated GW Plume (unidentified source) _____ ____
- ☐ Contaminated SW/Sediment (unidentified source) _____ ____
- ☐ Contaminated Soil _____ ____
- ☐ Other_____ _____ ____
- ☐ No Sources

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery: _____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment: _____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____
0-1/4 Mile _____
>1/4-1/2 Mile _____
>1/2-1 Mile _____
>1-2 Miles _____
>2-3 Miles _____
>3-4 Miles _____
Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Fire Crash Rescue Station		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Fire Crash Rescue System

Site Description: The CCAFS Fire Crash Rescue Station [redacted] is located in the west central portion of the CCAFS. The station is currently active and has been in operation since 2004. The fire station houses a 1,000 gallon foam trailer and three fire engines: a crash truck with a 56 gallon foam capacity, a P-19 fire engine with a 30 gallon foam capacity, and a P-23 fire engine with a 500 gallon foam capacity. The fire engines are refilled with foam at a vehicle maintenance bay at the Fire Crash Rescue Station with a pump or manually using 5 gallon buckets. The vehicle bay has a secondary containment system in case of accidental spills. There have been no reported or documented releases of AFFF during refilling operations.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:

Type of Ownership:

☐ Private ☐ County
☑ Federal Agency ☐ Municipal
Name: DOD ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

Type of Ownership:

☐ Private ☐ County
☐ Federal Agency ☐ Municipal
Name: _____ ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type: (check all that apply)	Source Waste Quantity: (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles[4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment: _____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____
0-1/4 Mile _____
>1/4-1/2 Mile _____
>1/2-1 Mile _____
>1-2 Miles _____
>2-3 Miles _____
>3-4 Miles _____
Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Fire Station #2		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Fire Station #2

Site Description: Fire Station #2 [redacted] is located in the northwest portion of the CCAFS, east of Titan III Road. The fire station houses a P-22 fire engine with a foam capacity of 50 gallons. AFFF is not stored at the fire station and there have been no reported or documented releases of AFFF at the station.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:
Type of Ownership: ☐ Private ☑ Federal Agency Name: DOD ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____			Type of Ownership: ☐ Private ☐ Federal Agency Name: _____ ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____		

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type: (check all that apply)	Source Waste Quantity: (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles
(check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Fire Station #3		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Fire Station #3

Site Description: Fire Station #3 [redacted] is located in the southwest portion of the CCAFS, west of Samuel C. Phillips Parkway. The fire station houses a P-22 fire engine with a foam capacity of 50 gallons. AFFF is not stored at the fire station and there have been no reported or documented releases of AFFF at the station.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:

Type of Ownership:

☐ Private ☐ County
☑ Federal Agency ☐ Municipal
Name: DOD ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

Type of Ownership:

☐ Private ☐ County
☐ Federal Agency ☐ Municipal
Name: _____ ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type: (check all that apply)	Source Waste Quantity: (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles
(check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Former Fire Station (Building 1608)		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Former Fire Station (Building 1608)

Site Description: Building 1608 is a former fire station that is located in the west central portion of CCAFS within the Industrial Area. The former fire station was in operation from 1958 to 2003 and supported the operation and maintenance of firefighting equipment and vehicles. A 300-gallon foam loading tank (Building 1608B) was located just east of the fire station. The tank was used to load fire trucks with fire suppression chemicals, including AFFF. At the same location of the foam loading tank, fire trucks and other vehicles were washed using a water hose and detergent . Washing operations had reportedly occurred since Building 1608B was put into operation in 1968. Vehicles used to dispense pesticides and herbicides were emptied and rinsed in this area in the past. The water generated while emptying and washing firefighting equipment and vehicles flowed into graded drains just east and west of the loading station. The wash water that entered the graded drains flowed to a drainage swale located east of the wash area. The drainage swale ultimately discharges to a drainage canal (Skid Strip Road Canal), located approximately 123 feet southwest of the station. Additionally, accidental spills of AFFF during refilling operations were also discharged into the graded drains. It was estimated that an average of five gallons was accidently spilled each year during refilling operations.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:
Type of Ownership: ☐ Private ☑ Federal Agency Name: _DOD_ ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____			Type of Ownership: ☐ Private ☐ Federal Agency Name: _____ ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____		

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.		Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio		State:Texas
Name of EPA or State Agency Contact:NA	Street Address:		
City:	State:	Telephone:	

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics

Predominant Land Use Within 1 Mile of Site (check all that apply):

- [ ] Industrial
- [ ] Commercial
- [ ] Residential
- [ ] Forest/Fields
- [ ] Agriculture
- [ ] Mining
- [x] DOD
- [ ] DOE
- [ ] DOI
- [ ] Other Federal Facility:
- [ ] Other _____

Site Setting:

- [ ] Urban
- [ ] Suburban
- [x] Rural

Years of Operation:

Beginning Year 1958

Ending Year 2003

- [ ] Unknown

Type of Site Operations (check all that apply):

- [ ] Manufacturing (must check subcategory)
  - [ ] Lumber and Wood Products
  - [ ] Inorganic Chemicals
  - [ ] Plastic and/or Rubber Products
  - [ ] Paints, Varnishes
  - [ ] Industrial Organic Chemicals
  - [ ] Agricultural Chemicals
  - [ ] Miscellaneous Chemical Products
  - [ ] Primary Metals
  - [ ] Metal Coating, Plating, Engraving
  - [ ] Metal Forging, Stamping
  - [ ] Fabricated Structural Metal Products
  - [ ] Electronic Equipment
  - [ ] Other Manufacturing
- [ ] Mining
  - [ ] Metals
  - [ ] Coal
  - [ ] Oil and Gas
  - [ ] Non-metallic Minerals
- [ ] Retail
- [ ] Recycling
- [ ] Junk/Salvage Yard
- [ ] Municipal Landfill
- [ ] Other Landfill
- [x] DOD
- [ ] DOE
- [ ] DOI
- [ ] Other Federal Facility _____
- [ ] RCRA
  - [ ] Treatment, Storage, or Disposal
  - [ ] Large Quantity Generator
  - [ ] Small Quantity Generator
  - [ ] Subtitle D
    - [ ] Municipal
    - [ ] Industrial
  - [ ] "Converter"
  - [ ] "Protective Filer"
  - [ ] "Non-or Late Filer"
- [ ] Note Specified
- [ ] Other_____

Waste Generated:

- [x] Onsite
- [ ] Offsite
- [ ] Onsite and Offsite

Waste Deposition Authorized By:

- [x] Present Owner
- [ ] Former Owner
- [ ] Present & Former Owner
- [ ] Unauthorized
- [ ] Unknown

Waste Accessible to the Public:

- [x] Yes
- [ ] No

Distance to Nearest Dwelling, School, or Workplace:

on-site Feet

6. Waste Characteristics Information

(Refer to PA Table 1 for WC Score)

Source Type: (check all that apply) | **Source Waste Quantity:** (include unit) | **Tier*:**

[ ] Landfill	_____	____
[ ] Surface Impoundment	_____	____
[ ] Drums	_____	____
[ ] Tanks and Non-Dum Containers	_____	____
[ ] Chemical Waste Pile	_____	____
[ ] Scrap Metal or Junk Pile	_____	____
[ ] Tailings Pile	_____	____
[ ] Trash Pile (open drum)	_____	____
[ ] Land Treatment	_____	____
[ ] Contaminated GW Plume (unidentified source)	_____	____
[ ] Contaminated SW/Sediment (unidentified source)	_____	____
[ ] Contaminated Soil		
[x] Other AFFF	_____	____
[ ] No Sources	_____	____

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- [ ] Metals
- [ ] Organics
- [ ] Inorganics
- [ ] Solvents
- [ ] Paints/Pigments
- [ ] Laboratory/Hospital Waste
- [ ] Radioactive Waste
- [ ] Construction/Demolition Waste
- [ ] Pesticides/Herbicides
- [ ] Acids/Bases
- [ ] Oily Waste
- [ ] Municipal Waste
- [ ] Mining Waste
- [ ] Explosives
- [x] Other _AFFF_____

Physical State of Waste as Deposited (check all that apply):

- [ ] Solid
- [ ] Sludge
- [ ] Powder
- [x] Liquid
- [ ] Gas

7. Ground Water Pathway

Is Ground Water Used for Drinking Within 4 Miles:

- [x] Yes
- [ ] No

If Yes, Distance to nearest Drinking Well:

575 Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

- [x] Municipal
- [x] Private
- [ ] None

Is There a Suspected Release to Ground Water[1]:

- [x] Yes
- [ ] No

Have Primary Target Drinking Water Wells Been Identified:

- [x] Yes
- [ ] No

If Yes, Enter Primary Target Population:

9,500 People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

- [ ] Yes
- [ ] No

Nearest Designated Wellhead Protection Area[6]:

- [ ] Underlies Site
- [ ] >0-4 Miles
- [ ] None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile	_____
>1/4 - 1/2 Mile	_____
>1/2 - 1 Mile	_____
>1 - 2 Mile	_____
>2 - 3 Mile	_____
>3 - 4 Mile	_____
Total Within 4 Miles[4]	1,194

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

- [ ] Stream
- [ ] River
- [ ] Pond
- [ ] Lake
- [ ] Bay
- [ ] Ocean
- [x] Other darinage swale

Shortest Overland Distance From Any Source to Surface Water:

2,065 Feet

_____ Miles

Is There a Suspected Release to Surface Water[1]:

- [x] Yes
- [ ] No

Site is Located in:

- [ ] Annual - 10 yr Floodplain
- [ ] >10yr - 100yr Floodplain
- [ ] >100yr - 500yr Floodplain
- [ ] >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

- [ ] Yes
- [x] No

Have Primary Target Drinking Water Intakes Been Identified:

- [ ] Yes
- [x] No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles[4] _____

Fisheries Located Along the Surface Water Migration Path:

- [ ] Yes
- [x] No

If Yes, Distance to Nearest Fishery: _____ Miles

Have Primary Target Fisheries Been Identified:

- [ ] Yes
- [x] No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☑ No

Have Primary Target Wetlands Been Identified:

☑ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
unnamed wetland		

Other Sensitive Environments Located Along the Surface Water Migration Path:

☑ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment: 730 Feet

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:

9. Soil Exposure Pathway

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☑ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☑ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

1,194 (4 miles)
People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☑ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

*Refer to PA Table 7 for environment types

10. Air Pathway

Is there a Suspected Release to Air[1]:

☐ Yes
☑ No

Enter Total Population on or Within:

Onsite	
0-1/4 Mile	
>1/4-1/2 Mile	
>1/2-1 Mile	
>1-2 Miles	
>2-3 Miles	
>3-4 Miles	
Total Within 4 Miles [3-5]	1,194

Wetlands Located Within 4 Miles of the Site[6]:

☑ Yes
☐ No

If Yes, How Many Acres: unknown Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☑ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	
0-1/4 Mile	unnamed wetland
>1/4-1/2 Mile	Banana River

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Former FTA #1		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☐ Active ☐ Not Specified ☑ Inactive ☐ NA (GW plume, etc.)	

Site Name: Building 984

Site Description: Former FTA 1 (Solid Waste Management Unit [SWMU] #032, Installation Restoration Program [IRP] Site FT016) was located along the eastern central portion of CCAFS. The Former FTA was in operation from 1954 to 1965 and is currently occupied by Space Launch Complex (SLC) 46. Petroleum waste, solvents, and contaminated fuels were applied directly to the ground surface and ignited.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:
Type of Ownership: ☐ Private ☑ Federal Agency Name: DOD ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____			Type of Ownership: ☐ Private ☐ Federal Agency Name: _____ ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____		

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Former FTA #2		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☐ Active ☐ Not Specified ☑ Inactive ☐ NA (GW plume, etc.)	

Site Name: Building 984

Site Description: Former FTA 1 (Solid Waste Management Unit [SWMU] #032, Installation Restoration Program [IRP] Site FT016) was located along the eastern central portion of CCAFS. The Former FTA was in operation from 1954 to 1965 and is currently occupied by Space Launch Complex (SLC) 46. Petroleum waste, solvents, and contaminated fuels were applied directly to the ground surface and ignited.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:
Type of Ownership: ☐ Private ☑ Federal Agency Name: DOD ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____			Type of Ownership: ☐ Private ☐ Federal Agency Name: _____ ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____		

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☑ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☑ Rural

Years of Operation:

Beginning Year 1965

Ending Year 1985

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☑ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☑ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☑ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☑ No

Distance to Nearest Dwelling, School, or Workplace:

1,460 Feet

6. Waste Characteristics Information

(Refer to PA Table 1 for WC Score)

Source Type: (check all that apply)	Source Waste Quantity: (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil		
☑ Other AFFF	_____	____
☐ No Sources	_____	____

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☑ Other AFFF

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☑ Liquid
- ☐ Gas

7. Ground Water Pathway

Is Ground Water Used for Drinking Within 4 Miles:

☑ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

5.45 Miles

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☑ Municipal
☑ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☑ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☑ Yes
☐ No

If Yes, Enter Primary Target Population:

9,500 People[3]

Depth to Shallowest Aquifer:

2.5 Feet

Karst Terrain/Aquifer Present:

☑ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile	_____
>1/4 - 1/2 Mile	_____
>1/2 - 1 Mile	_____
>1 - 2 Mile	_____
>2 - 3 Mile	_____
>3 - 4 Mile	_____
Total Within 4 Miles[4]	1,986

*Use population #s for PA Table 2
*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☑ Other_Drainage Ditch_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☑ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☑ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☑ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☑ No

If Yes, Distance to Nearest Fishery: _____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☑ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☑ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
unnamed wetland	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☑ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☑ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
unnamed wetland	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☑ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☑ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

1,986 (4-mile)
People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☑ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____unnamed wetland _____

*Refer to PA Table 7 for environment types

10. Air Pathway

Is there a Suspected Release to Air[1]:

☐ Yes
☑ No

Enter Total Population on or Within:

Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____
>1/2-1 Mile	_____
>1-2 Miles	_____
>2-3 Miles	_____
>3-4 Miles	_____
Total Within 4 Miles [3-5]	1,986

Wetlands Located Within 4 Miles of the Site[6]:

☑ Yes
☐ No

If Yes, How Many Acres: unknown Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☑ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	Banana River
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar AF		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar AF

Site Description: Hangar AF is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:
Type of Ownership: ☐ Private ☑ Federal Agency Name: DOD ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____			Type of Ownership: ☐ Private ☐ Federal Agency Name: _____ ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____		

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar D		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar D

Site Description: Hangar D is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:

Type of Ownership:

☐ Private ☐ County
☑ Federal Agency ☐ Municipal
Name: DOD ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

Type of Ownership:

☐ Private ☐ County
☐ Federal Agency ☐ Municipal
Name: _____ ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar E		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar E

Site Description: Hangar E is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:

Type of Ownership:

☐ Private ☐ County
☑ Federal Agency ☐ Municipal
Name: DOD ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

Type of Ownership:

☐ Private ☐ County
☐ Federal Agency ☐ Municipal
Name: _____ ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar F		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar F

Site Description: Hangar F is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:

Type of Ownership:

☐ Private ☐ County
☑ Federal Agency ☐ Municipal
Name: DOD ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

Type of Ownership:

☐ Private ☐ County
☐ Federal Agency ☐ Municipal
Name: _____ ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar G		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar G

Site Description: Hangar G is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:
Type of Ownership: ☐ Private ☑ Federal Agency Name: DOD ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____			Type of Ownership: ☐ Private ☐ Federal Agency Name: _____ ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____		

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar H		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar H

Site Description: Hangar H is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:
Type of Ownership: ☐ Private ☑ Federal Agency Name: DOD ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____			Type of Ownership: ☐ Private ☐ Federal Agency Name: _____ ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____		

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar I		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar H

Site Description: Hangar I is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:

Type of Ownership:

☐ Private ☐ County
☑ Federal Agency ☐ Municipal
Name: DOD ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

Type of Ownership:

☐ Private ☐ County
☐ Federal Agency ☐ Municipal
Name: _____ ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar J		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar H

Site Description: Hangar J is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:
Type of Ownership: ☐ Private ☑ Federal Agency Name: DOD ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____			Type of Ownership: ☐ Private ☐ Federal Agency Name: _____ ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____		

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar K		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar K

Site Description: Hangar K is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:
Type of Ownership: ☐ Private ☑ Federal Agency Name: DOD ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____			Type of Ownership: ☐ Private ☐ Federal Agency Name: _____ ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____		

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar M		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar M

Site Description: Hangar M is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:

Type of Ownership:

☐ Private ☐ County
☑ Federal Agency ☐ Municipal
Name: DOD ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

Type of Ownership:

☐ Private ☐ County
☐ Federal Agency ☐ Municipal
Name: _____ ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar N		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar N

Site Description: Hangar N is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:

Type of Ownership:

☐ Private ☐ County
☑ Federal Agency ☐ Municipal
Name: DOD ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

Type of Ownership:

☐ Private ☐ County
☐ Federal Agency ☐ Municipal
Name: _____ ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar R		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar R

Site Description: Hangar R is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:

Type of Ownership:

☐ Private ☐ County
☑ Federal Agency ☐ Municipal
Name: DOD ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

Type of Ownership:

☐ Private ☐ County
☐ Federal Agency ☐ Municipal
Name: _____ ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar S		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☐ Active ☐ Not Specified ☑ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar S

Site Description: Hangar S is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe and pre-action fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:
Type of Ownership: ☐ Private ☑ Federal Agency Name: DOD ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____			Type of Ownership: ☐ Private ☐ Federal Agency Name: _____ ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____		

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar T		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar T

Site Description: Hangar T is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:

Type of Ownership:

☐ Private ☐ County
☑ Federal Agency ☐ Municipal
Name: DOD ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

Type of Ownership:

☐ Private ☐ County
☐ Federal Agency ☐ Municipal
Name: _____ ☐ Not Specified
☐ State ☐ Other_____
☐ Indian

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Hangar U		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: _____ Acres _____ Square Ft		Status of Site: ☑ Active ☐ Not Specified ☐ Inactive ☐ NA (GW plume, etc.)	

Site Name: Hangar U

Site Description: Hangar U is located along the west central portion of Cape Canaveral Air Force Station in an area identified as the Industrial Area. The hangar is equipped with a wet-pipe fire suppression system.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:
Type of Ownership: ☐ Private ☑ Federal Agency Name: DOD ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____			Type of Ownership: ☐ Private ☐ Federal Agency Name: _____ ☐ State ☐ Indian ☐ County ☐ Municipal ☐ Not Specified ☐ Other_____		

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics - NA

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☐ Rural

Years of Operation:

Beginning Year ____

Ending Year ____

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☐ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☐ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☐ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_____ Feet

6. Waste Characteristics Information - NA

(Refer to PA Table 1 for WC Score)

Source Type (check all that apply)	Source Waste Quantity (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil	_____	____
☐ Other_____	_____	____
☐ No Sources		

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☐ Other _____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☐ Liquid
- ☐ Gas

7. Ground Water Pathway - NA

Is Ground Water Used for Drinking Within 4 Miles:

☐ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

_____ Feet

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☐ Municipal
☐ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☐ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☐ Yes
☐ No

If Yes, Enter Primary Target Population:

_____ People[3]

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] _____

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

8. Surface Water Pathway - NA

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☐ Other_____

Shortest Overland Distance From Any Source to Surface Water:

_____ Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☐ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☐ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☐ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☐ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☐ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
Ashumet Pond	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
_____ Miles

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway - NA

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☐ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

_____People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☐ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

_____
_____
_____

*Refer to PA Table 7 for environment types

10. Air Pathway - NA

Is there a Suspected Release to Air[1]:

☐ Yes
☐ No

Enter Total Population on or Within:

Onsite _____

0-1/4 Mile _____

>1/4-1/2 Mile _____

>1/2-1 Mile _____

>1-2 Miles _____

>2-3 Miles _____

>3-4 Miles _____

Total Within 4 Miles [3-5] _____

Wetlands Located Within 4 Miles of the Site[6]:

☐ Yes
☐ No

If Yes, How Many Acres: _____ Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	_____
0-1/4 Mile	_____
>1/4-1/2 Mile	_____

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

Potential Hazardous Waste Site Preliminary Assessment Form

Identification

State: | CERCLIS #:

CERCLIS Discovery Date:

1. General Site Information

Name: Space Launch Complex 17		Street Address: NA			
City:		State: FL	Zip Code:32920	County:Brevard	Co. Code:12009	Cong. Dist:8th
Latitude: [redacted]	Longitude: [redacted]	Approximate Area of Site: 60 Acres _____ Square Ft		Status of Site: ☐ Active ☐ Not Specified ☑ Inactive ☐ NA (GW plume, etc.)	

Site Name: Space Launch Complex 17

Site Description: SLC 17 is located in the southern portion of the CCAFS and covers approximately 60 acres. The SLC was constructed in 1956 with two launch pads (SLC17A and SLC17B) for the Thor missile program. Active launch testing for the Thor missile program began on SLC17B in January 1957 and on SLC17A in July 1957. The final launch at the SLC was a Delta II rocket that was launched on September 10, 2011. During the SLC 17 operational period, the facility was modified several times and numerous launches were performed at the launch pads. The SLC is currently inactive and access is restricted and controlled by a fenced and monitored perimeter. Between 1985 and 1998 AFFF was discharged into flame buckets at the SLC while performing refractometer testing. Approximately 5 gallons of AFFF was released each year as a result of the testing. In addition, several fires were extinguished with AFFF on and around the launch pads as a result of multiple rocket launches. In 1997, a Delta II rocket exploded mid-launch and burning debris spread across the SLC . The burning debris was put out with large amounts of AFFF at several areas at the SLC.

2. Owner/Operator Information

Owner: Cape Canaveral Air Force Station			Operator: Same as "owner"		
Street Address:			Street Address:		
City:			City:		
State: FL	Zip Code:32920	Telephone:	State:	Zip Code:	Telephone:
Type of Ownership: ☐ Private ☐ County ☑ Federal Agency ☐ Municipal Name: DOD ☐ Not Specified ☐ State ☐ Other_____ ☐ Indian			Type of Ownership: ☐ Private ☐ County ☐ Federal Agency ☐ Municipal Name: _____ ☐ Not Specified ☐ State ☐ Other_____ ☐ Indian		

3. Site Evaluator Information

Name of Evaluator: John Sandoval	Agency/Organization: HydroGeoLogic, Inc.	Date Prepared:06/29/15
Street Address:404 E. Ramsey Road, Ste. 210	City:San Antonio	State:Texas
Name of EPA or State Agency Contact:NA	Street Address:	
City:	State:	Telephone:

4. Site Disposition *(for EPA use only)*

Emergency Response/Removal Assessment Recommendation: ☐ Yes ☐ No Date: _____	CERCLIS Recommendation: ☐ Higher Priority SI ☐ Lower Priority SI ☐ NFRAP ☐ RCRA ☐ Other: _____ Date: _____	Signature: Name (typed): Position:

5. General Site Characteristics

Predominant Land Use Within 1 Mile of Site (check all that apply):

- ☐ Industrial
- ☐ Commercial
- ☐ Residential
- ☐ Forest/Fields
- ☐ Agriculture
- ☐ Mining
- ☑ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility:
- ☐ Other _____

Site Setting:

- ☐ Urban
- ☐ Suburban
- ☑ Rural

Years of Operation:

Beginning Year _1956_

Ending Year _2011_

☐ Unknown

Type of Site Operations (check all that apply):

- ☐ Manufacturing (must check subcategory)
  - ☐ Lumber and Wood Products
  - ☐ Inorganic Chemicals
  - ☐ Plastic and/or Rubber Products
  - ☐ Paints, Varnishes
  - ☐ Industrial Organic Chemicals
  - ☐ Agricultural Chemicals
  - ☐ Miscellaneous Chemical Products
  - ☐ Primary Metals
  - ☐ Metal Coating, Plating, Engraving
  - ☐ Metal Forging, Stamping
  - ☐ Fabricated Structural Metal Products
  - ☐ Electronic Equipment
  - ☐ Other Manufacturing
- ☐ Mining
  - ☐ Metals
  - ☐ Coal
  - ☐ Oil and Gas
  - ☐ Non-metallic Minerals
- ☐ Retail
- ☐ Recycling
- ☐ Junk/Salvage Yard
- ☐ Municipal Landfill
- ☐ Other Landfill
- ☑ DOD
- ☐ DOE
- ☐ DOI
- ☐ Other Federal Facility _____
- ☐ RCRA
  - ☐ Treatment, Storage, or Disposal
  - ☐ Large Quantity Generator
  - ☐ Small Quantity Generator
  - ☐ Subtitle D
    - ☐ Municipal
    - ☐ Industrial
  - ☐ "Converter"
  - ☐ "Protective Filer"
  - ☐ "Non-or Late Filer"
- ☐ Note Specified
- ☐ Other_____

Waste Generated:

- ☑ Onsite
- ☐ Offsite
- ☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☑ Present Owner
- ☐ Former Owner
- ☐ Present & Former Owner
- ☐ Unauthorized
- ☐ Unknown

Waste Accessible to the Public:

- ☑ Yes
- ☐ No

Distance to Nearest Dwelling, School, or Workplace:

_1,801__ Feet

6. Waste Characteristics Information

(Refer to PA Table 1 for WC Score)

Source Type: (check all that apply)	Source Waste Quantity: (include unit)	Tier*:
☐ Landfill	_____	____
☐ Surface Impoundment	_____	____
☐ Drums	_____	____
☐ Tanks and Non-Dum Containers	_____	____
☐ Chemical Waste Pile	_____	____
☐ Scrap Metal or Junk Pile	_____	____
☐ Tailings Pile	_____	____
☐ Trash Pile (open drum)	_____	____
☐ Land Treatment	_____	____
☐ Contaminated GW Plume (unidentified source)	_____	____
☐ Contaminated SW/Sediment (unidentified source)	_____	____
☐ Contaminated Soil		
☑ Other AFFF	_____	____
☐ No Sources	_____	____

*C=Constituent, W=Wastestream, V=Volume, A=Area

General Type of Waste (check all that apply):

- ☐ Metals
- ☐ Organics
- ☐ Inorganics
- ☐ Solvents
- ☐ Paints/Pigments
- ☐ Laboratory/Hospital Waste
- ☐ Radioactive Waste
- ☐ Construction/Demolition Waste
- ☐ Pesticides/Herbicides
- ☐ Acids/Bases
- ☐ Oily Waste
- ☐ Municipal Waste
- ☐ Mining Waste
- ☐ Explosives
- ☑ Other _AFFF_____

Physical State of Waste as Deposited (check all that apply):

- ☐ Solid
- ☐ Sludge
- ☐ Powder
- ☑ Liquid
- ☐ Gas

7. Ground Water Pathway

Is Ground Water Used for Drinking Within 4 Miles:

☑ Yes
☐ No

If Yes, Distance to nearest Drinking Well:

8 Miles

Type of Drinking Water Wells Within 4 Miles (check all that apply):

☑ Municipal
☑ Private
☐ None

Is There a Suspected Release to Ground Water[1]:

☑ Yes
☐ No

Have Primary Target Drinking Water Wells Been Identified:

☑ Yes
☐ No

If Yes, Enter Primary Target Population:

9,500 People[3]

List Secondary Target Population Served by Ground Water Withdrawn From:

0 - 1/4 Mile _____

>1/4 - 1/2 Mile _____

>1/2 - 1 Mile _____

>1 - 2 Mile _____

>2 - 3 Mile _____

>3 - 4 Mile _____

Total Within 4 Miles[4] 3,330

*Use population #s for PA Table 2

*Note nearest well for #5 on GW Pathway Scoresheet

Depth to Shallowest Aquifer:

_____ Feet

Karst Terrain/Aquifer Present:

☐ Yes
☐ No

Nearest Designated Wellhead Protection Area[6]:

☐ Underlies Site
☐ >0-4 Miles
☐ None Within 4 Miles

8. Surface Water Pathway

Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):

☐ Stream ☐ River ☐ Pond ☐ Lake
☐ Bay ☐ Ocean ☑ Other darinage swale and basins

Shortest Overland Distance From Any Source to Surface Water:

on-site Feet
_____ Miles

Is There a Suspected Release to Surface Water[1]:

☑ Yes
☐ No

Site is Located in:

☐ Annual - 10 yr Floodplain
☐ >10yr - 100yr Floodplain
☐ >100yr - 500yr Floodplain
☐ >500yr Floodplain

Drinking Water Intake Located Along the Surface Water Migration Path:

☐ Yes
☑ No

Have Primary Target Drinking Water Intakes Been Identified:

☐ Yes
☑ No

If Yes, Distance to Nearest Drinking Water Intake : _____ Miles[6]

If Yes, Enter Population Served by Target Intake:

_____ People[4]

List All Secondary Target Drinking Water Intakes:

Name:	Water Body:	Flow (cfs):	Population Served:

Total within 15 Miles [4] _____

Fisheries Located Along the Surface Water Migration Path:

☐ Yes ☑ No

If Yes, Distance to Nearest Fishery:

_____ Miles

Have Primary Target Fisheries Been Identified:

☐ Yes ☑ No

List All Secondary Target Fisheries[10]:

Water Body/ Fishery Name :	Flow (cfs):

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☐ Yes
☑ No

Have Primary Target Wetlands Been Identified:

☑ Yes
☐ No

List All Wetlands:

Water Body :	Flow (cfs):	Frontage miles:
unnamed wetland		

Other Sensitive Environments Located Along the Surface Water Migration Path:

☑ Yes
☐ No

If Yes, Distance to Nearest Sensitive Environment:
236 Feet

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List All Sensitive Environments[11]:

Water Body :	Flow (cfs):	Sensitive Environment Type:
unnamed wetland		

9. Soil Exposure Pathway

Are People Occupying Residence or Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:

☐ Yes
☑ No

If Yes, Enter Total Residential Population:

_____ People[2]

Number of Workers Onsite[4]:

☐ None
☑ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Population Within 1 Mile:

3,330 (4 miles)
People[7]

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☑ No

If Yes, List Each Terrestrial Sensitive Environment[5]:

*Refer to PA Table 7 for environment types

10. Air Pathway

Is there a Suspected Release to Air[1]:

☐ Yes
☑ No

Enter Total Population on or Within:

Onsite	
0-1/4 Mile	
>1/4-1/2 Mile	
>1/2-1 Mile	
>1-2 Miles	
>2-3 Miles	
>3-4 Miles	
Total Within 4 Miles [3-5]	3,330

Wetlands Located Within 4 Miles of the Site[6]:

☑ Yes
☐ No

If Yes, How Many Acres: unknown Acres

Other Sensitive Environments Located Within 4 Miles of the Site:

☑ Yes
☐ No

List All Sensitive Environments Within 1/2 Mile of the Site[6]:

Distance:	Sensitive Environment Type/Wetlands Area (acres):
Onsite	
0-1/4 Mile	unnamed wetland
>1/4-1/2 Mile	

*Refer to PA Table 10 for calculations on air pathway exposures

[1-11] Refers to question number on the PA scoresheet for each particular pathway

APPENDIX C

RECORDS OF COMMUNICATION

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HGL HydroGeoLogic, Inc Exceeding Expectations	Date:06/15/15 Time:0810	**COMMUNICATION RECORD**

Name of Base, State: Cape Canaveral Air Force Station (CCAFS), Florida	
Interviewer: John Sandoval	
Organization: HGL	**Phone: 210-348-8778**
Position/role on this project: Field Team Lead	**Email: jsandoval@hgl.com**
Interviewee: John Langett	
Organization: AFCEC	**Phone:**
Position/Job Title: CCAFS AFB RPM	**Email:**
How Long in this Position?	
How long at this Base in current and previous positions?	
Have you held similar positions at other bases? Yes	
Which bases? Patrick AFB	
How long?	
Discussion:	

- Discussed the sites identified in the Final Site Investigation Report for Site Investigations of Fire Fighting Foam Usage at Various Air Force Base in the United States for Cape Canaveral Air Force Station.
- He indicated that he was part of the process for identifying sites where AFFF may have been released.
- Mr. Langett provided me with an excel sheet that identified the sites including: EPF Processing Facility; CCFTA1, FT016 (C032); CCFTA2, FT-017, (C033); Fire Station, 1608; and FLC 17A and 17B.
- EPF Processing Facility
  - 2012 - 1,575 gallons of AFFF and water solution released to visqueen which failed allowing a minimal release to storm water ponds.
- There was no information for CCFTA1, CCFTA2, and Fire Station.
- FLC 17A & 17B
  - According to Norbert Kuhman, CCFAS Fire Chief/Project Manager, refractor testing of the ARFFF Trucks AFFF systems was performed since 1998 at the KSC Fire Training Area on the Kennedy Space Center. Between 1985 and 1998, AFFF discharged from these tests were discharged into flame buckets at former launch complex 17A & 17B. He was not aware of testing procedures prior to 1985. During this timeframe, there would have been less than 5 gallons of AFFF expended each year in support of the testing.
- No active Fire Training Areas on CCAFS.
- Drinking water is provided by the City of Cocoa.

08/17/15 – 1553

- Fire Station #2 constructed in 1990
- Fire Station #3 constructed in 1991

HGL HydroGeoLogic, Inc Exceeding Expectations	**Date: 06/17/15** **Time: 0900**	**COMMUNICATION RECORD**

Name of Base, State: Cape Canaveral Air Force Station (CCAFS), Florida	
Interviewer: John Sandoval	
Organization: HGL	**Phone: 210-348-8778**
Position/role on this project: Field Team Lead	**Email: jsandoval@hgl.com**
Interviewee: Mike Bowers	
Organization: AFCEC	**Phone:**
Position/Job Title: Remedial Project Manager	**Email:**
How Long in this Position? 1999	
How long at this Base in current and previous positions?	
Have you held similar positions at other bases? Yes.	
Which bases? Homestead AFB, Patrick AFB, and MacDill AFB	
How long?	
Discussion:	

- Drinking water provided by the City of Cocoa.
- Hangar C was historically used for storage of rockets and accessories.
  - Not an active hangar.
- Crash Sites
  - Former Space Launch Complex 17 had an incident where a rocket exploded and AFFF may have been used to extinguish fires. See previous PFC investigation for details.
- Waste Water Treatment Plant
  - Constructed in the early 1990s.
  - Receives waste water from sanitary sewers and discharges treated water to a spray field located near the WWTP.
- Former Waste Water Treatment Plant.
  - Get with Tim Jellet (HGL) in regards to the Former WWTP.
- Most hangars on CCAFS are primarily used for maintenance and storage. Therefore, use of AFFF in the hangars is not likely.
- There are two active Fire Stations at CCAFS.
  - Not aware if AFFF is stored at Fire Stations.

HGL HydroGeoLogic, Inc. Exceeding Expectations	Date: 06/29/15 Time: 0840	**COMMUNICATION RECORD**

Name of Base, State: Cape Canaveral Air Force Station (CCAFS), Florida	
Interviewer: John Sandoval	
Organization: HGL	**Phone: 210-348-8778**
Position/role on this project: Field Team Lead	**Email: jsandoval@hgl.com**
Interviewee: Monet Allen	
Organization: Booze Allen Hamilton	**Phone:**
Position/Job Title: Sr. Environmental Scientist	**Email:**
How Long in this Position?	
How long at this Base in current and previous positions?	
Have you held similar positions at other bases?	
Which bases?	
How long?	

Discussion:

1. When was the EPF constructed? 2012?
2. Is the EPF equipped with an Aqueous Film Forming Foam (AFFF) fire suppression system? High Expansion Foam System utilizing Chemguard C2.
3. If so what type of AFFF is the system charged with (3% or 6%)? 3% foam/97% water?
4. What size is the foam supply tank? 2x1000 gallons?
5. When was the AFFF fire suppression system installed? During the construction of the facility/Functional test was conducted on 09 May 2012.
6. Are there photos of the AFFF fire suppression system that I can get access to (preferably the AFFF supply tank)? See attached picture of 1000 gallon tank.
7. The provided EPF Report indicated that the contaminated water was pumped out from the ponds. Where was the contaminated water pumped to? The water was pumped to grade.
8. What was used to pump out the contaminated water? Was the contaminated water pumped via a vacuum truck? "Trash" pump provided by IOMS.
9. Was the contaminated water disposed off-base or treated on base at Wastewater treatment plant? Neither. Pumped to grade.
10. Were photos taken of the release? If so do you think I can get access to these photos? See attached pictures.

HGL HydroGeoLogic, Inc Exceeding Expectations	Date: 06/18/15 Time: 0930	**COMMUNICATION RECORD**

Name of Base, State: Cape Canaveral Air Force Station (CCAFS), Florida	
Interviewer: John Sandoval	
Organization: HGL	**Phone: 210-348-8778**
Position/role on this project: Field Team Lead	**Email: jsandoval@hgl.com**
Interviewee: Paul Duester	
Organization: InDyne "IOMS"	**Phone:**
Position/Job Title: System Maintenance Engineer	**Email:**
How Long in this Position? 2008	
How long at this Base in current and previous positions?	
Have you held similar positions at other bases?	
Which bases?	
How long?	

Discussion:

- All Hangars (Hangars C, U, T, N, M, S, AF, K, J, I, D, R, G, H, E, and F) are equipped with Wet Pipe Fire Suppression Systems. They have never been equipped with AFFF Fire Suppression Systems.
- 104 wet pipe systems and 14 pre-action systems.
- Hangar C was historically used for storage of rockets and accessories.
    - Not an active hangar.
- All hangars primarily used as maintenance shops and storage of rocket assembly parts.
- Eastern Processing Facility
    - Has an AFFF Fire Suppression System
    - AFFF was released during an acceptance test and ended up draining into storm drains and ponds surrounding the facility.
    - Occurred sometime in 2012 or 2013
- Was not aware of any crash sites where AFFF may have been used.
- Was not aware of any other AFFF releases.

HGL HydroGeoLogic, Inc. Exceeding Expectations	Date: 06/18/15 Time: 1305	**COMMUNICATION RECORD**

Name of Base, State: Cape Canaveral Air Force Station (CCAFS), Florida	
Interviewer: John Sandoval	
Organization: HGL	**Phone: 210-348-8778**
Position/role on this project: Field Team Lead	**Email: jsandoval@hgl.com**
Interviewee: Paul Perkins	
Organization: CCAFS Fire Department	**Phone:**
Position/Job Title: Assistant Fire Chief	**Email:**
How Long in this Position? 2008	
How long at this Base in current and previous positions?	
Have you held similar positions at other bases? Patrick AFB	
Which bases?	
How long?	

Discussion:

Indicated that no Hangars are equipped with AFFF fire suppression systems, only wet pipe systems.

Building 60723

- Alcohol Resistant AFFF, AFFF, Purple K Dry Chem, and Multipurpose Dry Chemical – Fire Extinguisher Recharge are all stored in building.
- Approximately 110 gallons of excess AFFF is stored at Building 60723.

3 Fire Stations located at CCAFS.

- Fire Station #1, Fire Station #2 [redacted] and Fire Station #3 [redacted]
- Fire Station #1 has 3 Fire Engines: RID Crash truck – 56 gallon foam capacity, P-19 – 130 gallon foam capacity, P-23 – 500 gallon foam capacity and a 1,000 gallon foam trailer.
- Fire Station # 2 has a fire engine (P-22) that holds the following foams, Class A (25 gallons) and ARAFFF (25 gallons).
- Fire Station #3 has a fire engine (P-22) that holds the following foams, Class A (25 gallons) and ARAFFF (25 gallons).

Fire Trucks are refilled at Fire Station #1 either by pumping into truck or manually using 5-gallon buckets. Truck refilled in an apparatus bay at Fire Station that has a secondary containment in case of accidental spills. No accidental spills reported. Not sure what happens to contents of secondary containment.

Time and Distance Testing is known as refractometer testing and was historically conducted at the Kennedy Space Center until 2012. From 2013 to current, refractor testing is conducted on the parking lot ground northwest of the Fire Station #1. Testing is conducted annually. Unknown amount of AFFF released during testing. AFFF released on the parking lot is allowed to evaporate.

Was not aware of any crash sites that required AFFF at CCAFS.

AFFF used is 3% MilSpec. AFFF solution is mixed automatically by the fire engines. That is why refractometer testing is conducted.

Discussion:

Former Fire Station (Building 1608)

- Not aware of any releases at former station
- Vehicles were reserviced/refilled with AFFF at the former station.
- AFFF was historically stored at the former station – unknown amount.

Fire Crash Rescue Station (Fire Station 1)

- Building number 50012
- Station was built and in service in 2004.
- AFFF flush out of fire hoses would be performed at the site of an emergency response.