

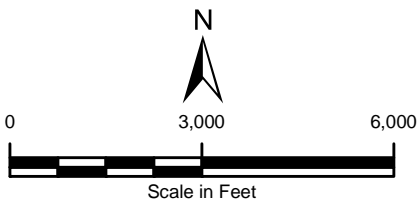
REFERENCE: BASE MAP USGS 7.5 MINUTE QUAD BRADENTON, FL, 1964, PHOTOREVISED 1987.

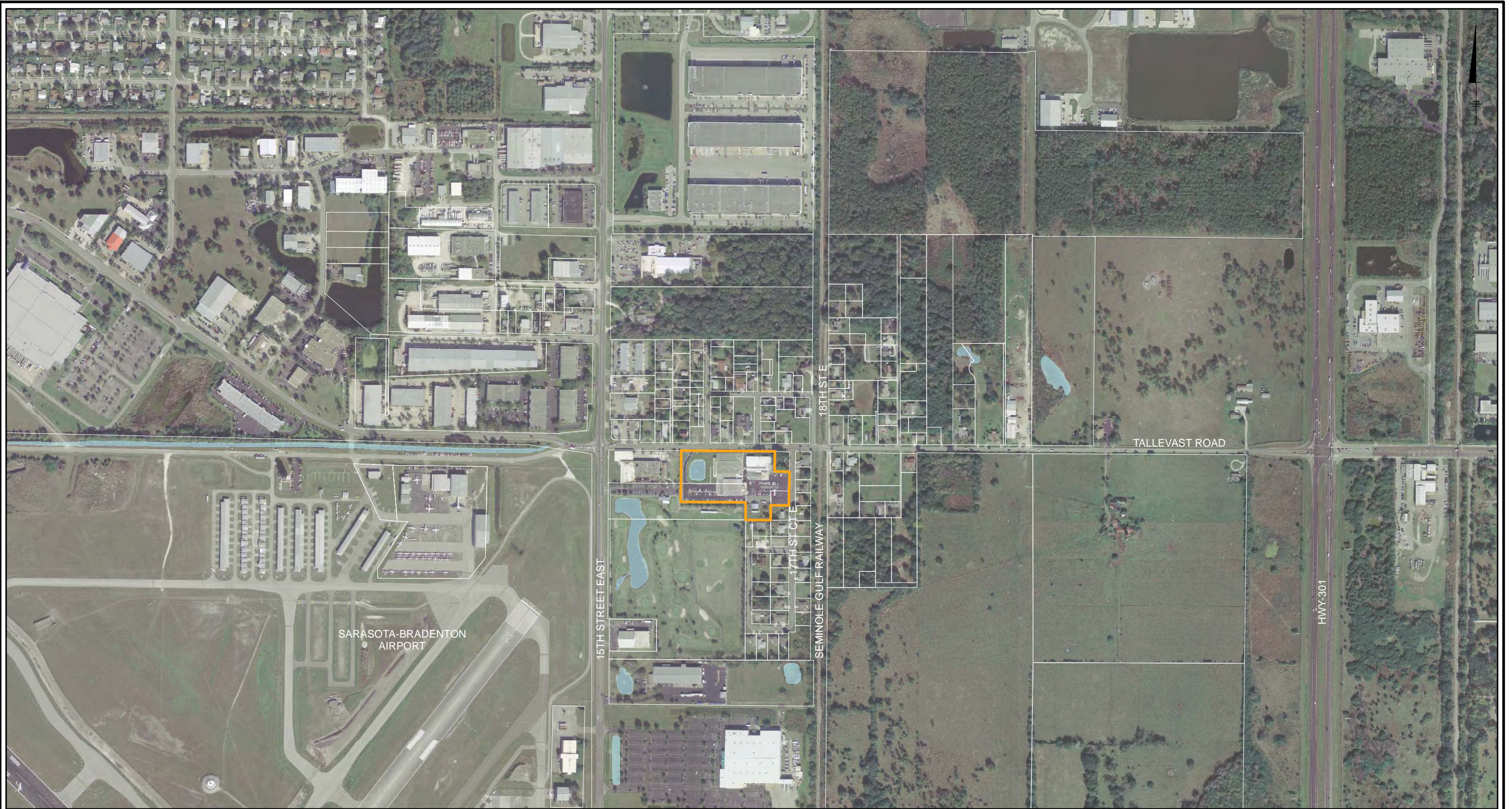
LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM


SITE LOCATION MAP



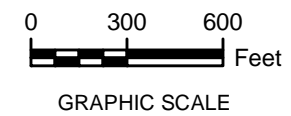
FIGURE
1-1





-  LOCKHEED MARTIN TALLEVAST FACILITY
-  PARCELS
-  PONDS

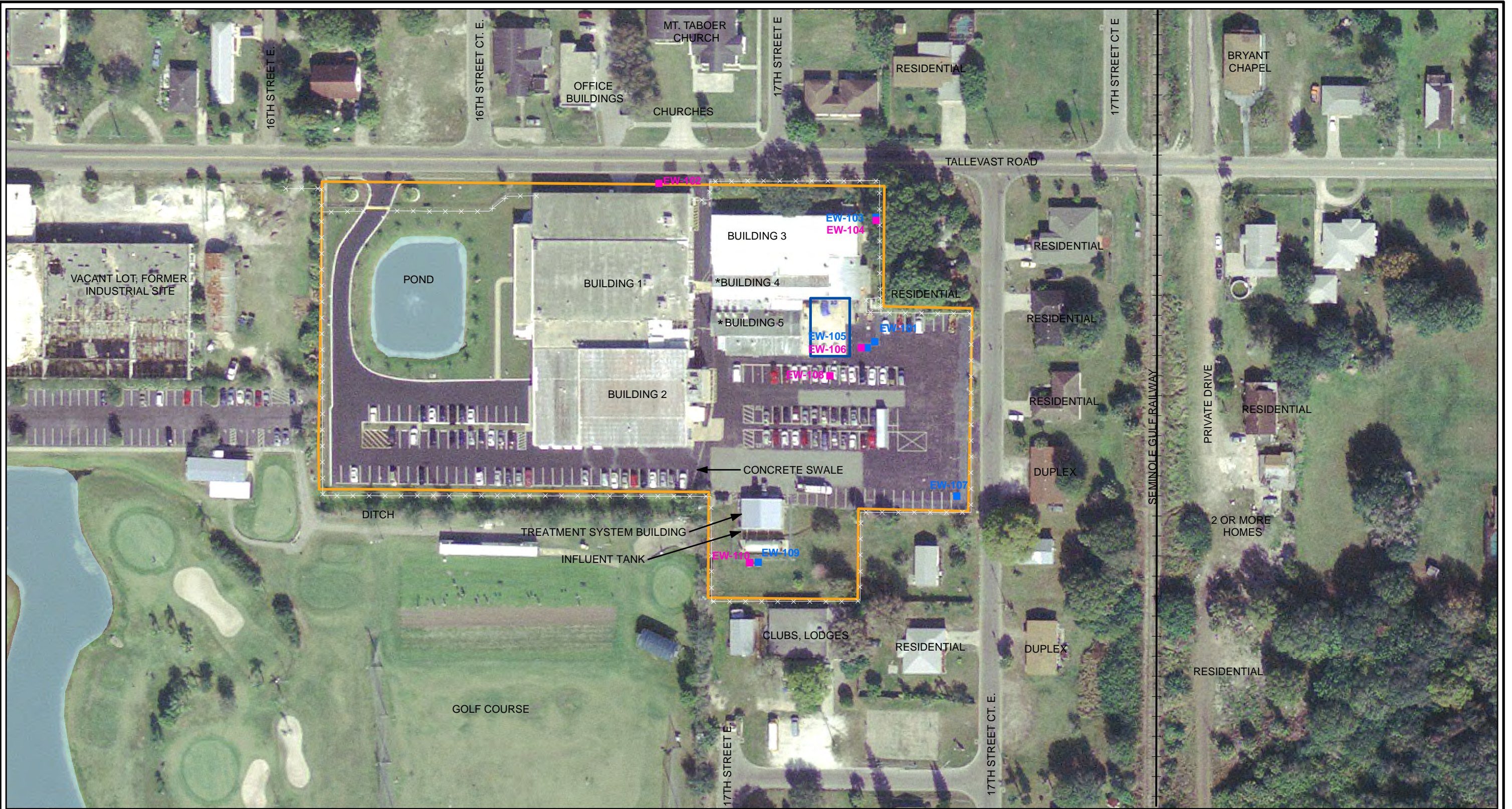
NOTE:
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.



LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

VICINITY MAP

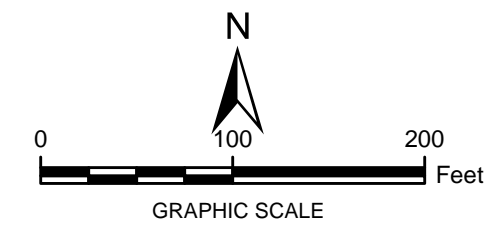




- LOCKHEED MARTIN TALLEVAST FACILITY
- PONDS
- FENCE
- SOIL EXCAVATION LOCATION, SEPTEMBER 2001

- EXTRACTION WELLS (USAS)
- EXTRACTION WELLS (LSAS)

NOTE:
 1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 2. *BUILDINGS 4 AND 5 WERE REMOVED IN DECEMBER 2008. THE BUILDING FOUNDATIONS REMAIN.

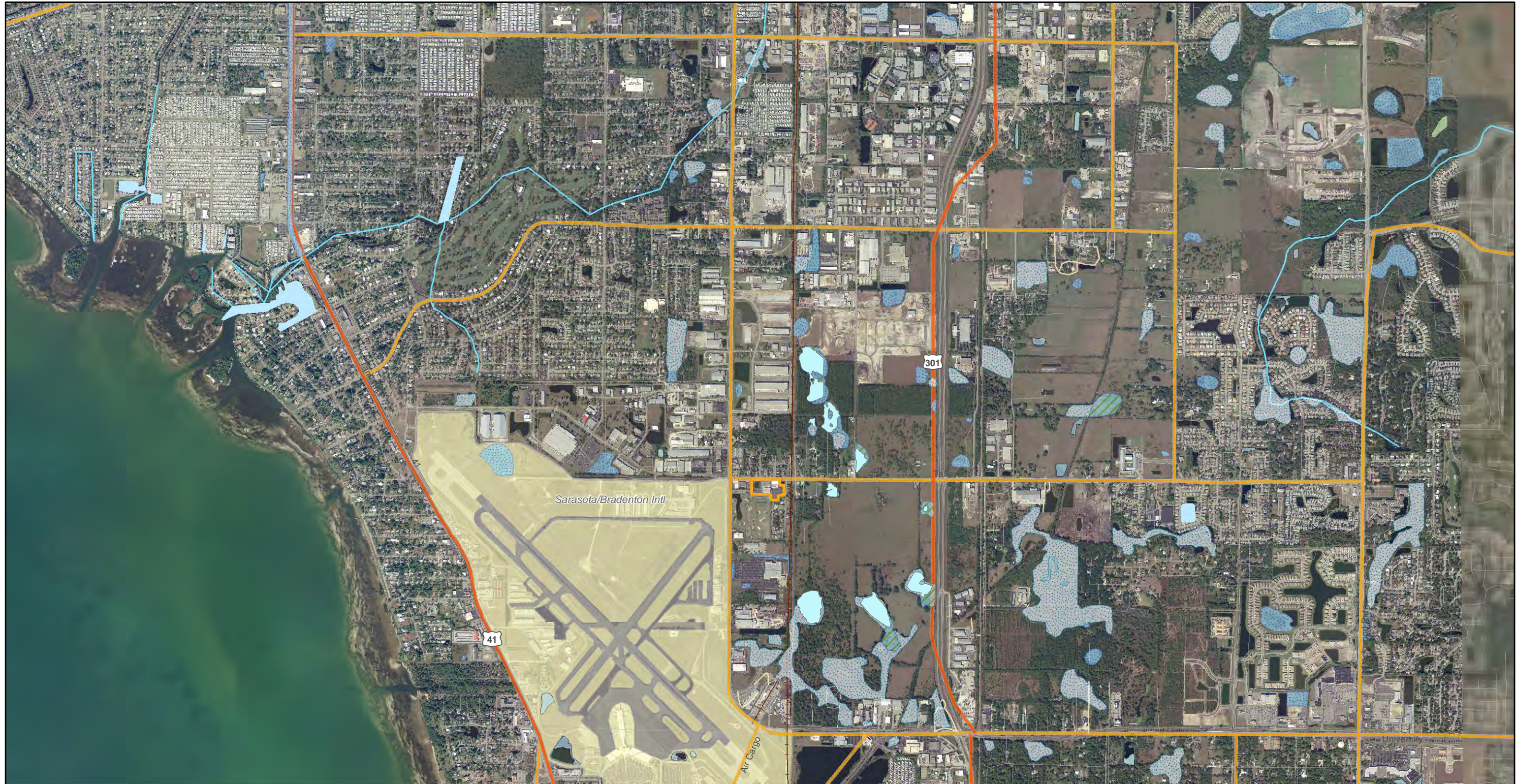


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

FACILITY MAP

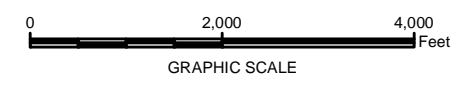
FIGURE
1-3

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LEGEND

- | | | | | |
|------------------------------------|------------------------|----------------|------------|----------------|
| 2009 Wetland Boundaries | Freshwater Marshes | Limited Access | Other Road | Runway |
| Cypress | Wet Prairies | Highway | Ramp | Airport Area |
| Emergent Aquatic Vegetation | Wetland Forested Mixed | Major Road | Ferry | Pedestrian Way |
| Lockheed Martin Tallevast Facility | Local Road | Minor Road | | |



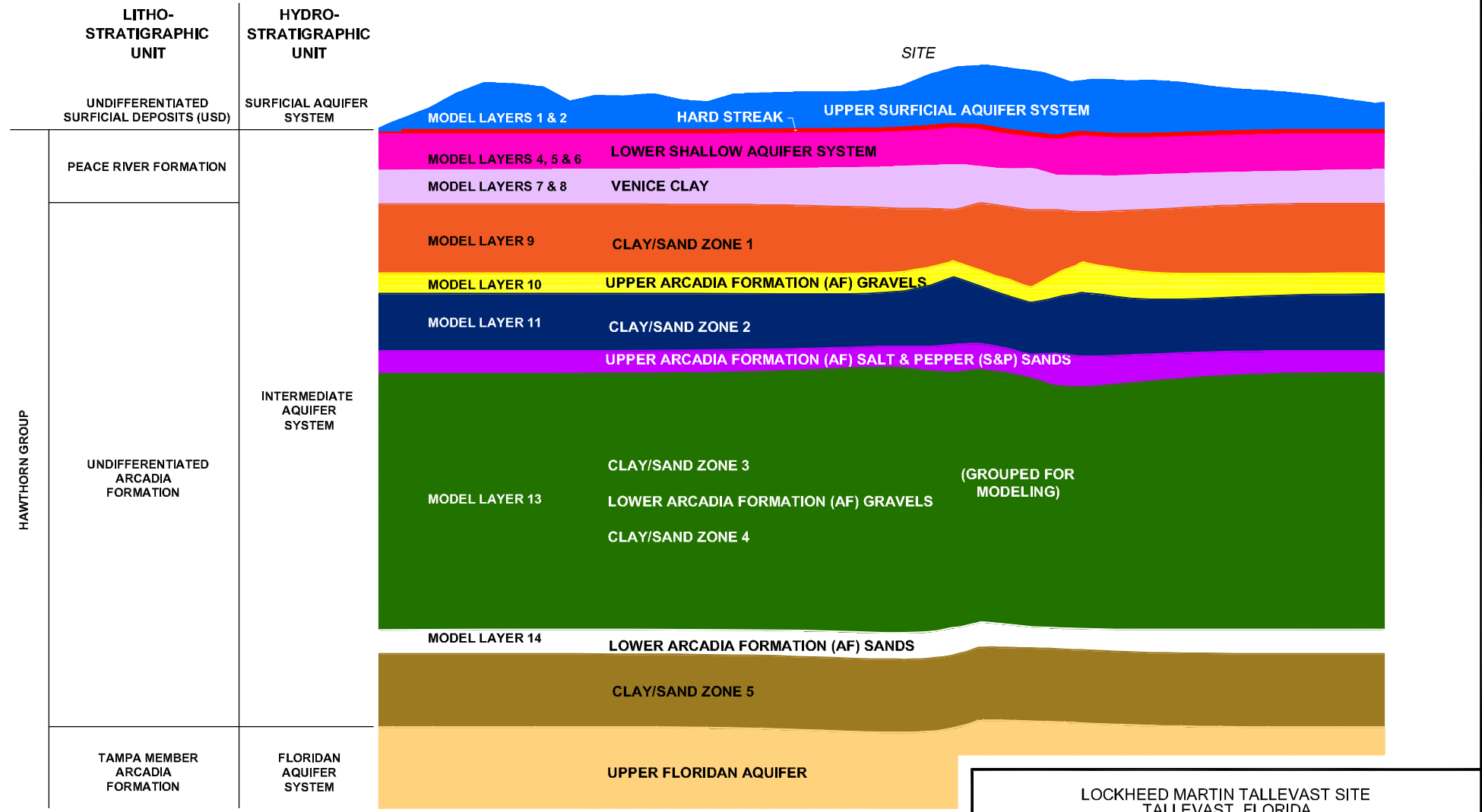
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**FLORIDA LAND USE, COVER AND
FORMS CLASSIFICATION SYSTEM
WETLAND LOCATIONS**



FIGURE
2-1

XREFS: IMAGES: PROJECTNAME: ---



LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**CONCEPTUAL GEOLOGIC
 CROSS-SECTION**



FIGURE
2-2

SOURCE: FIGURE 2 IN GEOTRANS FINAL REPORT -
 GROUNDWATER FLOW AND SOLUTE TRANSPORT MODEL

SYSTEM		QUATERNARY		LITHOLOGY	UNIT THICKNESS (FT)	WATER BEARING	DESIGNATED COLOR*	
SERIES	LITHO-STRATIGRAPHIC UNIT	PLEISTOCENE	HOLOCENE					
TERTIARY	MIOCENE	HAWTHORN GROUP	ARCADIA FORMATION (AF)	INTERMEDIATE AQUIFER SYSTEM (IAS)	LOWER SHALLOW AQUIFER SYSTEM (LSAS) - The uppermost portion of the Peace River Formation (PRF) is represented by indurated moldic carbonate termed the Hard Streak , followed by a series of interbedded limestone, clay, and carbonate mudstone units forming the LSAS. These units are often fragmented into angular gravels during drilling.	20-55	✓	Blue
					VENICE CLAY - A siliciclastic to calcareous clay unit with a distinctive greenish-grey to olive color. A calcirudite/calclutite unit within the Peace River Formation (sometimes described as "Lower PRF Gravels" due to fragmentation during drilling) carries a natural gamma spike believed to result from a high phosphatic content. There is a transitional contact with the underlying Arcadia formation.	6-36	✓	Pink
	CLAY/SAND ZONE 1 - A series of inter-bedded carbonate units, predominantly calcilutites. Vugs, pits and fractures are present within the well-consolidated sections of carbonate beds.	15-50			Orange			
	UPPER ARCADIA FORMATION (AF) GRAVELS - A lateral correlation can be made of a calcirudite/calclutite unit, often described as "gravel" due to fragmentation. The unit encountered at approximately 100 feet bgs in the surveyed area and can produce significant groundwater yields. It is associated with a distinctive natural gamma spike that is likely due to high phosphatic content.	5-15	✓		Yellow			
	CLAY/SAND ZONE 2 - A series of inter-bedded carbonate (calcitic/dolomitic) units, predominantly calcilutites. Vugs, pits and fractures are present within the well-consolidated sections of carbonate beds.	10-55			Dark Blue			
	SALT & PEPPER (S&P) SANDS - A laterally continuous, quartz-rich sand unit that has a high to moderate phosphatic content. The top of this unit is often approximately 145 feet bgs in the surveyed area. Due to the colorless quartz and black phosphatic sand, the unit has a "salt & pepper" appearance. This S&P sand unit is fine to medium grained and has varying silt and clay content, ranging from well-sorted sand to cohesive clayey sands.	5-15	✓		Purple			
	CLAY/SAND ZONE 3 - A series of interbedded carbonate units, predominantly calcilutites. Vugs, pits and fractures are present within the well-consolidated sections of carbonate beds.	100-150			Green			
	LOWER ARCADIA FORMATION (AF) GRAVELS - A lateral correlation can be made of a calcirudite/calclutite unit. This unit is often encountered between approximately 280 and 290 feet bgs, and carries a distinctive natural gamma spike, which is believed to result from a high phosphatic content.							
	CLAY/SAND ZONE 4 - A series of inter-bedded carbonate (calcitic/dolomitic) units, predominantly calcilutites.	1-15			Green			
	LOWER ARCADIA FORMATION (AF) SANDS - A laterally continuous, quartz-rich sand unit. The sand is fine to medium grained and has varying silt and clay content, ranging from poorly sorted to clayey sands.							
CLAY/SAND ZONE 5 - Underlying the Lower AF Sands is a series of carbonate units, predominantly calcilutites, which extend to the top of the Floridan Aquifer System.	~ 50		Brown					
OLIGOCENE	TAMPA MEMBER ARCADIA FORMATION	FLORIDAN AQUIFER SYSTEM (FAS)		UPPER FLORIDAN AQUIFER - A series of heterogeneous limestone and dolomite units with highly developed secondary porosity due to dissolution.	✓		Orange	

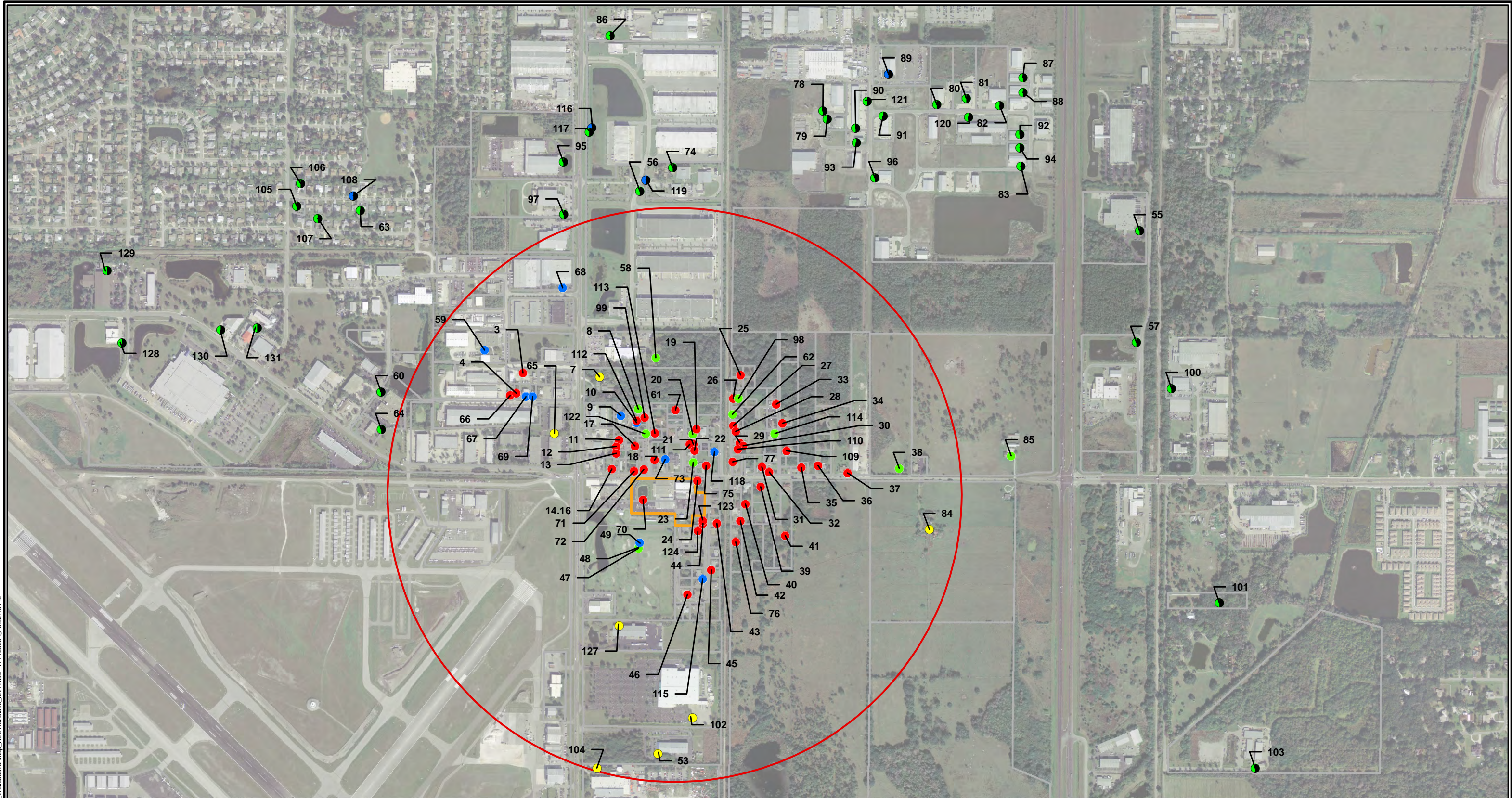
*Designated color assigned to units on conceptual geologic cross-section and used in some other displays to indicate geologic unit.

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

STRATIGRAPHIC COLUMN



FIGURE
2-3



LEGEND:

- PRIVATE WELL LOCKHEED MARTIN CORPORATION TARGETED FOR CLOSURE
- PRIVATE WELL ABANDONED BY LOCKHEED MARTIN CORPORATION
- PRIVATE WELL ABANDONED BY OTHERS
- PRIVATE WELL NOT SCHEDULED FOR CLOSURE
- PRIVATE WELL OUTSIDE 1/2 MILE RADIUS (EXCEPT MAP ID 85)
- PRIVATE WELL ABANDONED BY OTHERS OUTSIDE 1/2 MILE RADIUS
- HALF-MILE RADIUS
- LOCKHEED MARTIN TALLEVAST FACILITY

PARCEL BOUNDARY

NOTES:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. THE ADDRESSES ASSOCIATED WITH THE MAP NUMBERS ARE PRESENTED IN TABLE 3-1.
3. WELL LOCATIONS ARE APPROXIMATE.
4. THIS MAP DOES NOT INCLUDE MONITORING WELLS INSTALLED BY OTHERS.



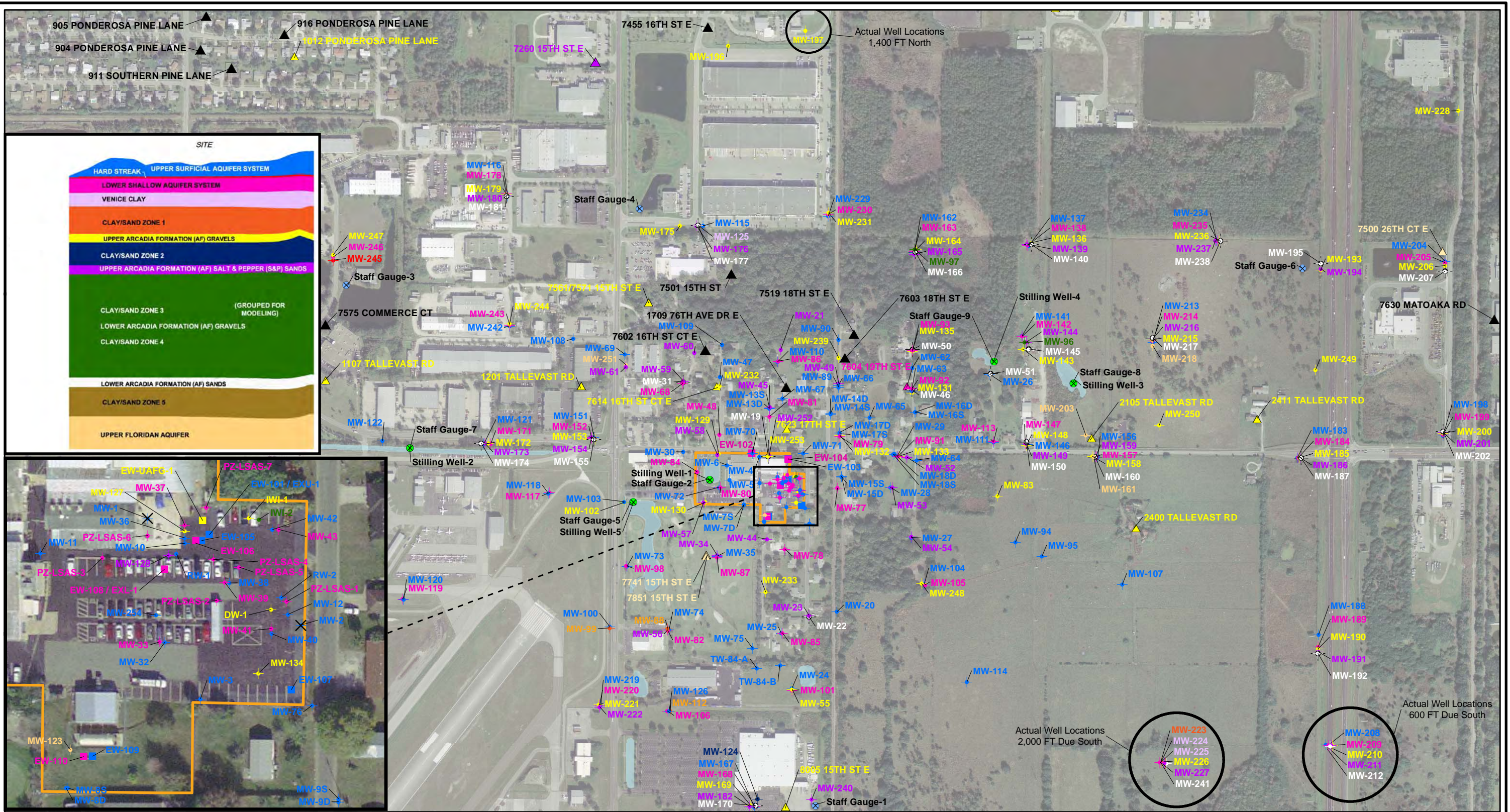
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

PRIVATE WELL LOCATION MAP



FIGURE
3-1

I:\LockheedMartin\LockheedMartin\RA\2009\MXD\Fig4-1_Monitoring_Wells_final_rev1.mxd - 7/13/2009 @ 7:45:03 AM

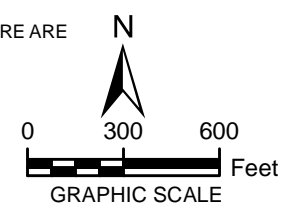


ZONE	WELL TYPE		
	EXTRACTION	MONITORING	PRIVATE
USAS	Blue square	Blue circle	Blue triangle
HARD STREAK CLAY	Red square	Red circle	Red triangle
LSAS	Pink square	Pink circle	Pink triangle
VENICE CLAY	Purple square	Purple circle	Purple triangle
CLAY/SAND ZONE 1	Orange square	Orange circle	Orange triangle
AF GRAVEL	Yellow square	Yellow circle	Yellow triangle
CLAY/SAND ZONE 2	Dark blue square	Dark blue circle	Dark blue triangle
S&P SANDS	Purple square	Purple circle	Purple triangle

ZONE	WELL TYPE		
	EXTRACTION	MONITORING	PRIVATE
CLAY/SAND ZONE 3-4	Green square	Green circle	Green triangle
LOWER AF SANDS	White square	White circle	White triangle
FLORIDAN	Orange square	Orange circle	Orange triangle

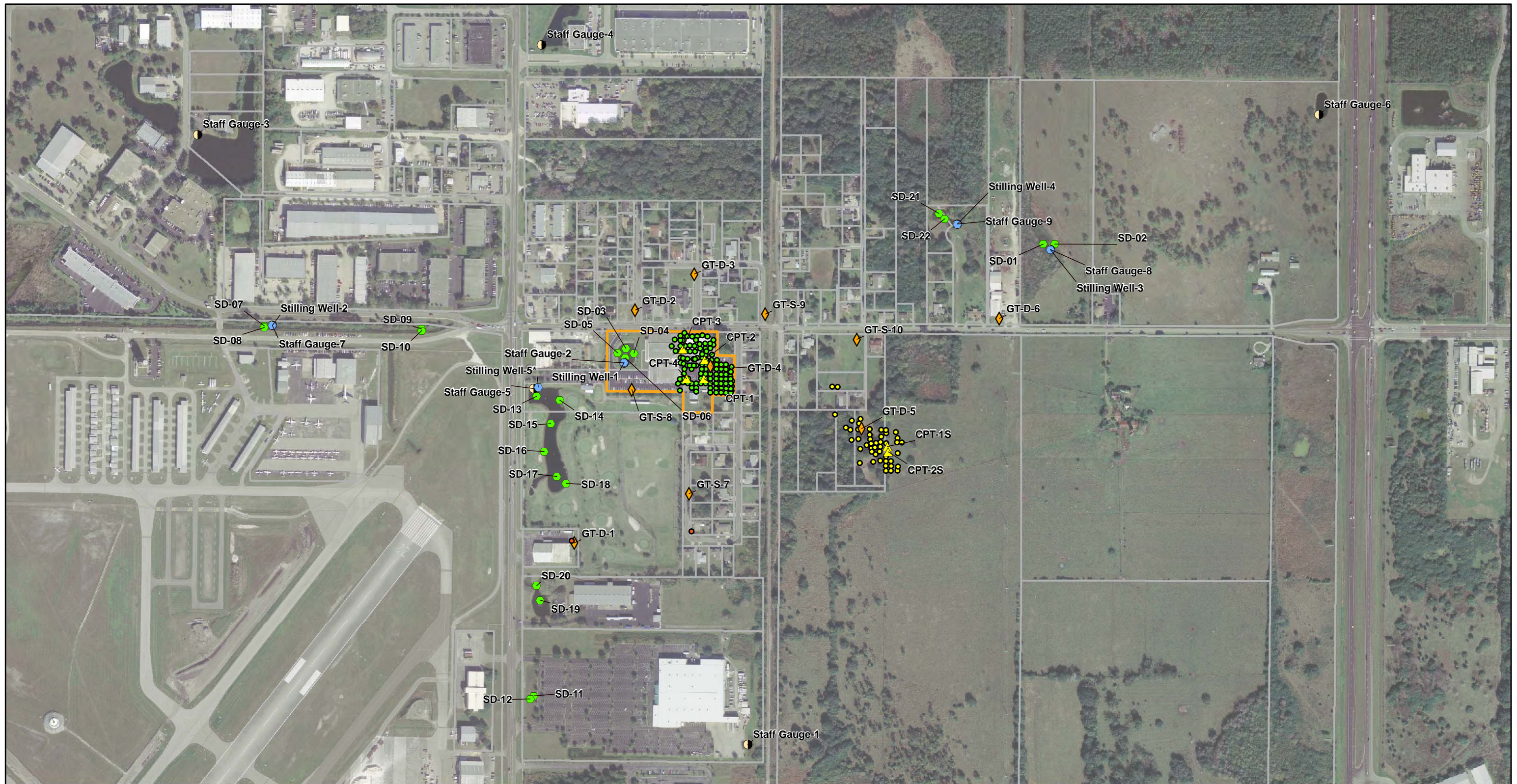
⊗ SURFACE STAFFING GAUGE
 ⊙ SURFACE STILLING WELL
 ▲ PRIVATE WELL CHARACTERISTICS UNKNOWN
 □ LOCKHEED MARTIN TALLEVAST FACILITY
 ■ PONDS

NOTE:
 1. X - MW-1 WAS REMOVED IN 2004 AND MW-2 WAS REMOVED IN 2006.
 2. THIS MAP DOES NOT INCLUDE MONITORING WELLS INSTALLED BY OTHERS.
 3. THE PRIVATE WELLS PRESENTED ON THIS FIGURE ARE ACTIVE WELLS.



LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM
MONITORING, EXTRACTION AND PRIVATE
WELL LOCATION MAP

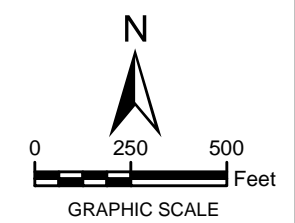

FIGURE
4-1



LEGEND

- ▲ CONE PENETROMETER LOCATIONS
- ◆ GEOTECHNICAL BORINGS
- SEDIMENT SAMPLES
- STAFF GAUGES
- STILLING WELLS
- LOCKHEED MARTIN TALLEVAST FACILITY
- PARCEL BOUNDARY
- MEMBRANE INTERFACE PROBE LOCATIONS
 - AREA A
 - AREA B
 - AREA C

NOTE:
1. * INDICATES WELL NOT SURVEYED



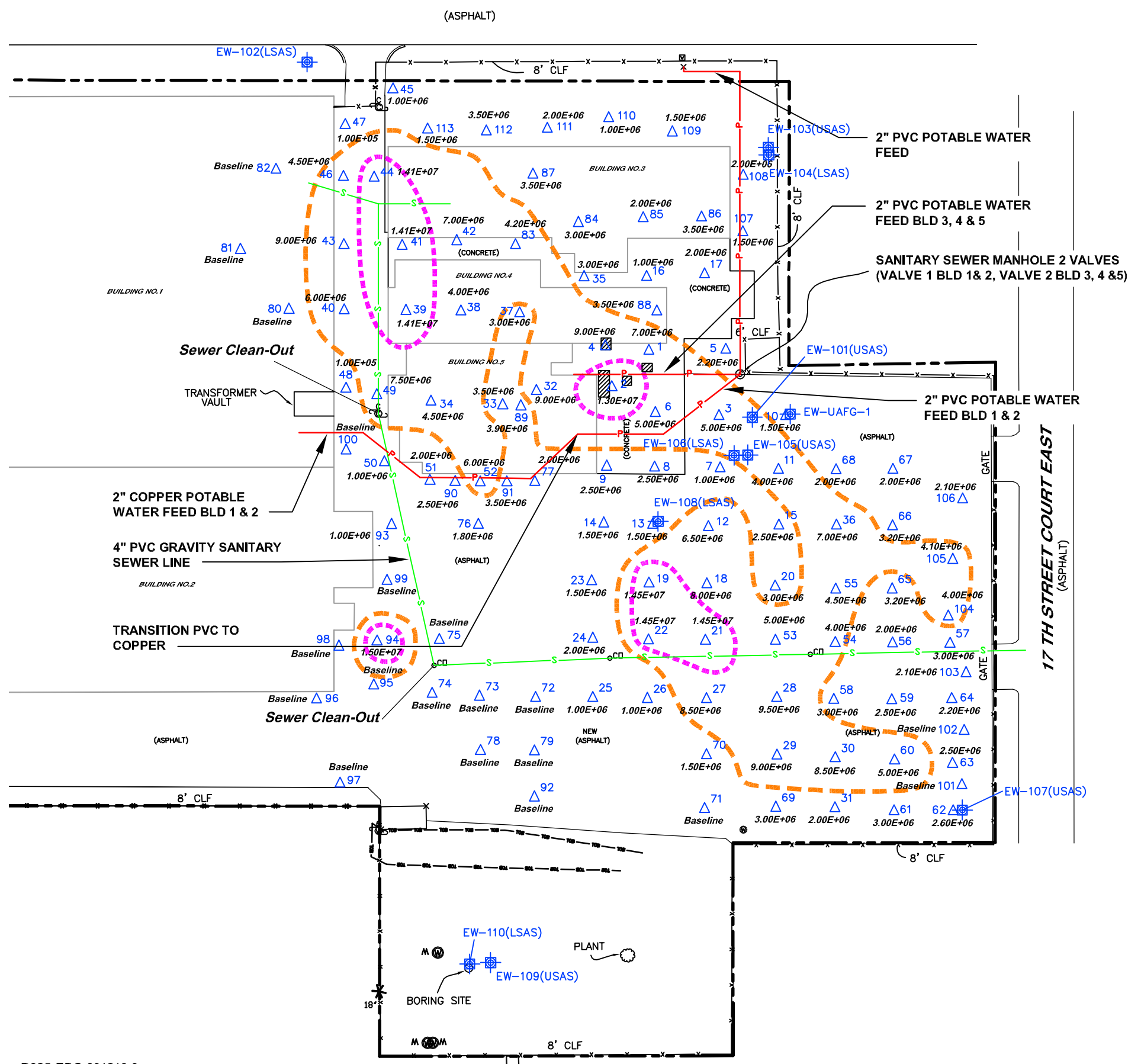
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

OTHER INVESTIGATION LOCATIONS

FIGURE
4-2

NYC-85 TBR SYR-85 MTK
 Project #5605.003
 I:\LockheedMartin\LockheedMartin\RA\PI\0209\WXD\Fig4-2_Investigation_Locs.mxd - 7/2/2009 @ 2:20:06 PM

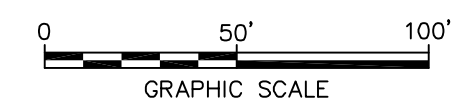
CITY: TAMPA, DIV: GROUP: 65, DB: JAR, LR: 85, AN: PD, TM: TR, LYRON: OFF=REF*, G:\ENVCAD\Tempa-B\MACT\10038055001\3000002\RAP\2009\B00038055\4-3.dwg, LAYOUT: 4-3, SAVED: 7/8/2009 9:39 AM, ACADVER: 17.05 (LMS TECH), PAGES: 4, PLOT: PLT, PLOTTABLE: PLT, PLOT: 7/8/2009 9:39 AM, BY: RICHARDS, JIM



LEGEND:

- LOCKHEED MARTIN TALLEVAST FACILITY BOUNDARY
- ⊕ EXTRACTION WELL
- △ APPROXIMATE LOCATION OF MIP BORINGS
- ⊠ FORMER SUMP LOCATION
- P — POTABLE WATER LINE
- S — SANITARY SEWER LINE
- 4E+06 ECD RESPONSE CONTOUR
- 1E+07 ECD RESPONSE CONTOUR

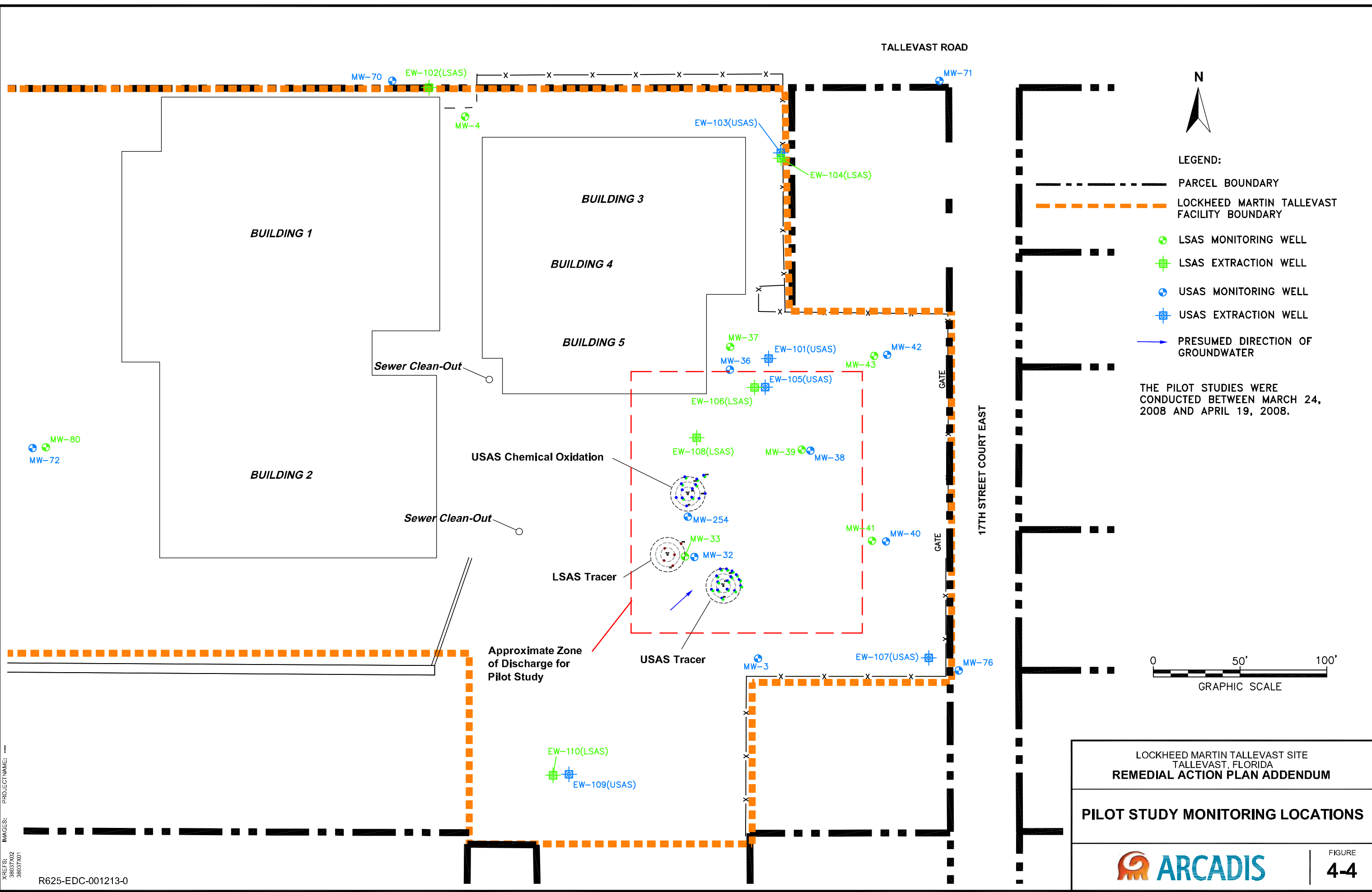
THE MEMBRANE INTERFACE PROBE (MIP) SURVEY WAS CONDUCTED FROM NOVEMBER 12, 2007 TO FEBRUARY 12, 2008.



LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

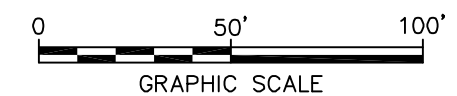
**MAXIMUM ELECTRON CAPTURE
 DETECTOR (ECD) RESPONSE
 BY BORING LOCATION**

CITY: TAMPA DIV: GROUP: 65 DB: JAR LR: 85 AM: PD: TM: TR: LYRON#OFF=REF*
 G:\ENVCAD\Tempa-BWACT\10038055001300002\RAP\2009\B003805544.dwg LAYOUT: 4-4
 XREFS: 38037X02 38037X01
 IMAGES: PROJECTNAME: ---
 PAGES: 4-4
 PLOTTED: 7/11/2009 6:21 PM ACADVER: 17.08 (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLT:LULL.CTB
 RICHARDS JIM BY: RICHARDS JIM



- LEGEND:**
- PARCEL BOUNDARY
 - - - LOCKHEED MARTIN TALLEVAST FACILITY BOUNDARY
 - ⊕ LSAS MONITORING WELL
 - ⊕ LSAS EXTRACTION WELL
 - ⊕ USAS MONITORING WELL
 - ⊕ USAS EXTRACTION WELL
 - PRESUMED DIRECTION OF GROUNDWATER

THE PILOT STUDIES WERE CONDUCTED BETWEEN MARCH 24, 2008 AND APRIL 19, 2008.

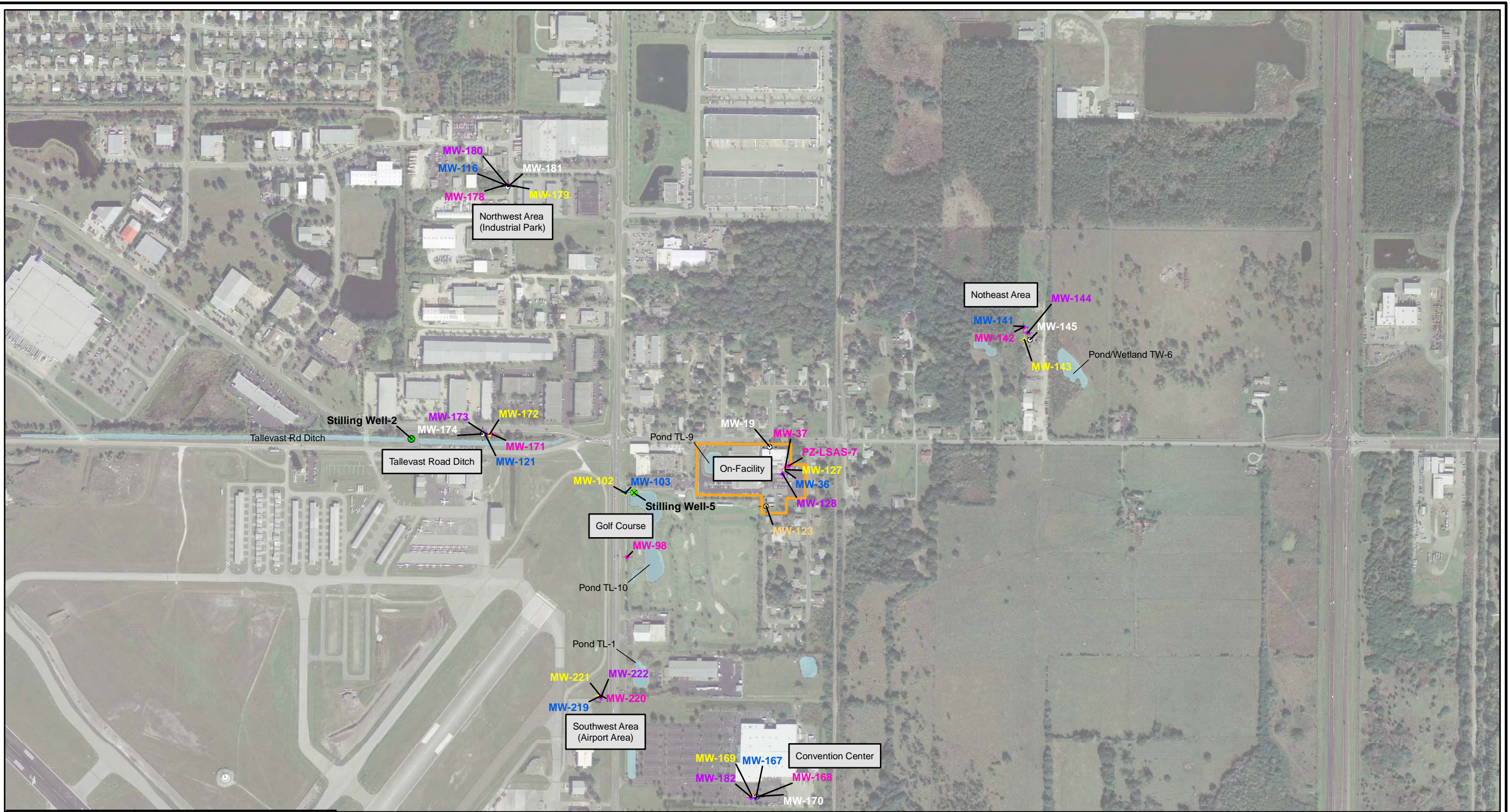


LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

PILOT STUDY MONITORING LOCATIONS

FIGURE
4-4

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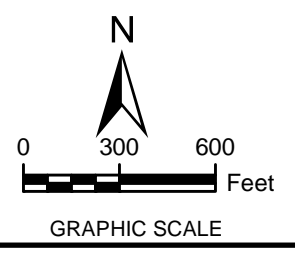


ZONE	WELL TYPE		
	EXTRACTION	MONITORING	PRIVATE
USAS	Blue square	Blue star	Blue triangle
HARD STREAK CLAY	Red square	Red star	Red triangle
LSAS	Pink square	Pink star	Pink triangle
VENICE CLAY	Light pink square	Light pink star	Light pink triangle
CLAY/SAND ZONE 1	Orange square	Orange star	Orange triangle
AF GRAVEL	Yellow square	Yellow star	Yellow triangle
CLAY/SAND ZONE 2	Black square	Black star	Black triangle
S&P SANDS	Purple square	Purple star	Purple triangle

ZONE	WELL TYPE		
	EXTRACTION	MONITORING	PRIVATE
CLAY/SAND ZONE 3-4	Green square	Green star	Green triangle
LOWER AF SANDS	White square	White star	White triangle
FLORIDAN	Orange square	Orange star	Orange triangle

● SURFACE STAFFING GAUGE
 ● SURFACE STILLING WELL
 [Orange outline] LOCKHEED MARTIN TALLEVAST FACILITY
 [Light blue fill] PONDS

NOTES:
 1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.



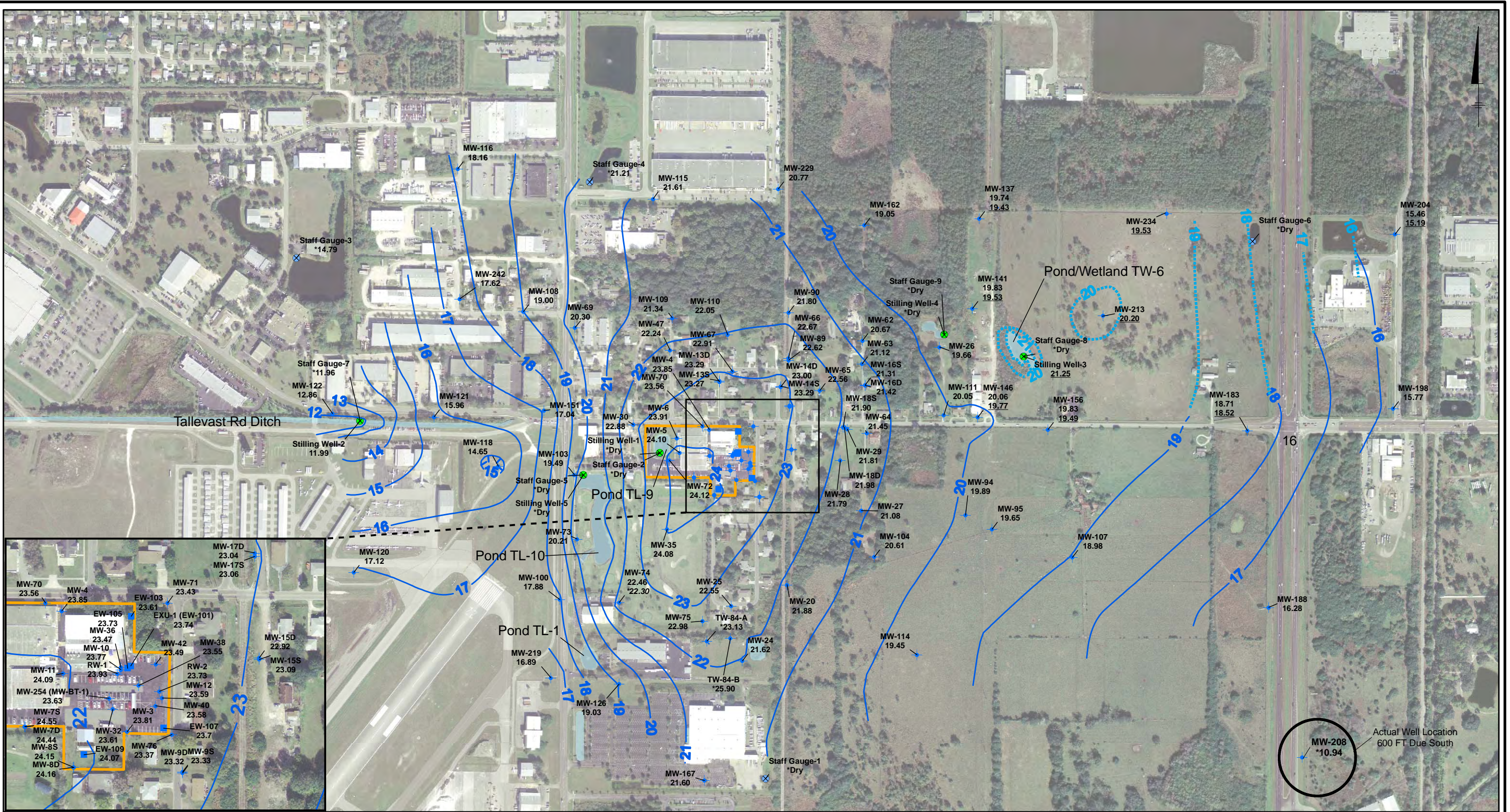
LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM

**LONG-TERM MONITORING
 TRANSDUCER LOCATIONS**

ARCADIS

FIGURE
4-5

DEN-080.MSS
 Project #: B0038055.0000
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LEGEND:

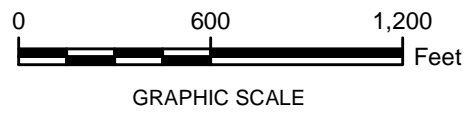
- + Monitoring Well Location - USAS
- Extraction Well Location - USAS
- ⊗ Staff Gauge Location
- Stilling Well Location
- Lockheed Martin Tallevast Facility
- Ponds

- Potentiometric Elevation Contour (Feet MSL)
Wells gauged in March 2009
- - - Potentiometric Elevation Contour (Feet MSL)
Wells gauged in April 2009 and contoured separately
- ⊥ Groundwater Depression

MW-167 Monitoring Well ID
 21.60 Potentiometric Elevation gauged in March 2009 (Feet MSL)
 19.53 Gauged in April 2009
 * Not used in contouring

NOTES:

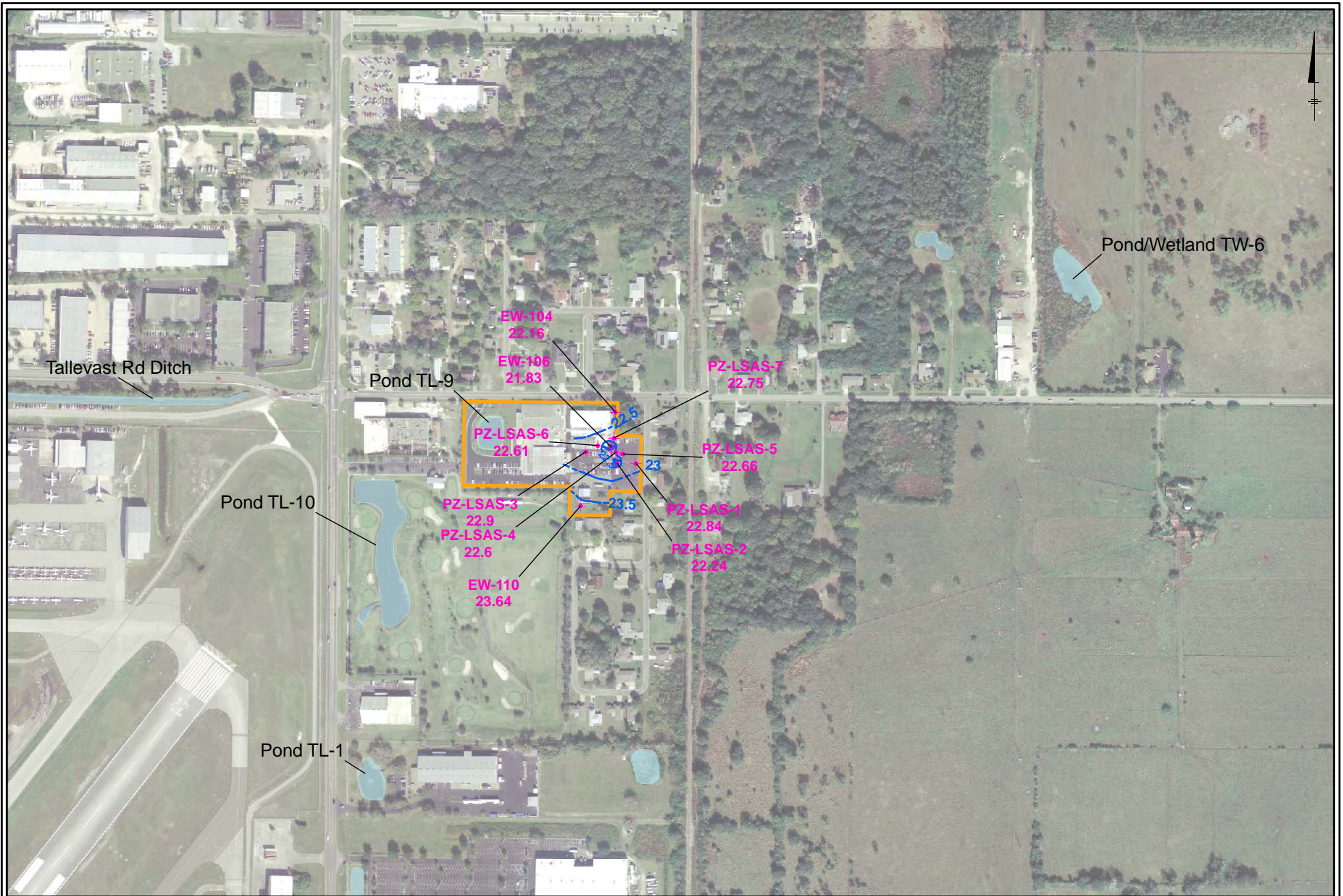
1. Aerial photos were obtained from the Southwest Florida Water Management District (SWFWMD). Aerial photos were taken in 2007 at a 1-foot resolution in natural color format.
2. Vertical datum is in NAVD88.
3. Potentiometric elevations were obtained during the March/April 2009 monitoring event.
4. MSL - Mean Sea Level



LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

POTENTIOMETRIC CONTOUR MAP
UPPER SURFICIAL AQUIFER SYSTEM -
MARCH/APRIL 2009

|
FIGURE 5-1



LEGEND:

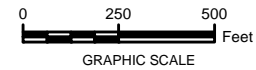
- + Monitoring Well Location - Upper LSAS
- Lockheed Martin Tallevast Facility
- Ponds

- Potentiometric Elevation Contour (Feet MSL)
Wells gauged in March 2009 (Dashed where inferred)
- Groundwater Depression

EW-106 Monitoring Well ID
21.83 Potentiometric Elevation (Feet MSL)

NOTES:

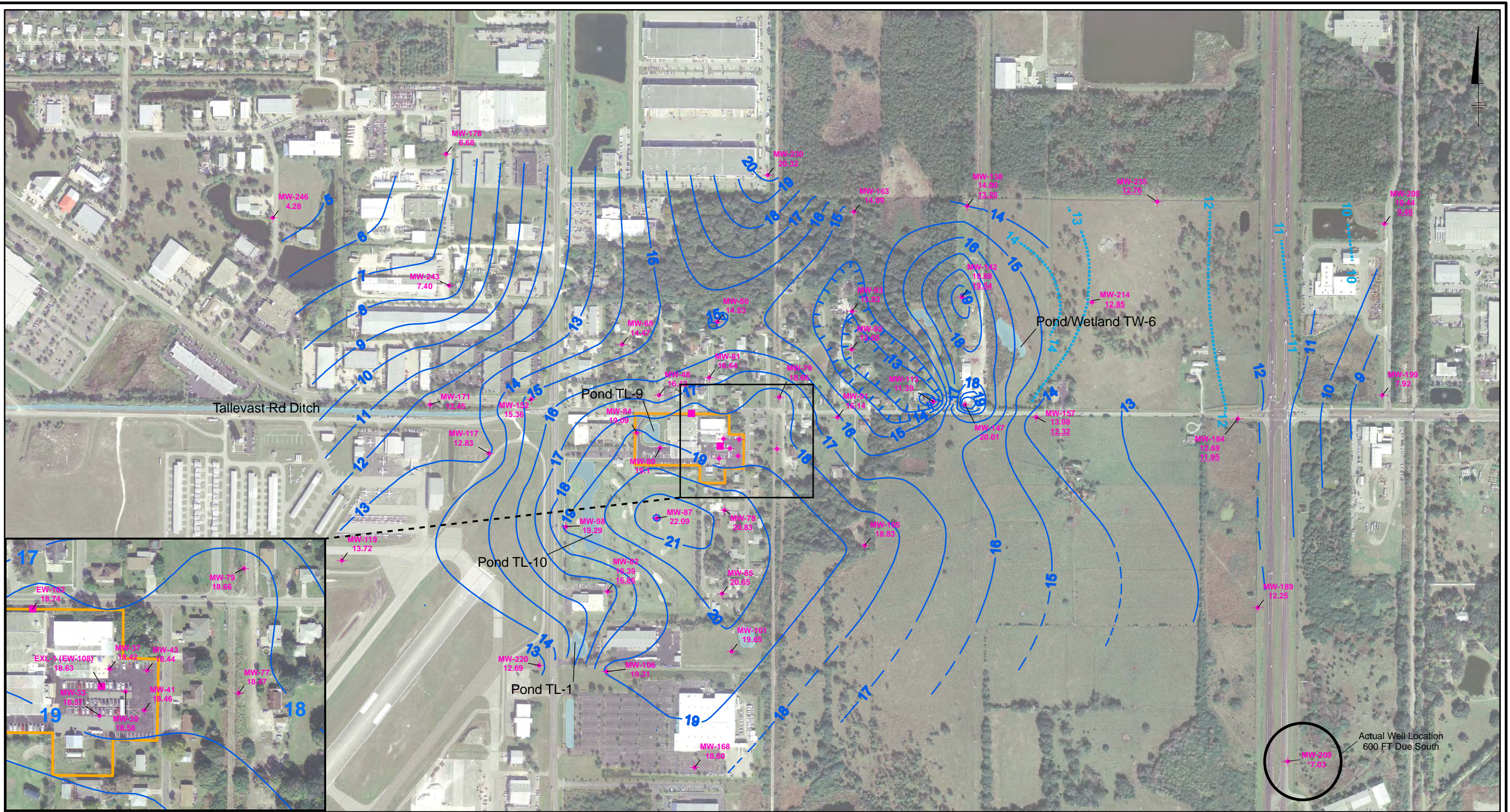
1. Aerial photos were obtained from the Manatee County GIS website. Aerial photos were taken in 2003 at a 1-foot resolution in true color format.
2. Vertical datum is in NAVD88.
3. Potentiometric elevations were obtained during the March/April 2009 monitoring event.
4. MSL - Mean Sea Level
5. * Data not used in contouring



LOCKHEED MARTIN TALLEVAST SITE TALLEVAST, FLORIDA REMEDIAL ACTION PLAN ADDENDUM	
POTENTIOMETRIC CONTOUR MAP UPPER PORTION OF THE LOWER SHALLOW AQUIFER SYSTEM - MARCH/APRIL 2009	
	FIGURE 5-2

DEN:090 MGS
 Project # B0038055.0000
 I:\LockheedMartin\LockheedMartin\RAP\2009\XDF\fig-2_Upper_LSAS_WL_Map09.mxd - 7/8/2009 @ 5:36:40 PM
 R625-EDC-001213-0

DEN-080 MSS
 Project #: B0038055.0000
 I:\LockheedMartin\RAP\2009\MXD\Fig5-3_Lower_LSAS_WL_Mar09.mxd - 7/8/2009 @ 5:36:34 PM

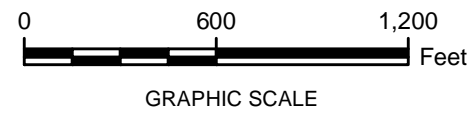


LEGEND:

- + Monitoring Well Location - LSAS
- Extraction Well Location - LSAS
- Lockheed Martin Tallevast Facility
- Ponds

- Potentiometric Elevation Contour (Feet MSL)
Wells gauged in March 2009 (Dashed where inferred)
- - - - - Potentiometric Elevation Contour (Feet MSL)
Wells gauged in April 2009 and contoured separately
- ▨ Groundwater Depression
- MW-78 Monitoring Well ID
- 20.83 Potentiometric Elevation gauged in March 2009 (Feet MSL)
- 12.85 Gauged in April 2009
- *Not used in contouring

- NOTES:**
- Aerial photos were obtained from the Southwest Florida Water Management District (SWFWMD). Aerial photos were taken in 2007 at a 1-foot resolution in natural color format.
 - Vertical datum is in NAVD88.
 - Potentiometric elevations were obtained during the March/April 2009 monitoring event.
 - MSL - Mean Sea Level



LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

POTENTIOMETRIC CONTOUR MAP
LOWER PORTION OF THE LOWER
SHALLOW AQUIFER SYSTEM - MARCH/APRIL 2009


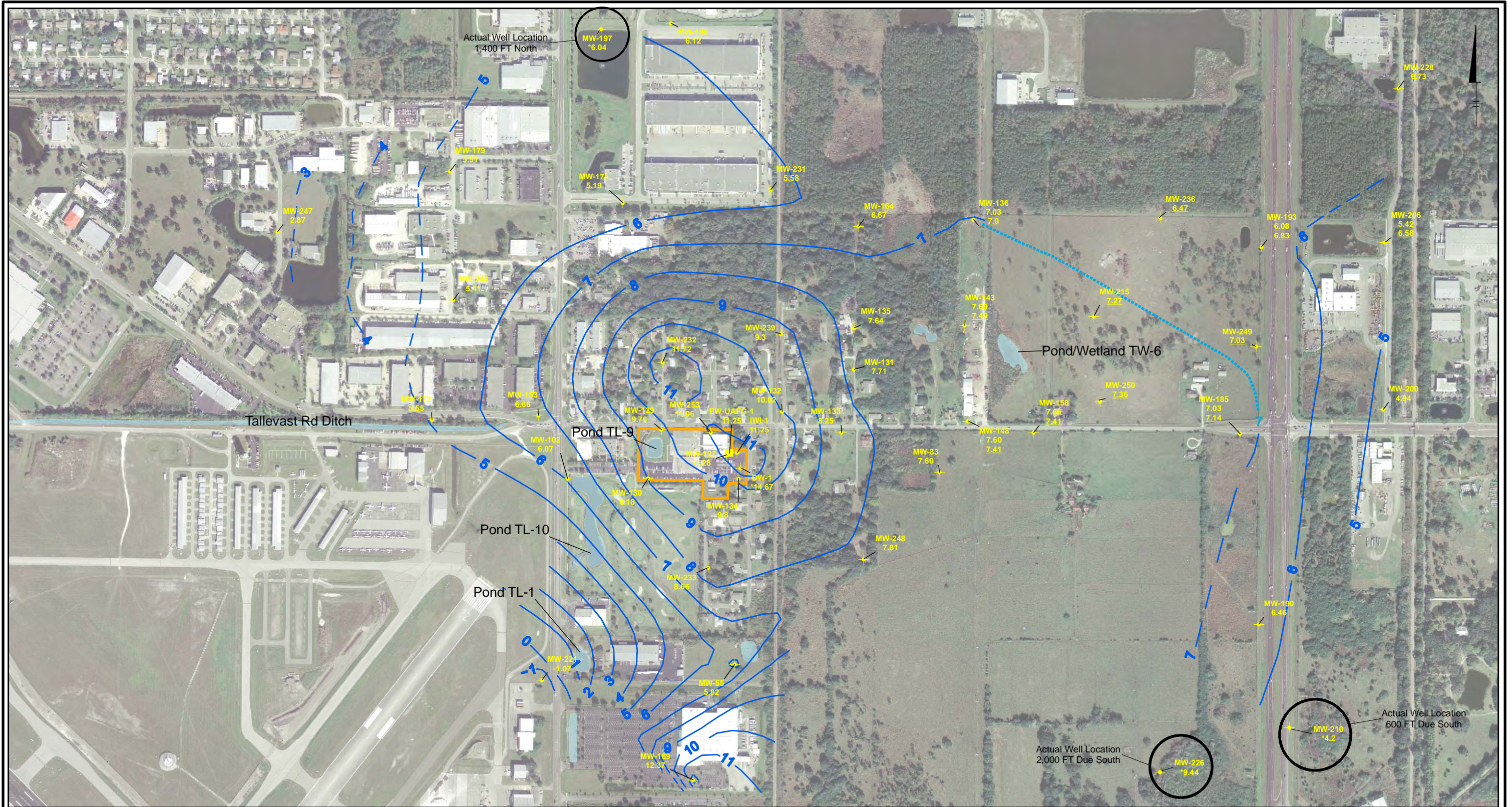


FIGURE
5-3



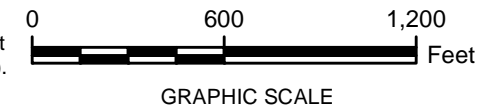
LEGEND:

- Monitoring Well Location - AF Gravels
- Extraction Well Location - AF Gravels
- Lockheed Martin Tallevast Facility
- Ponds

- Potentiometric Elevation Contour (Feet MSL)
Wells gauged in March 2009 (Dashed where inferred)
 - Potentiometric Elevation Contour (Feet MSL)
Wells gauged in April 2009 and contoured separately
 - MW-129**
9.76 Monitoring Well ID
Potentiometric Elevation gauged in March 2009 (Feet MSL)
 - 7.27**
Gauged in April 2009
- *Not used in contouring

NOTES:

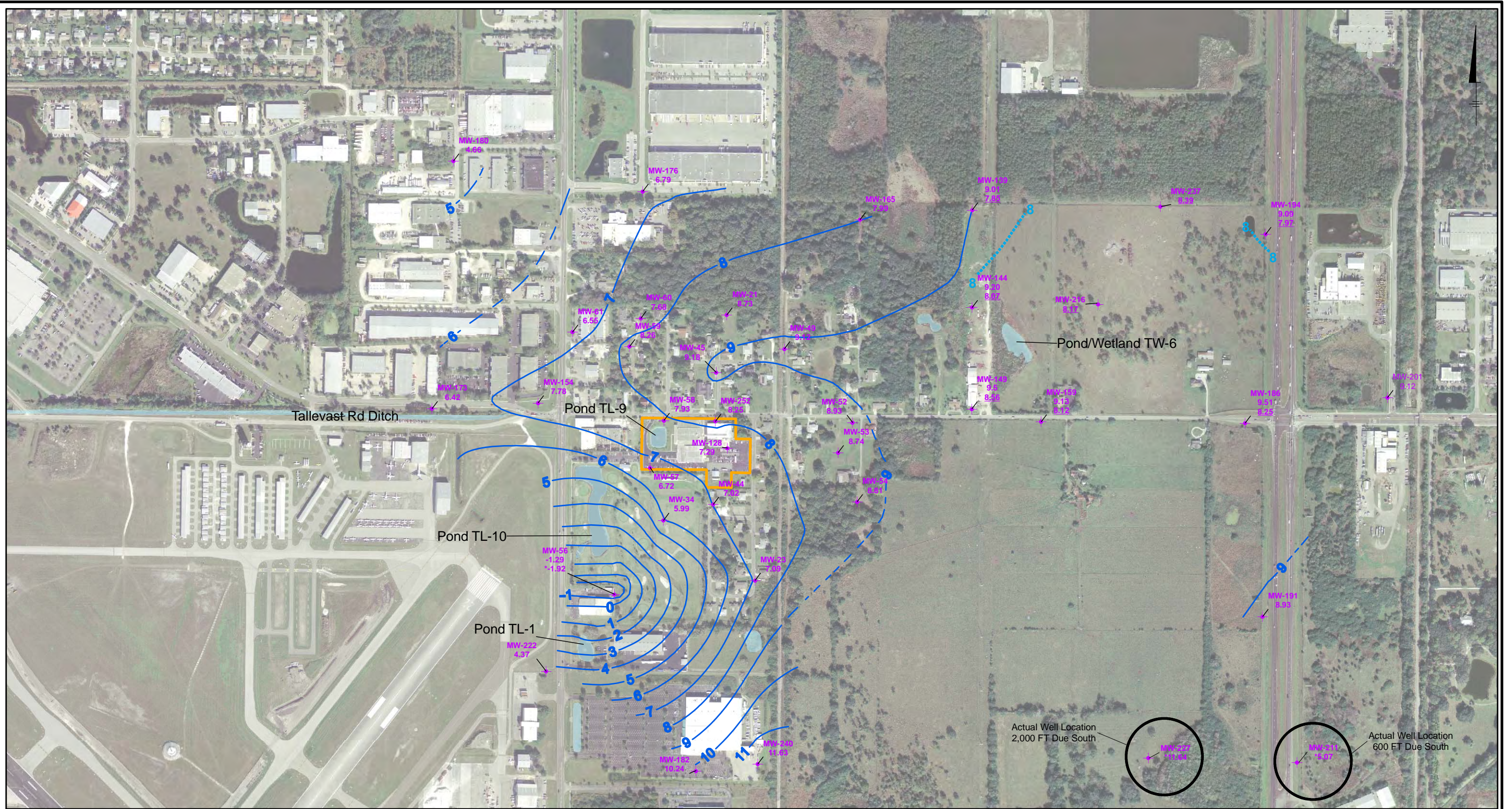
1. Aerial photos were obtained from the Southwest Florida Water Management District (SWFWMD). Aerial photos were taken in 2007 at a 1-foot resolution in natural color format.
2. Vertical datum is in NAVD88.
3. Potentiometric elevations were obtained during the March/April 2009 monitoring event.
4. MSL - Mean Sea Level



**LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM**

**POTENTIOMETRIC CONTOUR MAP
 ARCADIA FORMATION GRAVELS - MARCH/APRIL 2009**

**FIGURE
 5-4**

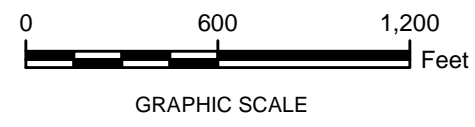


DEN-080 MSS
 Project #: 50038055-0000
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R625-EDC-001213-0

LEGEND:	
	Monitoring Well Location - S&P Sands
	Lockheed Martin Tallevast Facility
	Ponds
	Potentiometric Elevation Contour (Feet MSL) Wells gauged in March 2009 (Dashed where inferred)
	Potentiometric Elevation Contour (Feet MSL) Wells gauged in April 2009 and contoured separately
MW-44	Monitoring Well ID
7.02	Potentiometric Elevation gauged in March 2009 (Feet MSL)
8.17	Gauged in April 2009
*Not used in contouring	

- NOTES:**
- Aerial photos were obtained from the Southwest Florida Water Management District (SWFWMD). Aerial photos were taken in 2007 at a 1-foot resolution in natural color format.
 - Vertical datum is in NAVD88.
 - Potentiometric elevations were obtained during the March/April 2009 monitoring event.
 - MSL - Mean Sea Level






LOCKHEED MARTIN TALLEVAST SITE TALLEVAST, FLORIDA REMEDIAL ACTION PLAN ADDENDUM	
POTENTIOMETRIC CONTOUR MAP SALT & PEPPER SANDS - MARCH/APRIL 2009	
	FIGURE 5-5

DEN-080 MSS
 Project #: B0038055.0000
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LEGEND:

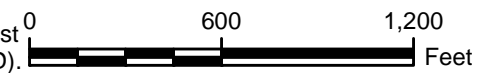
-  Monitoring Well Location - Floridan
-  Lockheed Martin Tallevast Facility
-  Ponds

 Potentiometric Elevation Contour (Feet MSL)
Wells gauged in March 2009

- MW-161** Monitoring Well ID
- 8.82** Potentiometric Elevation gauged in March 2009 (Feet MSL)
- 9.22** Gauged in April 2009
- *Not used in contouring

NOTES:

1. Aerial photos were obtained from the Southwest Florida Water Management District (SWFWMD). Aerial photos were taken in 2007 at a 1-foot resolution in natural color format.
2. Vertical datum is in NAVD88.
3. Potentiometric elevations were obtained during the March/April 2009 monitoring event.
4. MSL - Mean Sea Level



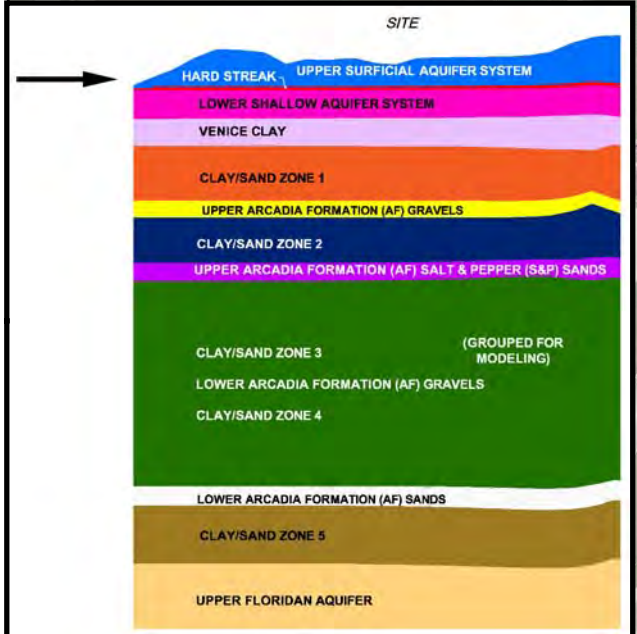
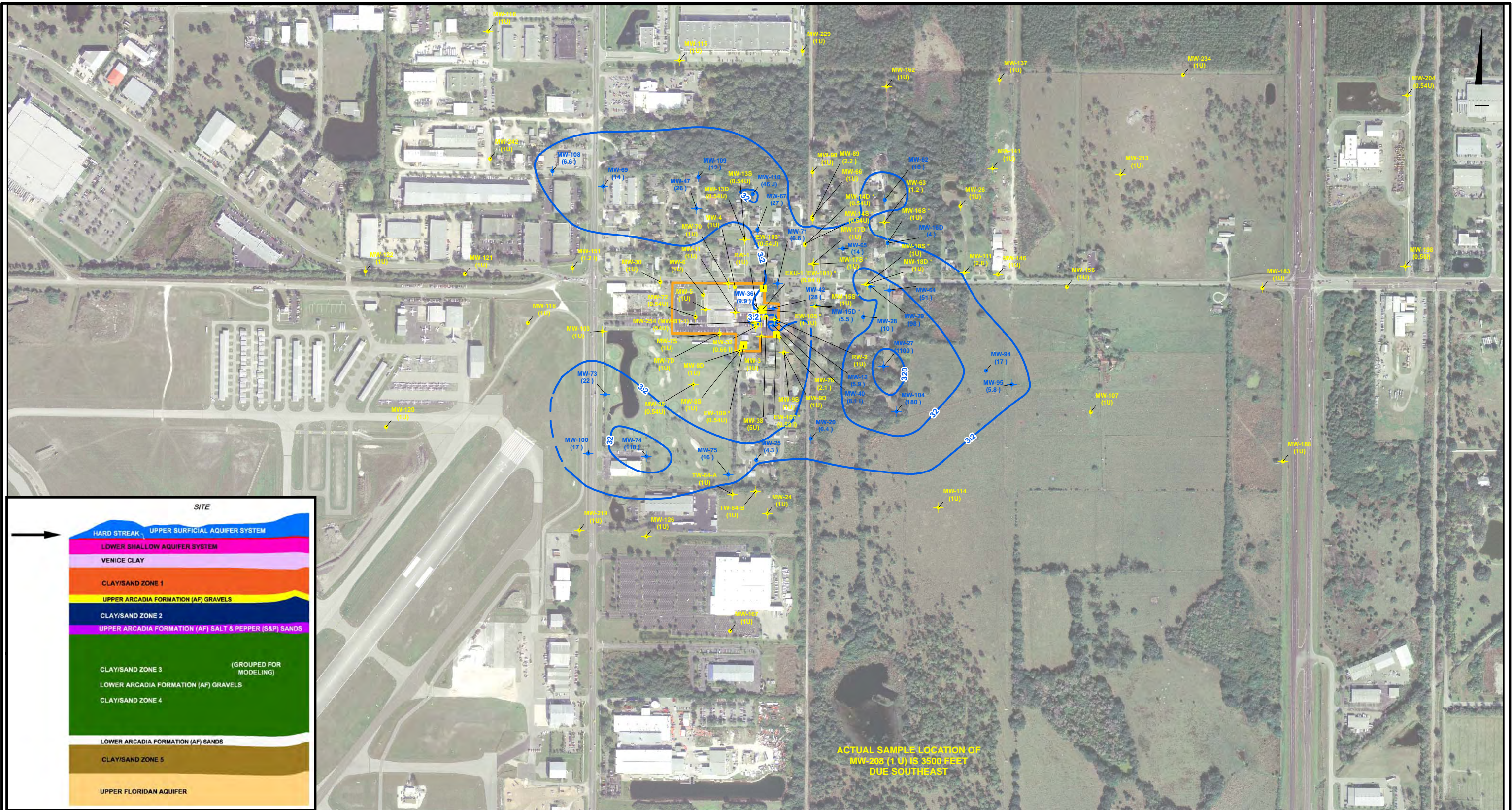
GRAPHIC SCALE

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM

POTENTIOMETRIC CONTOUR MAP
 FLORIDAN – MARCH/APRIL 2009



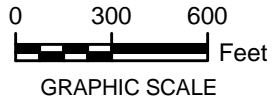
FIGURE
5-7



LEGEND:	
	MONITORING WELL
	EXTRACTION WELL
	MAXIMUM DETECTED 1,4-DIOXANE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 3.2 UG/L SCREENING CRITERION
	MAXIMUM DETECTED 1,4-DIOXANE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 3.2 UG/L SCREENING CRITERION
	LOCKHEED MARTIN TALLEVAST FACILITY
	1,4-DIOXANE CONTOUR (DASHED WHERE INFERRED)
	1,4-DIOXANE RESULT VALUE (µg/L)

NOTE:

- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
- SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
- THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 MW-223 = HARD STREAK CLAY
 MW-245 = HARD STREAK CLAY



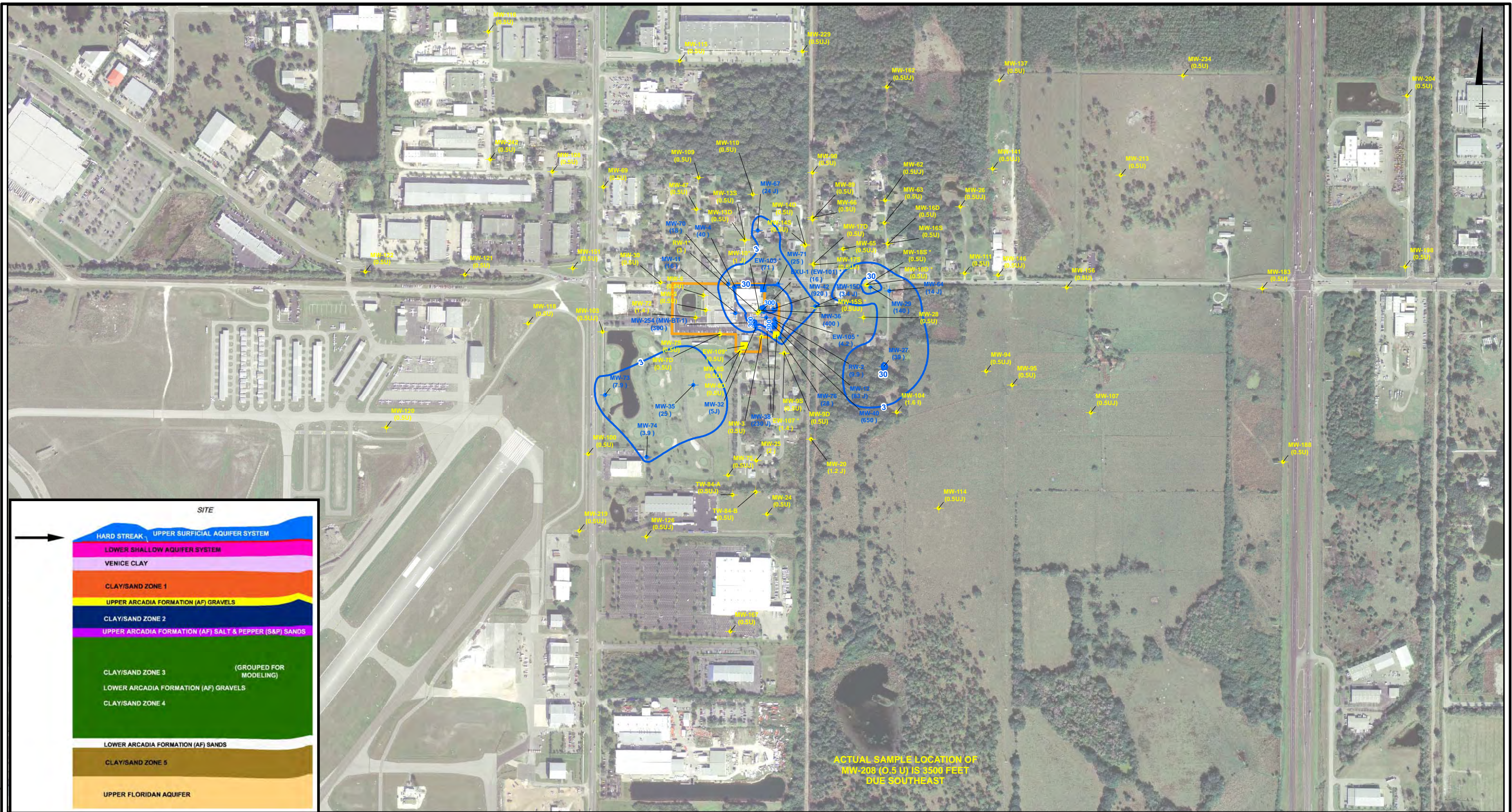
- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- J - ESTIMATED VALUE.
- I - THE DETECTED VALUE IS BETWEEN THE METHOD DETECTION LIMIT AND THE REPORTING LIMIT AND THEREFORE ESTIMATED.
- µg/L = MICROGRAMS PER LITER
- * INDICATES DATA NOT USED IN CONTOURING.
- CONTOURS DASHED WHERE INFERRED

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

1,4-DIOXANE CONCENTRATIONS
IN THE UPPER SURFICIAL AQUIFER SYSTEM
MARCH/APRIL 2009 SAMPLING EVENT

FIGURE
5-8A

DEN-080 MSS
 Project #: B0038055.0000
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- LEGEND:**
- MONITORING WELL
 - EXTRACTION WELL
 - MAXIMUM DETECTED TCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 3 UG/L SCREENING CRITERION
 - MAXIMUM DETECTED TCE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 3 UG/L SCREENING CRITERION
 - LOCKHEED MARTIN TALLEVAST FACILITY
 - TCE CONTOUR
 - TCE RESULT VALUE (µg/L)

NOTE:

- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
- SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
- THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 MW-223 = HARD STREAK CLAY
 MW-245 = HARD STREAK CLAY

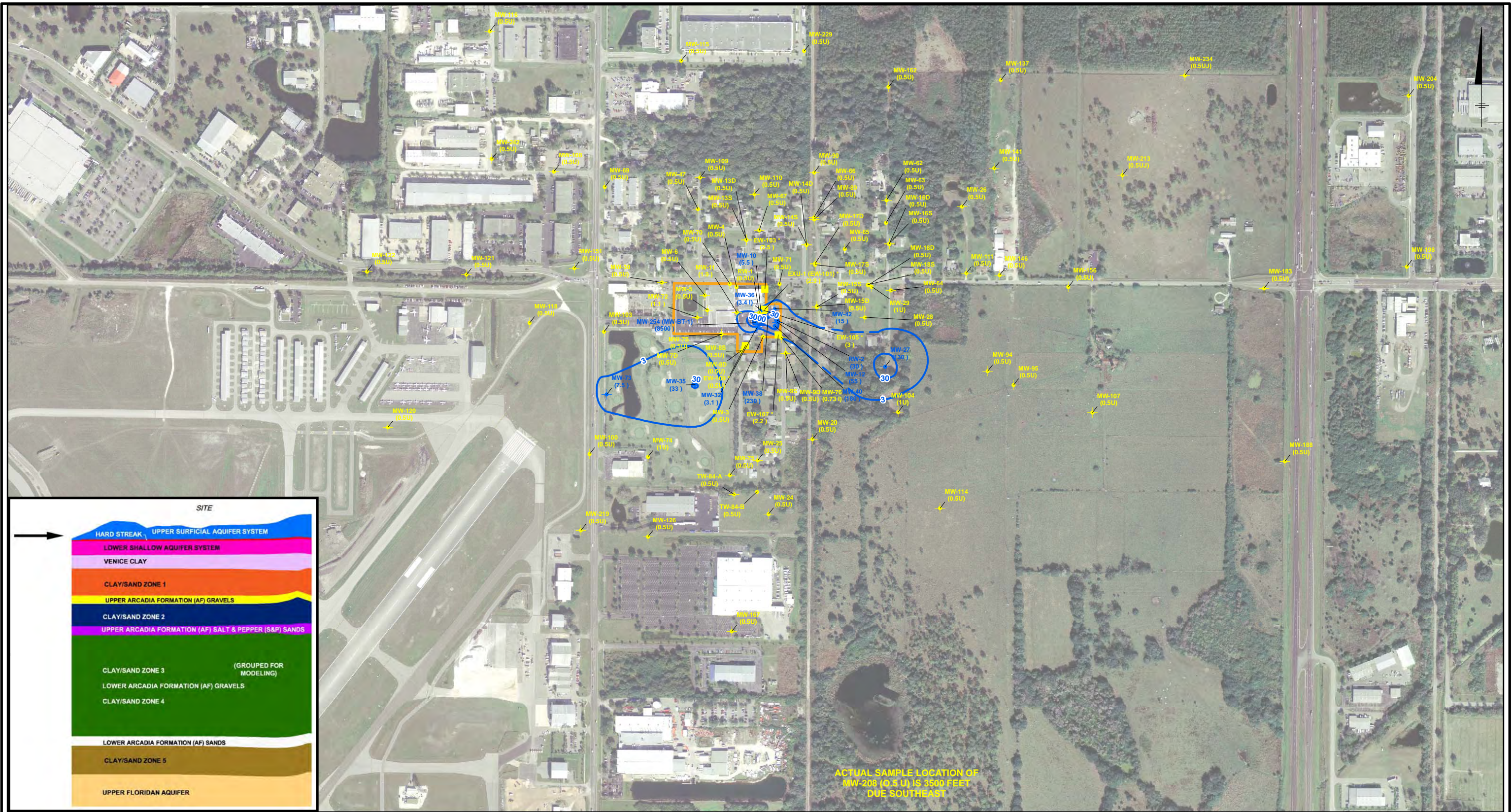


- 1 - THE DETECTED VALUE IS BETWEEN THE METHOD DETECTION LIMIT AND THE REPORTING LIMIT AND THEREFORE ESTIMATED.
- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- J - ESTIMATED VALUE.
- UJ - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTING LIMIT IS AN ESTIMATED VALUE.
- µg/L = MICROGRAMS PER LITER
- * INDICATES DATA NOT USED IN CONTOURING.

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

TRICHLOROETHENE CONCENTRATIONS
IN THE UPPER SURFICIAL AQUIFER SYSTEM
MARCH/APRIL 2009 SAMPLING EVENT

FIGURE
5-8B



DEN-080 MSS
 Project #: B0038055.0000
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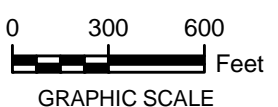
LEGEND:

- MW-100
MONITORING WELL
- EW-100
EXTRACTION WELL
- MAXIMUM DETECTED PCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 3 UG/L SCREENING CRITERION
- MAXIMUM DETECTED PCE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 3 UG/L SCREENING CRITERION
- LOCKHEED MARTIN TALLEVAST FACILITY
- PCE CONTOUR (DASHED WHERE INFERRED)
- (3) PCE RESULT VALUE (µg/L)

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
3. THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 MW-223 = HARD STREAK CLAY
 MW-245 = HARD STREAK CLAY

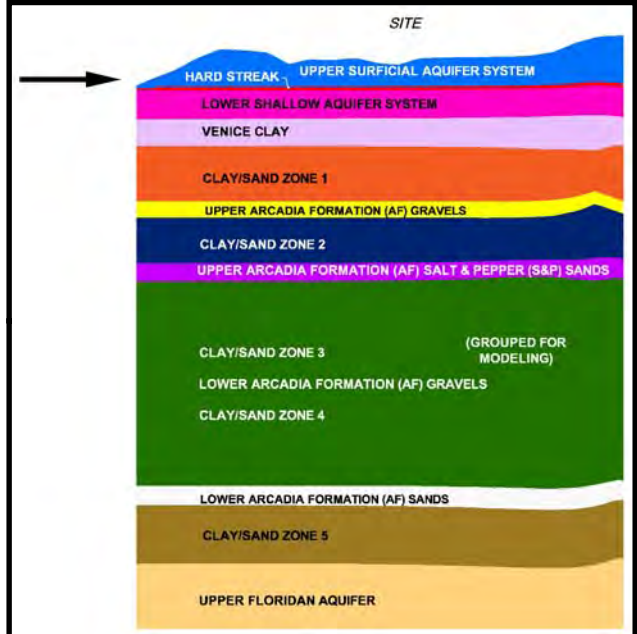
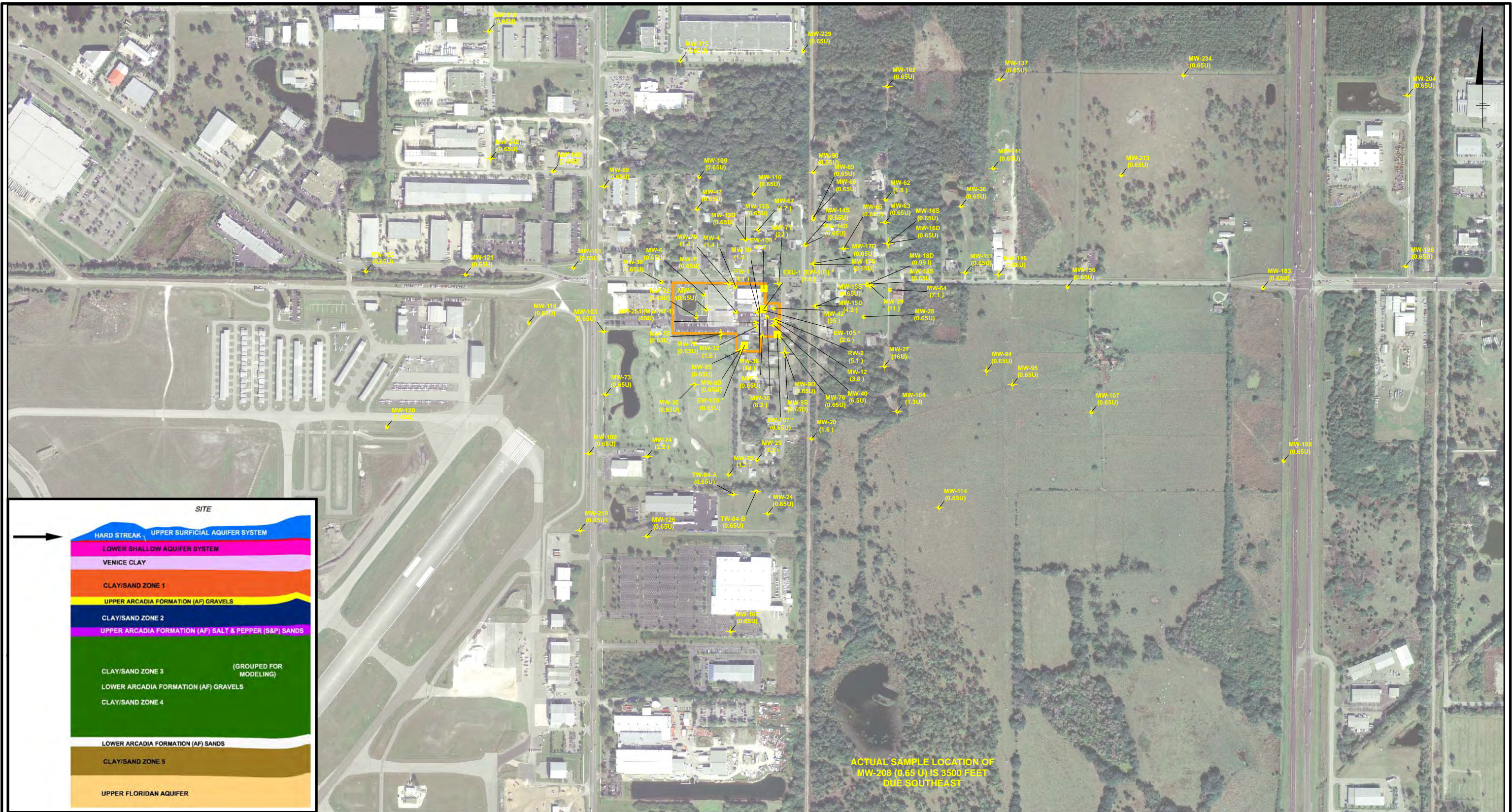
4. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- J - ESTIMATED VALUE.
- µg/L = MICROGRAMS PER LITER
5. * Indicates data not used in contouring.
6. CONTOURS DASHED WHERE INFERRED.



LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**TETRACHLOROETHENE CONCENTRATIONS
IN THE UPPER SURFICIAL AQUIFER SYSTEM
MARCH/APRIL 2009 SAMPLING EVENT**

**FIGURE
5-8C**



- LEGEND:**
- MW-100 MONITORING WELL
 - EXU-100 EXTRACTION WELL
 - MAXIMUM DETECTED CIS-1,2-DCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 70 UG/L SCREENING CRITERION
 - LOCKHEED MARTIN TALLEVAST FACILITY
 - (3) CIS-1,2-DCE RESULT VALUE (µg/L)

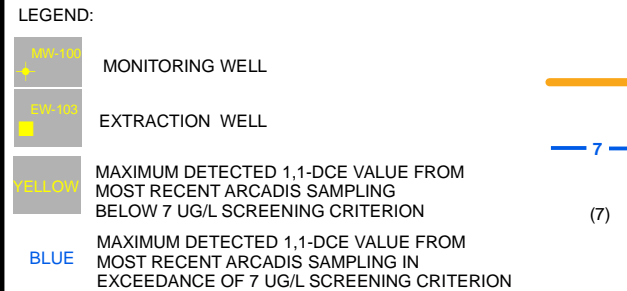
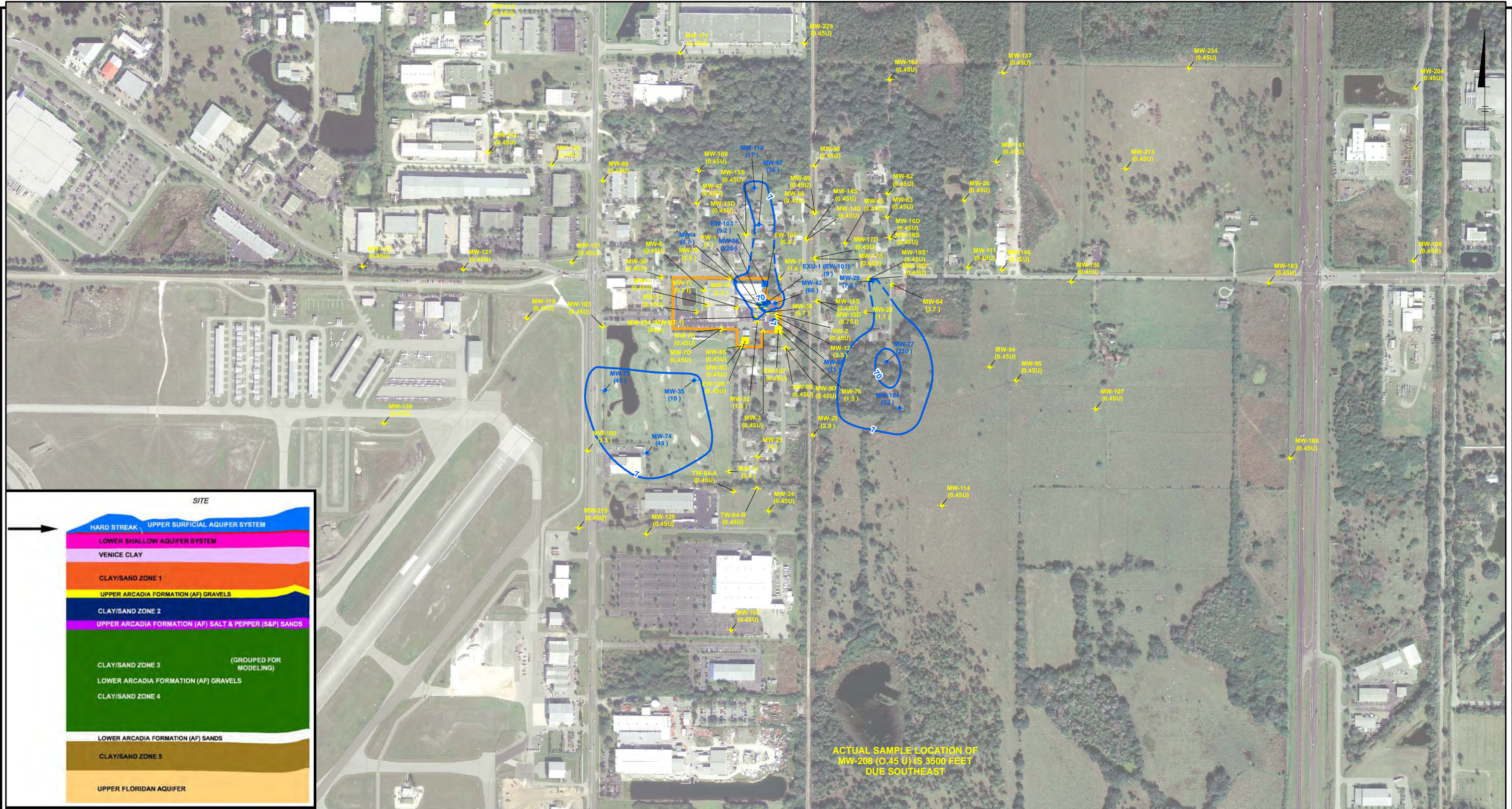
- NOTE:**
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 2. SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
 3. THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 MW-223 = HARD STREAK CLAY
 MW-245 = HARD STREAK CLAY
 4. 1 - THE DETECTED VALUE IS BETWEEN THE METHOD DETECTION LIMIT AND THE REPORTING LIMIT AND THEREFORE ESTIMATED.
 - U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
 - µg/L = MICROGRAMS PER LITER
 5. * INDICATES DATA NOT USED IN CONTOURING.



**LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM**

**CIS-1,2-DICHLOROETHENE CONCENTRATIONS
 IN THE UPPER SURFICIAL AQUIFER SYSTEM
 MARCH/APRIL 2009 SAMPLING EVENT**

**FIGURE
 5-8D**

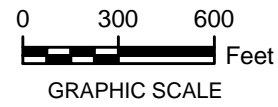


LEGEND:

- ▲ MW-120 MONITORING WELL
- MW-120 EXTRACTION WELL
- MAXIMUM DETECTED 1,1-DCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 7 UG/L SCREENING CRITERION
- MAXIMUM DETECTED 1,1-DCE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 7 UG/L SCREENING CRITERION
- LOCKHEED MARTIN TALLEVAST FACILITY
- 1,1-DCE CONTOUR (DASHED WHERE INFERRED)
- (7) 1,1-DCE RESULT VALUE (µg/L)

NOTE:

- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
- SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
- THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
MW-223 = HARD STREAK CLAY
MW-245 = HARD STREAK CLAY
- I - THE DETECTED VALUE IS BETWEEN THE METHOD DETECTION LIMIT AND THE REPORTING LIMIT AND THEREFORE ESTIMATED.
U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
µg/L = MICROGRAMS PER LITER
* INDICATES DATA NOT USED IN CONTOURING.
6. CONTOURS DASHED WHERE INFERRED.

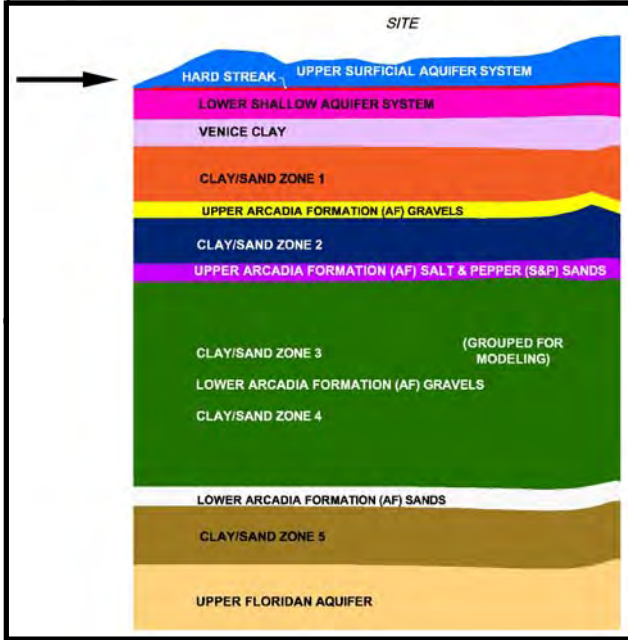
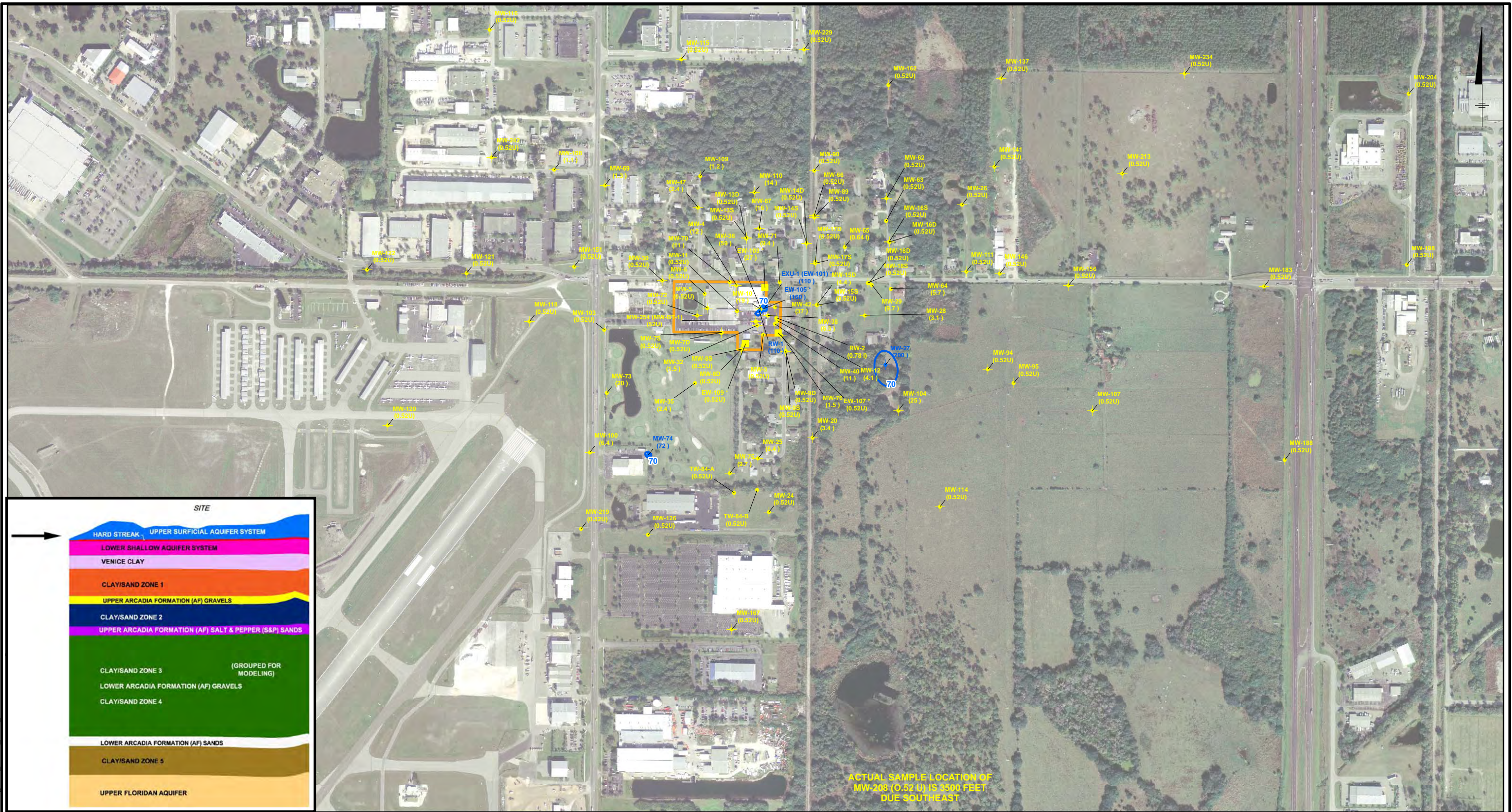


**LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM**

**1,1-DICHLOROETHENE CONCENTRATIONS
IN THE UPPER SURFICIAL AQUIFER SYSTEM
MARCH/APRIL 2009 SAMPLING EVENT**

**FIGURE
5-8E**

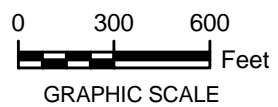
DEN-060 MSS Project #: B0038055.0000 I:\Lockheed\Martin\RAP\2009\MXD\Fig5-8E_USAS_0309_11DCE.mxd - 7/8/2009 @ 5:53:26 PM R625-EDC-001213-0



- LEGEND:**
- MW-100 MONITORING WELL
 - EXU-100 EXTRACTION WELL
 - MAXIMUM DETECTED 1,1-DCA VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 70 UG/L SCREENING CRITERION
 - MAXIMUM DETECTED 1,1-DCA VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 70 UG/L SCREENING CRITERION
 - LOCKHEED MARTIN TALLEVAST FACILITY
 - 70 1,1-DCA CONTOUR
 - (70) 1,1-DCA RESULT VALUE (µg/L)

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
3. THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
MW-223 = HARD STREAK CLAY
MW-245 = HARD STREAK CLAY
4. I - THE DETECTED VALUE IS BETWEEN THE METHOD DETECTION LIMIT AND THE REPORTING LIMIT AND THEREFORE ESTIMATED.
- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- µg/L = MICROGRAMS PER LITER
5. * INDICATES DATA NOT USED IN CONTOURING.

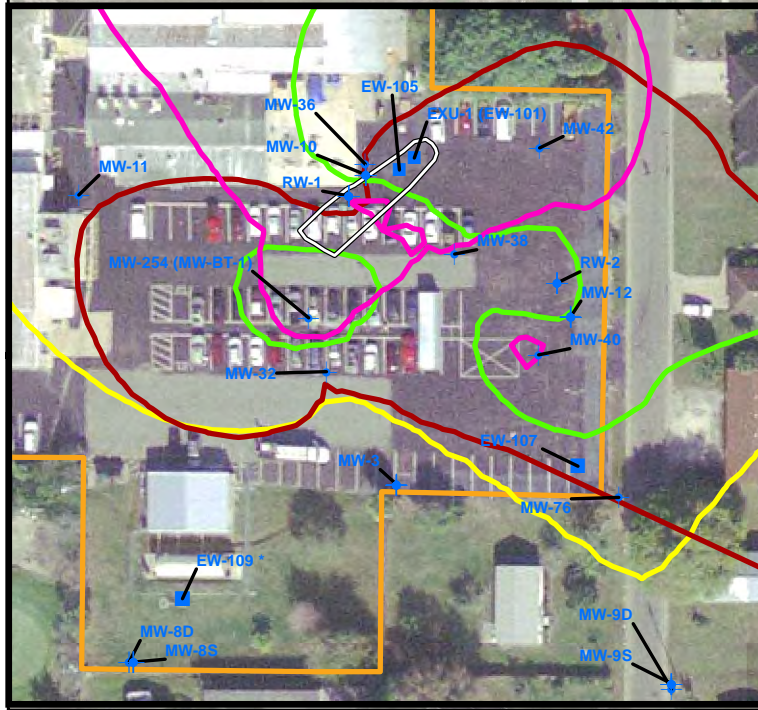
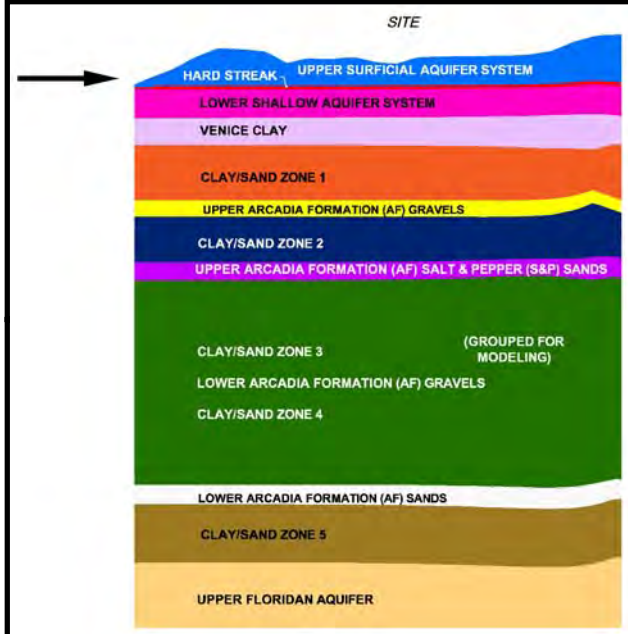
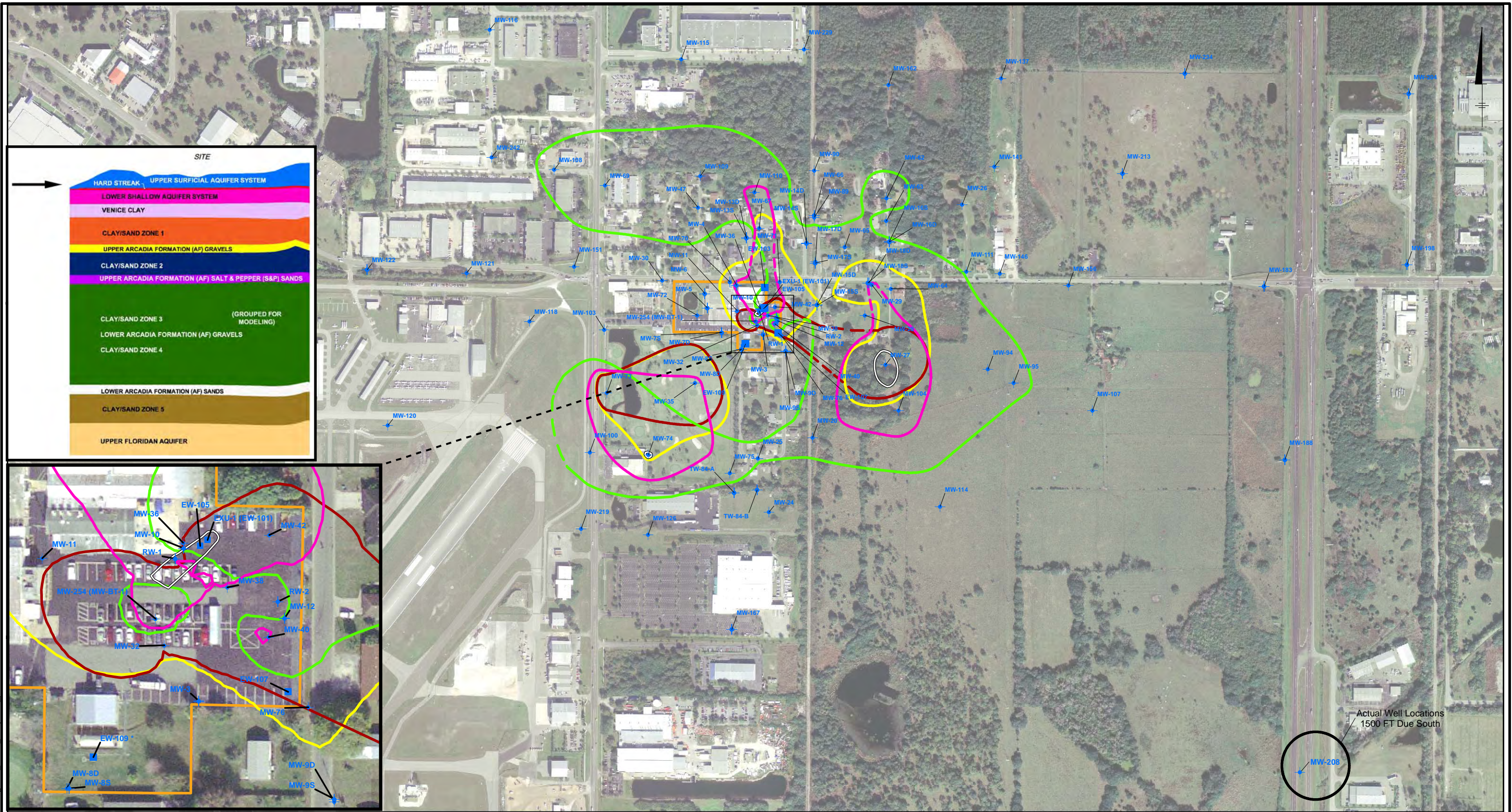


**LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM**

**1,1-DICHLOROETHANE CONCENTRATIONS
IN THE UPPER SURFICIAL AQUIFER SYSTEM
MARCH/APRIL 2009 SAMPLING EVENT**

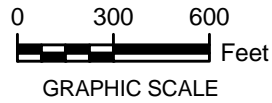
**FIGURE
5-8F**

DEN-080 MSS Project #: 80038055.0000 I:\LockheedMartin\LockheedMartin\RA\2009\MXD\Fig-8F_USAS_0309_11DCA.mxd - 7/8/2009 @ 5:53:26 PM R625-EDC-001213-0



- LEGEND:**
- MONITORING WELL (USAS)
 - EXTRACTION WELL (USAS)
 - 70— 1,1-DCA CONTOUR
 - 1.0— TCE CONTOUR
 - 3.0— PCE CONTOUR (DASHED WHERE INFERRED)
 - 7.0— 1,1-DCE CONTOUR (DASHED WHERE INFERRED)
 - 7.0— CIS-1,2- CONTOUR
 - 3.2— 1,4-DIOXANE CONTOUR (DASHED WHERE INFERRED)
 - LOCKHEED MARTIN TALLEVAST FACILITY

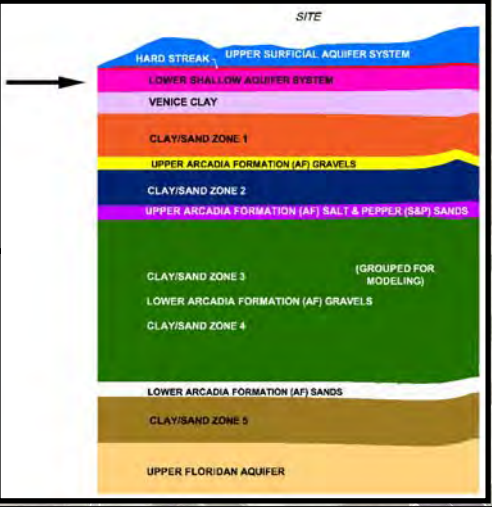
- NOTE:**
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 2. SOME WELLS FOR THIS AQUIFER ARE NOT SHOWN IN THIS EXTENT.
 3. CONTOUR VALUES ARE IN MICROGRAMS PER LITER (µG/L)
 4. CONTOURS DASHED WHERE INFERRED.



LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM
COMPOSITE GROUNDWATER
CONCENTRATIONS IN THE
UPPER SURFICIAL AQUIFER SYSTEM
MARCH/APRIL 2009 SAMPLING EVENT

FIGURE
5-8G

DEN-080 MSS
 Project #: 80038055.0000
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LEGEND:

- MONITORING WELL
- EXTRACTION WELL
- MAXIMUM DETECTED 1,4-DIOXANE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 3.2 UG/L SCREENING CRITERION
- MAXIMUM DETECTED 1,4-DIOXANE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 3.2 UG/L SCREENING CRITERION

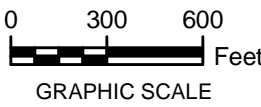
LOCKHEED MARTIN TALLEVAST FACILITY

1,4-DIOXANE CONTOUR

(3.2) 1,4-DIOXANE RESULT VALUE (µg/L)

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
3. THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
MW-125 = VENICE CLAY
MW-224 = VENICE CLAY
MW-225 = VENICE CLAY
4. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
5. I - DETECTED BUT BELOW REPORTING LIMIT. RESULT IS AN ESTIMATED CONCENTRATION.



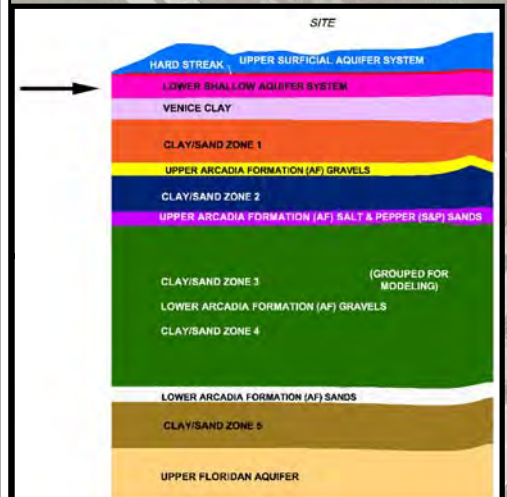
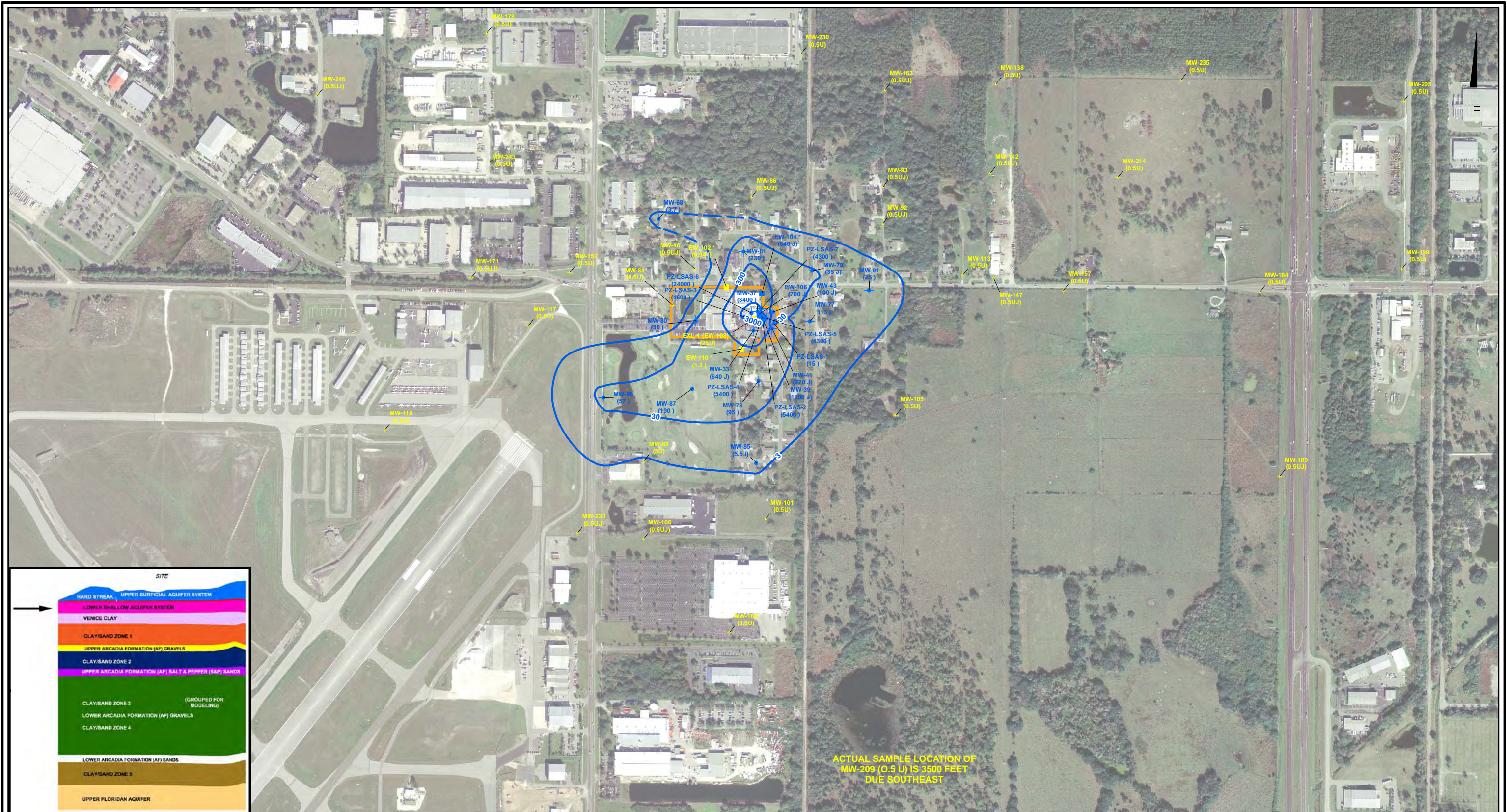
**LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM**

**1,4-DIOXANE CONCENTRATIONS
IN THE LOWER SHALLOW AQUIFER SYSTEM,
MARCH/APRIL 2009 SAMPLING EVENT**

ARCADIS

**FIGURE
5-9A**

DEN-080 MSS Project #: B0038055.0000 I:\LockheedMartin\RAP\2009\WMD\Fig5-9A_LSAS_0309_14Dioxane.mxd - 7/8/2009 @ 5:54:55 PM



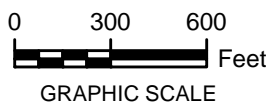
LEGEND:

- MW-# (e.g., MW-100) MONITORING WELL
- EW-# (e.g., EW-100) EXTRACTION WELL
- MAXIMUM DETECTED TCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 3 UG/L SCREENING CRITERION
- MAXIMUM DETECTED TCE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 3 UG/L SCREENING CRITERION

- LOCKHEED MARTIN TALLEVAST FACILITY
- TCE CONTOUR (DASHED WHERE INFERRED)
- (3) TCE RESULT VALUE (µg/L)

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
3. THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 MW-125 = VENICE CLAY
 MW-224 = VENICE CLAY
 MW-225 = VENICE CLAY



4. I - THE DETECTED VALUE IS BETWEEN THE METHOD DETECTION LIMIT AND THE REPORTING LIMIT AND THEREFORE ESTIMATED.
- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- UU - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTING LIMIT IS AN ESTIMATED VALUE.
- J - ESTIMATED VALUE.
- µg/L = MICROGRAMS PER LITER
5. * INDICATES DATA NOT USED IN CONTOURING.
6. CONTOURS DASHED WHERE INFERRED.

**LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM**

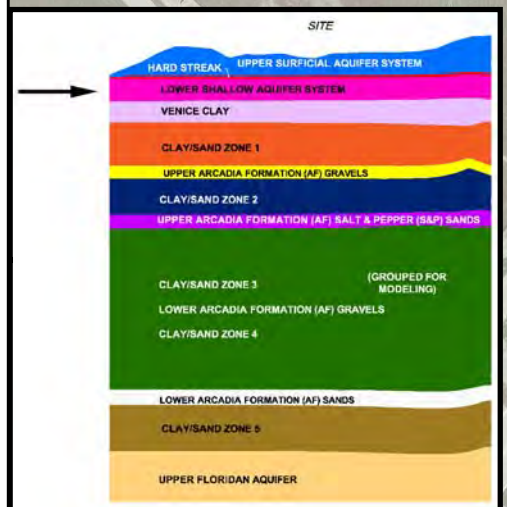
**TRICHLOROETHENE CONCENTRATIONS
 IN THE LOWER SHALLOW AQUIFER SYSTEM,
 MARCH/APRIL 2009 SAMPLING EVENT**

ARCADIS

**FIGURE
 5-9B**

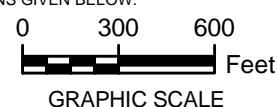


DEN-080 MSS
 Project #: B0038055.0000
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- LEGEND:**
- MONITORING WELL
 - EXTRACTION WELL
 - MAXIMUM DETECTED PCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 3 UG/L SCREENING CRITERION
 - MAXIMUM DETECTED PCE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 3 UG/L SCREENING CRITERION
 - LOCKHEED MARTIN TALLEVAST FACILITY
 - PCE CONTOUR
 - PCE RESULT VALUE (µg/L)

- NOTE:**
- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 - SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
 - THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 - MW-125 = VENICE CLAY
 - MW-224 = VENICE CLAY
 - MW-225 = VENICE CLAY

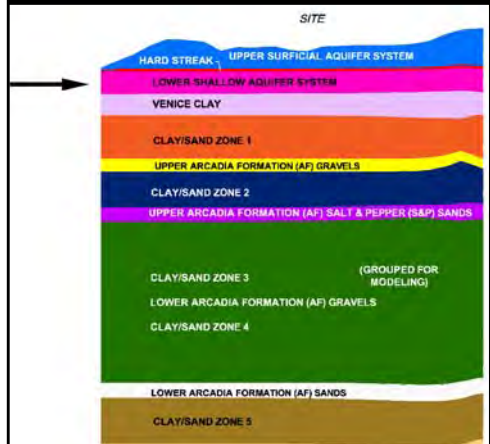
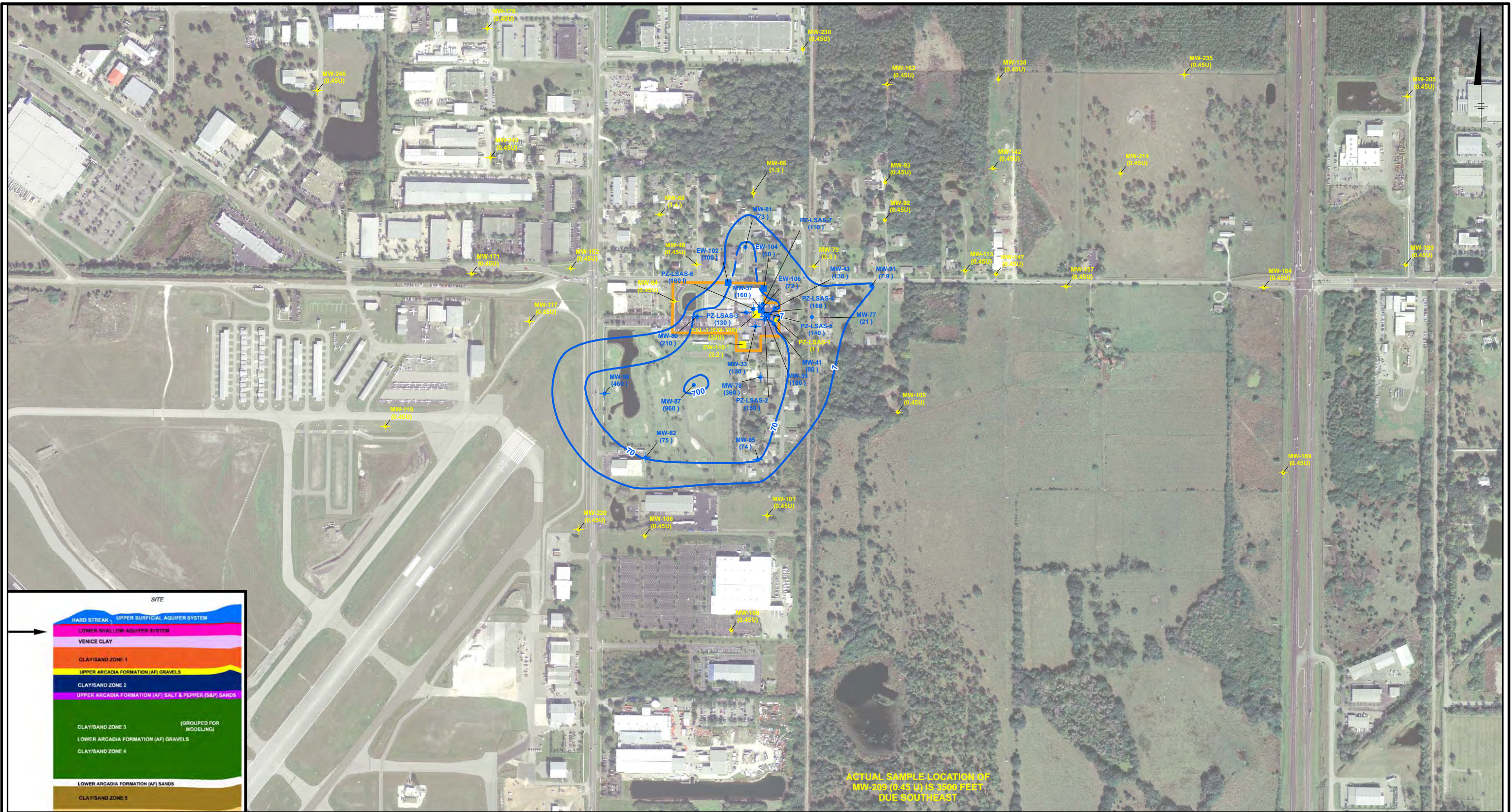


- UJ - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTING LIMIT IS AN ESTIMATED VALUE.
- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- µG/L = MICROGRAMS PER LITER
- * INDICATES DATA NOT USED IN CONTOURING.

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

TETRACHLOROETHENE CONCENTRATIONS
IN THE LOWER SHALLOW AQUIFER SYSTEM,
MARCH/APRIL 2009 SAMPLING EVENT

FIGURE
5-9C

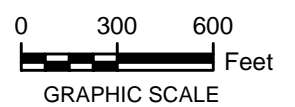


LEGEND:

- ▲ MONITORING WELL
- ▲ EXTRACTION WELL
- MAXIMUM DETECTED 1,1-DCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 7 UG/L SCREENING CRITERION
- MAXIMUM DETECTED 1,1-DCE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 7 UG/L SCREENING CRITERION
- LOCKHEED MARTIN TALLEVAST FACILITY
- 1,1-DCE CONTOUR (DASHED WHERE INFERRED)
- (7) 1,1-DCE RESULT VALUE (µg/L)

NOTE:

- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
- SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
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MW-125 = VENICE CLAY
MW-224 = VENICE CLAY
MW-225 = VENICE CLAY
- 1 - THE DETECTED VALUE IS BETWEEN THE METHOD DETECTION LIMIT AND THE REPORTING LIMIT AND THEREFORE ESTIMATED.
U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
µg/L = MICROGRAMS PER LITER
- * INDICATES DATA NOT USED IN CONTOURING.
- CONTOURS DASHED WHERE INFERRED.

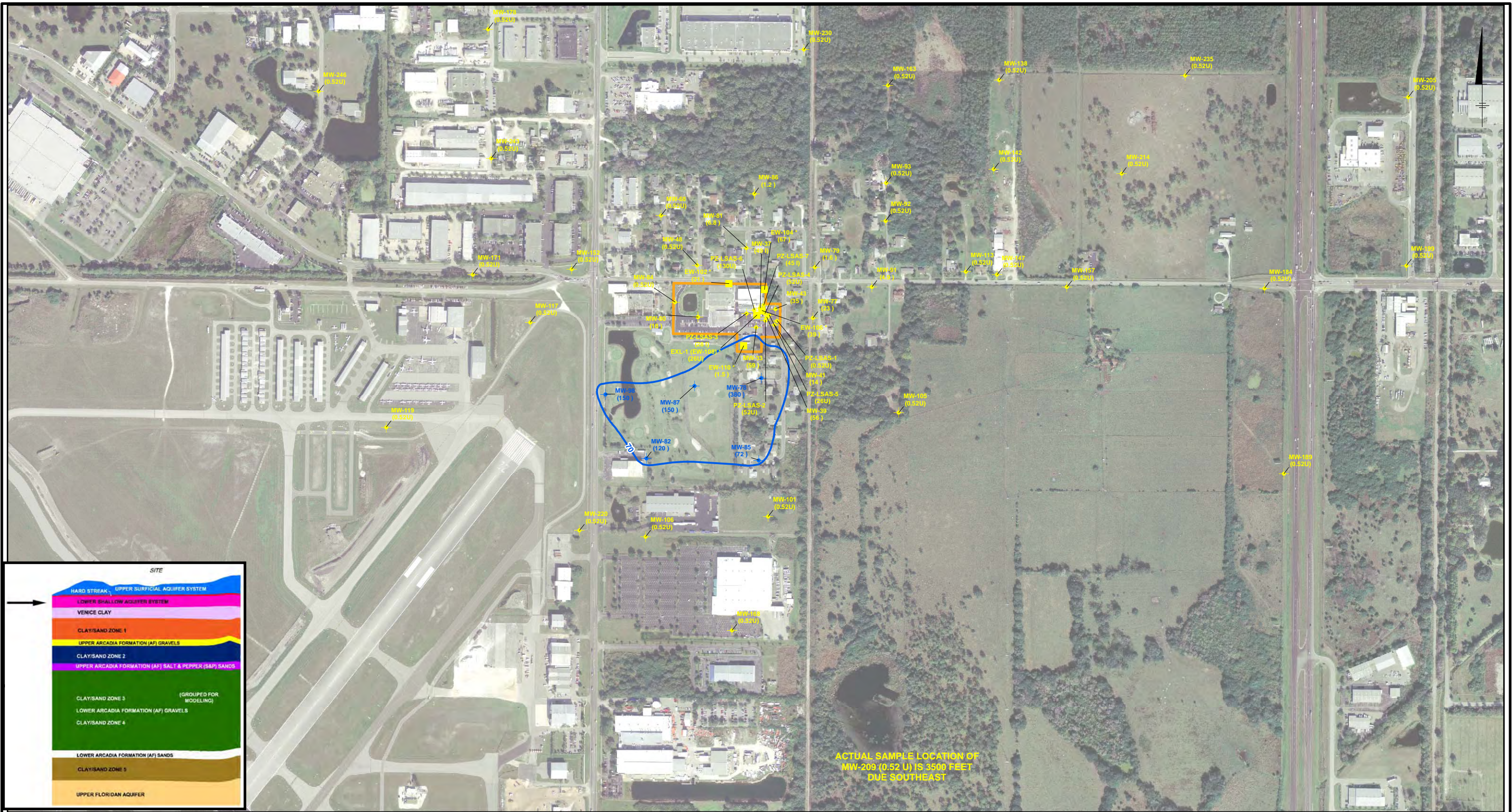


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**1,1-DICHLOROETHENE CONCENTRATIONS
IN THE LOWER SHALLOW AQUIFER SYSTEM,
MARCH/APRIL 2009 SAMPLING EVENT**

**FIGURE
5-9E**

DEN-080 MSS
Project #: B0038055.0000
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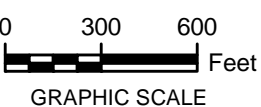
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LEGEND:

- MW-100 MONITORING WELL
- EW-100 EXTRACTION WELL
- MAXIMUM DETECTED 1,1-DCA VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 70 UG/L SCREENING CRITERION
- MAXIMUM DETECTED 1,1-DCA VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 70 UG/L SCREENING CRITERION
- LOCKHEED MARTIN TALLEVAST FACILITY
- 1,1-DCA CONTOUR
- 1,1-DCA RESULT VALUE (µg/L)

NOTE:

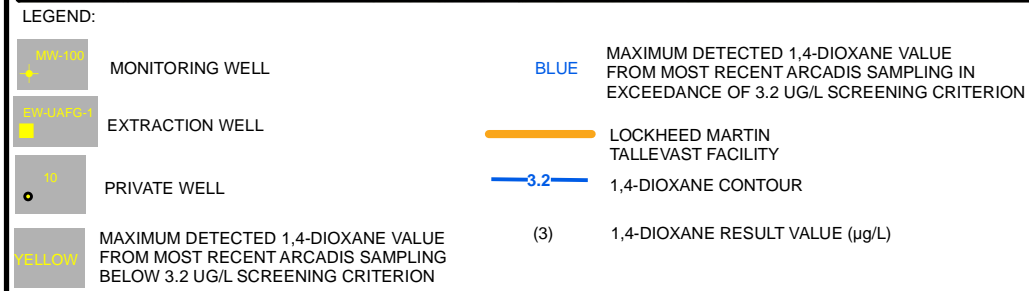
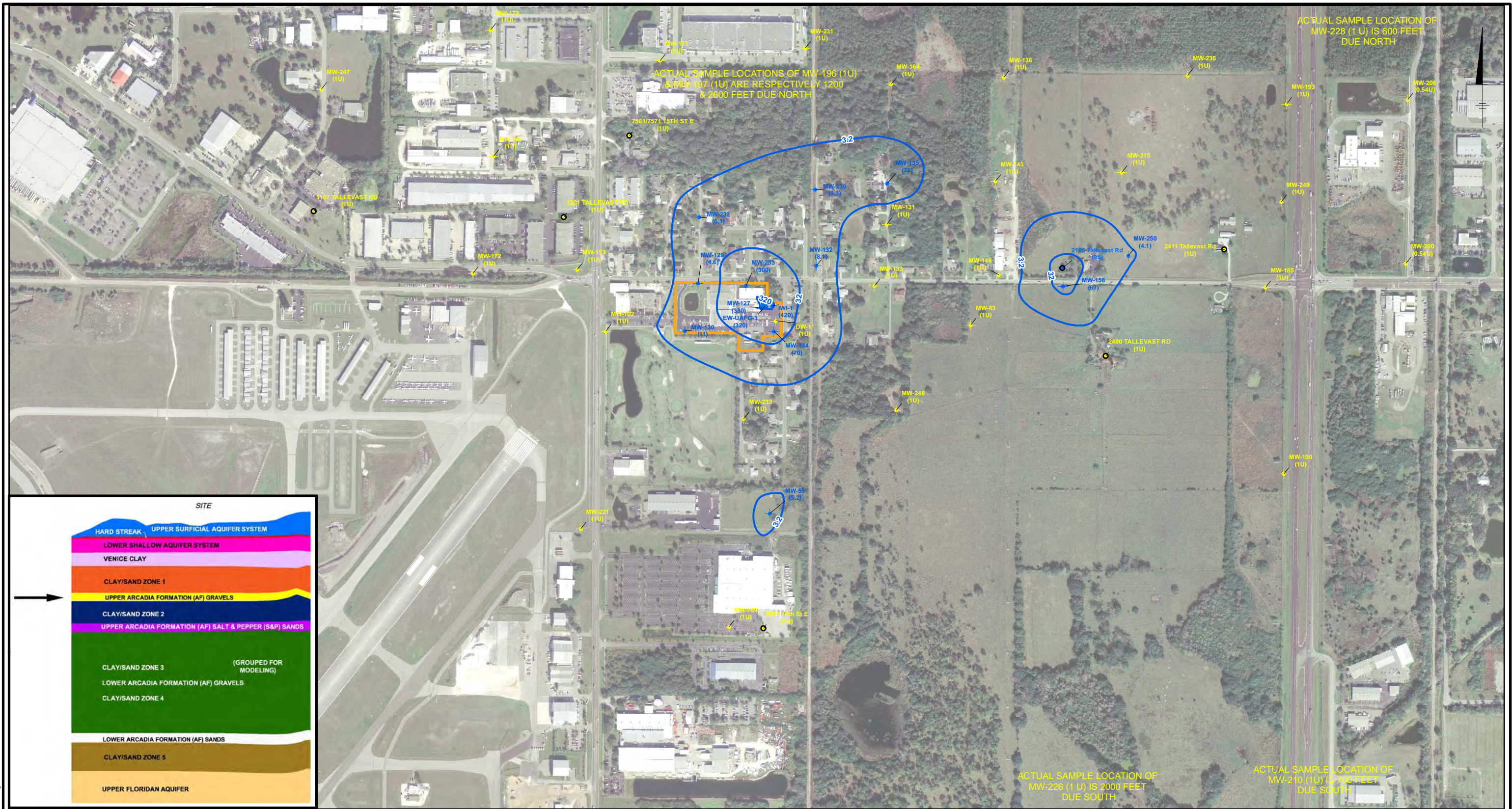
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
3. THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 MW-125 = VENICE CLAY
 MW-224 = VENICE CLAY
 MW-225 = VENICE CLAY
4. I - THE DETECTED VALUE IS BETWEEN THE METHOD DETECTION LIMIT AND THE REPORTING LIMIT AND THEREFORE ESTIMATED.
- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- µg/L = MICROGRAMS PER LITER
5. * INDICATES DATA NOT USED IN CONTOURING.



LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

1,1-DICHLOROETHANE CONCENTRATIONS
IN THE LOWER SHALLOW AQUIFER SYSTEM,
MARCH/APRIL 2009 SAMPLING EVENT

FIGURE
5-9F



NOTE:

- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
- SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
- THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 DW-1 = CLAY/SAND ZONE 1
 MW-88 = CLAY/SAND ZONE 1
 MW-99 = CLAY/SAND ZONE 1
 MW-112 = CLAY/SAND ZONE 1

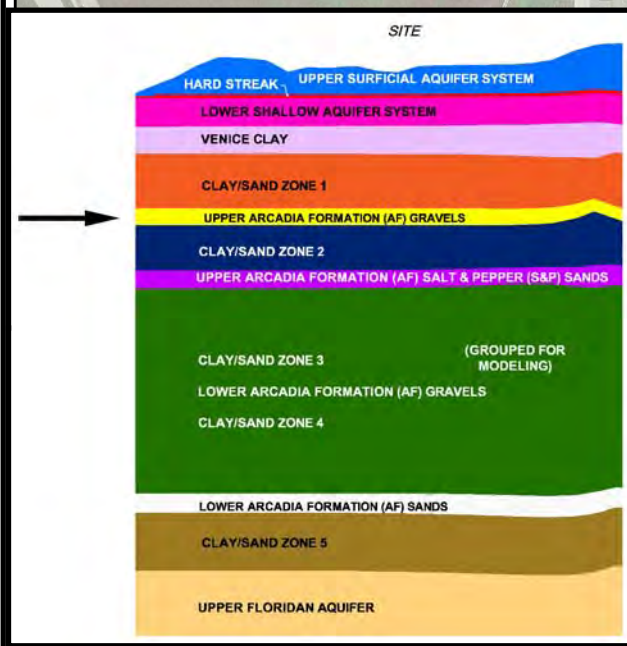
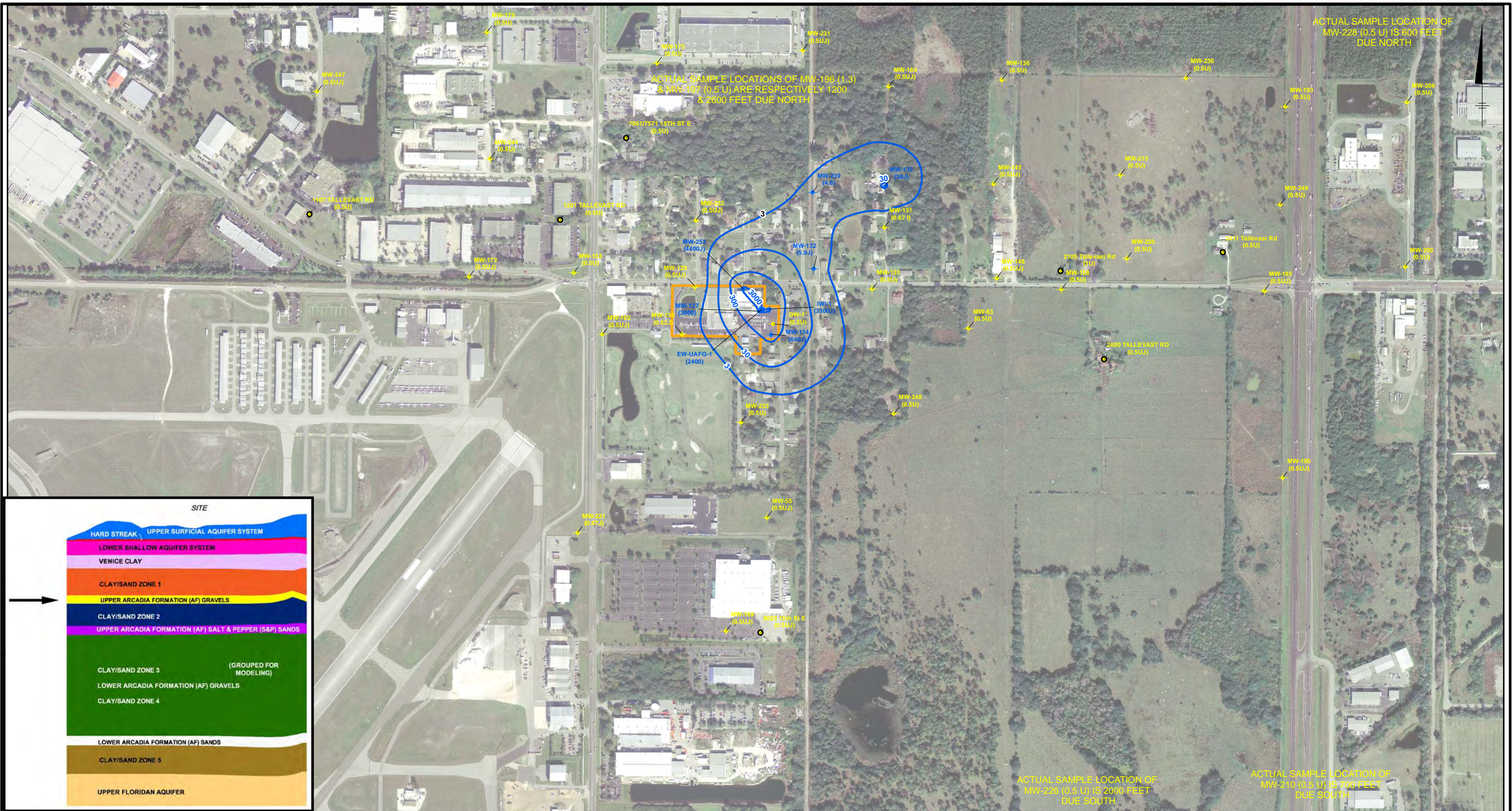
0 300 600 Feet
GRAPHIC SCALE

4. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
 µg/L = MICROGRAMS PER LITER
 5. * INDICATES DATA NOT USED IN CONTOURING.

**LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM**

**1,4-DIOXANE CONCENTRATIONS
 IN THE ARCADIA FORMATION GRAVELS,
 MARCH/APRIL 2009 SAMPLING EVENT**

**FIGURE
 5-10A**



- LEGEND:**
- MONITORING WELL
 - EXTRACTION WELL
 - PRIVATE WELL
 - MAXIMUM DETECTED TCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 3 UG/L SCREENING CRITERION

- MAXIMUM DETECTED TCE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 3 UG/L SCREENING CRITERION
- LOCKHEED MARTIN TALLEVAST FACILITY
- TCE CONTOUR
- (3) TCE RESULT VALUE (µg/L)

- NOTE:**
- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 - SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
 - THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 DW-1 = CLAY/SAND ZONE 1
 MW-88 = CLAY/SAND ZONE 1
 MW-99 = CLAY/SAND ZONE 1
 MW-112 = CLAY/SAND ZONE 1



- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
 - I - THE DETECTED VALUES IS BETWEEN THE METHOD DETECTION LIMIT AND THE REPORTING LIMIT AND THEREFORE ESTIMATED.
 - UJ - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTING LIMIT IS AN ESTIMATED VALUE.
 - J - ESTIMATED VALUE.
 - * INDICATES DATA NOT USED IN CONTOURING.
- µg/L - MICROGRAMS PER LITER

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM

TRICHLOROETHENE CONCENTRATIONS
 IN THE ARCADIA FORMATION GRAVELS,
 MARCH/APRIL 2009 SAMPLING EVENT



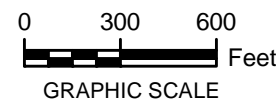
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- LEGEND:**
- MONITORING WELL
 - EXTRACTION WELL
 - PRIVATE WELL
 - MAXIMUM DETECTED PCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 3 UG/L SCREENING CRITERION

- MAXIMUM DETECTED PCE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 3 UG/L SCREENING CRITERION
- LOCKHEED MARTIN TALLEVAST FACILITY
- PCE CONTOUR
- PCE RESULT VALUE (µg/L)

- NOTE:**
- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 - SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
 - THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 DW-1 = CLAY/SAND ZONE 1
 MW-88 = CLAY/SAND ZONE 1
 MW-99 = CLAY/SAND ZONE 1
 MW-112 = CLAY/SAND ZONE 1



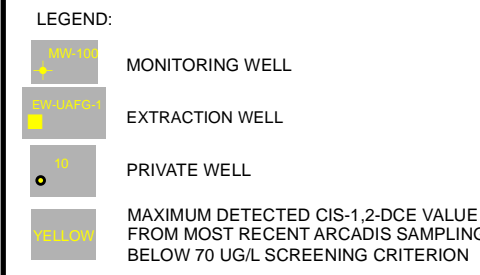
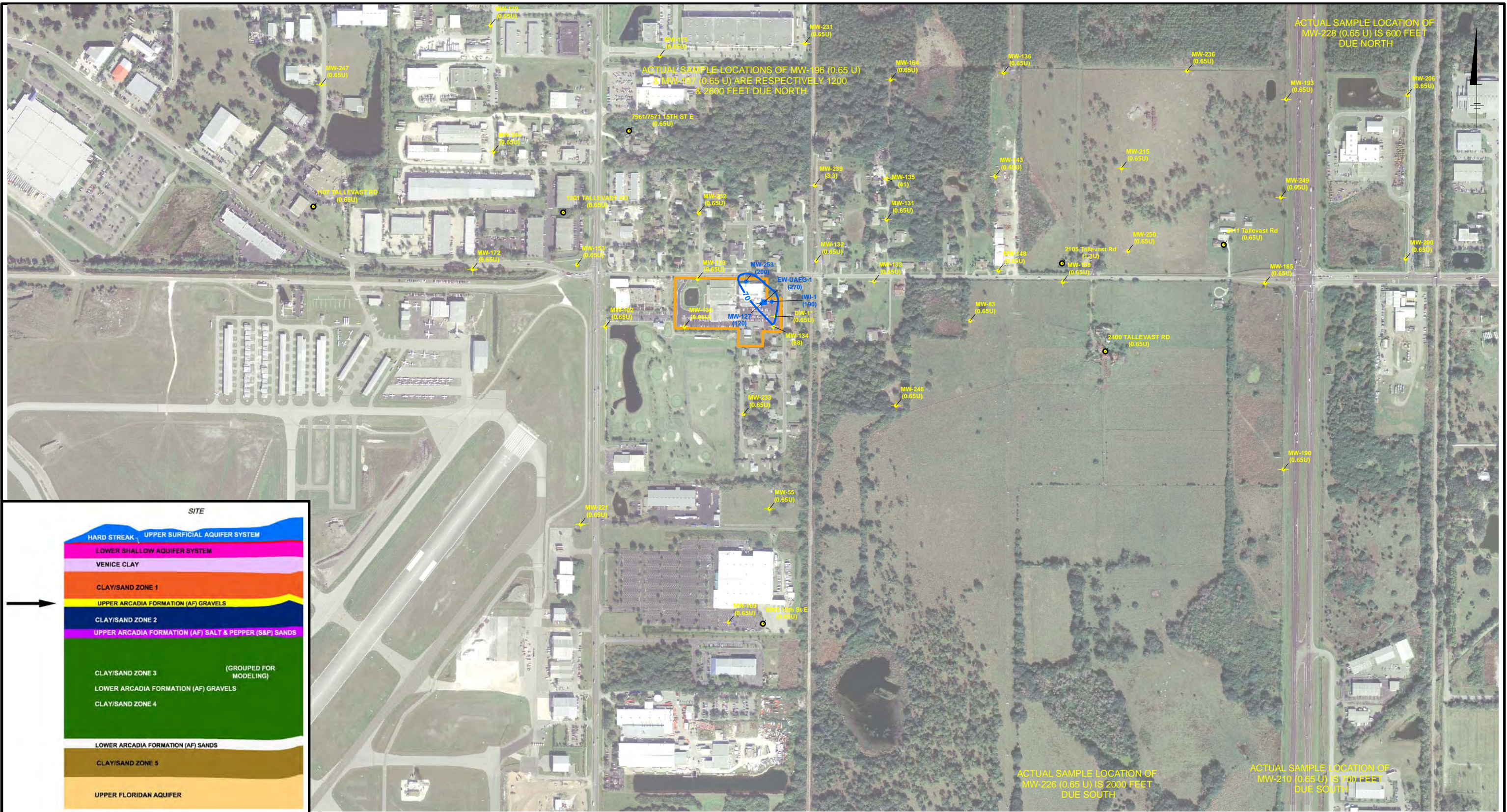
- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- UJ - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTING LIMIT IS AN ESTIMATED VALUE.
- µg/L - MICROGRAMS PER LITER
- * INDICATES DATA NOT USED IN CONTOURING.

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM

**TETRACHLOROETHENE CONCENTRATIONS
 IN THE ARCADIA FORMATION GRAVELS,
 MARCH/APRIL 2009 SAMPLING EVENT**



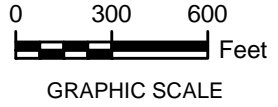
FIGURE
5-10C



- LEGEND:**
- MW-100 MONITORING WELL
 - EW-1/2 EXTRACTION WELL
 - PW PRIVATE WELL
 - MAXIMUM DETECTED CIS-1,2-DCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 70 UG/L SCREENING CRITERION
 - 70 MAXIMUM DETECTED CIS-1,2-DCE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 70 UG/L SCREENING CRITERION
 - LOCKHEED MARTIN TALLEVAST FACILITY
 - 70 CIS-1,2-DCE CONTOUR
 - (70) CIS-1,2-DCE RESULT VALUE (µg/L)

- NOTE:**
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 2. SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
 3. THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 - DW-1 = CLAY/SAND ZONE 1
 - MW-88 = CLAY/SAND ZONE 1
 - MW-99 = CLAY/SAND ZONE 1
 - MW-112 = CLAY/SAND ZONE 1

4. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- µg/L = MICROGRAMS PER LITER
5. * INDICATES DATA NOT USED IN CONTOURING.



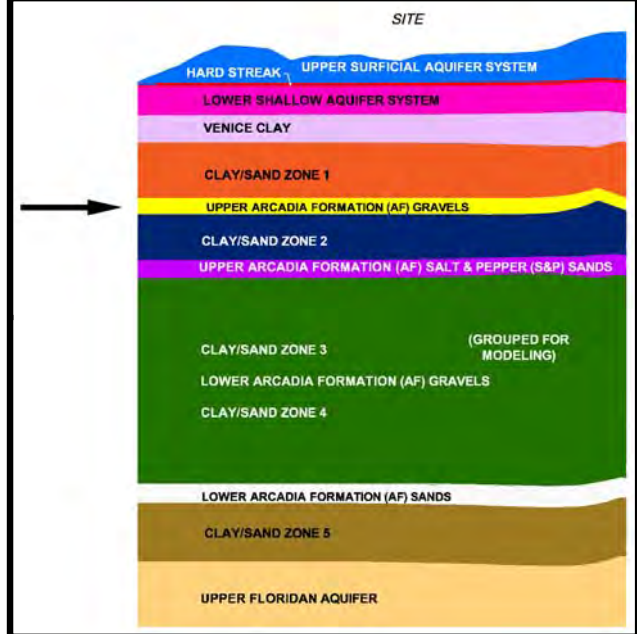
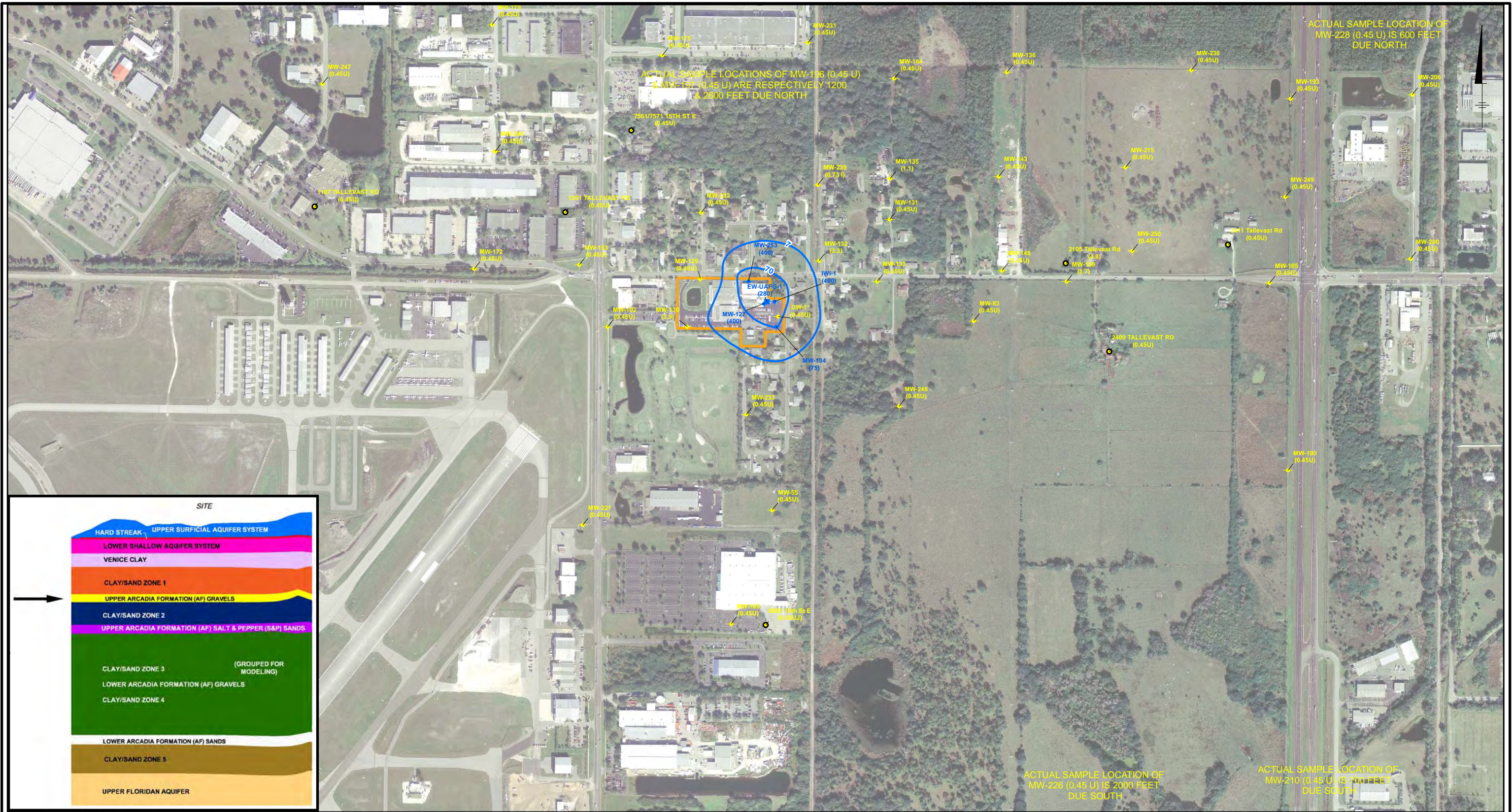
**LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM**

**CIS-1,2-DICHLOROETHENE CONCENTRATIONS
IN THE ARCADIA FORMATION GRAVELS,
MARCH/APRIL 2009 SAMPLING EVENT**

ARCADIS

**FIGURE
5-10D**

DEN-080 MSS
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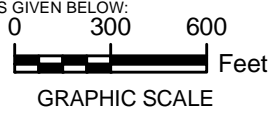


LEGEND:

- MW-100 MONITORING WELL
- EX-100-1 EXTRACTION WELL
- PRIVATE WELL
- MAXIMUM DETECTED 1,1-DCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 7 UG/L SCREENING CRITERION
- BLUE MAXIMUM DETECTED 1,1-DCE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 7 UG/L SCREENING CRITERION
- LOCKHEED MARTIN TALLEVAST FACILITY
- 1,1-DCE CONTOUR
- 1,1-DCE RESULT VALUE (µg/L)

NOTE:

- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
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- THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 DW-1 = CLAY/SAND ZONE 1
 MW-88 = CLAY/SAND ZONE 1
 MW-99 = CLAY/SAND ZONE 1
 MW-112 = CLAY/SAND ZONE 1



- I - THE DETECTED VALUE IS BETWEEN THE METHOD DETECTION LIMIT AND THE REPORTING LIMIT AND THEREFORE ESTIMATED.
- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- µg/L = MICROGRAMS PER LITER
- * INDICATES DATA NOT USED IN CONTOURING.

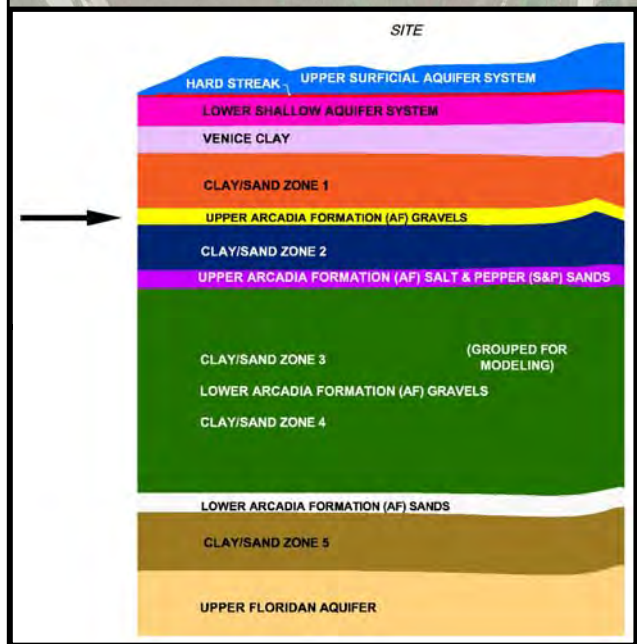
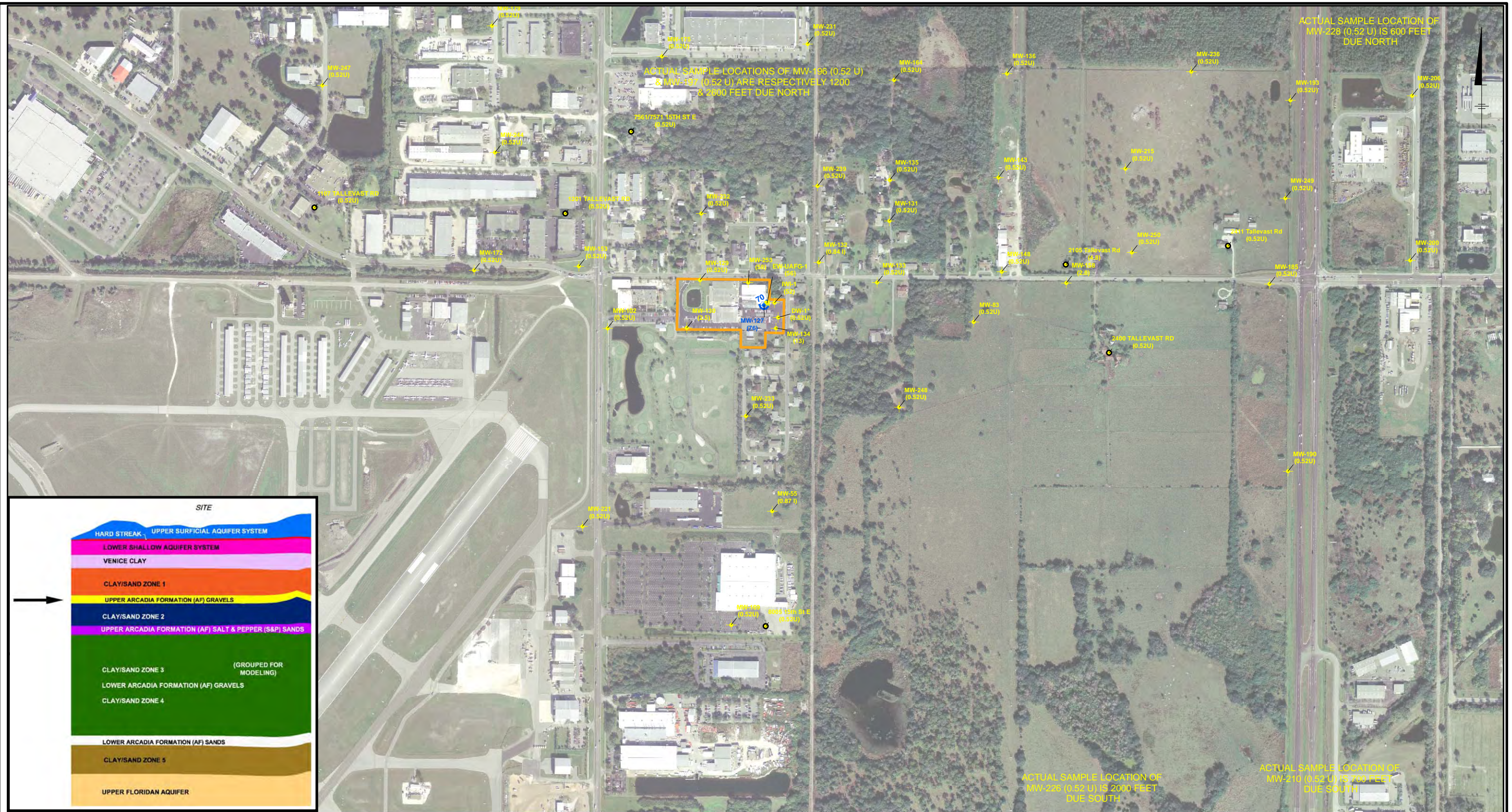
**LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM**

**1,1-DICHLOROETHENE CONCENTRATIONS
IN THE ARCADIA FORMATION GRAVELS,
MARCH/APRIL 2009 SAMPLING EVENT**

**FIGURE
5-10E**

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DEN-080 MSS
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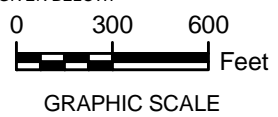


- LEGEND:**
- MONITORING WELL
 - EXTRACTION WELL
 - PRIVATE WELL
 - MAXIMUM DETECTED 1,1-DCA VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 70 UG/L SCREENING CRITERION

- MAXIMUM DETECTED 1,1-DCA VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 70 UG/L SCREENING CRITERION
- LOCKHEED MARTIN TALLEVAST FACILITY
- 70 1,1-DCA CONTOUR
- (70) 1,1-DCA RESULT VALUE (ug/L)

NOTE:

- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
- SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
- THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 - DW-1 = CLAY/SAND ZONE 1
 - MW-88 = CLAY/SAND ZONE 1
 - MW-99 = CLAY/SAND ZONE 1
 - MW-112 = CLAY/SAND ZONE 1

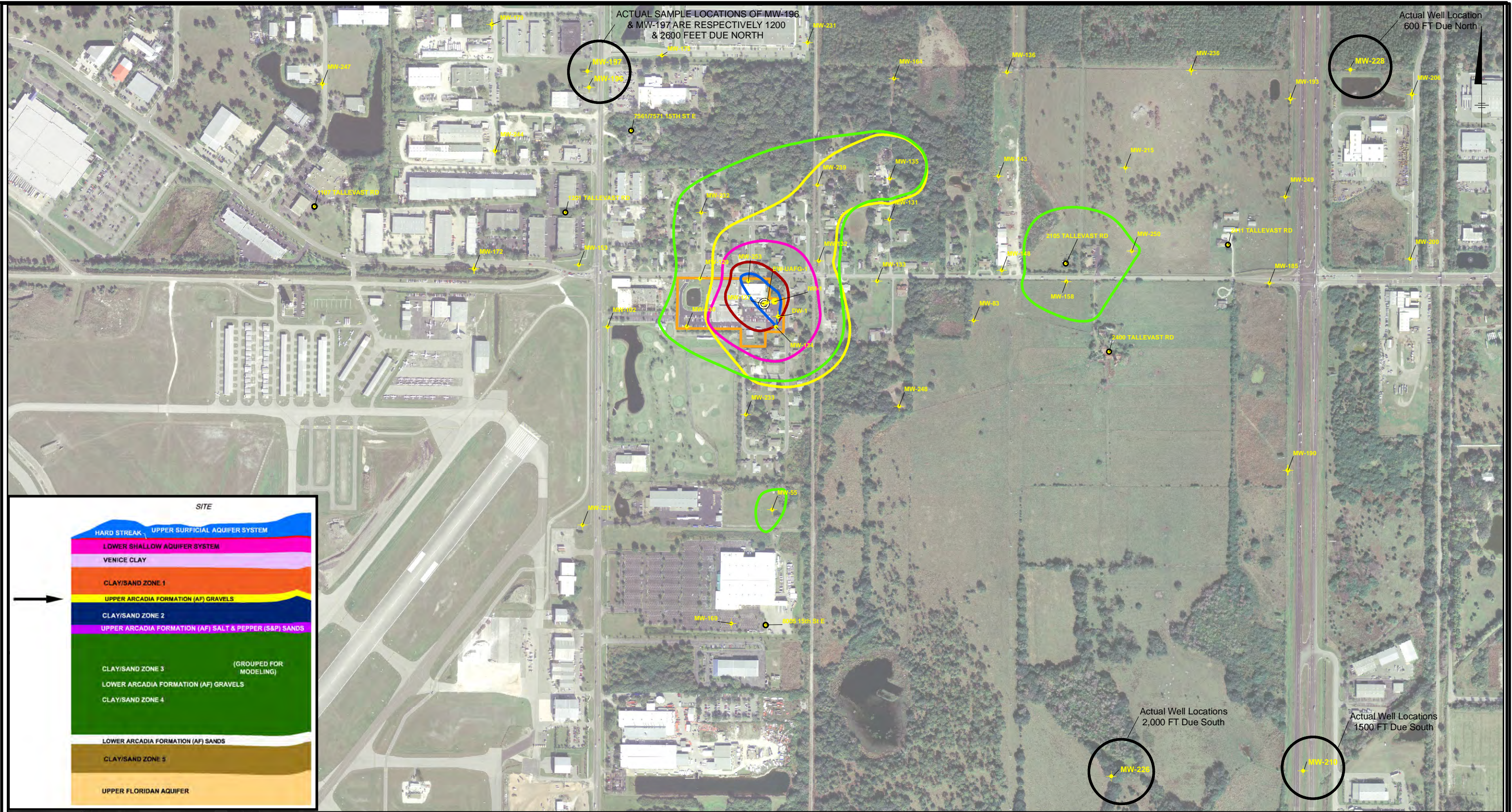


- I - THE DETECTED VALUE IS BETWEEN THE METHOD DETECTION LIMIT AND THE REPORTING LIMIT AND THEREFORE ESTIMATED.
 - U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
- ug/L = MICROGRAMS PER LITER
- * INDICATES DATA NOT USED IN CONTOURING.

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

1,1-DICHLOROETHANE CONCENTRATIONS
IN THE ARCADIA FORMATION GRAVELS,
MARCH/APRIL 2009 SAMPLING EVENT

FIGURE
5-10F

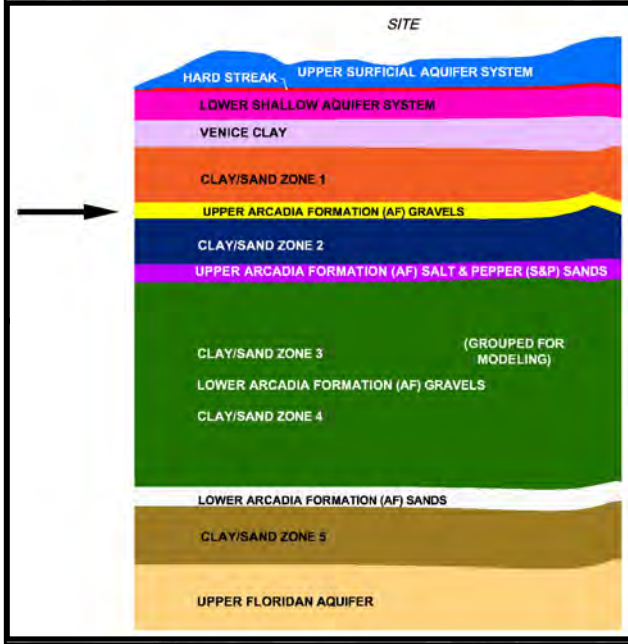


ACTUAL SAMPLE LOCATIONS OF MW-196 & MW-197 ARE RESPECTIVELY 1200 & 2600 FEET DUE NORTH

Actual Well Location 600 FT Due North

Actual Well Locations 2,000 FT Due South

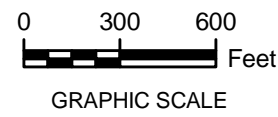
Actual Well Locations 1500 FT Due South



LEGEND:

MONITORING WELL (AF GRAVEL)	70	1,1-DCA CONTOUR	3.2	1,4-DIOXANE CONTOUR
EXTRACTION WELL (AF GRAVEL)	1.0	TCE CONTOUR		LOCKHEED MARTIN TALLEVAST FACILITY
PRIVATE WELL (AF GRAVEL)	3.0	PCE CONTOUR	7.0	1,1-DCE CONTOUR
INJECTION WELL (AF GRAVEL)	7.0	CIS-1,2- CONTOUR		

NOTE:
 1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 2. SOME WELLS FOR THIS AQUIFER ARE NOT SHOWN IN THIS EXTENT.
 3. CONTOUR VALUES ARE IN MICROGRAMS PER LITER (µG/L)



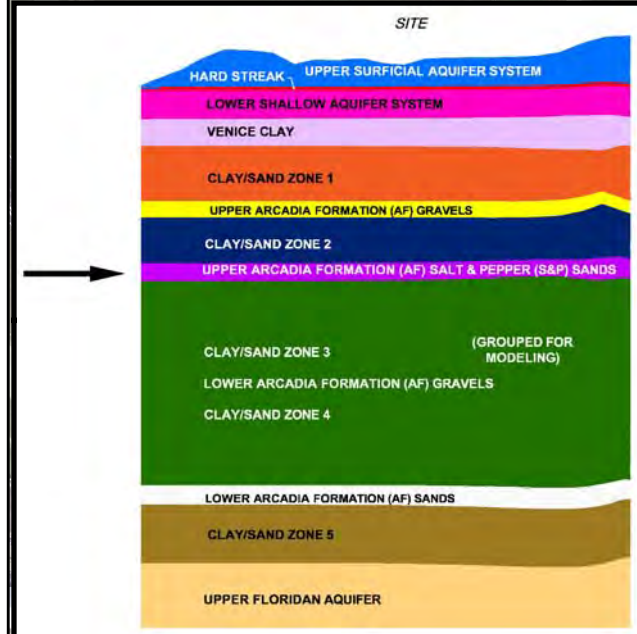
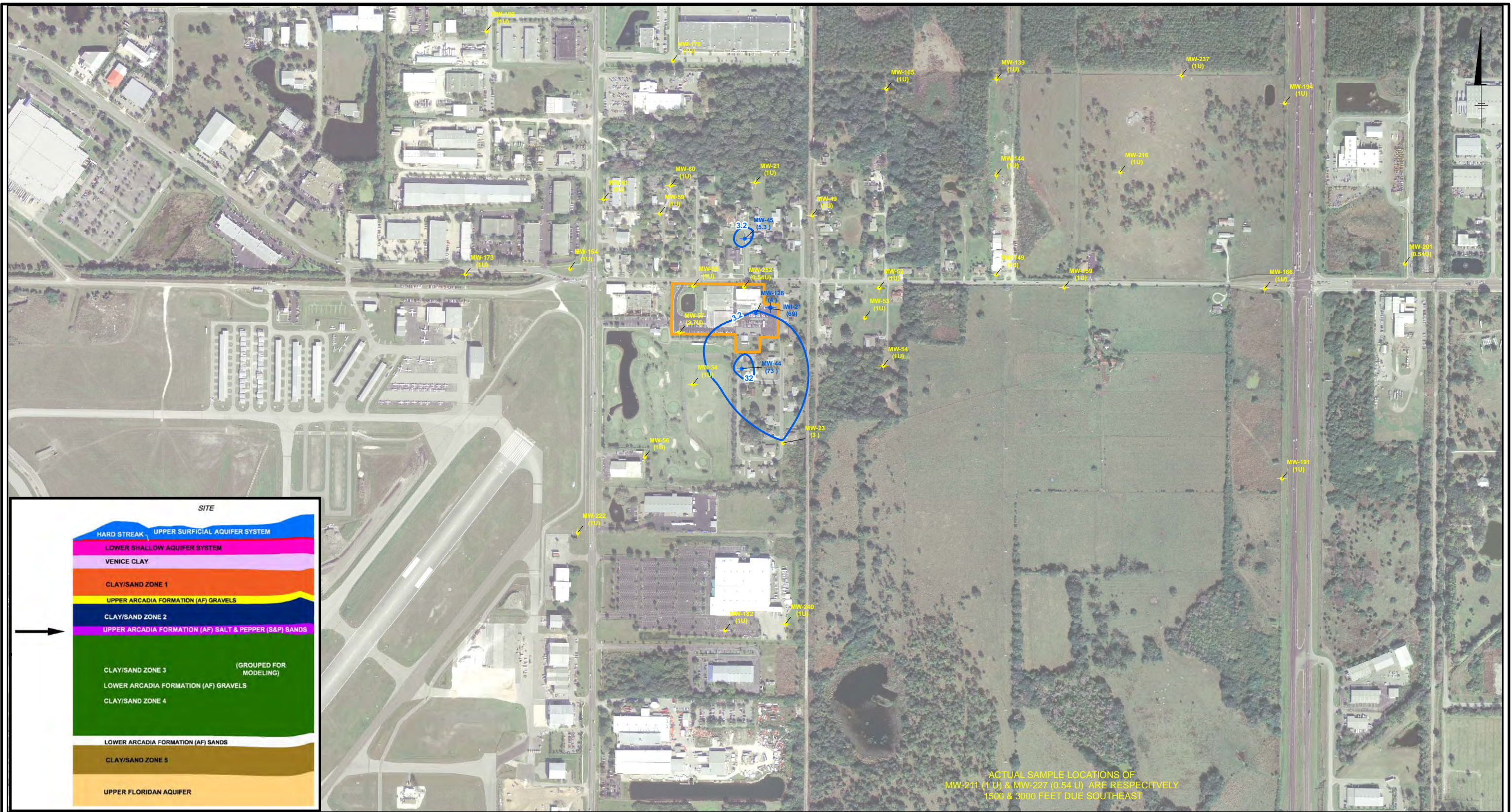
LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM

COMPOSITE GROUNDWATER CONCENTRATIONS IN THE ARCADIA FORMATION GRAVELS, MARCH/APRIL 2009 SAMPLING EVENT

FIGURE 5-10G

DEN-080 MSS
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DEN-080 MSS
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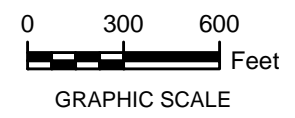


ACTUAL SAMPLE LOCATIONS OF MW-211 (1U) & MW-227 (0.54U) ARE RESPECTIVELY 1500 & 3000 FEET DUE SOUTHEAST

- LEGEND:**
- MONITORING WELL
 - MAXIMUM DETECTED 1,4-DIOXANE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 3.2 UG/L SCREENING CRITERION
 - MAXIMUM DETECTED 1,4-DIOXANE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 3.2 UG/L SCREENING CRITERION
 - LOCKHEED MARTIN TALLEVAST FACILITY
 - 1,4-DIOXANE CONTOUR
 - 1,4-DIOXANE RESULT VALUE (µg/L)

- NOTE:**
- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 - SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
 - THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 IWI-2 = CLAY/SAND ZONE 3-4
 MW-96/97 = CLAY/SAND ZONE 3-4
 MW-124 = CLAY/SAND ZONE 2

- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
µg/L = MICROGRAMS PER LITER
- * INDICATES DATA NOT USED IN CONTOURING.

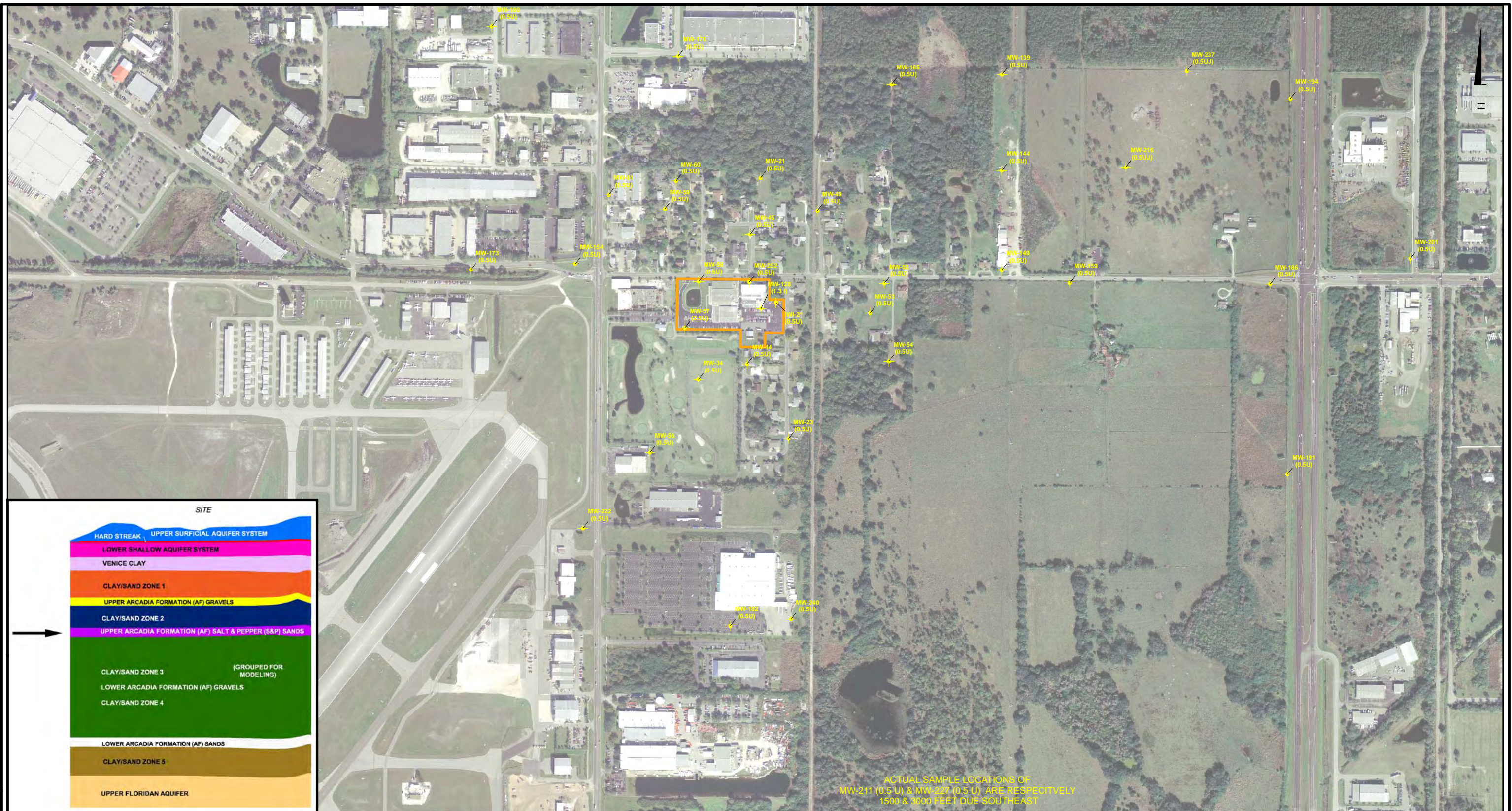


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

1,4-DIOXANE CONCENTRATIONS
IN THE SALT & PEPPER SANDS,
MARCH/APRIL 2009 SAMPLING EVENT

FIGURE
5-11A

DEN-080 MSS
 Project #: B0038055.0000
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ACTUAL SAMPLE LOCATIONS OF MW-211 (0.5-U) & MW-227 (0.5-U) ARE RESPECTIVELY 1500 & 3000 FEET DUE SOUTHEAST

LEGEND:

MONITORING WELL

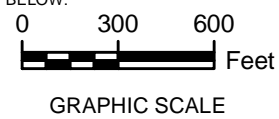
LOCKHEED MARTIN TALLEVAST FACILITY

MAXIMUM DETECTED PCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 3 UG/L SCREENING CRITERION

(3) PCE RESULT VALUE (µg/L)

NOTE:

- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
- SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
- THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 IWI-2 = CLAY/SAND ZONE 3-4
 MW-96/97 = CLAY/SAND ZONE 3-4
 MW-124 = CLAY/SAND ZONE 2
- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
 I - THE DETECTED VALUE IS BETWEEN THE METHOD DETECTION LIMIT AND THE REPORTING LIMIT AND THEREFORE ESTIMATED.
 JJ - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED. THE REPORTING LIMIT IS AN ESTIMATED VALUE.
 J - ESTIMATED VALUE.
 µg/L = MICROGRAMS PER LITER
- * INDICATES DATA NOT USED IN CONTOURING.



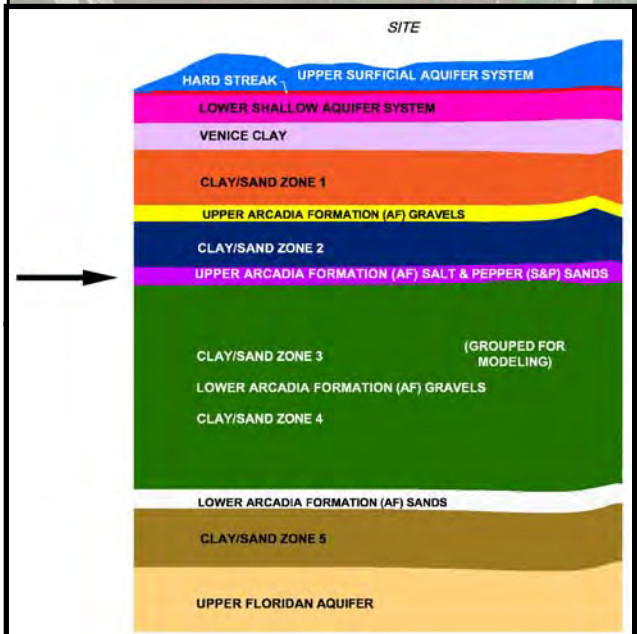
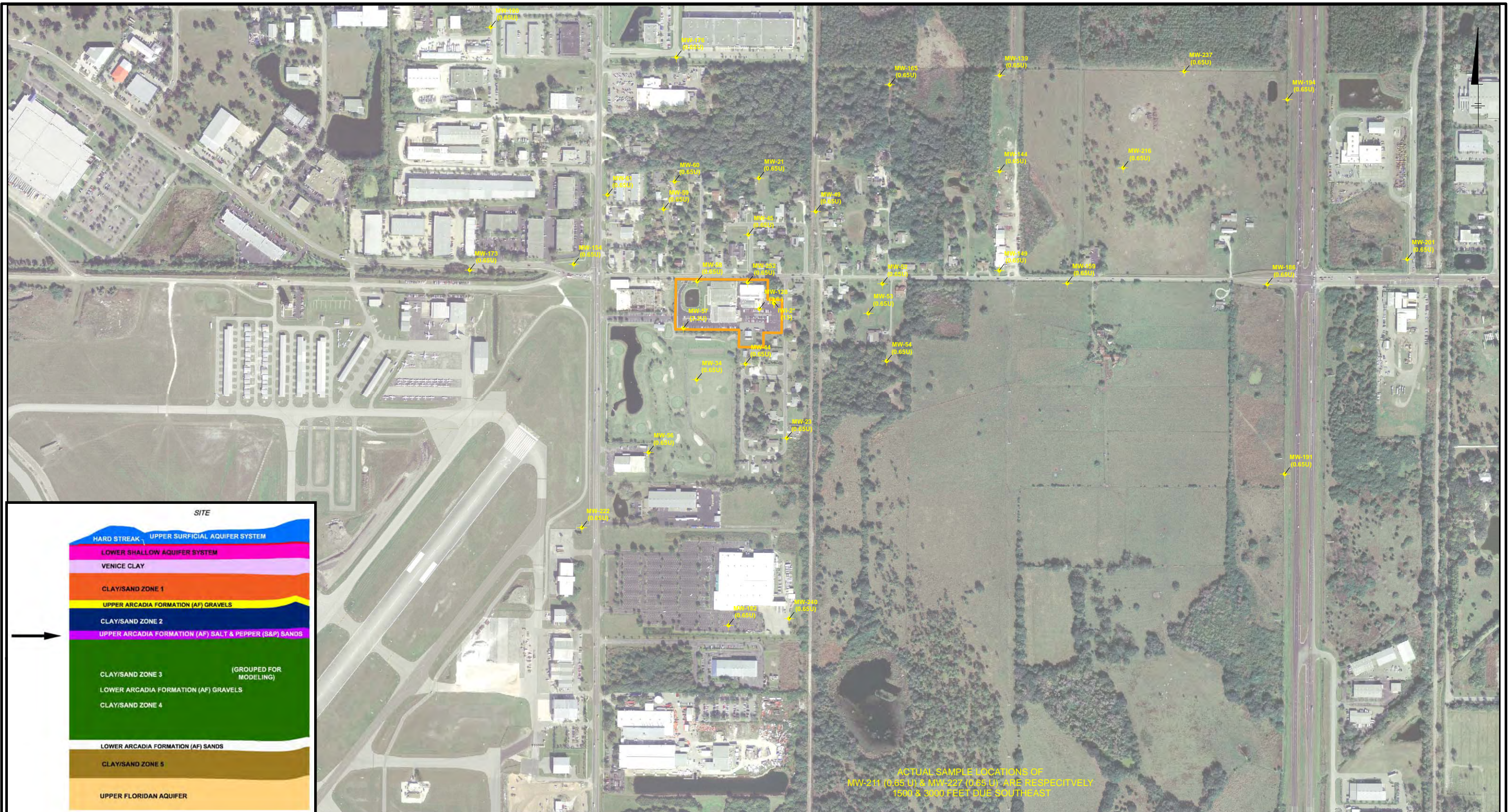
LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM

**TETRACHLOROETHENE CONCENTRATIONS
 IN THE SALT & PEPPER SANDS,
 MARCH/APRIL 2009 SAMPLING EVENT**



FIGURE
5-11C

DEN-080 MSS
 Project #: B0038055.0000
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ACTUAL SAMPLE LOCATIONS OF MW-211 (0.65 U) & MW-227 (0.65 U) ARE RESPECTIVELY 1500 & 3000 FEET DUE SOUTHEAST

LEGEND:

- MONITORING WELL
- LOCKHEED MARTIN TALLEVAST FACILITY
- MAXIMUM DETECTED CIS-1,2-DCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 70 UG/L SCREENING CRITERION
- CIS-1,2-DCE RESULT VALUE (µg/L)

NOTE:

- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
- SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
- THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 IWI-2 = CLAY/SAND ZONE 3-4
 MW-96/97 = CLAY/SAND ZONE 3-4
 MW-124 = CLAY/SAND ZONE 2



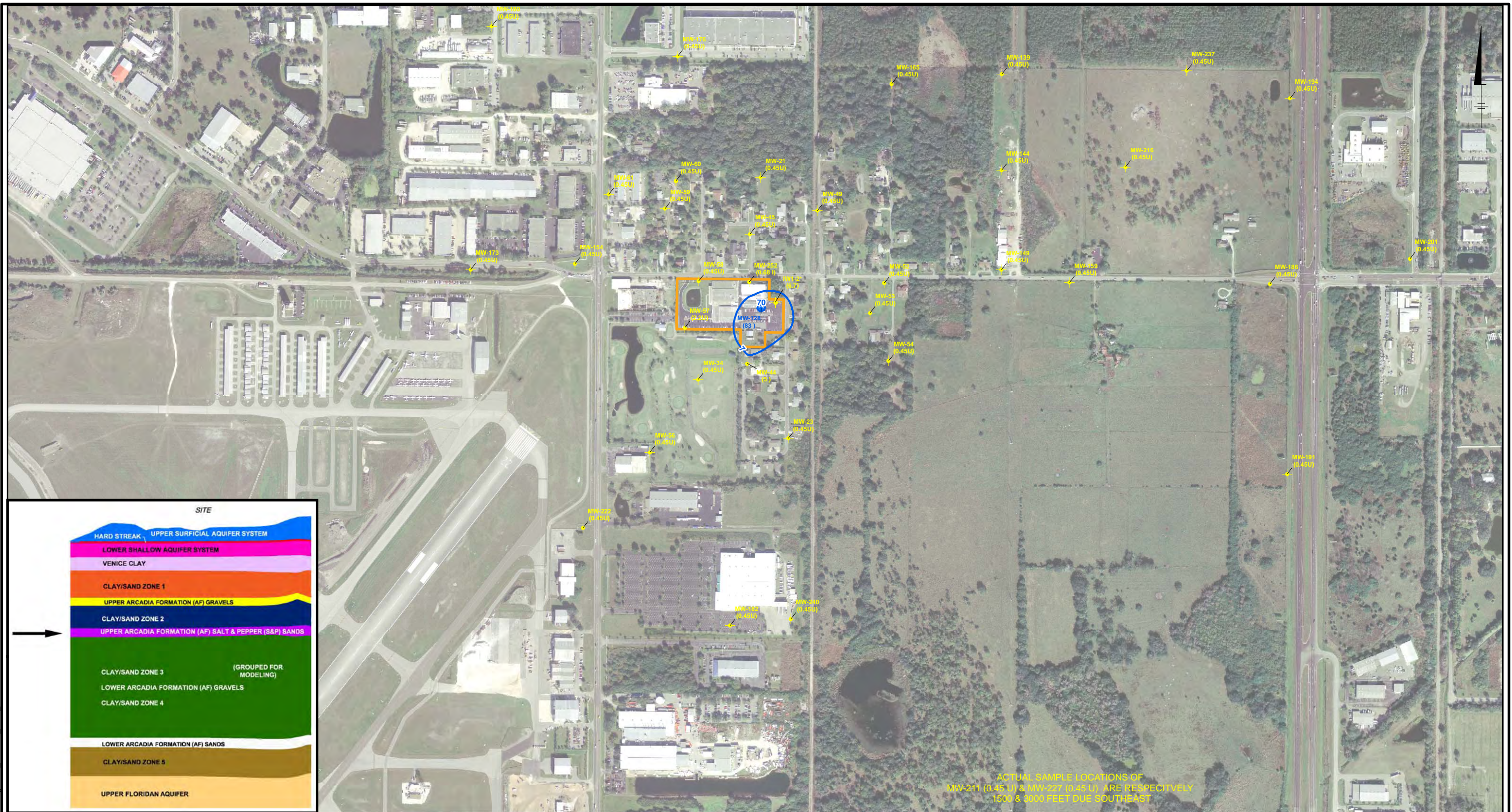
- U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
µg/L = MICROGRAMS PER LITER
- * INDICATES DATA NOT USED IN CONTOURING.

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

CIS-1,2-DICHLOROETHENE CONCENTRATIONS
IN THE SALT & PEPPER SANDS,
MARCH/APRIL 2009 SAMPLING EVENT

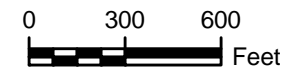
FIGURE
5-11D

DEN-080 MSS
Project #: B0038055.0000
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- LEGEND:**
- MONITORING WELL
 - MAXIMUM DETECTED 1,1-DCE VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 7 UG/L SCREENING CRITERION
 - LOCKHEED MARTIN TALLEVAST FACILITY
 - 1,1-DCE CONTOUR
 - (7) 1,1-DCE RESULT VALUE (µg/L)

- NOTE:**
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 2. SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
 3. THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 - IWI-2 = CLAY/SAND ZONE 3-4
 - MW-96/97 = CLAY/SAND ZONE 3-4
 - MW-124 = CLAY/SAND ZONE 2
 4. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
 - I - THE DETECTED VALUE IS BETWEEN THE METHOD DETECTION LIMIT AND THE REPORTING LIMIT AND THEREFORE ESTIMATED.



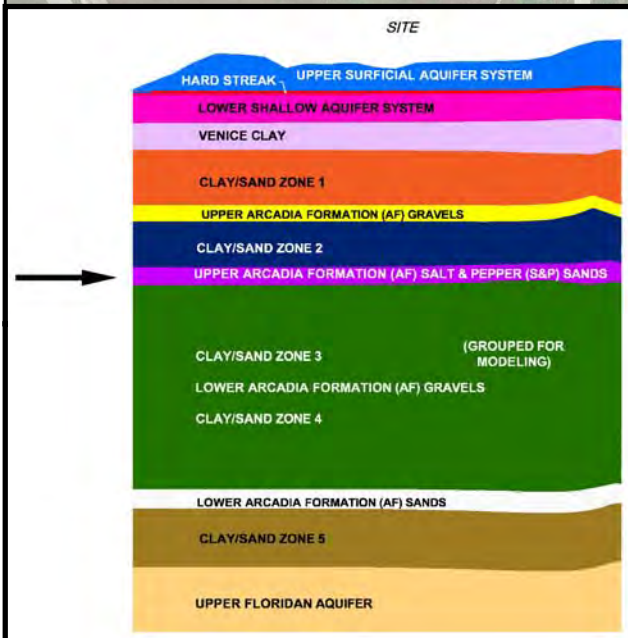
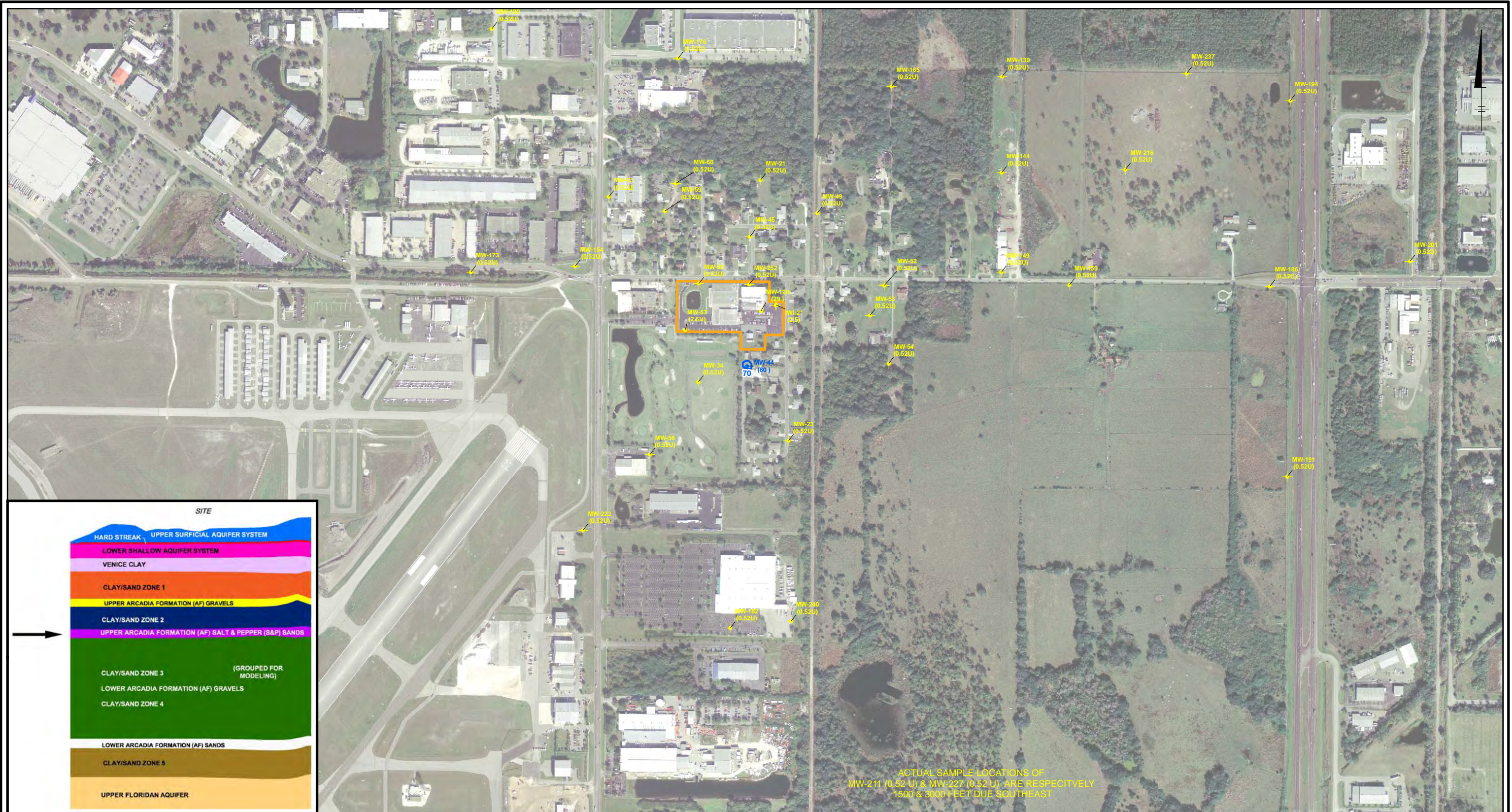
- µg/L = MICROGRAMS PER LITER
- * INDICATES DATA NOT USED IN CONTOURING.

**LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM**

**1,1-DICHLOROETHENE CONCENTRATIONS
IN THE SALT & PEPPER SANDS,
MARCH/APRIL 2009 SAMPLING EVENT**

ARCADIS

**FIGURE
5-11E**



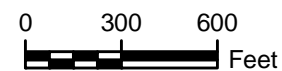
LEGEND:

- MONITORING WELL
- LOCKHEED MARTIN TALLEVAST FACILITY
- MAXIMUM DETECTED 1,1-DCA VALUE FROM MOST RECENT ARCADIS SAMPLING BELOW 70 UG/L SCREENING CRITERION
- 1,1-DCA RESULT VALUE (µg/L)
- 70 1,1-DCA CONTOUR

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
3. THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 IWI-2 = CLAY/SAND ZONE 3-4
 MW-96/97 = CLAY/SAND ZONE 3-4
 MW-124 = CLAY/SAND ZONE 2

4. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
µg/L = MICROGRAMS PER LITER
5. * INDICATES DATA NOT USED IN CONTOURING.

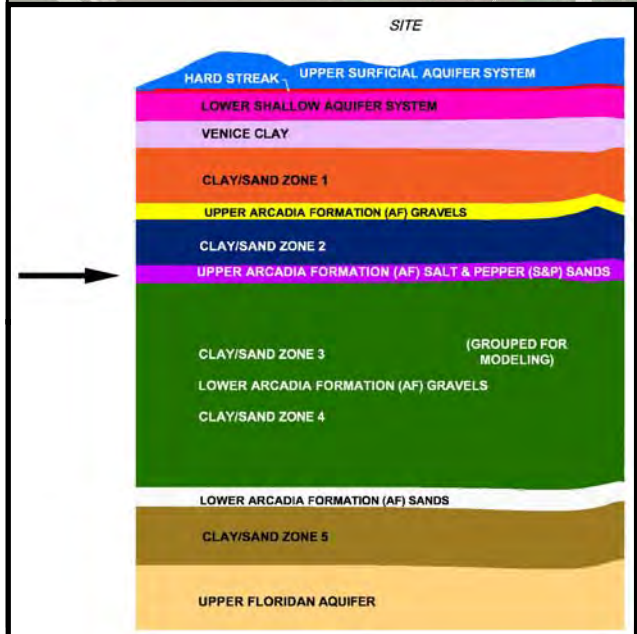
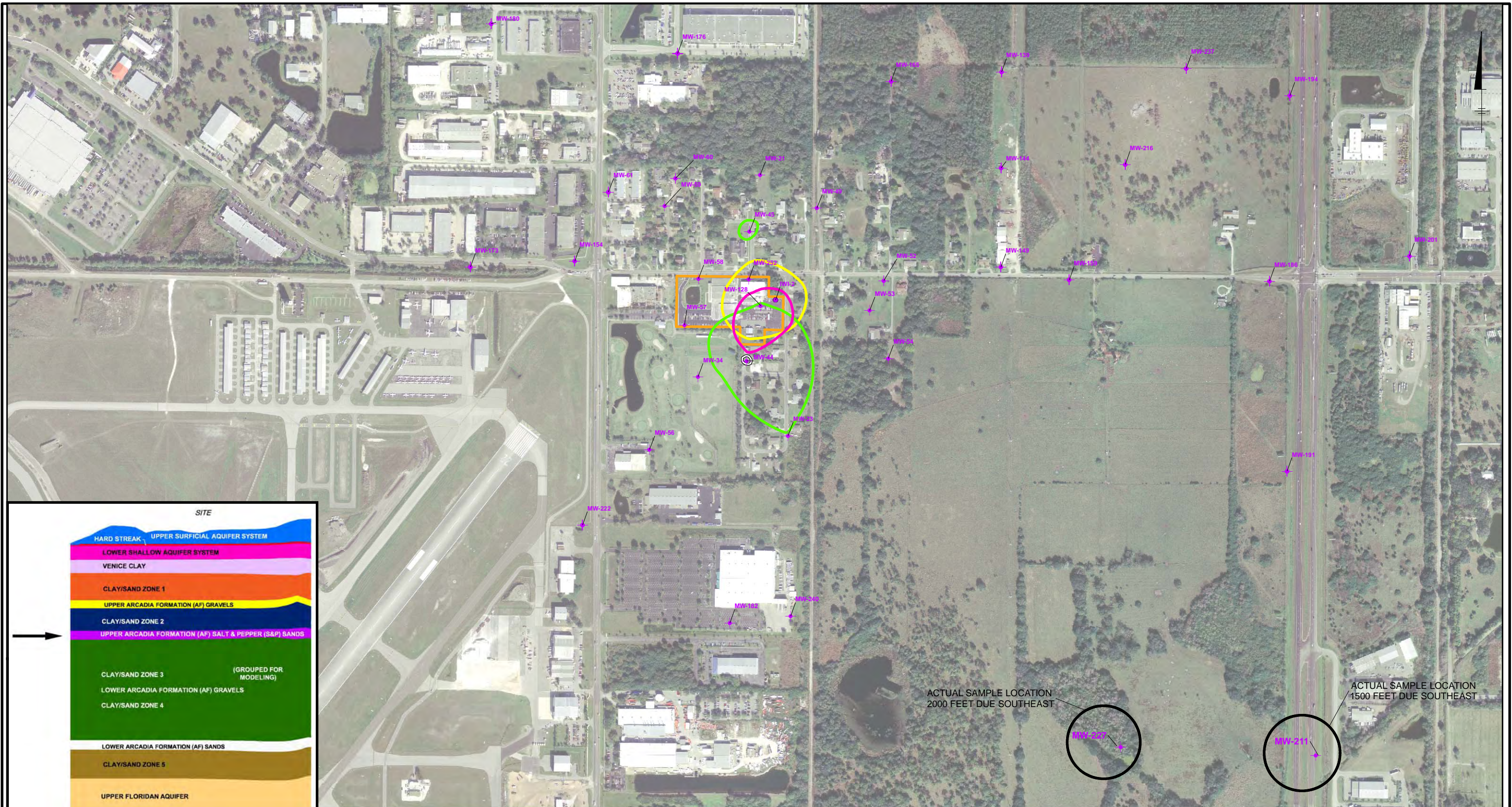


GRAPHIC SCALE

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM

1,1-DICHLOROETHANE CONCENTRATIONS
 IN THE SALT & PEPPER SANDS,
 MARCH/APRIL 2009 SAMPLING EVENT



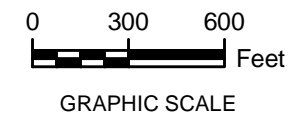


LEGEND:

<ul style="list-style-type: none"> ◆ MONITORING WELL (S&P SANDS) ◆ INJECTION WELL (S&P SANDS) 	<ul style="list-style-type: none"> — 70 — 1,1-DCA CONTOUR — 1.0 — TCE CONTOUR — 3.0 — PCE CONTOUR — 7.0 — 1,1-DCE CONTOUR — 7.0 — CIS-1,2- CONTOUR 	<ul style="list-style-type: none"> — 3.2 — 1,4-DIOXANE CONTOUR — LOCKHEED MARTIN TALLEVAST FACILITY
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NOTE:

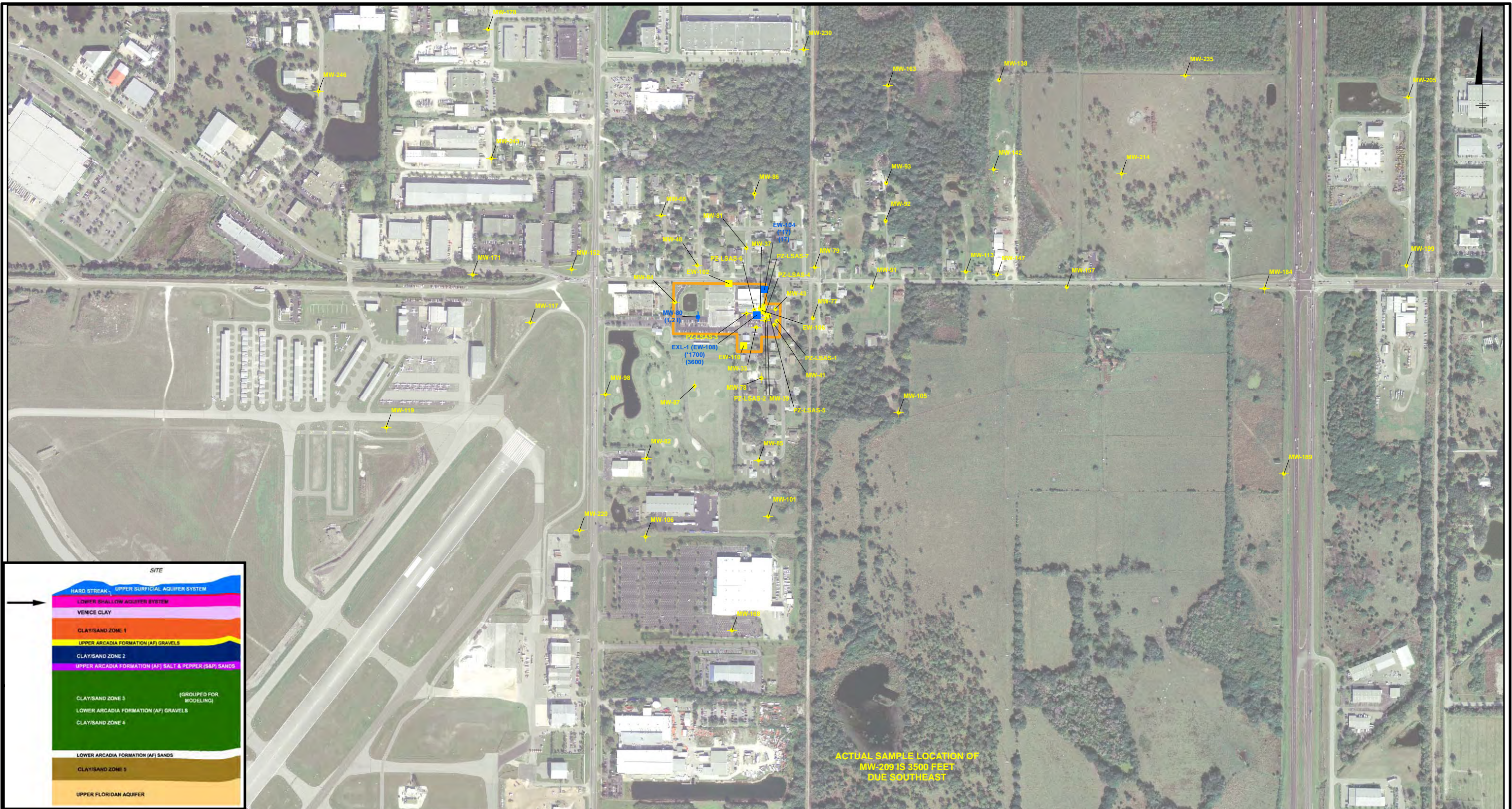
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SOME WELLS FOR THIS AQUIFER ARE NOT SHOWN IN THIS EXTENT.
3. CONTOUR VALUES ARE IN MICROGRAMS PER LITER (µG/L)



LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM
COMPOSITE GROUNDWATER
CONCENTRATIONS IN THE
SALT & PEPPER SANDS
MARCH/APRIL 2009 SAMPLING EVENT

FIGURE
5-11G

DEN-080 MSS
 Project #: B0038055.0000
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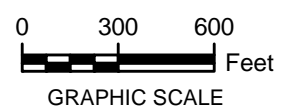
LEGEND:

- MW-100 MONITORING WELL
- EX-100 EXTRACTION WELL
- INDICATES VINYL CHLORIDE CONCENTRATIONS WERE NOT DETECTED IN THE MOST RECENT ARCADIS SAMPLING EVENT
- MAXIMUM DETECTED VINYL CHLORIDE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 1 UG/L SCREENING CRITERION

LOCKHEED MARTIN TALLEVAST FACILITY
 (17) VINYL CHLORIDE RESULT VALUE (µG/L)
 *ANALYTICAL RESULT FOR PARAMETER ASSOCIATED WITH PREVIOUSLY CONDUCTED ON-FACILITY SOIL GAS SAMPLING.

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
3. THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT AND WERE NOT USED IN CONTOURING; INSTEAD, THE WELLS WERE SCREENED IN THE SCREEN DESIGNATIONS GIVEN BELOW:
 MW-125 = VENICE CLAY
 MW-224 = VENICE CLAY
 MW-225 = VENICE CLAY
4. | - DETECTED BUT BELOW REPORTING LIMIT. RESULT IS AN ESTIMATED CONCENTRATION.
 µG/L = MICROGRAMS PER LITER

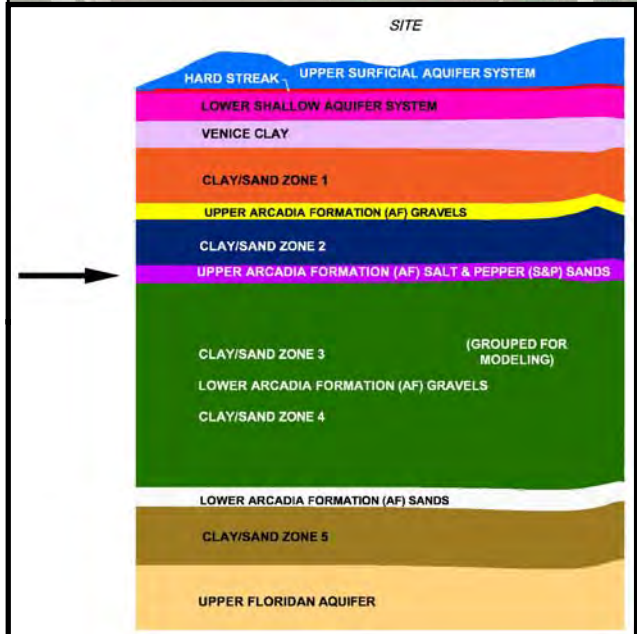
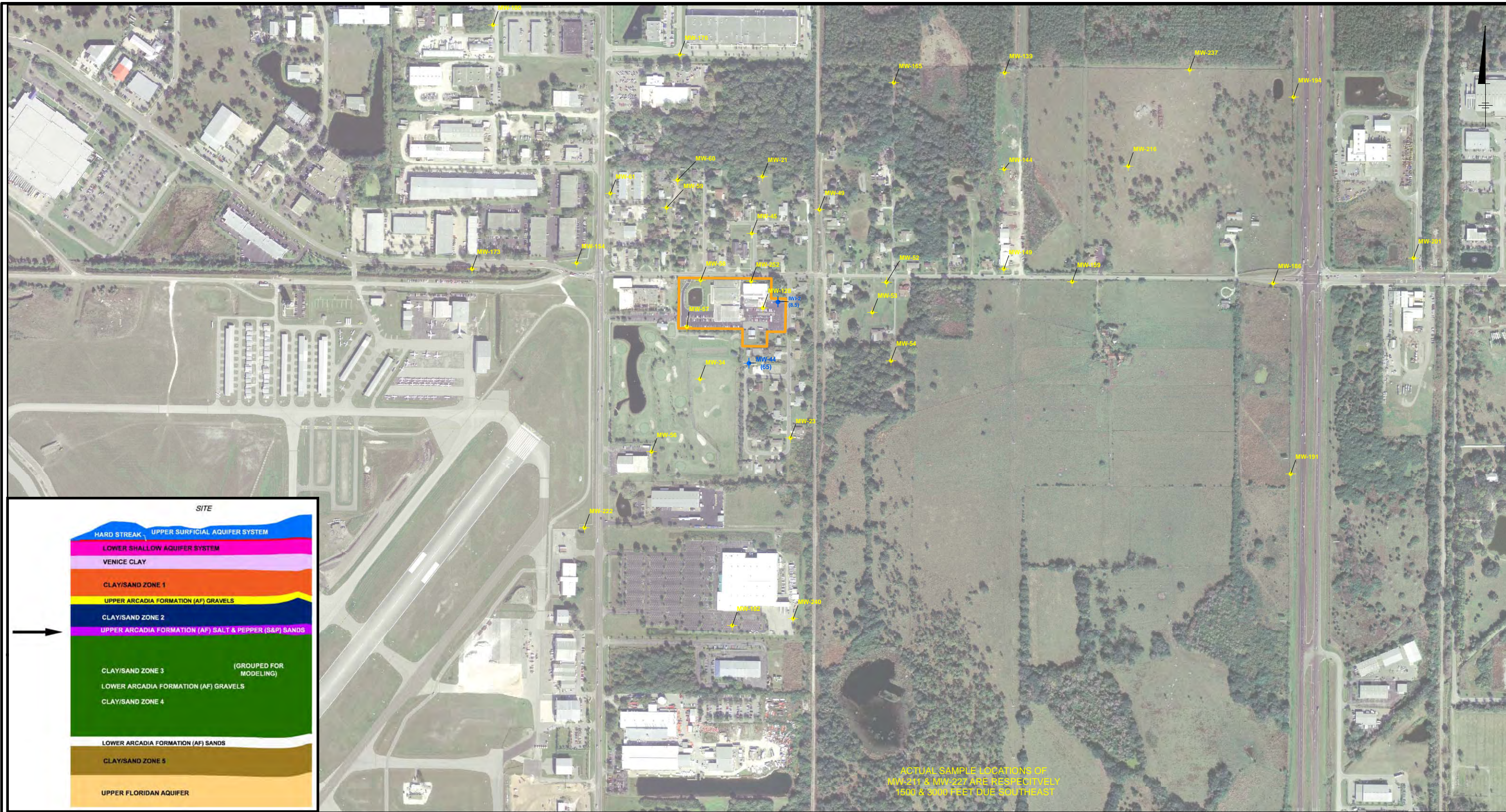


LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**VINYL CHLORIDE CONCENTRATIONS
 IN THE LOWER SHALLOW AQUIFER SYSTEM,
 MARCH/APRIL 2009 SAMPLING EVENT**

FIGURE
5-12A

DEN-080 MSS
 Project #: B00380655.0000
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ACTUAL SAMPLE LOCATIONS OF MW-211 & MW-227 ARE RESPECTIVELY 1500 & 3000 FEET DUE SOUTHEAST

LEGEND:

■ MW-192 MONITORING WELL

■ INDICATES VINYL CHLORIDE CONCENTRATIONS WERE NOT DETECTED IN THE MOST RECENT ARCADIS SAMPLING EVENT

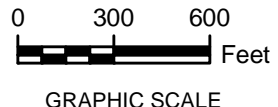
★ MAXIMUM DETECTED VINYL CHLORIDE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 1 UG/L SCREENING CRITERION

 LOCKHEED MARTIN TALLEVAST FACILITY

(65) VINYL CHLORIDE RESULT VALUE (µG/L)

NOTE:

- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
- SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
- THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 IW-2 = CLAY/SAND ZONE 3-4
 MW-96/97 = CLAY/SAND ZONE 3-4
 MW-124 = CLAY/SAND ZONE 2

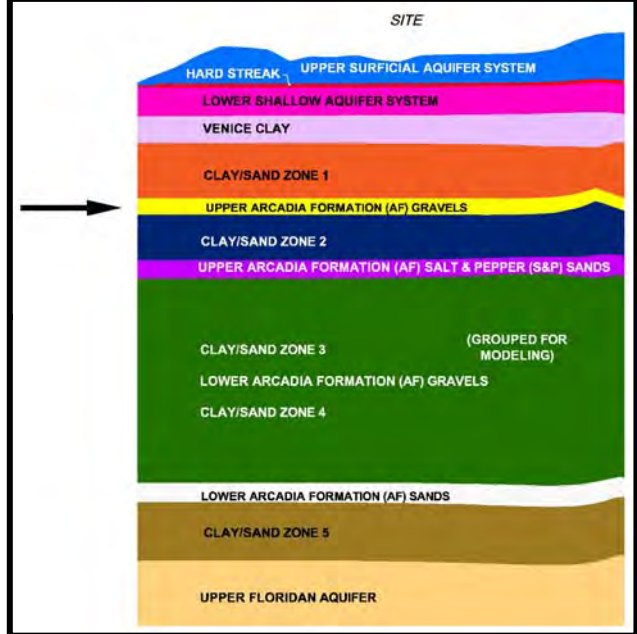
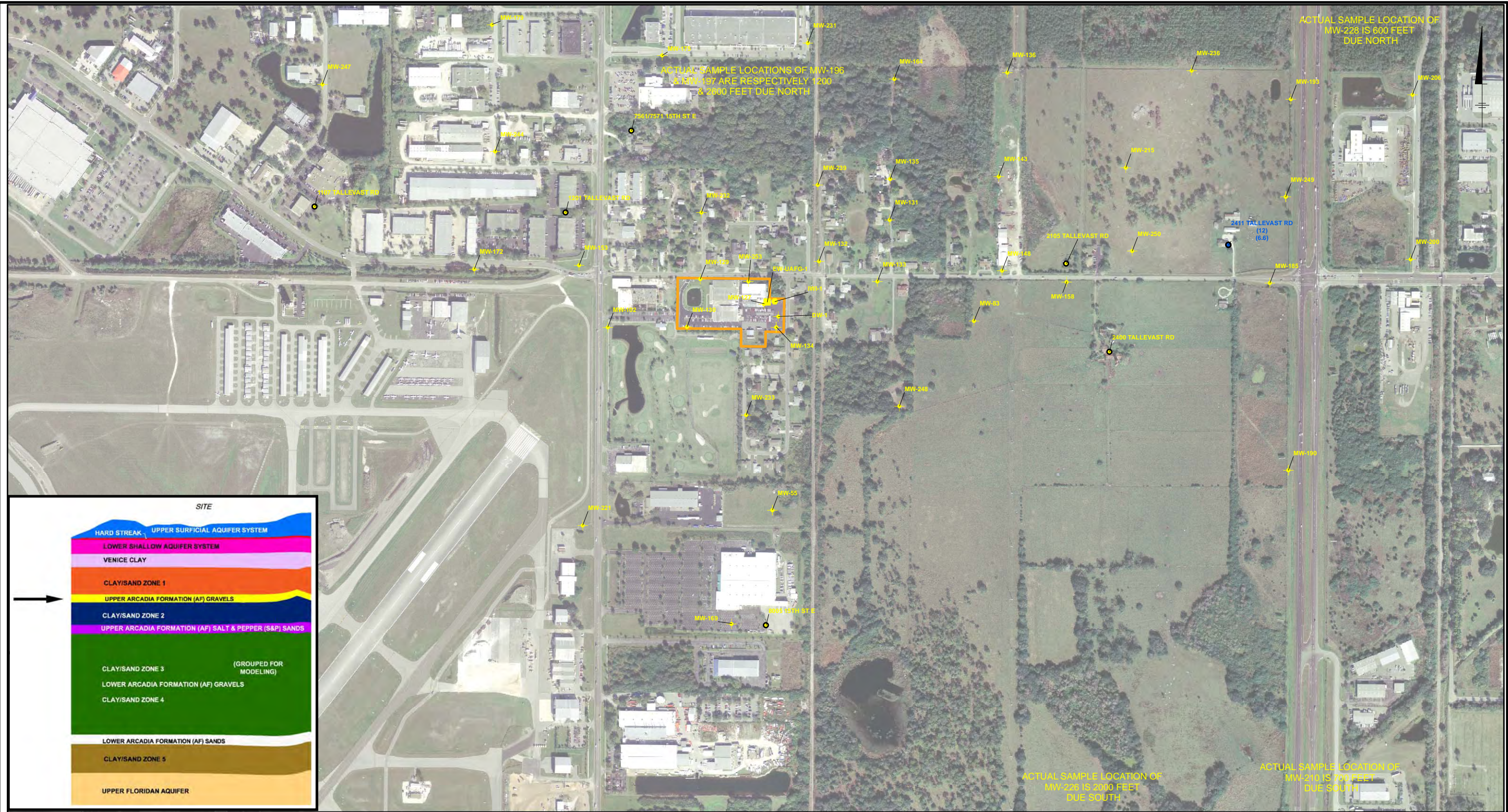


4. µG/L = MICROGRAMS PER LITER

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

VINYL CHLORIDE CONCENTRATIONS
IN THE SALT & PEPPER SANDS,
MARCH/APRIL 2009 SAMPLING EVENT

FIGURE
5-12B



LEGEND:

- + MW-100 MONITORING WELL
- 10 PRIVATE WELL
- EXTRACTION WELL
- INJECTION WELL
- INDICATES BROMODICHLOROMETHANE AND DIBROMOCHLOROMETHANE CONCENTRATIONS WERE NOT DETECTED IN THE MOST RECENT ARCADIS SAMPLING EVENT

BLUE MAXIMUM DETECTED BROMODICHLOROMETHANE AND DIBROMOCHLOROMETHANE VALUES FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 0.6 AND 0.4 UG/L SCREENING CRITERIA, RESPECTIVELY

ORANGE LOCKHEED MARTIN TALLEVAST FACILITY

(12) BROMODICHLOROMETHANE RESULT VALUE (µG/L)

(6.6) DIBROMOCHLOROMETHANE RESULT VALUE (µG/L)

NOTE:

- AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
- SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
- THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 DW-1 = CLAY/SAND ZONE 1
 MW-88 = CLAY/SAND ZONE 1
 MW-99 = CLAY/SAND ZONE 1
 MW-112 = CLAY/SAND ZONE 1

4. µG/L = MICROGRAMS PER LITER

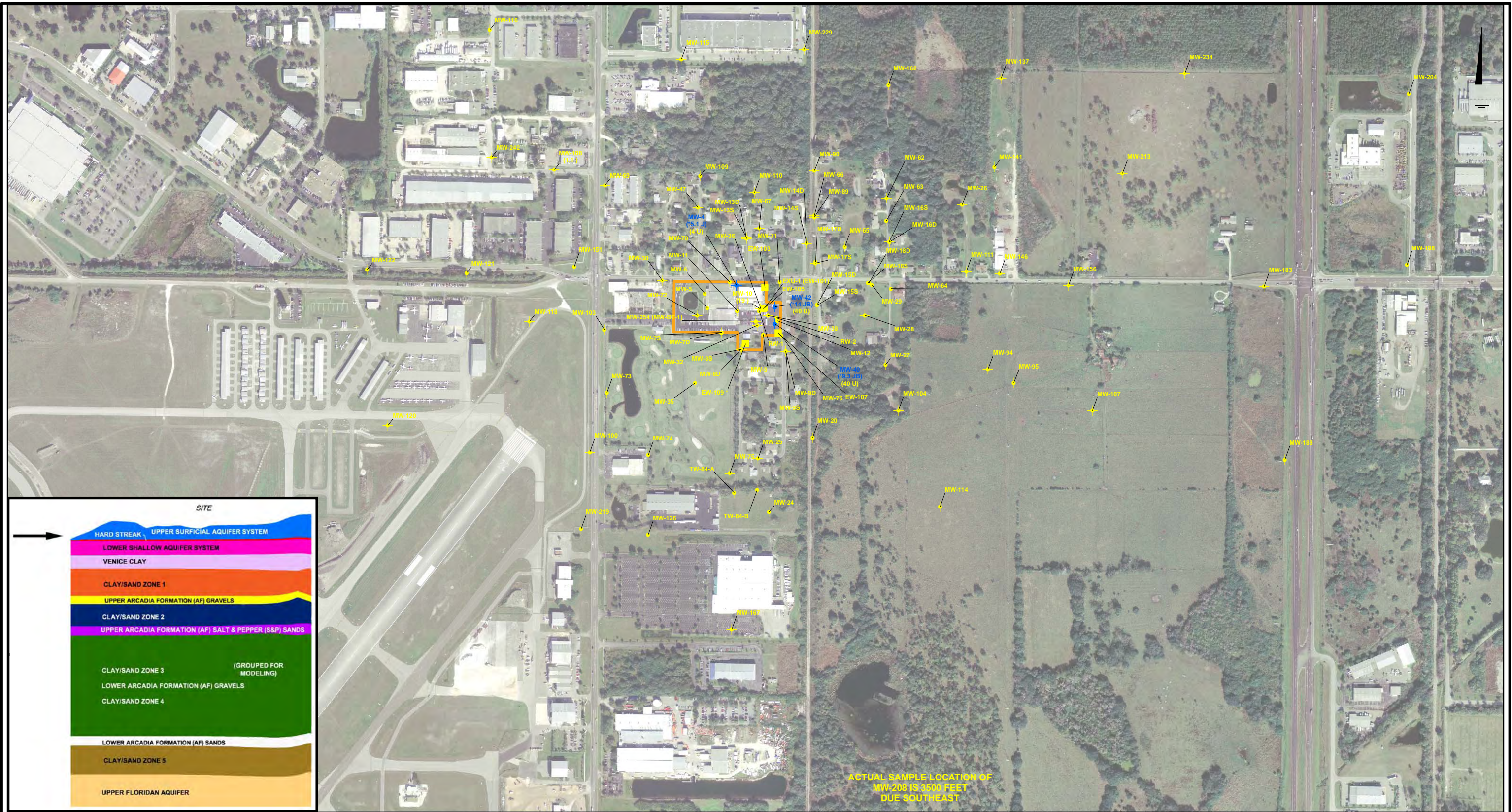
0 300 600 Feet
 GRAPHIC SCALE

**LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM**

**BROMODICHLOROMETHANE AND
 DIBROMOCHLOROMETHANE CONCENTRATIONS
 IN THE ARCADIA FORMATION GRAVELS,
 MARCH/APRIL 2009 SAMPLING EVENT**

FIGURE 5-13

DEN-080 MSS Project #: B0038055.0000 I:\LockheedMartin\LockheedMartin\RAP\2009\MXD\Figs\13_AFGRVEL_0309_BromoDibromo.mxd - 7/8/2009 @ 6:06:43 PM R625-EDC-001213-0

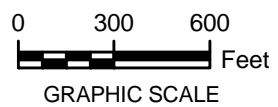


LEGEND:

- MW-100 MONITORING WELL
- EW-100 EXTRACTION WELL
- INDICATES METHYLENE CHLORIDE CONCENTRATIONS WERE NOT DETECTED IN THE MOST RECENT SAMPLING EVENT
- MAXIMUM DETECTED METHYLENE CHLORIDE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 5 UG/L SCREENING CRITERION
- LOCKHEED MARTIN TALLEVAST FACILITY
- METHYLENE CHLORIDE RESULT VALUE (µg/L)
- * ANALYTICAL RESULT FOR PARAMETER ASSOCIATED WITH PREVIOUSLY CONDUCTED ON-FACILITY SOIL GAS SAMPLING.

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
3. THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
MW-223 = HARD STREAK CLAY
MW-245 = HARD STREAK CLAY
4. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
J - ESTIMATED VALUE.
µG/L = MICROGRAMS PER LITER
B - ANALYTE WAS DETECTED IN THE ASSOCIATED METHOD BLANK.



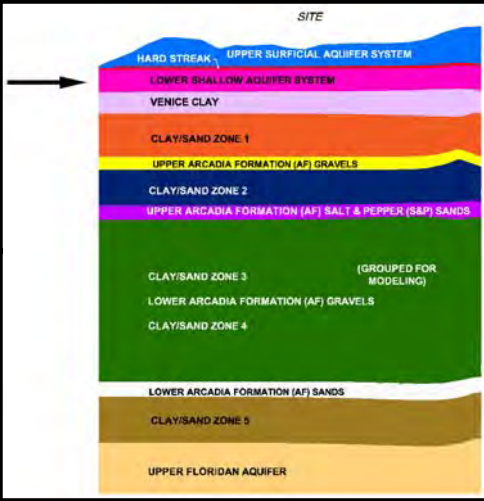
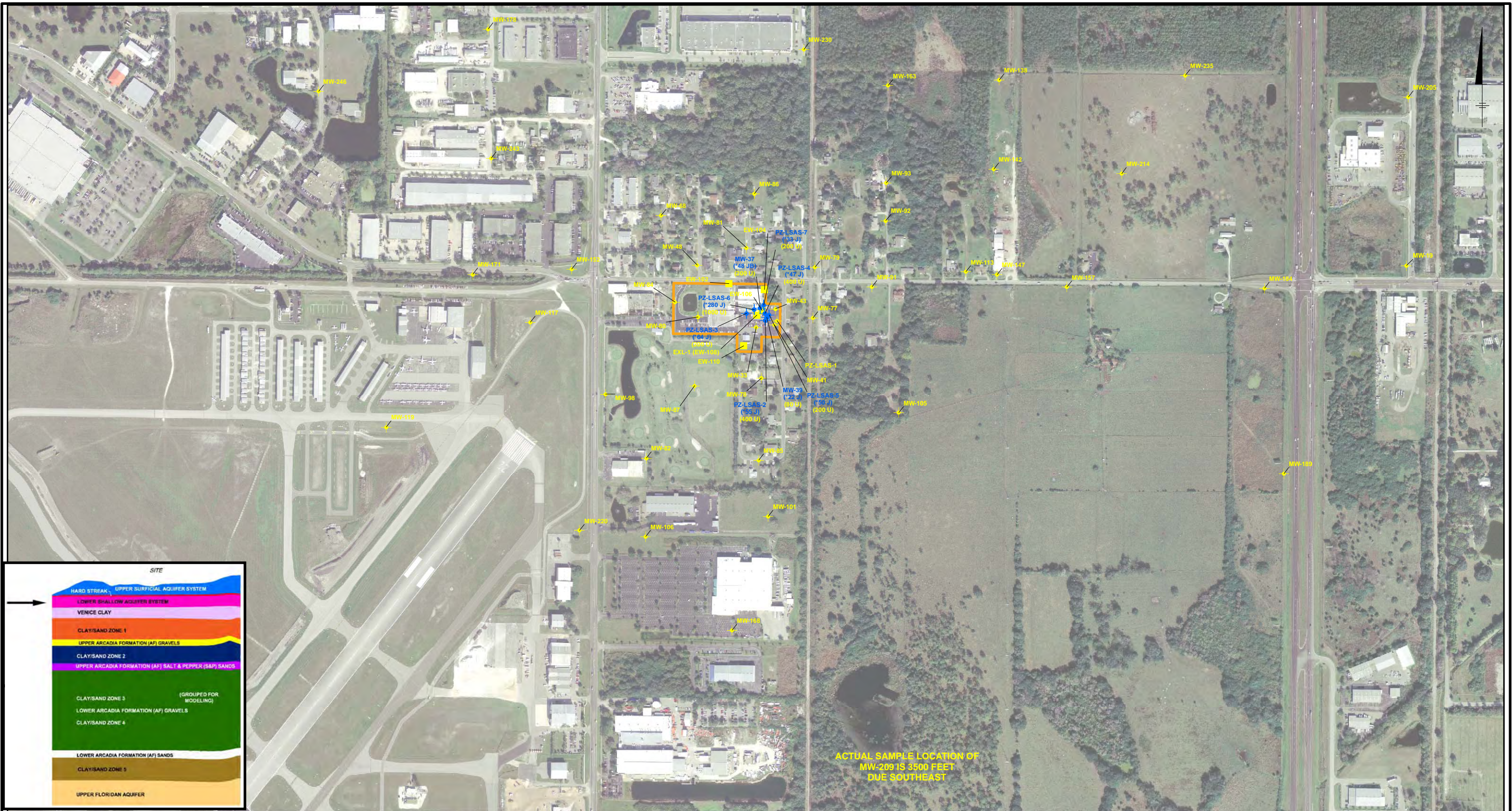
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**METHYLENE CHLORIDE CONCENTRATIONS
IN THE UPPER SURFICIAL AQUIFER SYSTEM,
MARCH/APRIL 2009 SAMPLING EVENT**

ARCADIS

FIGURE
5-14A

DEN-080 MSS Project #: 80038055.0000 I:\LockheedMartin\LockheedMartin\RAP\2009\MD\Fig5-14A_USAS_0309_methychl.mxd - 7/8/2009 @ 6:06:44 PM R625-EDC-001213-0

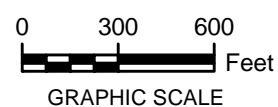


LEGEND:

- MW-100 MONITORING WELL
- EW-100 EXTRACTION WELL
- INDICATES METHYLENE CHLORIDE CONCENTRATIONS WERE NOT DETECTED IN THE MOST RECENT SAMPLING EVENT.
- BLUE MAXIMUM DETECTED METHYLENE CHLORIDE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 5 UG/L SCREENING CRITERION
- LOCKHEED MARTIN TALLEVAST FACILITY
- (48JB) METHYLENE CHLORIDE RESULT VALUE (µG/L)
- *ANALYTICAL RESULT FOR PARAMETER ASSOCIATED WITH PREVIOUSLY CONDUCTED ON FACILITY SOIL GAS SAMPLING.

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
3. THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 MW-125 = VENICE CLAY
 MW-224 = VENICE CLAY
 MW-225 = VENICE CLAY
4. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
 J - ESTIMATED VALUE.
 µG/L = MICROGRAMS PER LITER
 B - ANALYTE WAS DETECTED IN THE ASSOCIATED METHOD BLANK

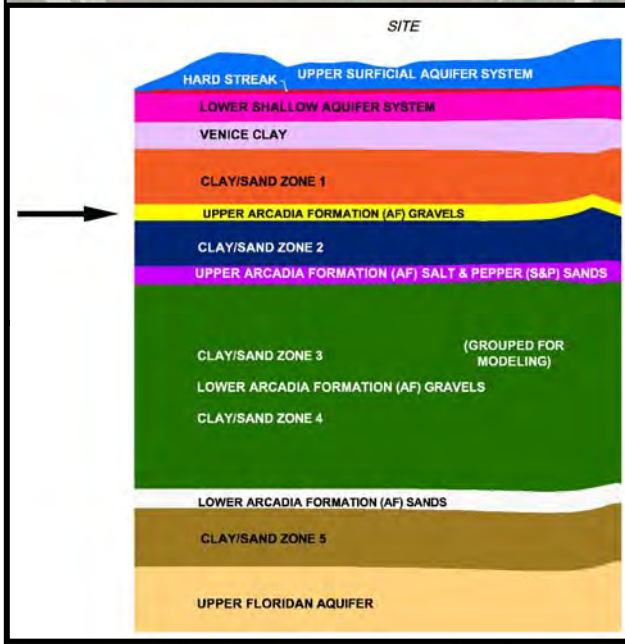
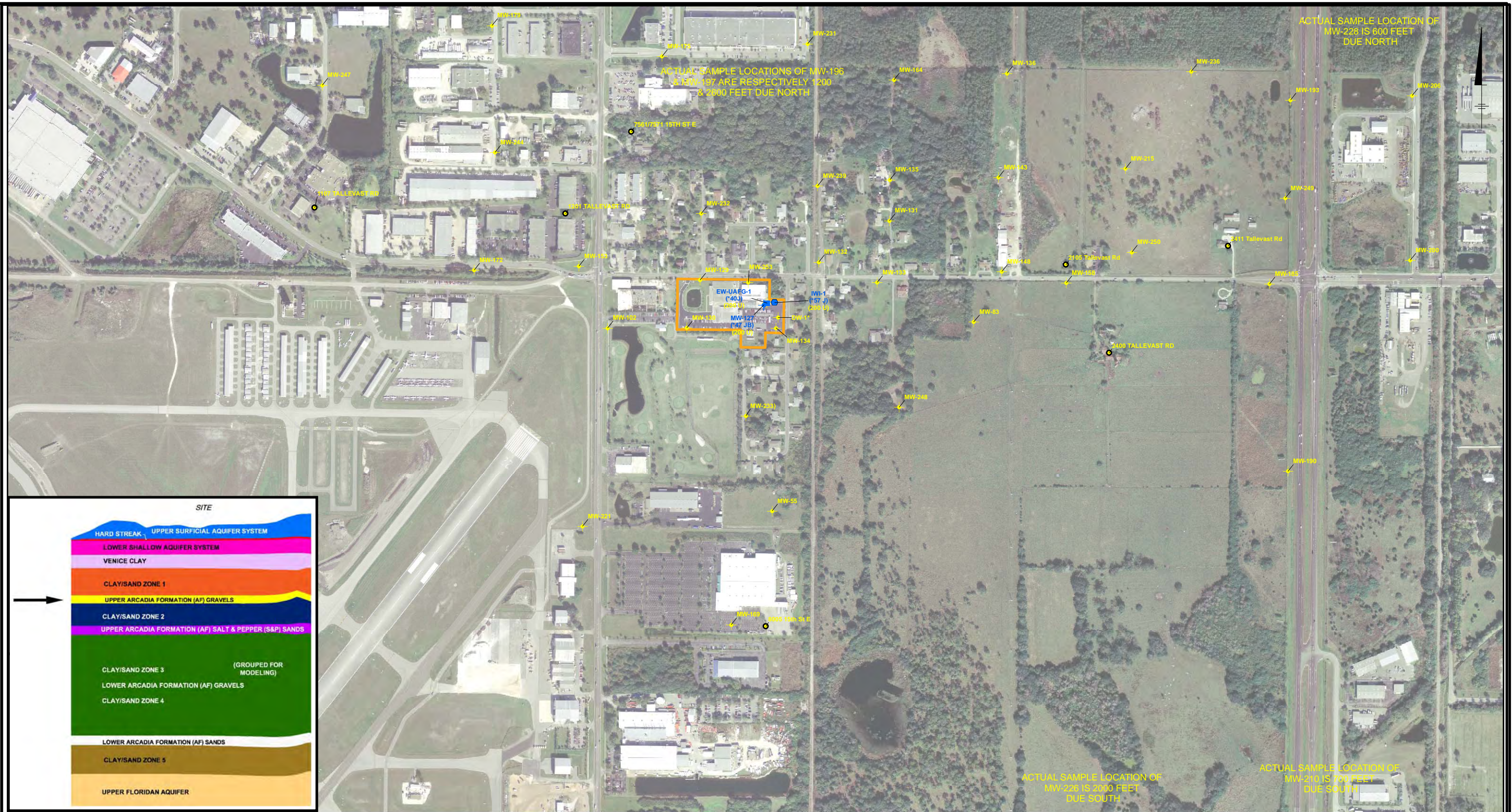


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

METHYLENE CHLORIDE CONCENTRATIONS
IN THE LOWER SHALLOW AQUIFER SYSTEM,
MARCH/APRIL 2009 SAMPLING EVENT

FIGURE
5-14B

DEN-080 MSS
 Project #: B0038055.0000
 I:\LockheedMartin\LockheedMartin\RAP\2009\MXD\Fig5-14C_AFGRAVEL_0309_methylchl.mxd - 7/8/2009 @ 6:10:10 PM



- LEGEND:**
- MW-100 MONITORING WELL
 - EW-UAFG-1 EXTRACTION WELL
 - IW-1 INJECTION WELL
 - PRIVATE WELL
 - INDICATES METHYLENE CHLORIDE CONCENTRATIONS WERE NOT DETECTED IN THE MOST RECENT SAMPLING EVENT.

BLUE MAXIMUM DETECTED METHYLENE CHLORIDE VALUE FROM MOST RECENT ARCADIS SAMPLING IN EXCEEDANCE OF 5 UG/L SCREENING CRITERION

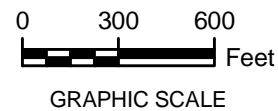
ORANGE LOCKHEED MARTIN TALLEVAST FACILITY

(40J) METHYLENE CHLORIDE RESULT VALUE (µg/L)

*ANALYTICAL RESULT FOR PARAMETER ASSOCIATED WITH PREVIOUSLY CONDUCTED ON FACILITY SOIL GAS SAMPLING.

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SOME WELLS FOR THIS AQUIFER AND ANALYTE ARE NOT SHOWN IN THIS EXTENT.
3. THE FOLLOWING WELLS LISTED WERE NOT SCREENED IN THE ASSIGNED WATER-BEARING UNIT; INSTEAD, THE WELLS WERE SCREENED IN THE DESIGNATIONS GIVEN BELOW:
 DW-1 = CLAY/SAND ZONE 1
 MW-88 = CLAY/SAND ZONE 1
 MW-99 = CLAY/SAND ZONE 1
 MW-112 = CLAY/SAND ZONE 1

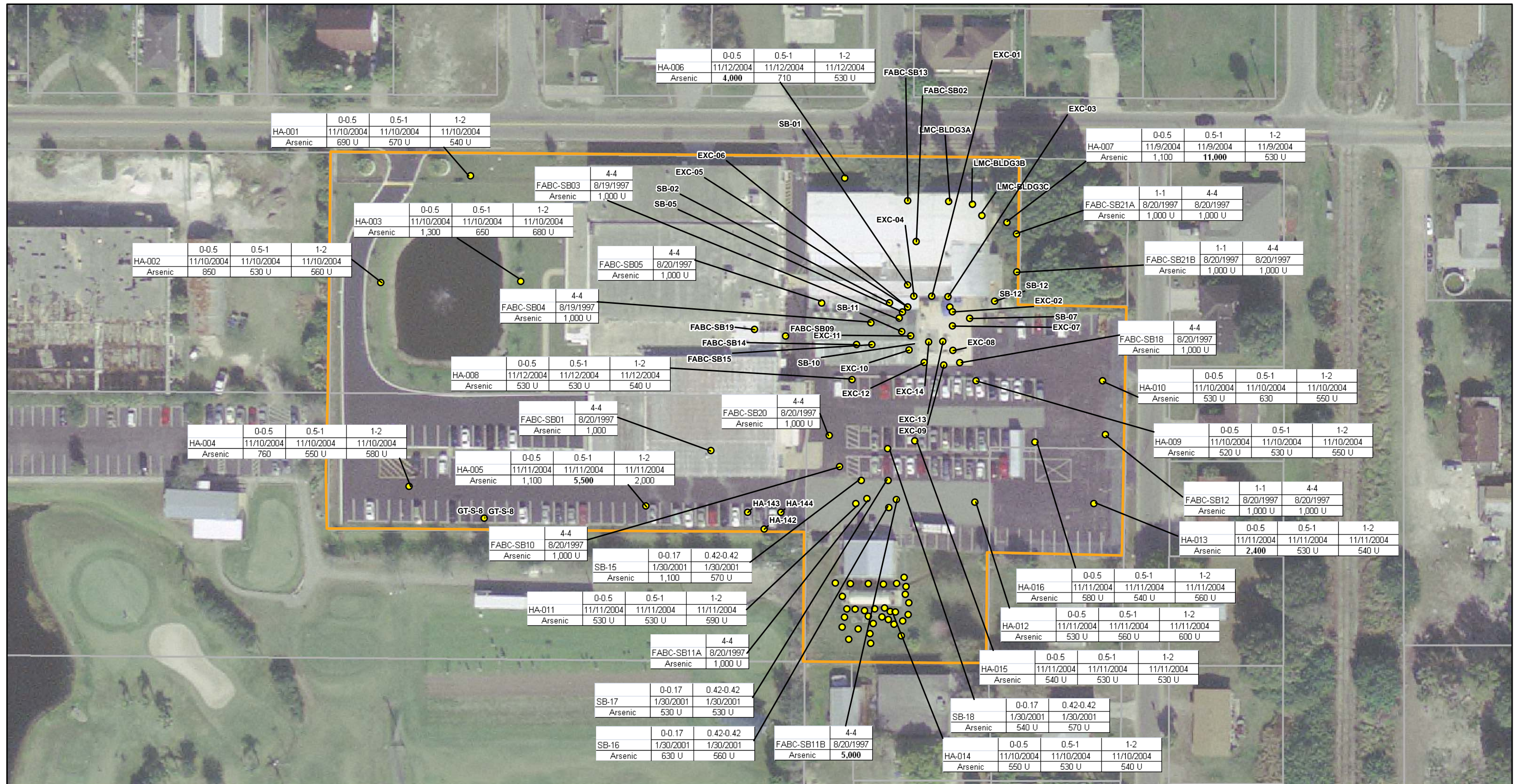


4. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED.
 - J - ESTIMATED VALUE
- µg/L = MICROGRAMS PER LITER

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

METHYLENE CHLORIDE CONCENTRATIONS
IN THE ARCADIA FORMATION GRAVELS,
MARCH/APRIL 2009 SAMPLING EVENT

FIGURE
5-14C



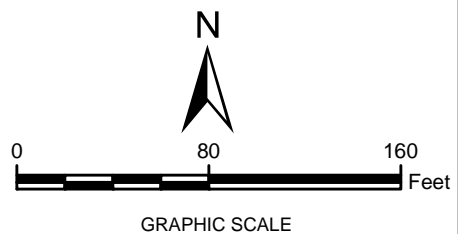
Sample ID	Date	0-0.5	0.5-1	1-2
HA-001	11/10/2004	690 U	570 U	540 U
HA-002	11/10/2004	850	530 U	560 U
HA-003	11/10/2004	1,300	650	680 U
HA-004	11/10/2004	760	550 U	580 U
HA-005	11/11/2004	1,100	5,500	2,000
HA-006	11/12/2004	4,000	710	530 U
HA-007	11/9/2004	1,100	11,000	530 U
HA-008	11/12/2004	530 U	530 U	540 U
HA-009	11/10/2004	520 U	530 U	550 U
HA-010	11/10/2004	530 U	630	550 U
HA-011	11/11/2004	530 U	530 U	590 U
HA-012	11/11/2004	530 U	560 U	600 U
HA-013	11/11/2004	2,400	530 U	540 U
HA-014	11/10/2004	550 U	530 U	540 U
HA-015	11/11/2004	540 U	530 U	530 U
HA-016	11/11/2004	580 U	540 U	560 U
HA-142				
HA-143				
HA-144				
GT-S-8				
GT-S-8				
SB-01				
SB-02				
SB-05				
SB-11				
SB-10				
SB-15	1/30/2001	1,100	570 U	
SB-17	1/30/2001	530 U	530 U	
SB-16	1/30/2001	630 U	560 U	
SB-18	1/30/2001	540 U	570 U	
EXC-01				
EXC-02				
EXC-03				
EXC-04				
EXC-05				
EXC-06				
EXC-07				
EXC-08				
EXC-09				
EXC-10				
EXC-11				
EXC-12				
EXC-13				
EXC-14				
FABC-SB01	8/20/1997	1,000		
FABC-SB02				
FABC-SB03	8/19/1997	1,000 U		
FABC-SB04	8/19/1997	1,000 U		
FABC-SB05	8/20/1997	1,000 U		
FABC-SB09				
FABC-SB10	8/20/1997	1,000 U		
FABC-SB11A	8/20/1997	1,000 U		
FABC-SB11B	8/20/1997	5,000		
FABC-SB12	8/20/1997	1,000 U	1,000 U	
FABC-SB14				
FABC-SB15				
FABC-SB18	8/20/1997	1,000 U		
FABC-SB19				
FABC-SB20	8/20/1997	1,000 U		
FABC-SB21A	8/20/1997	1,000 U	1,000 U	
FABC-SB21B	8/20/1997	1,000 U	1,000 U	
FABC-SB21C				
FABC-SB21D				
FABC-SB21E				
FABC-SB21F				
FABC-SB21G				
FABC-SB21H				
FABC-SB21I				
FABC-SB21J				
FABC-SB21K				
FABC-SB21L				
FABC-SB21M				
FABC-SB21N				
FABC-SB21O				
FABC-SB21P				
FABC-SB21Q				
FABC-SB21R				
FABC-SB21S				
FABC-SB21T				
FABC-SB21U				
FABC-SB21V				
FABC-SB21W				
FABC-SB21X				
FABC-SB21Y				
FABC-SB21Z				
LMC-BLDG3A				
LMC-BLDG3B				
LMC-BLDG3C				

LEGEND

- SOIL SAMPLE
- ▭ LOCKHEED MARTIN TALLEVAST FACILITY
- ▭ PARCEL BOUNDARY

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SAMPLES WITH NO DATA POSTED WERE NOT ANALYZED FOR THE COMPOUND REPRESENTED ON THE FIGURE.
3. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED
4. RESULTS IN UG/KG - MICROGRAMS PER KILOGRAM
5. **BOLD** - SAMPLE EXCEEDS RESIDENTIAL SCTLs
6. SCTLs - SOIL CLEANUP TARGET LEVELS

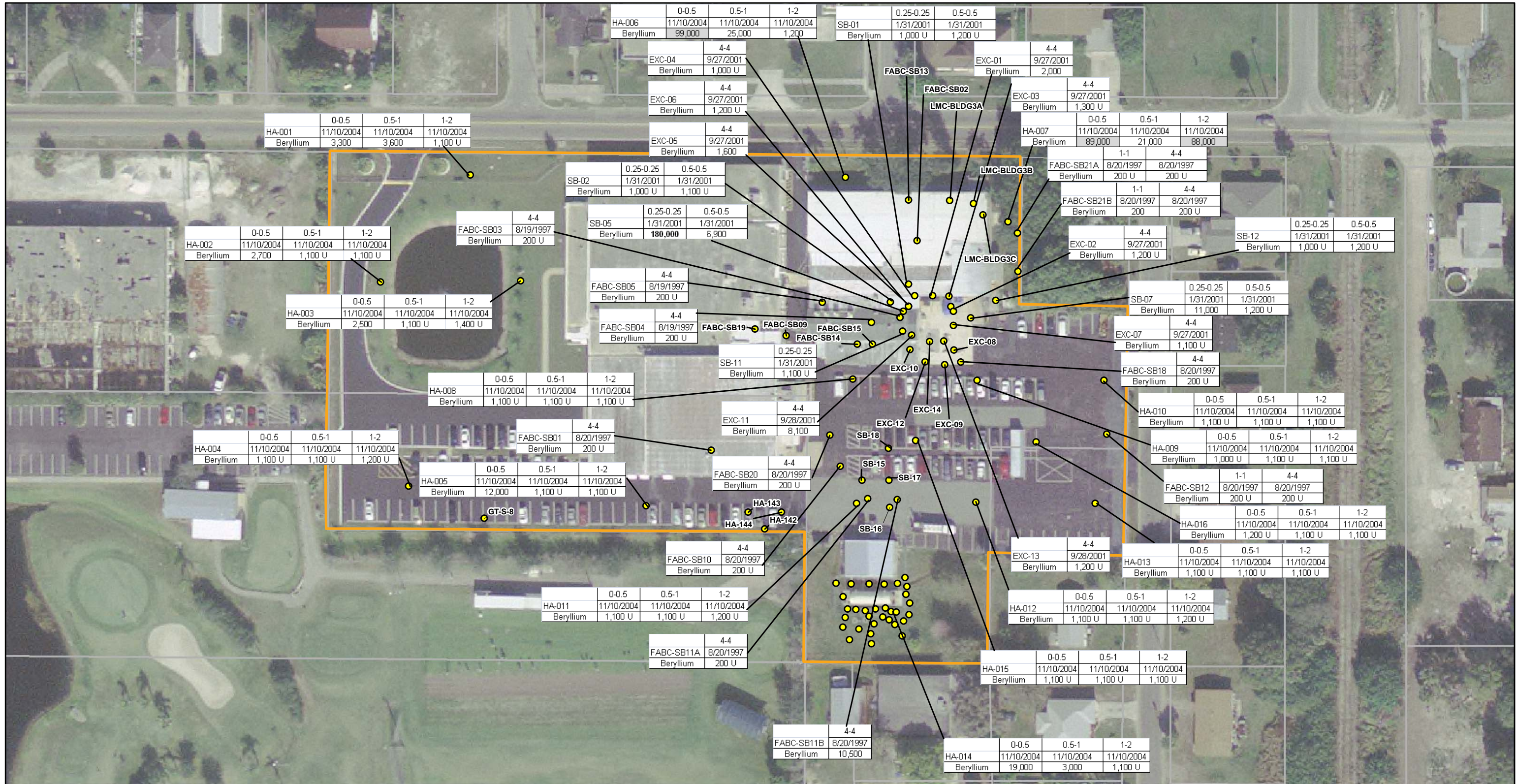


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**HISTORIC ARSENIC
SOIL RESULTS**

FIGURE
7-1

I:\LockheedMartin\LockheedMartin\RAP\2008MMXD\Fig-1 Onsite Soils\Sample Locations-Arsenic.mxd - 7/6/2009 @ 12:55:22 PM

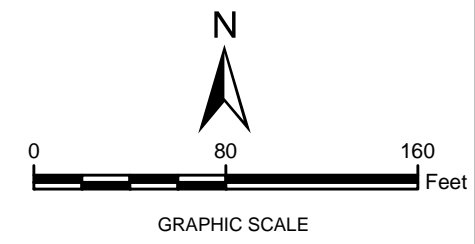


LEGEND

- SOIL SAMPLE
- LOCKHEED MARTIN TALLEVAST FACILITY
- PARCEL BOUNDARY

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SAMPLES WITH NO DATA POSTED WERE NOT ANALYZED FOR THE COMPOUND REPRESENTED ON THE FIGURE.
3. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED
4. RESULTS IN UG/KG - MICROGRAMS PER KILOGRAM
5. **BOLD** - SAMPLE EXCEEDS RESIDENTIAL SCTLs
6. - SAMPLE EXCEEDS LEACHABILITY-TO-GROUNDWATER (LTG) SCTLs
7. SCTLs - SOIL CLEANUP TARGET LEVELS

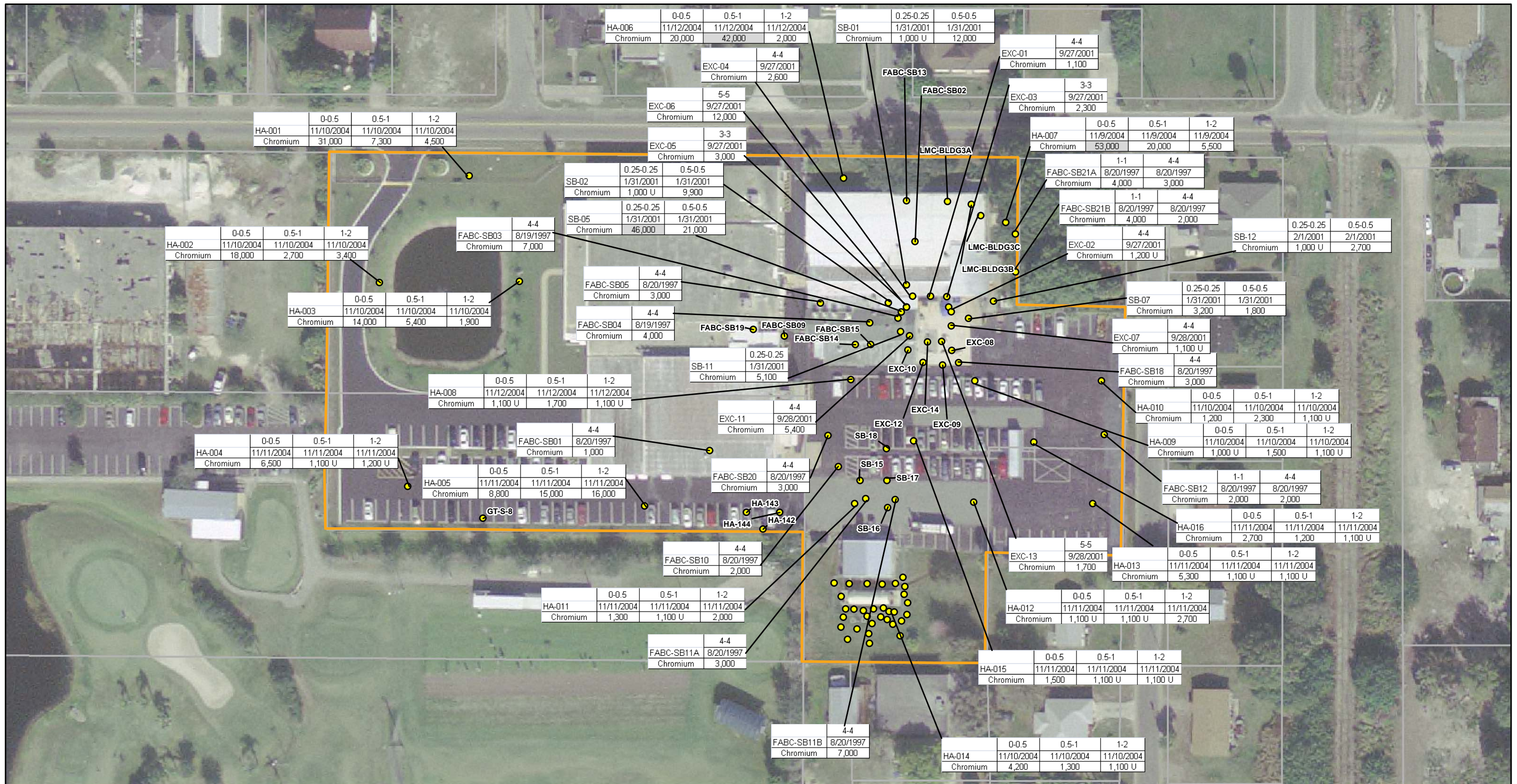


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**HISTORIC BERYLLIUM
SOIL RESULTS**

FIGURE
7-2

I:\LockheedMartin\LockheedMartin\RA\2009\MDX\Fig7-2. Onsite_SoilSample_Locations_Beryllium.mxd - 7/8/2009 @ 6:21:37 PM

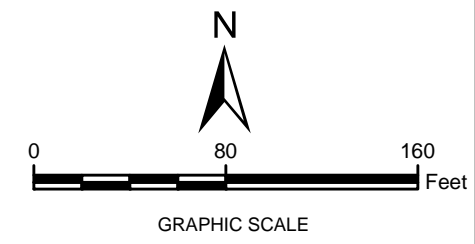


LEGEND

- SOIL SAMPLE
- LOCKHEED MARTIN TALLEVAST FACILITY
- PARCEL BOUNDARY

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SAMPLES WITH NO DATA POSTED WERE NOT ANALYZED FOR THE COMPOUND REPRESENTED ON THE FIGURE.
3. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED
4. RESULTS IN UG/KG - MICROGRAMS PER KILOGRAM
6. - SAMPLE EXCEEDS LEACHABILITY-TO-GROUNDWATER (LTG) SCTLs
7. SCTLs - SOIL CLEANUP TARGET LEVELS

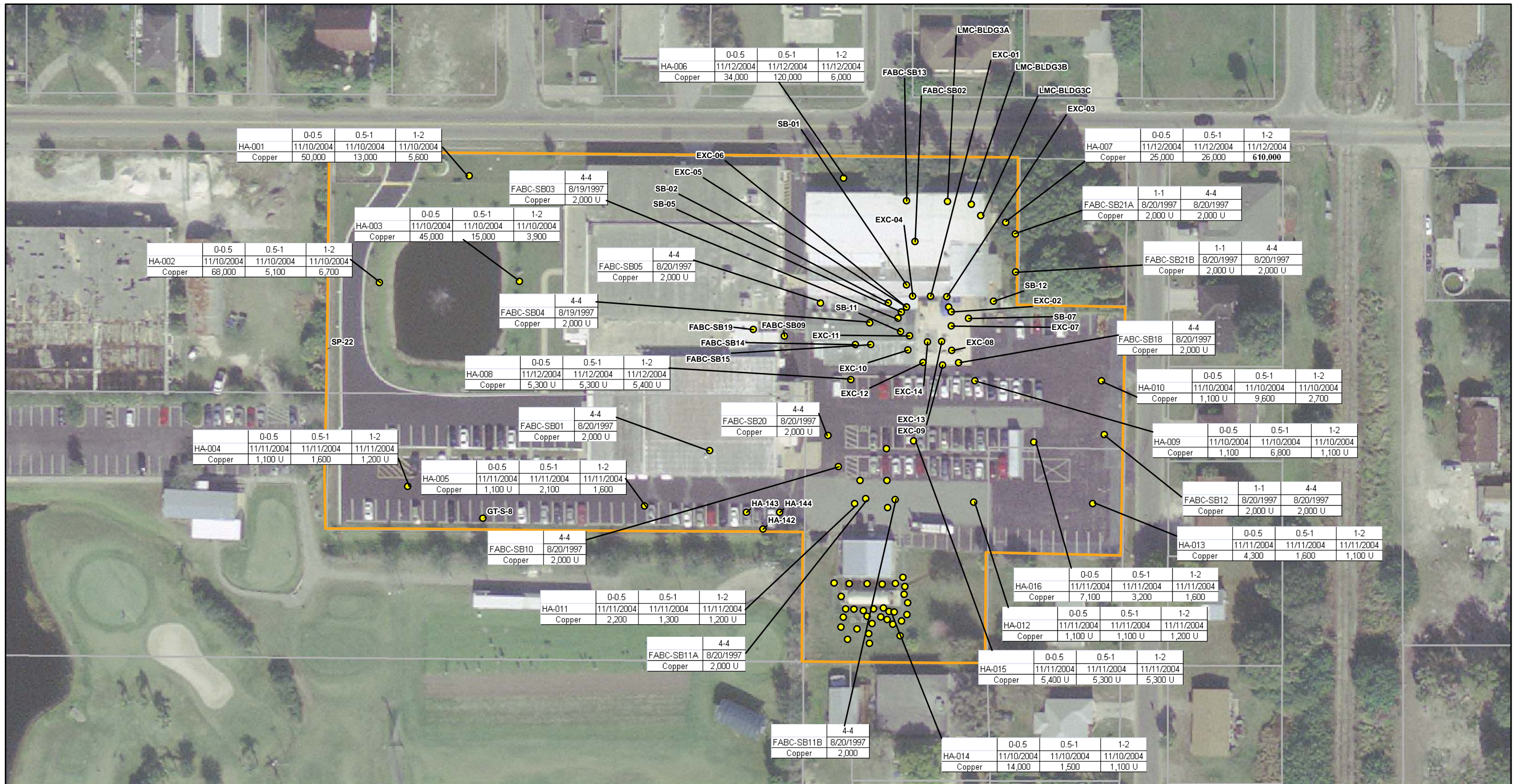


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**HISTORIC CHROMIUM
SOIL RESULTS**

FIGURE
7-3

I:\LockheedMartin\RAP2009\MXD\Fig-3_Onsite_SoilSample_Locations_Chromium.mxd - 7/8/2009 @ 6:21:16 PM

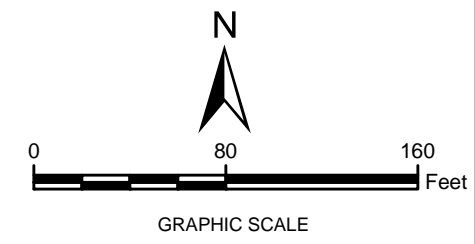


LEGEND

- SOIL SAMPLE
- ▭ LOCKHEED MARTIN TALLEVAST FACILITY
- ▭ PARCEL BOUNDARY

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SAMPLES WITH NO DATA POSTED WERE NOT ANALYZED FOR THE COMPOUND REPRESENTED ON THE FIGURE.
3. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED
4. RESULTS IN UG/KG - MICROGRAMS PER KILOGRAM
5. **BOLD** - SAMPLE EXCEEDS RESIDENTIAL SCTLs
6. SCTLs - SOIL CLEANUP TARGET LEVELS

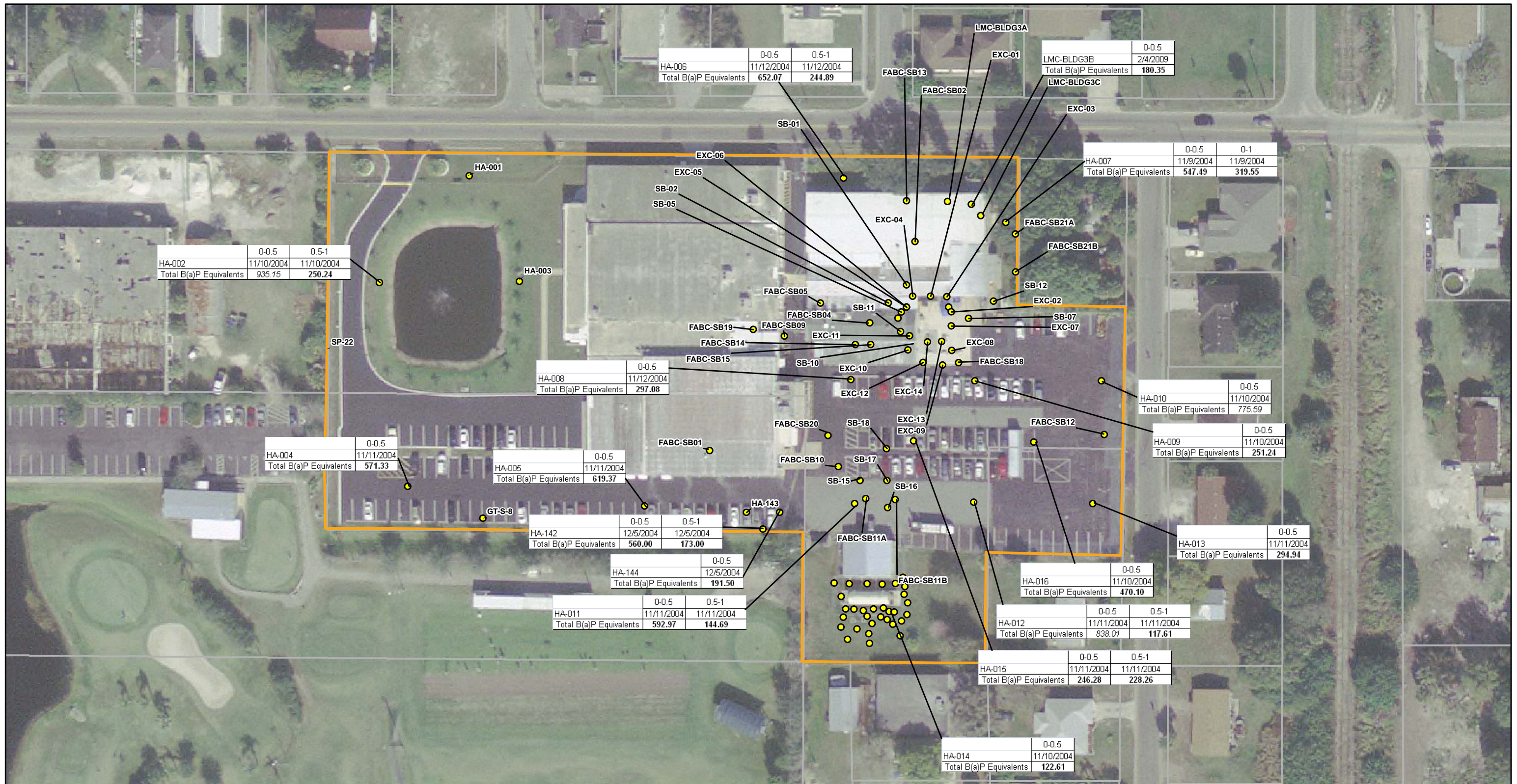


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**HISTORIC COPPER
SOIL RESULTS**

FIGURE
7-4

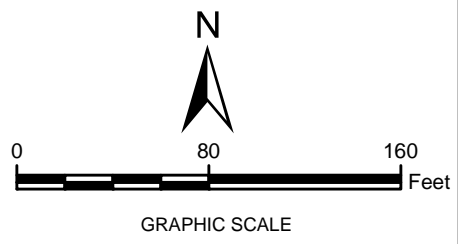
I:\LockheedMartin\LockheedMartin\RAP\2009\MXD\Fig7-4_OnSite_SoilSample_Locations_Copper.mxd - 7/6/2009 @ 12:56:37 PM



LEGEND

- SOIL SAMPLE
- LOCKHEED MARTIN TALLEVAST FACILITY
- PARCEL BOUNDARY

- NOTE:**
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 2. SAMPLES WITH NO DATA POSTED WERE NOT ANALYZED FOR THE COMPOUND REPRESENTED ON THE FIGURE.
 3. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED
 4. RESULTS IN UG/KG - MICROGRAMS PER KILOGRAM
 5. **BOLD** - SAMPLE EXCEEDS RESIDENTIAL SCTLs
 6. *ITALICS* - SAMPLE EXCEEDS INDUSTRIAL SCTLs
 7. SCTLs - SOIL CLEANUP TRAGET LEVELS

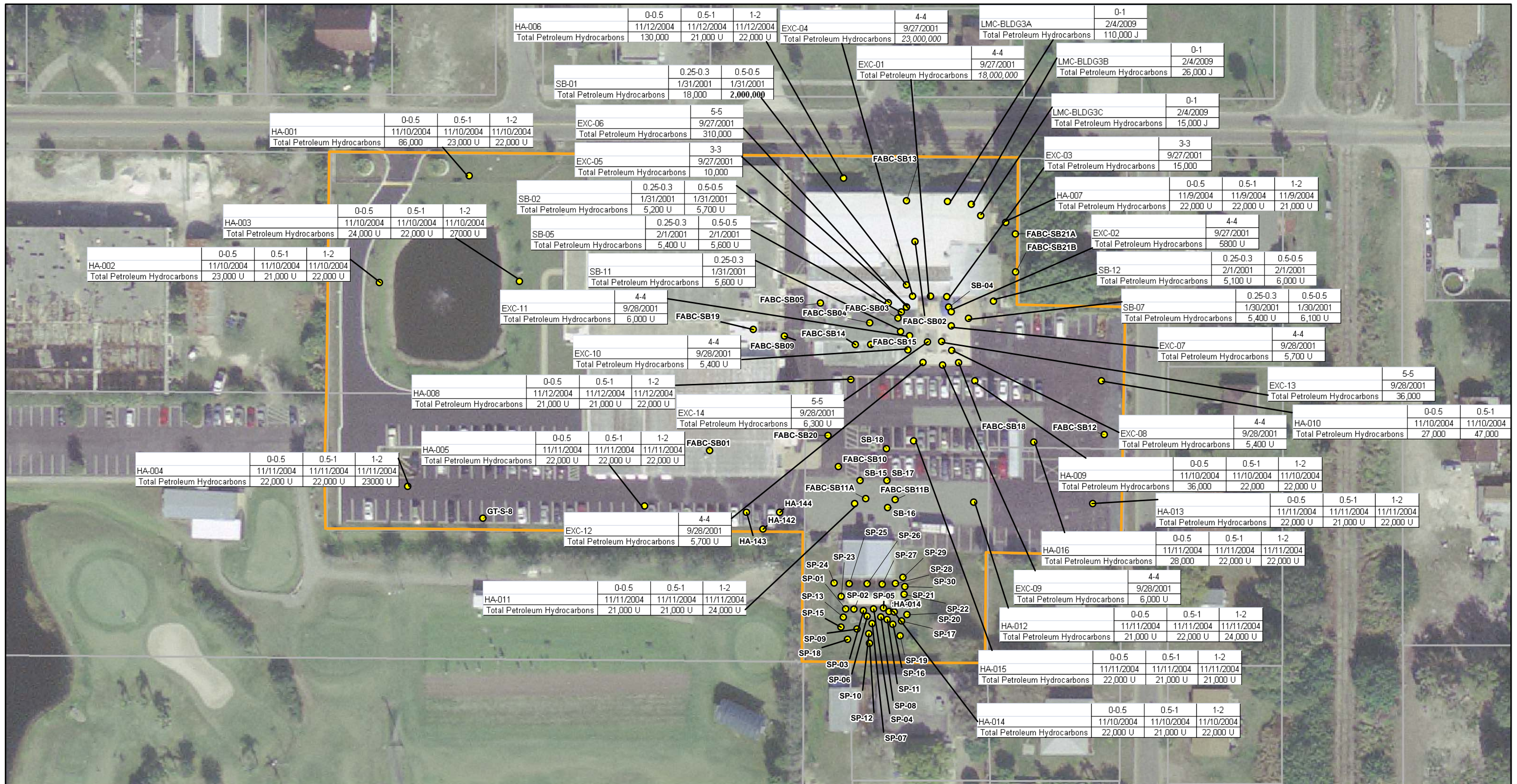


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**HISTORIC TOTAL BENZO(A)PYRENE
EQUIVALENTS SOIL RESULTS**

FIGURE
7-5

I:\LockheedMartin\LockheedMartin\RA\2009\MD\Fig7-5_Onsite_SoilSample_Locations_BAP.mxd - 7/6/2009 @ 2:07:26 PM

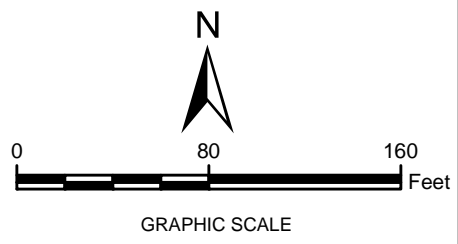


LEGEND

- SOIL SAMPLE
- ▭ LOCKHEED MARTIN TALLEVAST FACILITY
- ▭ PARCEL BOUNDARY

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SAMPLES WITH NO DATA POSTED WERE NOT ANALYZED FOR THE COMPOUND REPRESENTED ON THE FIGURE.
3. U - THE ANALYTE WAS ANALYZED FOR, BUT NOT DETECTED
4. RESULTS IN UG/KG - MICROGRAMS PER KILOGRAM
5. **BOLD** - SAMPLE EXCEEDS RESIDENTIAL SCTLs
6. SCTLs - SOIL CLEANUP TARGET LEVELS

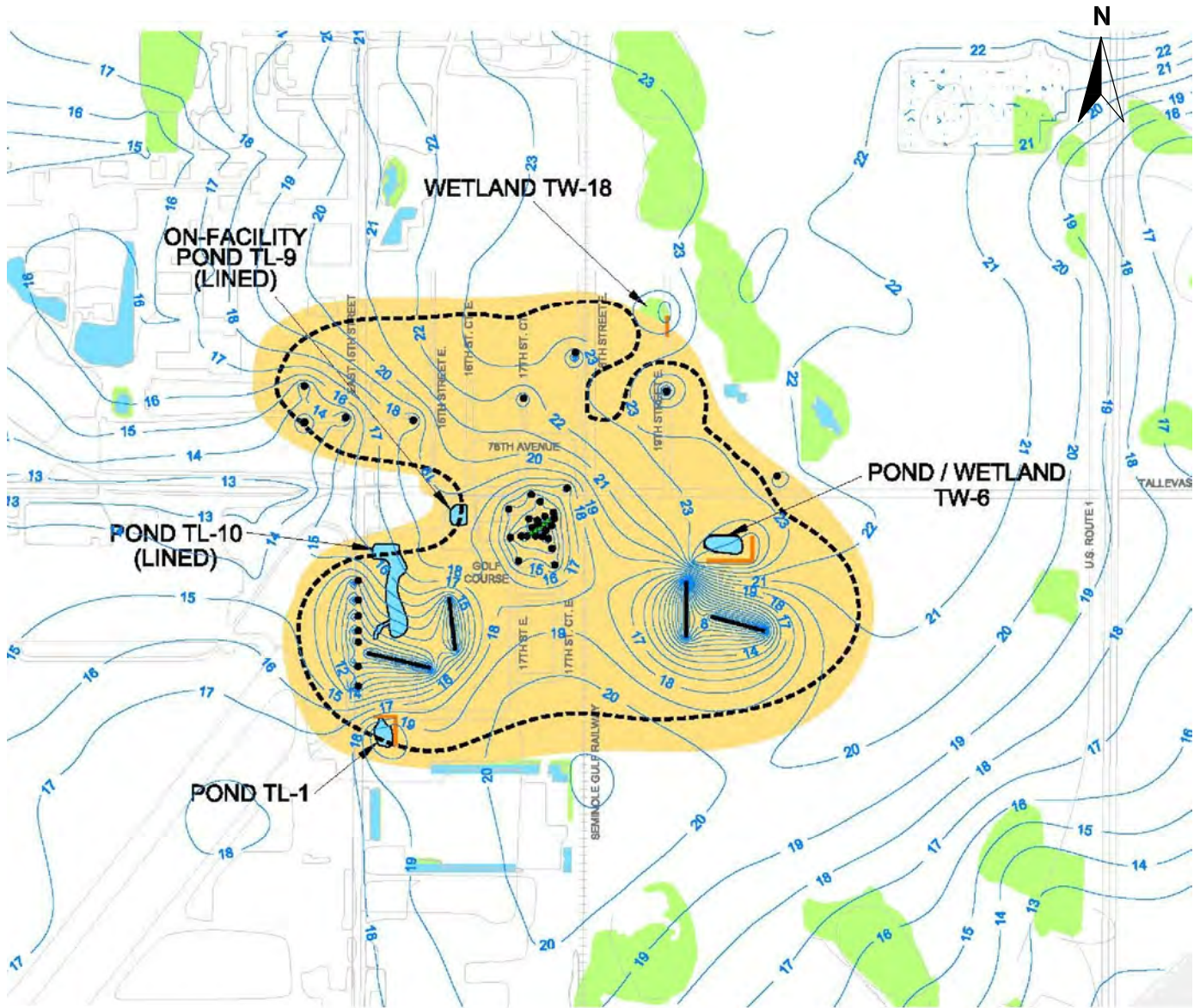


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**HISTORIC TOTAL PETROLEUM
HYDROCARBONS SOIL RESULTS**

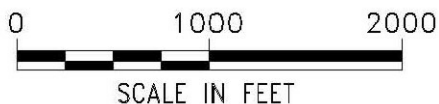
FIGURE
7-7

I:\LockheedMartin\RAP\2009\MMXD\Fig7-7_ Onsite_SoilSample_Locations_TPH.mxd - 7/6/2009 @ 2:06:57 PM



LEGEND

- CAPTURE ZONE INCLUDING 100 FT BUFFER
- EXTRACTION WELL
- WETLANDS
- HYDRAULIC CONTAINMENT ZONE
- EXTRACTION TRENCH
- INFILTRATION TRENCH



SOURCE:
 FIGURE 42 IN GEOTRANS FINAL REPORT -
 GROUNDWATER FLOW AND SOLUTE
 TRANSPORT MODEL.

R625-EDC-001213-0

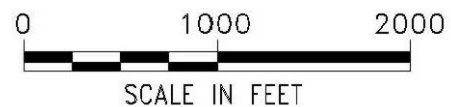
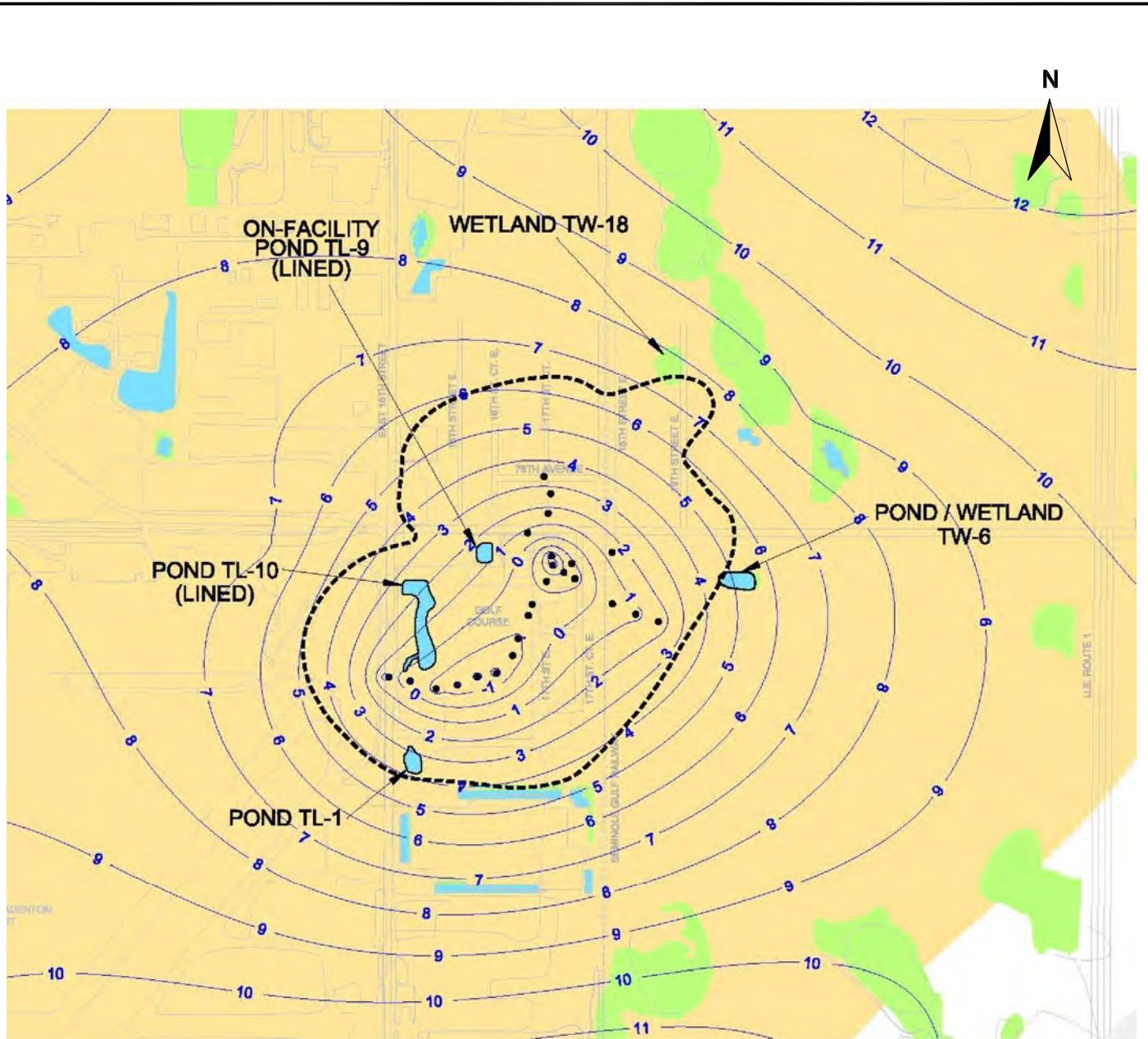
LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**SIMULATED POTENTIOMETRIC SURFACE
 IN THE UPPER SURFICIAL AQUIFER
 SYSTEM (MODEL LAYER 1) UNDER
 RECOMMENDED REMEDIAL ALTERNATIVE**



FIGURE
9-1

CITY:TAMPA DIV:GROUP:85 DB:JAR LD:(Opt) PIC:(Opt) PM:(Red) TM:(Opt) LY:(Opt)ON=OFF=REF*
 G:\ENV\CAD\tampa-b\AC100002\GRAP 2009\B003605F9-2.dwg LAYOUT: 9-2 SAVED: 7/8/2009 1:43 PM ACADVER: 17.05 (LMS TECH) PAGES: 17.05 (LMS TECH) PLOT: PLT FULL CTB PLOTTED: 7/11/2009 8:49 PM BY: RICHARDS, JIM
 XREFS: IMAGES: PROJECTNAME: ---
 Figure 9-2.jpg



- LEGEND**
- CAPTURE ZONE INCLUDING 100 FT BUFFER
 - EXTRACTION WELL
 - WETLANDS
 - HYDRAULIC CONTAINMENT ZONE

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM

**SIMULATED POTENTIOMETRIC SURFACE
 IN THE LOWER SHALLOW AQUIFER
 SYSTEM (MODEL LAYER 6) UNDER
 RECOMMENDED REMEDIAL ALTERNATIVE**



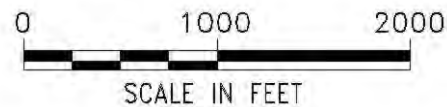
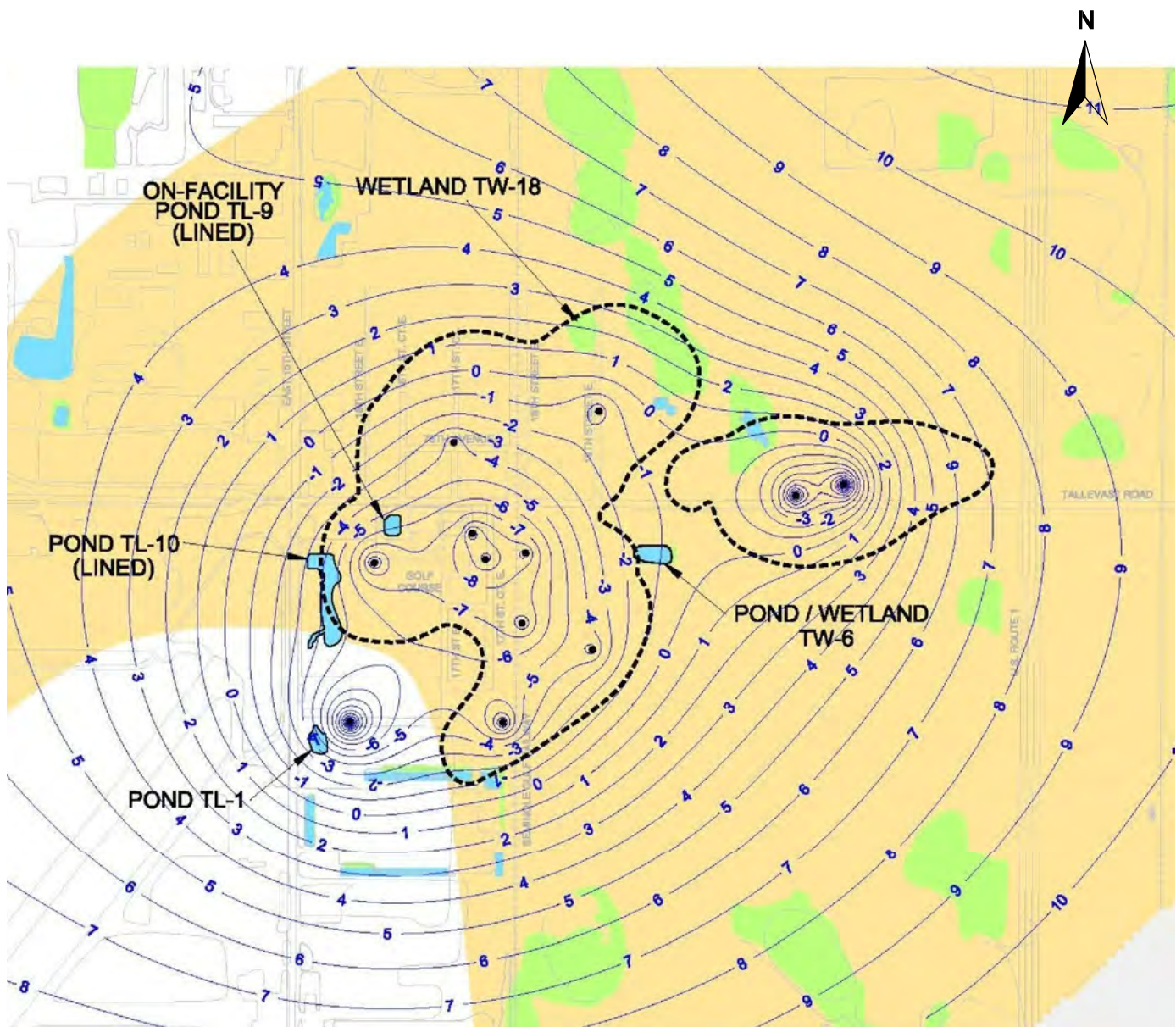
FIGURE
9-2

SOURCE:
 FIGURE 43 IN GEOTRANS FINAL REPORT -
 GROUNDWATER FLOW AND SOLUTE
 TRANSPORT MODEL.

R625-EDC-001213-0

CITY:TAMPA DIV:GROUP:85 DB:JAR LD:(Opt) PIC:(Opt) PM:(Rect) TM:(Opt) LYR:(Opt)ON=OFF=REF*
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XREFS: IMAGES: PROJECTNAME: ---
 Figure 9-3.jpg



- LEGEND**
- CAPTURE ZONE INCLUDING 100 FT BUFFER
 - EXTRACTION WELL
 - WETLANDS
 - HYDRAULIC CONTAINMENT ZONE

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM

**SIMULATED POTENTIOMETRIC SURFACE
 IN THE ARCADIA FORMATION GRAVELS
 (MODEL LAYER 10) UNDER
 RECOMMENDED REMEDIAL ALTERNATIVE**

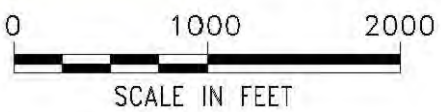
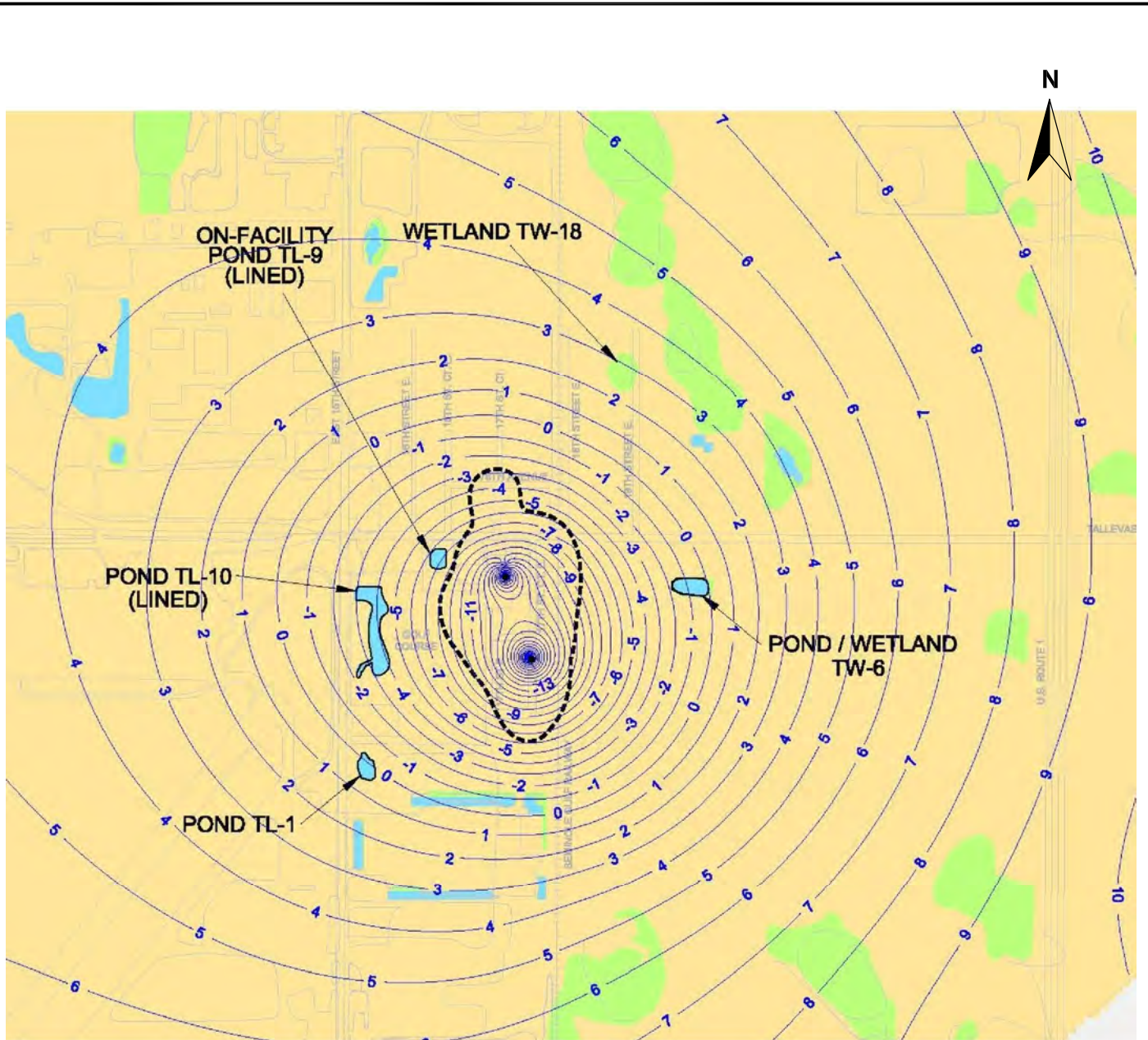
R625-EDC-001213-0

SOURCE:
 FIGURE 44 IN GEOTRANS FINAL REPORT -
 GROUNDWATER FLOW AND SOLUTE
 TRANSPORT MODEL.



FIGURE
9-3

CITY:TAMPA DIV:GROUP:85 DB:JAR LD:(Opt) PIC:(Opt) PM:(Retd) TM:(Opt) Lyr:(Opt)ON:OFF=REF*
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 XREFS: IMAGES: PROJECTNAME: --- Figure 9-4.jpg



- LEGEND**
- CAPTURE ZONE INCLUDING 100 FT BUFFER
 - EXTRACTION WELL
 - WETLANDS
 - HYDRAULIC CONTAINMENT ZONE

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM

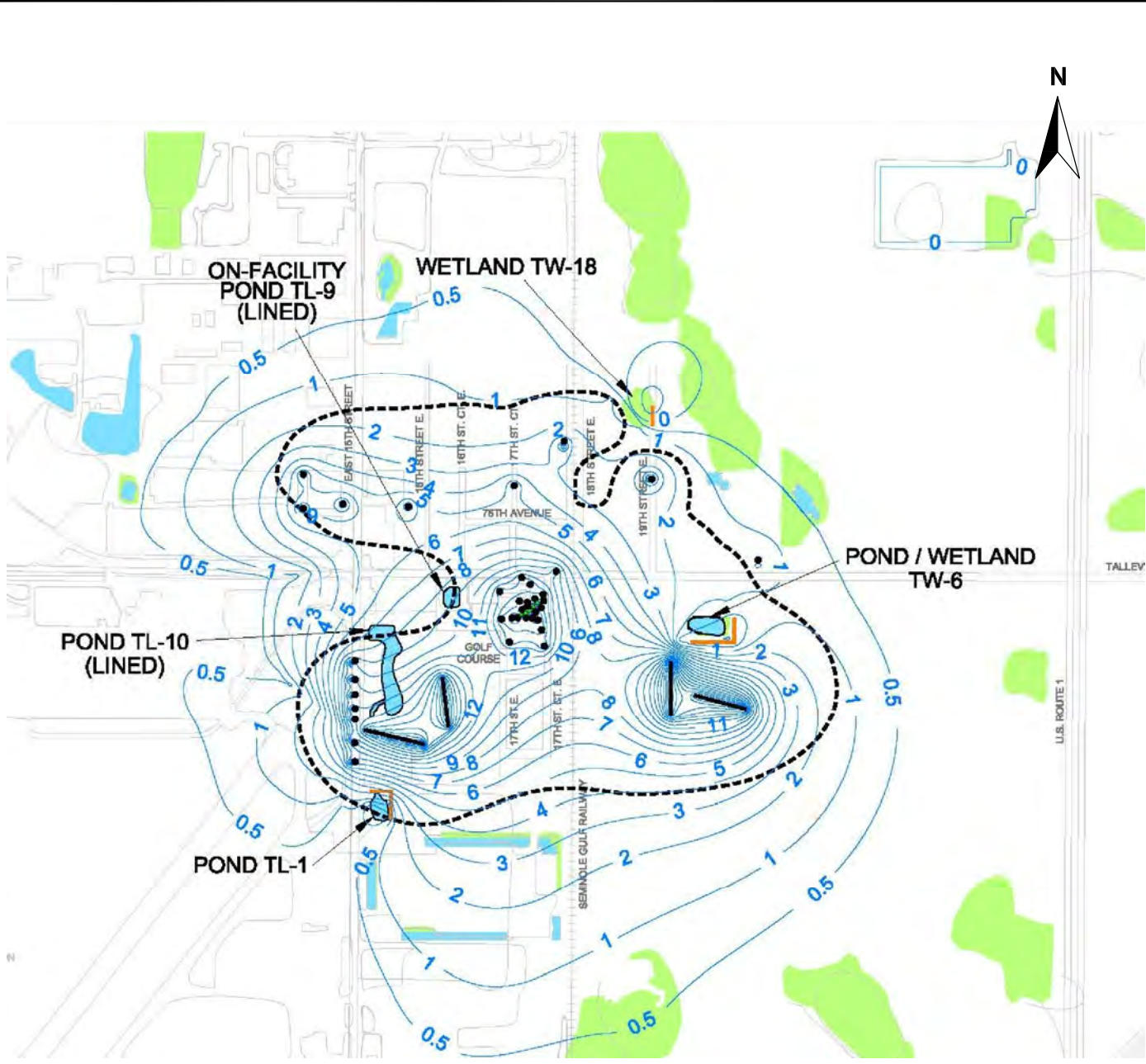
**SIMULATED POTENTIOMETRIC SURFACE
 IN THE SALT & PEPPER SANDS (MODEL
 LAYER 12) UNDER RECOMMENDED
 REMEDIAL ALTERNATIVE**



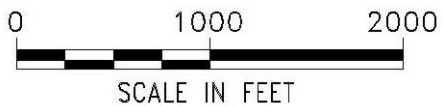
FIGURE
9-4

R625-EDC-001213-0

SOURCE:
 FIGURE 45 IN GEOTRANS FINAL REPORT -
 GROUNDWATER FLOW AND SOLUTE
 TRANSPORT MODEL.



- LEGEND**
- CAPTURE ZONE INCLUDING 100 FT BUFFER
 - EXTRACTION WELL
 - WETLANDS
 - EXTRACTION TRENCH
 - INFILTRATION TRENCH



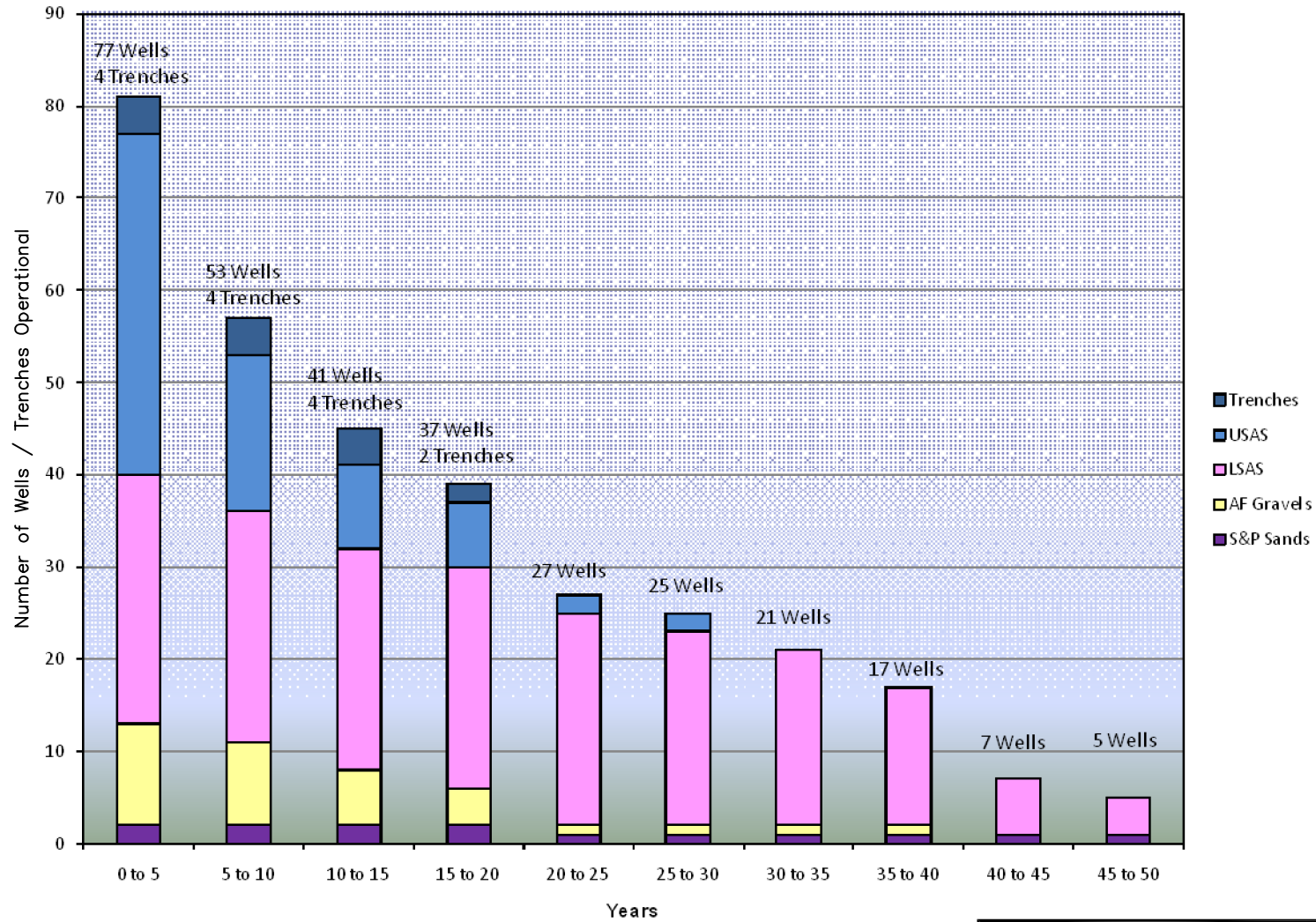
LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**PREDICTED DRAWDOWN IN THE UPPER
 SURFICIAL AQUIFER SYSTEM (MODEL
 LAYER 1) UNDER RECOMMENDED
 REMEDIAL ALTERNATIVE**

ARCADIS

FIGURE
9-5

XREFS: IMAGES: PROJECTNAME: --

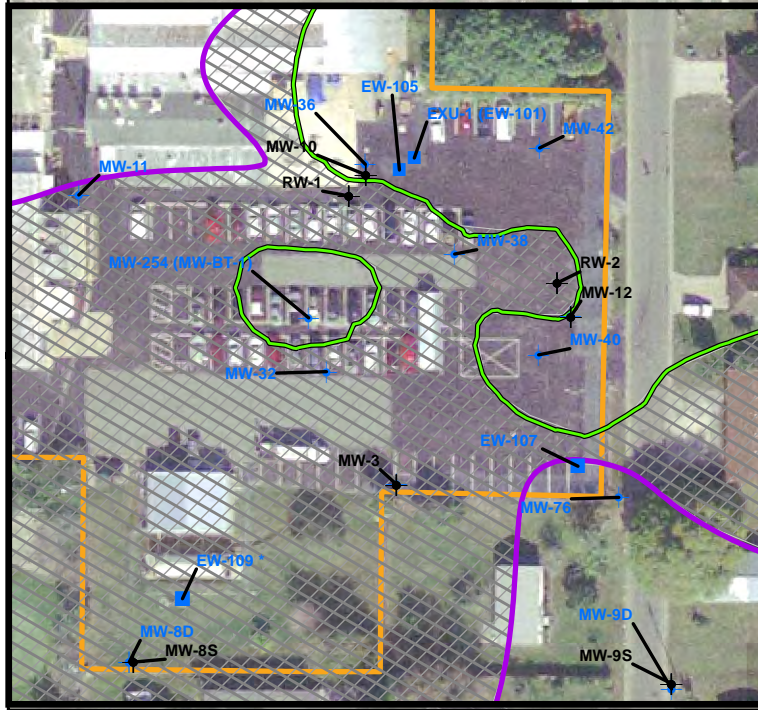
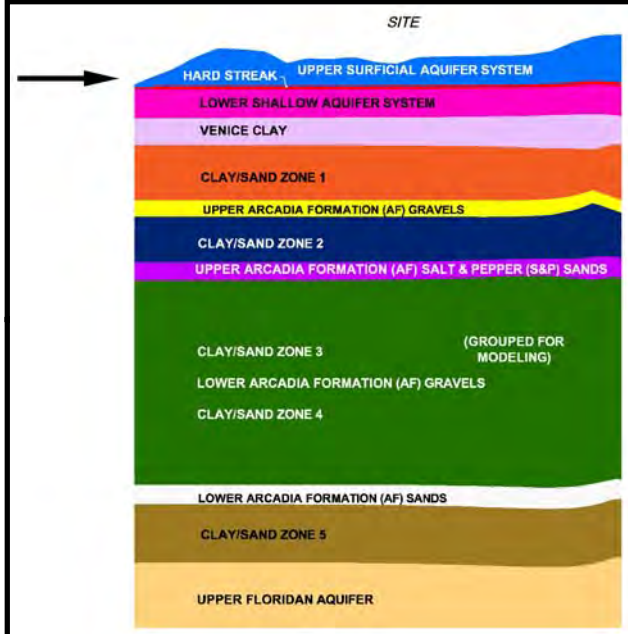
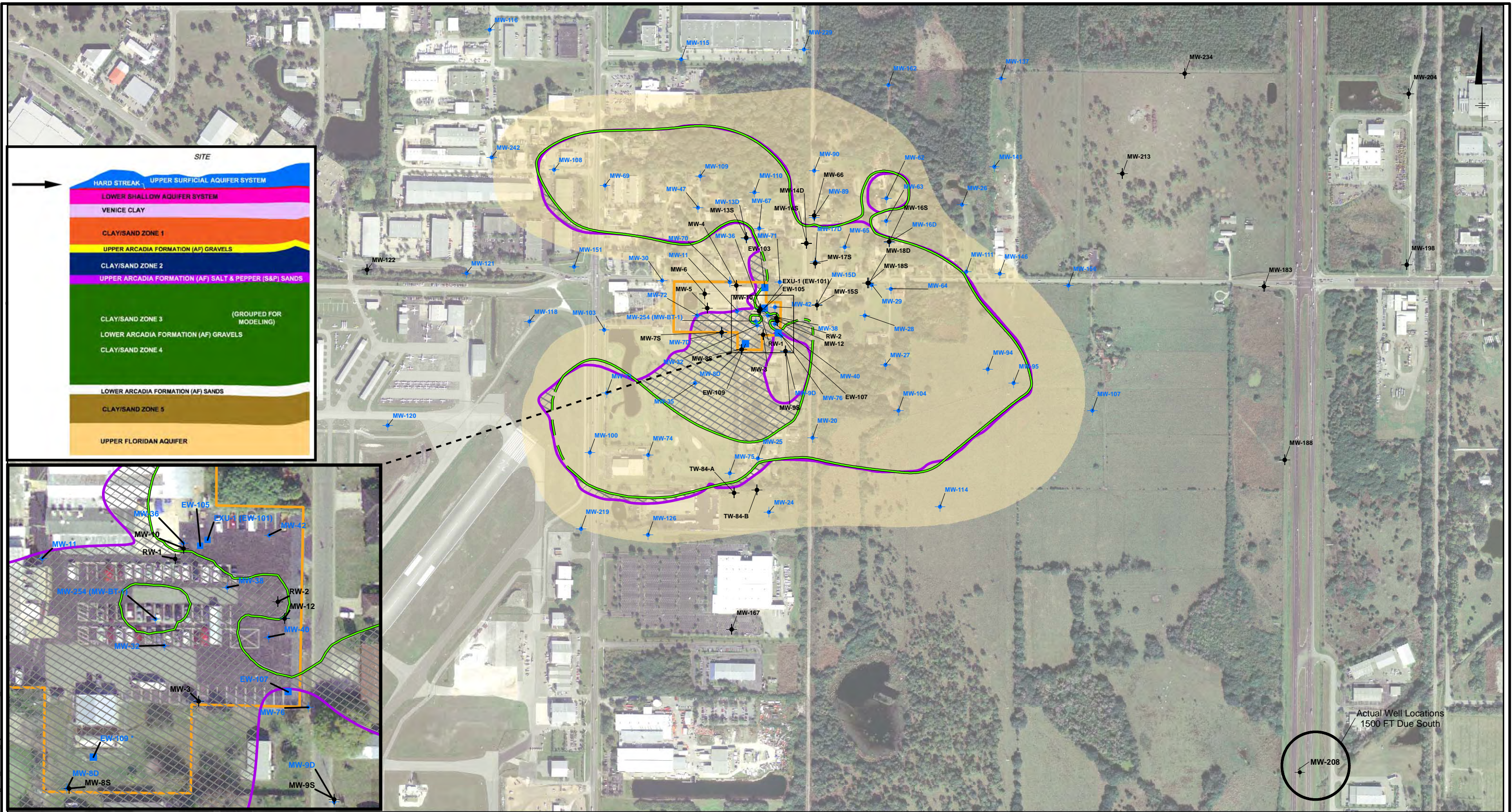


LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**NUMBER OF WELLS/TRENCHES SHUT
 DOWN OVER TIME**

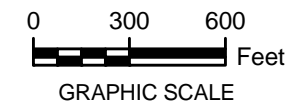


FIGURE
9-6



- LEGEND:**
- + MONITORING WELL (USAS)
 - EXTRACTION WELL (USAS)
 - 1,4-DIOXANE GCTL LINE IN MARCH 2009 (DASHED WHERE INFERRED)
 - LOCKHEED MARTIN TALLEVAST FACILITY
 - 1,4-DIOXANE 3 YEAR PROJECTED GCTL CONTOUR
 - CAPTURE ZONE
 - AREA PREDICTED TO EXTEND BEYOND THE 2009 GCTL CONTOUR IN 3 YEARS
 - WELL SELECTED TO BE REMOVED FROM ANNUAL GROUNDWATER MONITORING

- NOTE:**
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 2. SOME WELLS FOR THIS AQUIFER ARE NOT SHOWN IN THIS EXTENT.
 3. CONTOUR VALUES ARE IN MICROGRAMS PER LITER (µG/L)
 4. CONTOURS DASHED WHERE INFERRED.
 5. EXTRACTION WELLS WILL BE MONITORED ACCORDING TO THE INTERIM REMEDIAL ACTION PLAN MONITORING PROGRAM AND ARE NOT INCLUDED IN THE ANNUAL GROUNDWATER SAMPLING PROGRAM.
 6. THE PREDICTED PLUME IS BASED ON A MODEL SIMULATION THAT INCLUDES THE EXISTING IRAP SYSTEM AND PRIVATE WELL PW-127 PUMPING OVER THE 3 YEAR SIMULATION PERIOD.



**LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM**

**3 YEAR SIMULATION RESULTS FOR
1,4-DIOXANE IN THE
UPPER SURFICIAL AQUIFER SYSTEM**

ARCADIS

**FIGURE
9-7**

DEN-080 MSS Project #: 60038055.0000 I:\LockheedMartin\LockheedMartin\2009\MD\Fig-7 USAS_3yrSimulation_DIOX.mxd - 7/13/2009 @ 7:14:57 AM

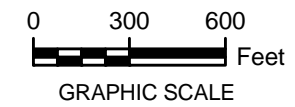


LEGEND:

- + MONITORING WELL (USAS)
- EXTRACTION WELL (USAS)
- TCE 3 YEAR PROJECTED GCTL CONTOUR
- TCE GCTL LINE IN MARCH 2009
- LOCKHEED MARTIN TALLEVAST FACILITY
- CAPTURE ZONE
- AREA PREDICTED TO EXTEND BEYOND THE 2009 GCTL CONTOUR IN 3 YEARS
- WELL SELECTED TO BE REMOVED FROM ANNUAL GROUNDWATER MONITORING

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
2. SOME WELLS FOR THIS AQUIFER ARE NOT SHOWN IN THIS EXTENT.
3. CONTOUR VALUES ARE IN MICROGRAMS PER LITER (µG/L)
4. CONTOURS DASHED WHERE INFERRED.
5. EXTRACTION WELLS WILL BE MONITORED ACCORDING TO THE INTERIM REMEDIAL ACTION PLAN MONITORING PROGRAM AND ARE NOT INCLUDED IN THE ANNUAL GROUNDWATER SAMPLING PROGRAM.
6. THE PREDICTED PLUME IS BASED ON A MODEL SIMULATION THAT INCLUDES THE EXISTING IRAP SYSTEM AND PRIVATE WELL PW-127 PUMPING OVER THE 3 YEAR SIMULATION PERIOD.



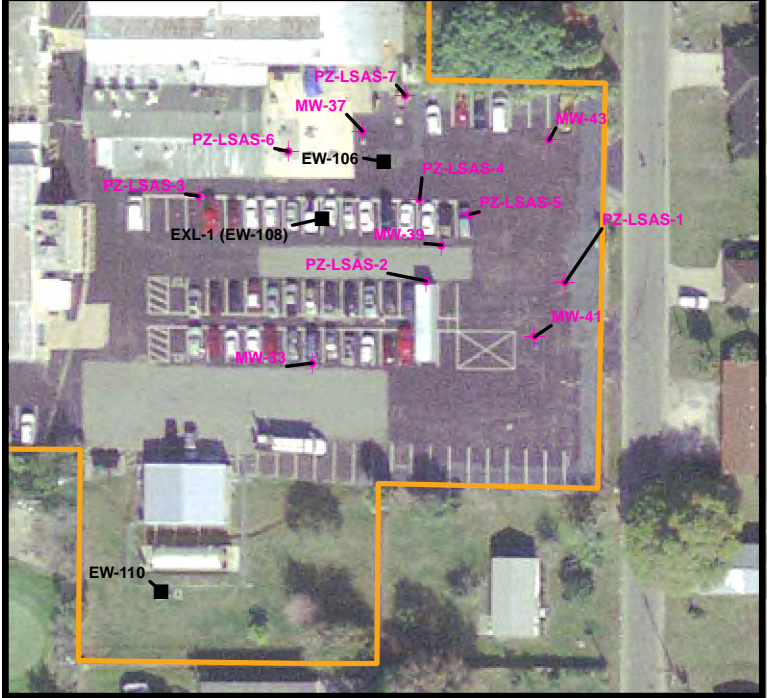
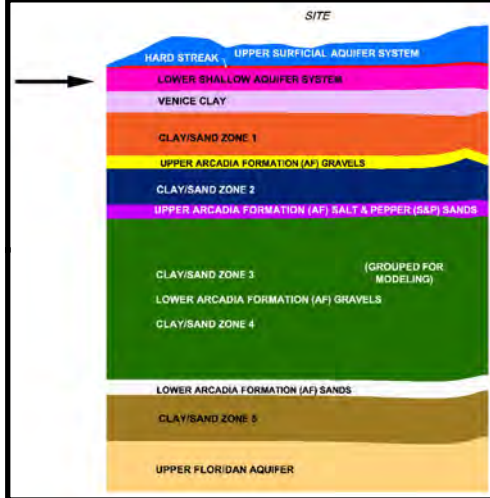
**LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM**

**3 YEAR SIMULATION RESULTS FOR
TRICHLOROETHENE IN THE
UPPER SURFICIAL AQUIFER SYSTEM**

ARCADIS

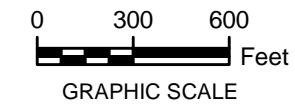
**FIGURE
9-8**

DEN-080 MSS Project #: 80038055.0000 I:\LockheedMartin\RA\2009\MD\Fig-8_USAS_3yrSimulation_TCE.mxd - 7/13/2009 @ 7:15:06 AM



- LEGEND:**
- + MONITORING WELL (LSAS)
 - EXTRACTION WELL (LSAS)
 - 3.2 1,4-DIOXANE GCTL LINE IN MARCH 2009
 - LOCKHEED MARTIN TALLEVAST FACILITY
 - 1,4-DIOXANE 3 YEAR PROJECTED GCTL CONTOUR
 - UPPER LSAS - CAPTURE ZONE
 - AREA PREDICTED TO EXTEND BEYOND THE 2009 GCTL CONTOUR IN 3 YEARS
 - WELL SELECTED TO BE REMOVED FROM ANNUAL GROUNDWATER MONITORING

- NOTE:**
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 2. SOME WELLS FOR THIS AQUIFER ARE NOT SHOWN IN THIS EXTENT.
 3. CONTOUR VALUES ARE IN MICROGRAMS PER LITER (µG/L)
 4. CONTOURS DASHED WHERE INFERRED.
 5. EXTRACTION WELLS WILL BE MONITORED ACCORDING TO THE INTERIM REMEDIAL ACTION PLAN MONITORING PROGRAM AND ARE NOT BE INCLUDED IN THE ANNUAL GROUNDWATER SAMPLING PROGRAM.
 6. THE PREDICTED PLUME IS BASED ON A MODEL SIMULATION THAT INCLUDES THE EXISTING IRAP SYSTEM AND PRIVATE WELL PW-127 PUMPING OVER THE 3 YEAR SIMULATION PERIOD.



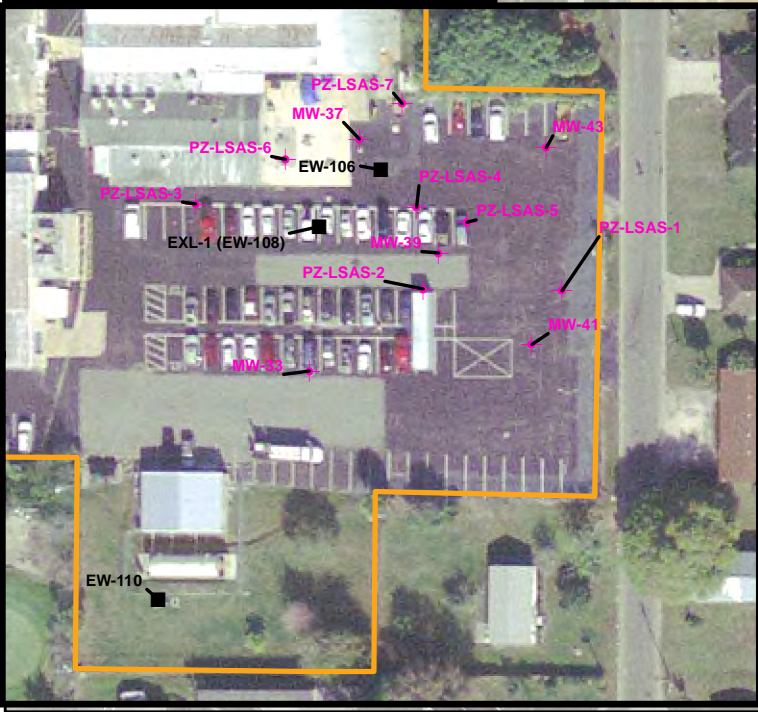
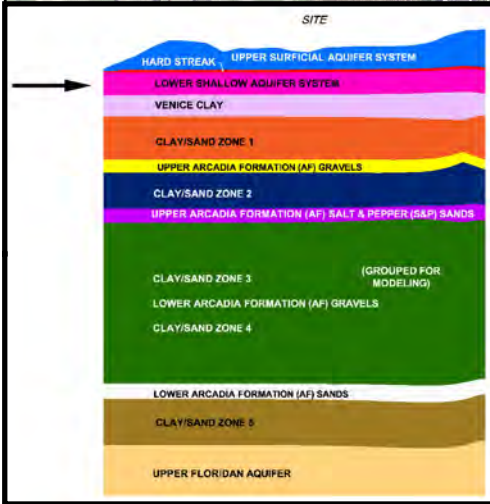
**LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM**

**3 YEAR SIMULATION RESULTS
FOR 1,4-DIOXANE IN THE UPPER PORTION
OF THE LOWER SHALLOW AQUIFER SYSTEM**

ARCADIS

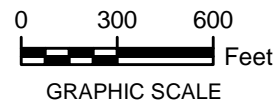
**FIGURE
9-9**

DEN-080 MSS Project #: B0038055.0000 I:\LockheedMartin\RAP2009\MXD\Fig9-9_Upper_LSAS_3yrSimulation_DIOX.mxd - 7/10/2009 @ 4:57:31 PM R625-EDC-001213-0



- LEGEND:**
- + MONITORING WELL (LSAS)
 - EXTRACTION WELL (LSAS)
 - TCE GCTL LINE IN MARCH 2009 (DASHED WHERE INFERRED)
 - LOCKHEED MARTIN TALLEVAST FACILITY
 - TCE 3 YEAR PROJECTED GCTL CONTOUR
 - UPPER LSAS - CAPTURE ZONE
 - AREA PREDICTED TO EXTEND BEYOND THE 2009 GCTL CONTOUR IN 3 YEARS
 - WELL SELECTED TO BE REMOVED FROM ANNUAL GROUNDWATER MONITORING

- NOTE:**
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 2. SOME WELLS FOR THIS AQUIFER ARE NOT SHOWN IN THIS EXTENT.
 3. CONTOUR VALUES ARE IN MICROGRAMS PER LITER (µG/L)
 4. CONTOURS DASHED WHERE INFERRED.
 5. EXTRACTION WELLS WILL BE MONITORED ACCORDING TO THE INTERIM REMEDIAL ACTION PLAN MONITORING PROGRAM AND ARE NOT BE INCLUDED IN THE ANNUAL GROUNDWATER SAMPLING PROGRAM.
 6. THE PREDICTED PLUME IS BASED ON A MODEL SIMULATION THAT INCLUDES THE EXISTING IRAP SYSTEM AND PRIVATE WELL PW-127 PUMPING OVER THE 3 YEAR SIMULATION PERIOD.



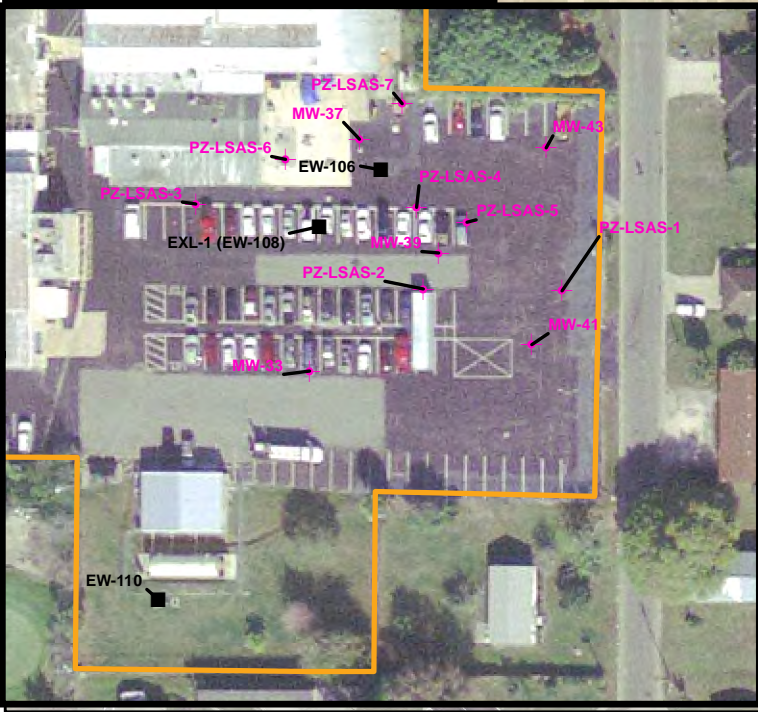
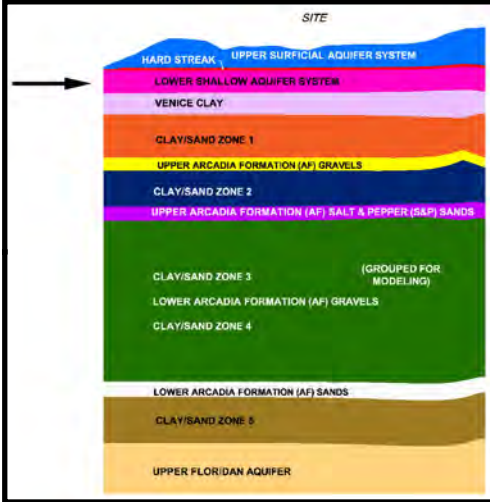
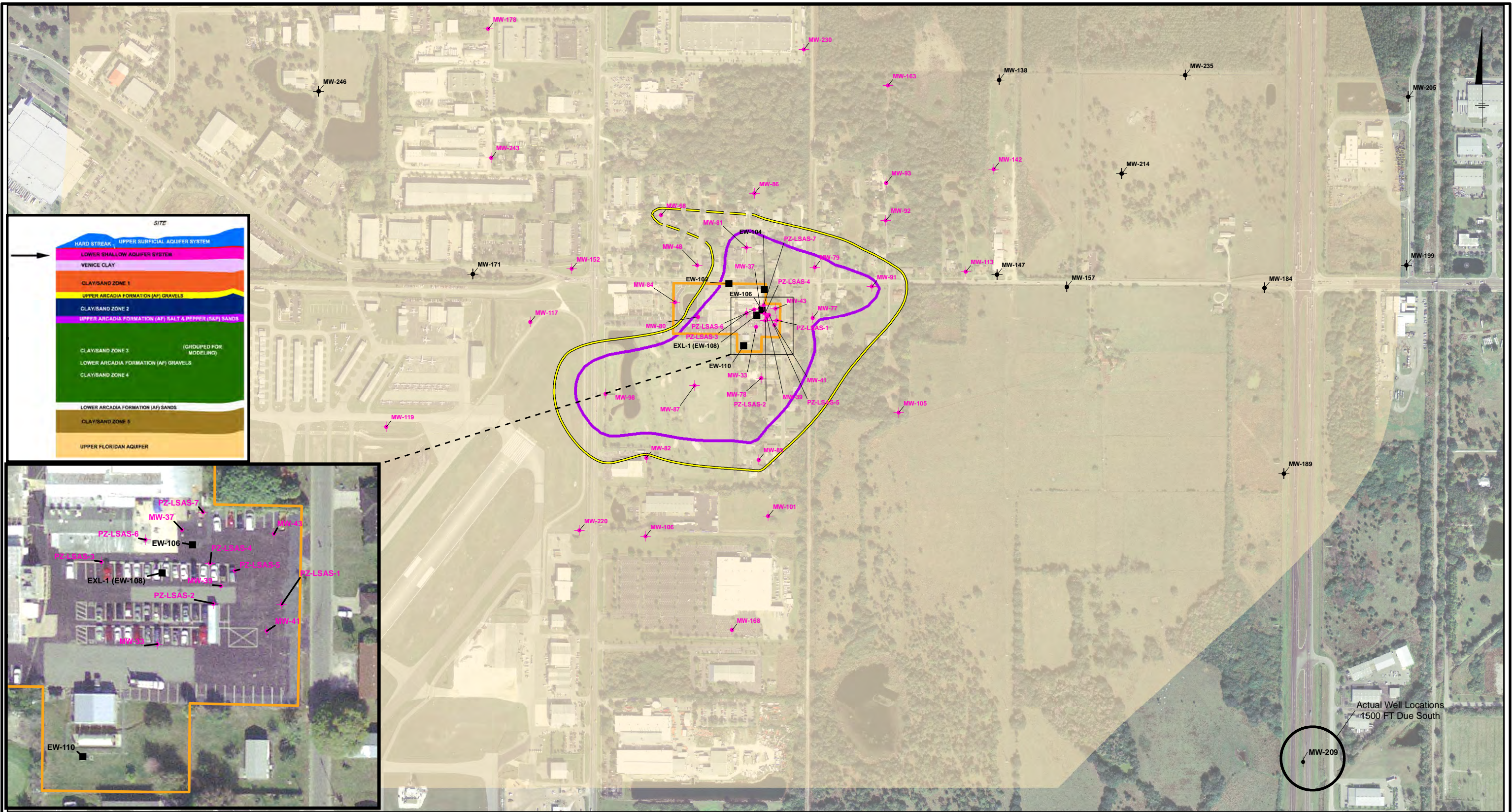
**LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM**

**3 YEAR SIMULATION RESULTS FOR
TRICHLOROETHENE IN THE UPPER PORTION
OF THE LOWER SHALLOW AQUIFER SYSTEM**

ARCADIS

**FIGURE
9-10**

DEN-080 MSS Project #: B0038055.0000 I:\LockheedMartin\LockheedMartin\RAP\2009\MXD\Fig-10_Upper_LSAS_3yrSimulation_TCE.mxd - 7/10/2009 @ 5:01:02 PM



- LEGEND:**
- + MONITORING WELL (LSAS)
 - EXTRACTION WELL (LSAS)
 - TCE GCTL LINE IN MARCH 2009 (DASHED WHERE INFERRED)
 - LOCKHEED MARTIN TALLEVAST FACILITY
 - TCE 3 YEAR PROJECTED GCTL CONTOUR
 - LOWER LSAS - CAPTURE ZONE
 - WELL SELECTED TO BE REMOVED FROM ANNUAL GROUNDWATER MONITORING

- NOTE:**
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 2. SOME WELLS FOR THIS AQUIFER ARE NOT SHOWN IN THIS EXTENT.
 3. CONTOUR VALUES ARE IN MICROGRAMS PER LITER (µg/L)
 4. CONTOURS DASHED WHERE INFERRED.
 5. EXTRACTION WELLS WILL BE MONITORED ACCORDING TO THE INTERIM REMEDIAL ACTION PLAN MONITORING PROGRAM AND ARE NOT BE INCLUDED IN THE ANNUAL GROUNDWATER SAMPLING PROGRAM.
 6. THE PREDICTED PLUME IS BASED ON A MODEL SIMULATION THAT INCLUDES THE EXISTING IRAP SYSTEM AND PRIVATE WELL PW-127 PUMPING OVER THE 3 YEAR SIMULATION PERIOD.



**LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM**

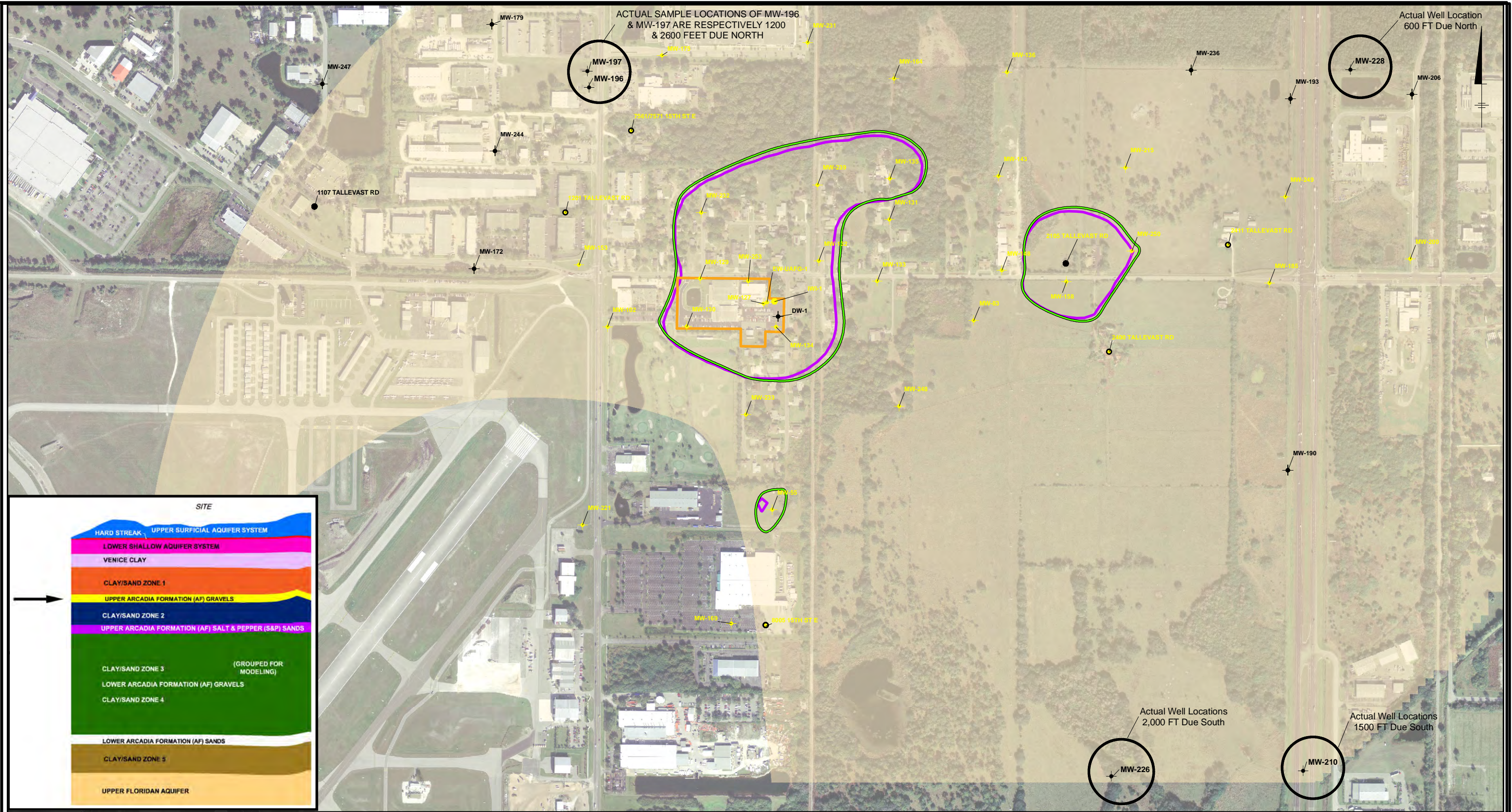
**3 YEAR SIMULATION RESULTS FOR
TRICHLOROETHENE IN THE LOWER PORTION
OF THE LOWER SHALLOW AQUIFER SYSTEM**

ARCADIS

**FIGURE
9-12**

DEN-080 MSS
Project #: B0038055.0000
I:\LockheedMartin\LockheedMartin\RAP\2009\WMD\Fig9-12_Lower_LSAS_3yrSimulation_TCE.mxd - 7/10/2009 @ 4:12:30 PM

DEN-080 MSS
 Project #: B0038055.0000
 I:\LockheedMartin\RAP\2009\MXD\Fig-13_AFGRAVEL_3yrSimulation_DIOX.mxd - 7/12/2009 @ 8:25:01 AM



ACTUAL SAMPLE LOCATIONS OF MW-196 & MW-197 ARE RESPECTIVELY 1200 & 2600 FEET DUE NORTH

Actual Well Location 600 FT Due North

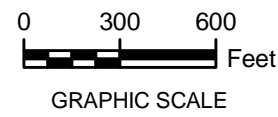
Actual Well Locations 2,000 FT Due South

Actual Well Locations 1500 FT Due South

- LEGEND:**
- MONITORING WELL (AF GRAVEL)
 - EXTRACTION WELL (AF GRAVEL)
 - PRIVATE WELL (AF GRAVEL)
 - INJECTION WELL (AF GRAVEL)
 - 1,4-DIOXANE GCTL LINE IN MARCH 2009
 - LOCKHEED MARTIN TALLEVAST FACILITY

- 1,4-DIOXANE 3 YEAR PROJECTED GCTL CONTOUR
- CAPTURE ZONE
- WELL SELECTED TO BE REMOVED FROM ANNUAL GROUNDWATER MONITORING

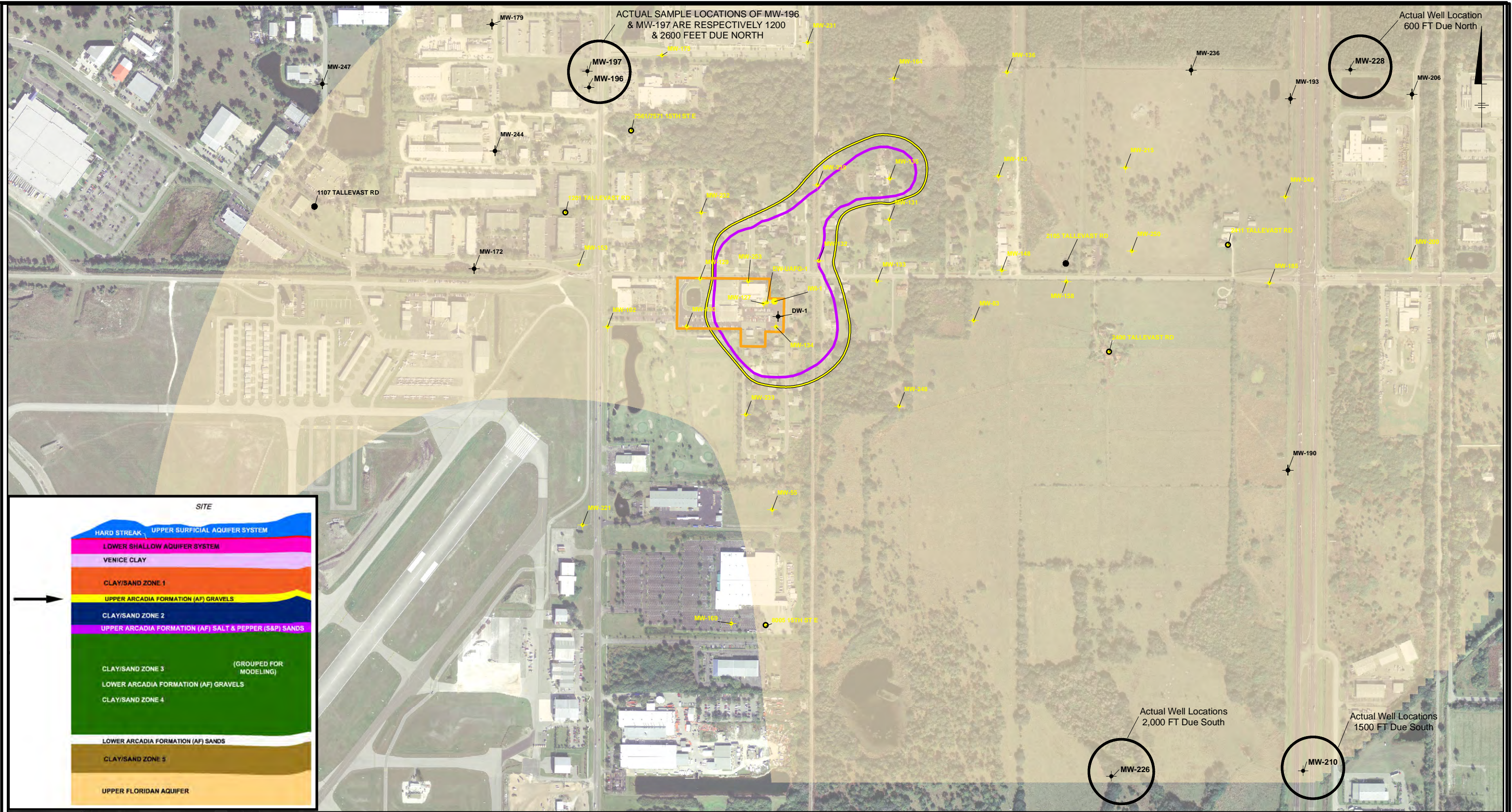
- NOTE:**
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 2. SOME WELLS FOR THIS AQUIFER ARE NOT SHOWN IN THIS EXTENT.
 3. CONTOUR VALUES ARE IN MICROGRAMS PER LITER (µG/L)
 4. THE PREDICTED PLUME IS BASED ON A MODEL SIMULATION THAT INCLUDES THE EXISTING IRAP SYSTEM AND PRIVATE WELL PW-127 PUMPING OVER THE 3 YEAR SIMULATION PERIOD.



LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

3 YEAR SIMULATION RESULTS FOR
1,4-DIOXANE IN THE
ARCADIA FORMATION GRAVELS

FIGURE
9-13

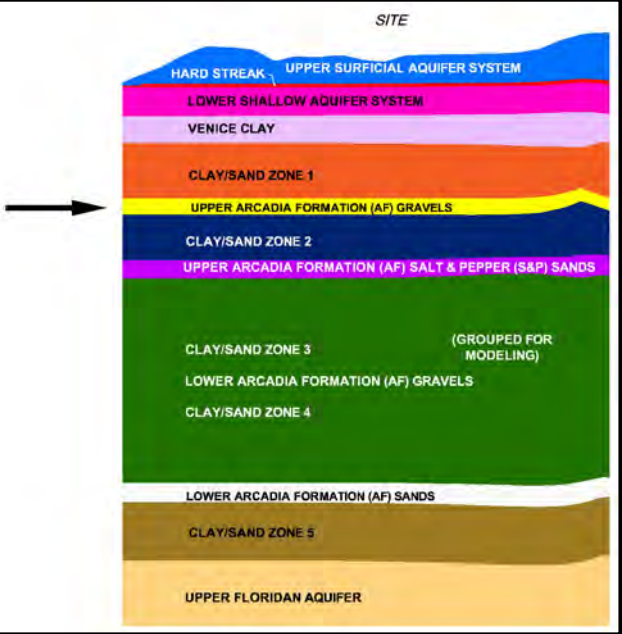


ACTUAL SAMPLE LOCATIONS OF MW-196 & MW-197 ARE RESPECTIVELY 1200 & 2600 FEET DUE NORTH

Actual Well Location 600 FT Due North

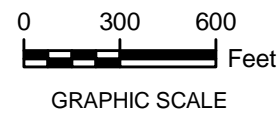
Actual Well Locations 2,000 FT Due South

Actual Well Locations 1500 FT Due South



- LEGEND:**
- + MONITORING WELL (AF GRAVEL)
 - + EXTRACTION WELL (AF GRAVEL)
 - PRIVATE WELL (AF GRAVEL)
 - INJECTION WELL (AF GRAVEL)
 - TCE 3 YEAR PROJECTED GCTL CONTOUR
 - CAPTURE ZONE
 - WELL SELECTED TO BE REMOVED FROM ANNUAL GROUNDWATER MONITORING
 - TCE GCTL LINE IN MARCH 2009
 - LOCKHEED MARTIN TALLEVAST FACILITY

- NOTE:**
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
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 3. CONTOUR VALUES ARE IN MICROGRAMS PER LITER (µG/L)
 4. THE PREDICTED PLUME IS BASED ON A MODEL SIMULATION THAT INCLUDES THE EXISTING IRAP SYSTEM AND PRIVATE WELL PW-127 PUMPING OVER THE 3 YEAR SIMULATION PERIOD.



**LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM**

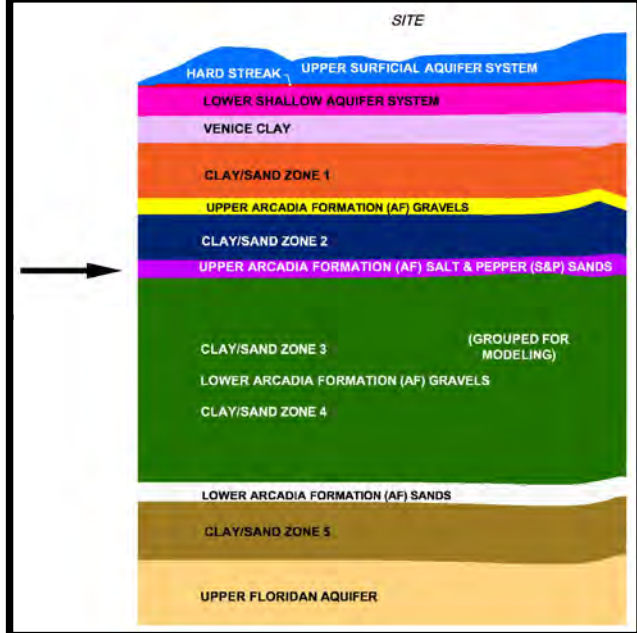
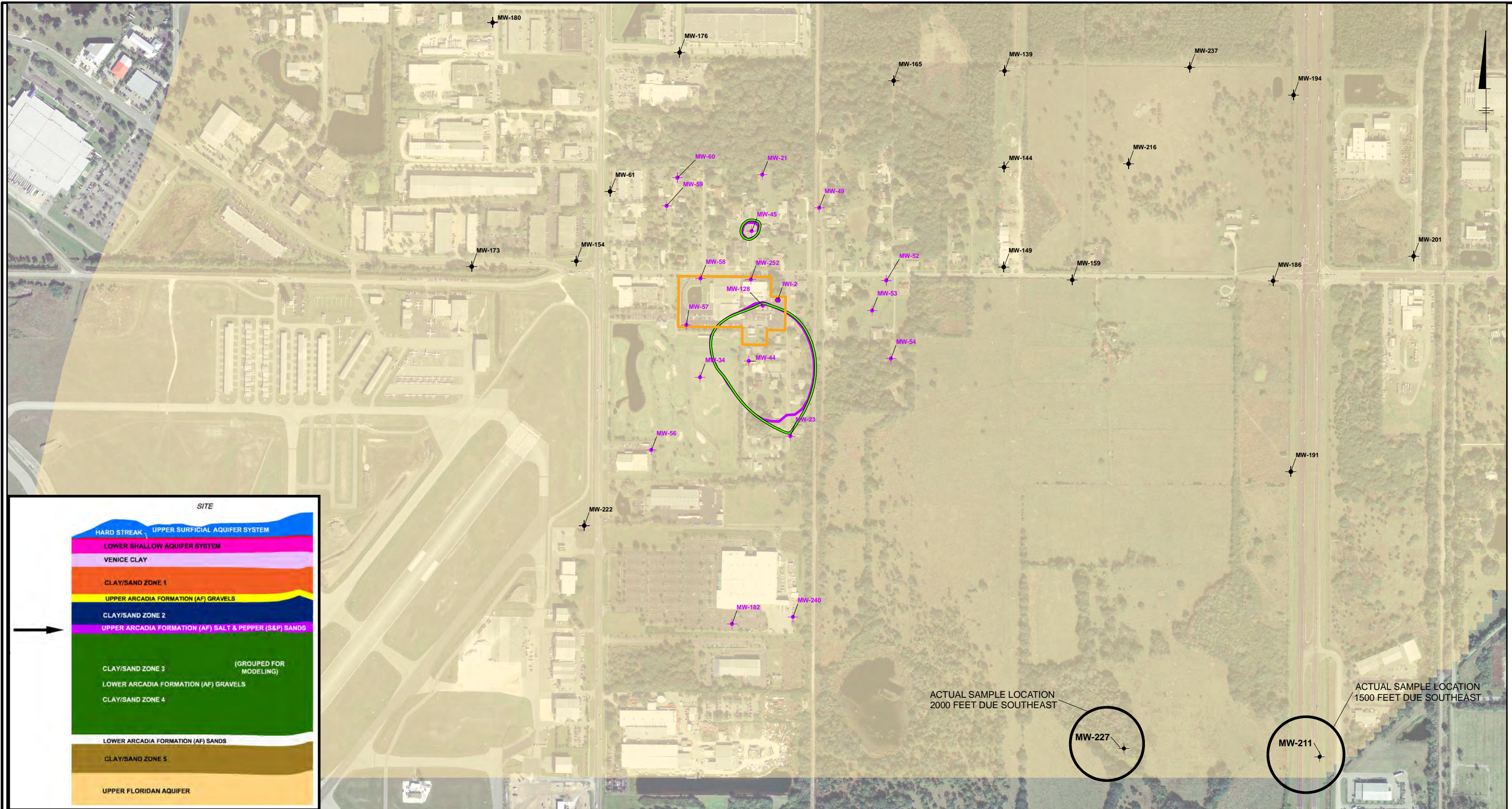
**3 YEAR SIMULATION RESULTS FOR
TRICHLOROETHENE IN THE
ARCADIA FORMATION GRAVELS**

ARCADIS

**FIGURE
9-14**

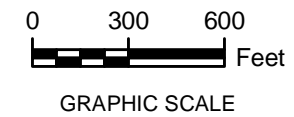
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 R625-EDC-001213-0

DEN-080 MSS
 Project #: B0038065.0000
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- LEGEND:**
- + MONITORING WELL (S&P SANDS)
 - INJECTION WELL (S&P SANDS)
 - 1,4-DIOXANE GCTL LINE IN MARCH 2009
 - LOCKHEED MARTIN TALLEVAST FACILITY
 - 1,4-DIOXANE 3 YEAR PROJECTED GCTL CONTOUR
 - CAPTURE ZONE
 - WELL SELECTED TO BE REMOVED FROM ANNUAL GROUNDWATER MONITORING

- NOTE:**
1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
 2. SOME WELLS FOR THIS AQUIFER ARE NOT SHOWN IN THIS EXTENT.
 3. CONTOUR VALUES ARE IN MICROGRAMS PER LITER (µG/L)
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LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

3 YEAR SIMULATION RESULTS
FOR 1,4-DIOXANE
IN THE SALT & PEPPER SANDS


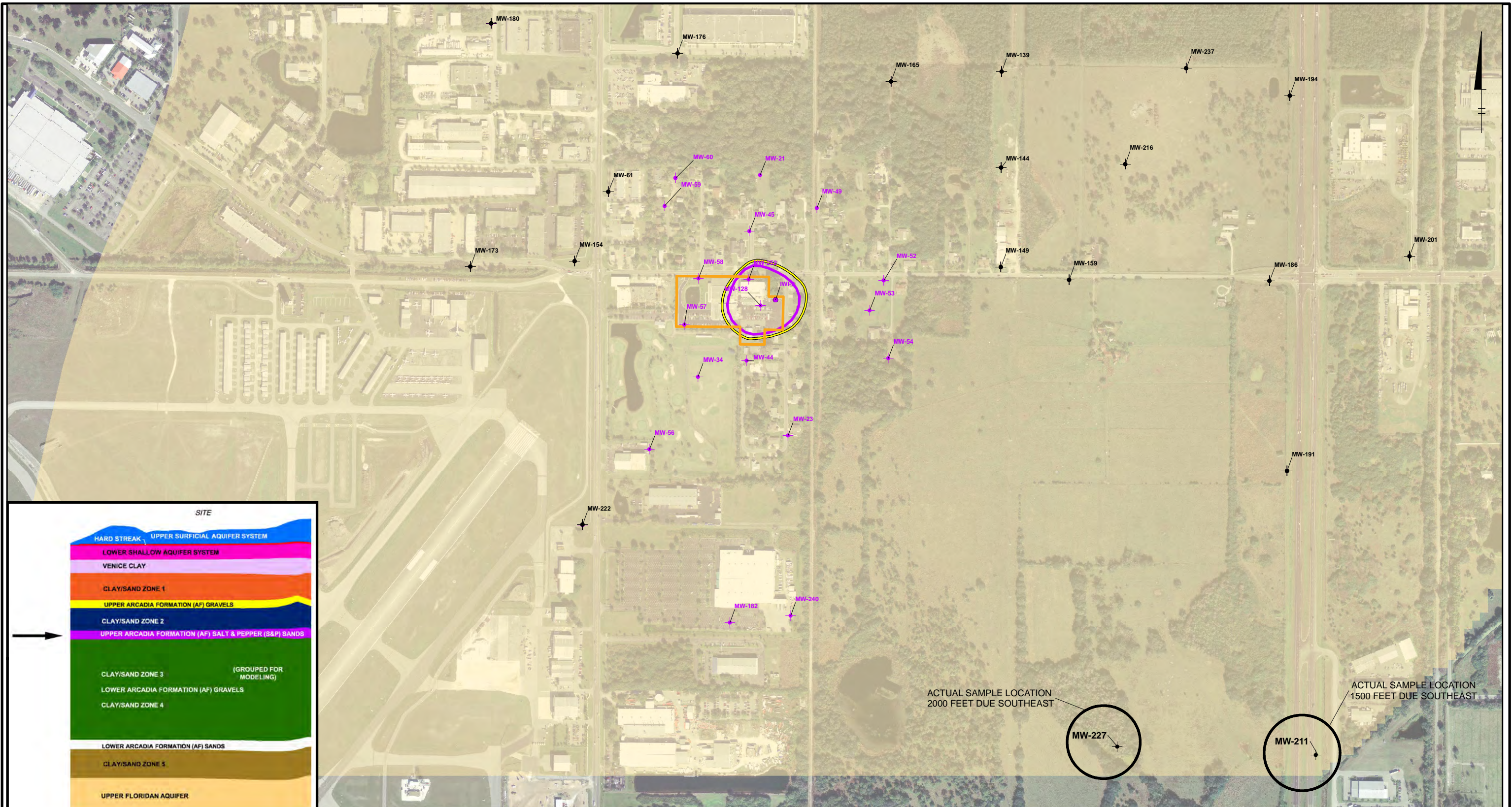


FIGURE
9-15



LEGEND:

- + MONITORING WELL (S&P SANDS)
- INJECTION WELL (S&P SANDS)
- TCE 3 YEAR PROJECTED GCTL CONTOUR
- CAPTURE ZONE
- TCE GCTL LINE IN MARCH 2009
- LOCKHEED MARTIN TALLEVAST FACILITY
- + WELL SELECTED TO BE REMOVED FROM ANNUAL GROUNDWATER MONITORING

NOTE:

1. AERIAL PHOTOS WERE OBTAINED FROM THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD). AERIAL PHOTOS WERE TAKEN IN 2007 AT A 1-FOOT RESOLUTION IN NATURAL COLOR FORMAT.
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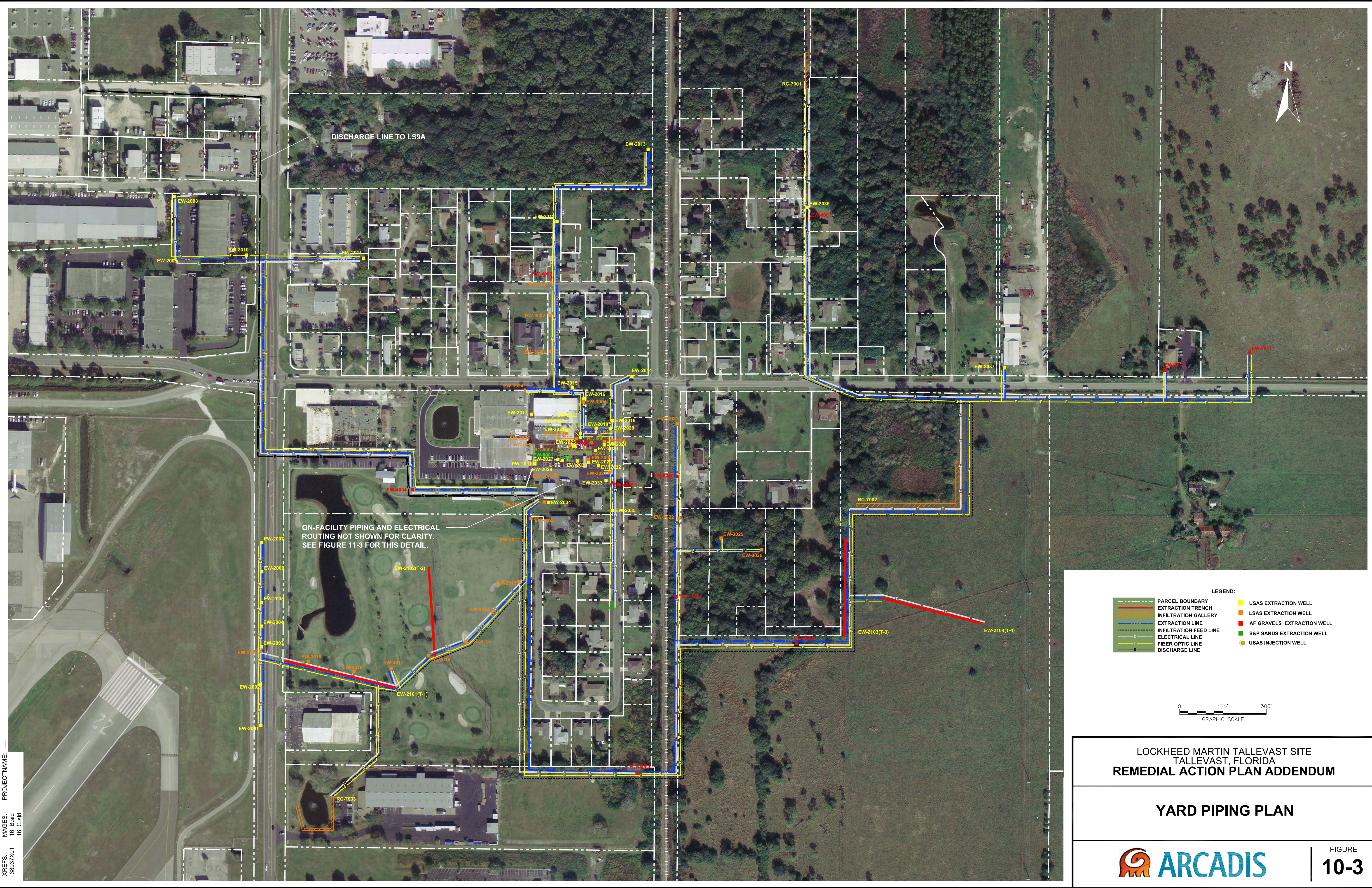
**LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM**

**3 YEAR SIMULATION RESULTS FOR
 TRICHLOROETHENE IN THE
 SALT & PEPPER SANDS**

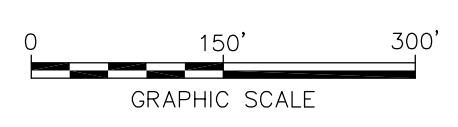
ARCADIS

**FIGURE
 9-16**

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 XREFS: IMAGES: PROJECTNAME: 16_B.sld 16_C.sld



- LEGEND:
- PARCEL BOUNDARY
 - EXTRACTION TRENCH
 - INFILTRATION GALLERY
 - EXTRACTION LINE
 - INFILTRATION FEED LINE
 - ELECTRICAL LINE
 - FIBER OPTIC LINE
 - DISCHARGE LINE
 - USAS EXTRACTION WELL
 - LSAS EXTRACTION WELL
 - AF GRAVELS EXTRACTION WELL
 - S&P SANDS EXTRACTION WELL
 - USAS INJECTION WELL

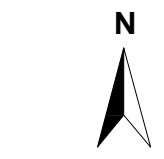
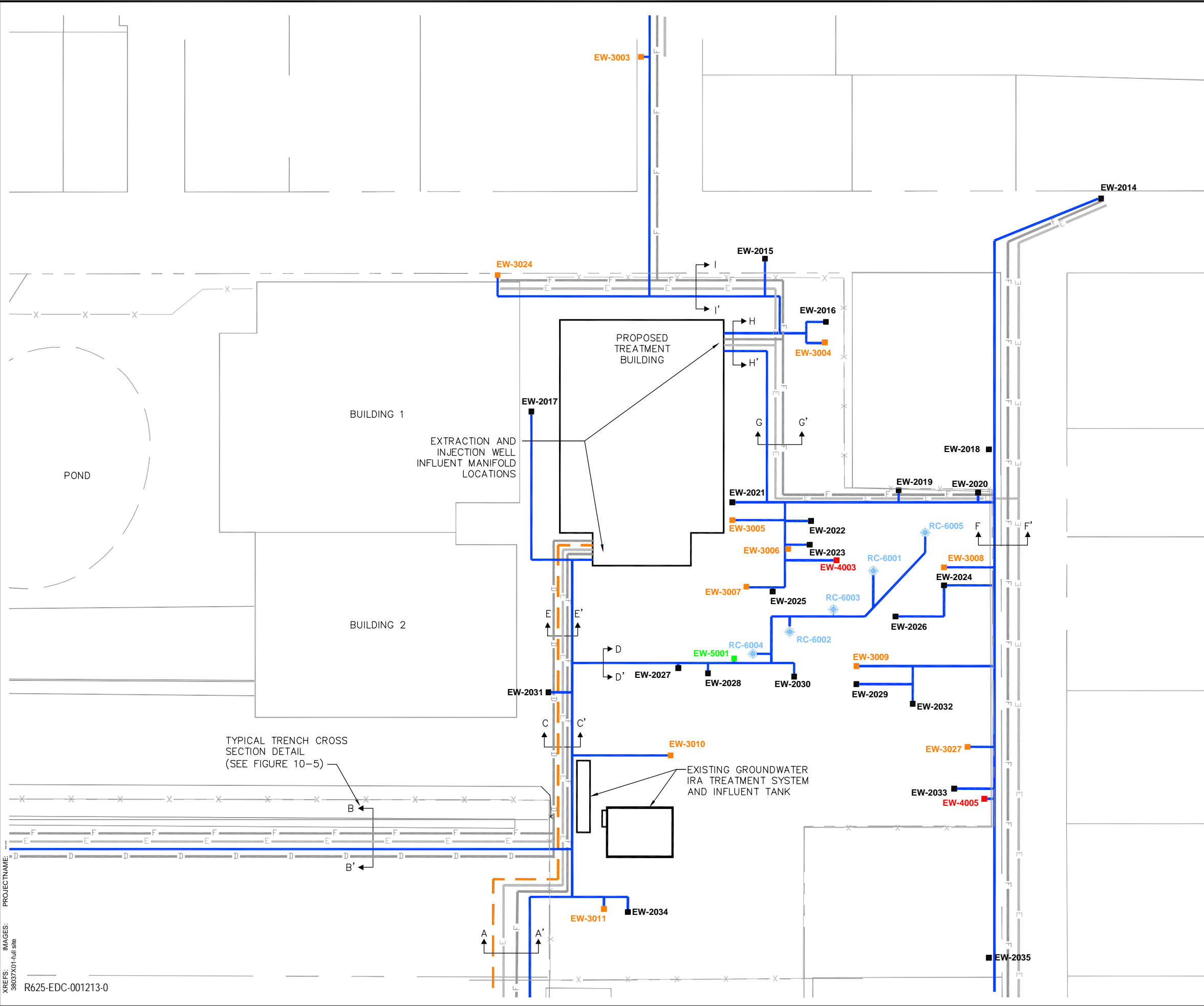


LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM

YARD PIPING PLAN



CITY:TAMPA, FL DIV:GROUP:85 DB:JAR LD:(Opt) PIC:(Opt) PM:(Reed) TM:(Reed) LAYOUT: 10-4 SAVED: 7/8/2009 1:45 PM ACADVER: 17.05 (LMS TECH) PAGES: 17 PLOT: PLT:FULLCTB PLOTTED: 7/8/2009 1:45 PM BY: SEPPANEN, MAUA



LEGEND:

- USAS EXTRACTION WELL
- LSAS EXTRACTION WELL
- AF GRAVELS EXTRACTION WELL
- S&P SANDS EXTRACTION WELL
- USAS INJECTION WELL
- EXTRACTION AND INJECTION TRENCH
- - - INFILTRATION FEED LINE
- E — ELECTRICAL AND CONTROL WIRE CONDUIT
- F — FIBER OPTIC LINE
- D — DISCHARGE LINE
- - - FACILITY BOUNDARY
- x - x - FENCE

NOTES:

1. ELECTRICAL AND CONTROL LINES TO EACH WELL NOT SHOWN FOR CLARITY.
2. FIBER OPTIC LINES WILL ONLY BE ROUTED TO OFF-FACILITY WELLS.
3. ON-FACILITY EXTRACTION AND INJECTION WELLS WILL HAVE INDIVIDUAL WATER PIPING TO THE TREATMENT BUILDING AND WILL NOT BE MANIFOLDED IN THE FIELD.
4. EXISTING GROUNDWATER IRA TREATMENT SYSTEM AND INFLUENT TANK TO BE DECOMMISSIONED AFTER START-UP OF THE RAP SYSTEM.



LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

ON-FACILITY YARD PIPING PLAN


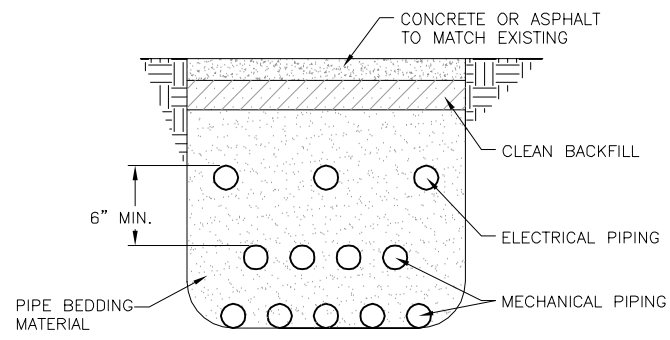
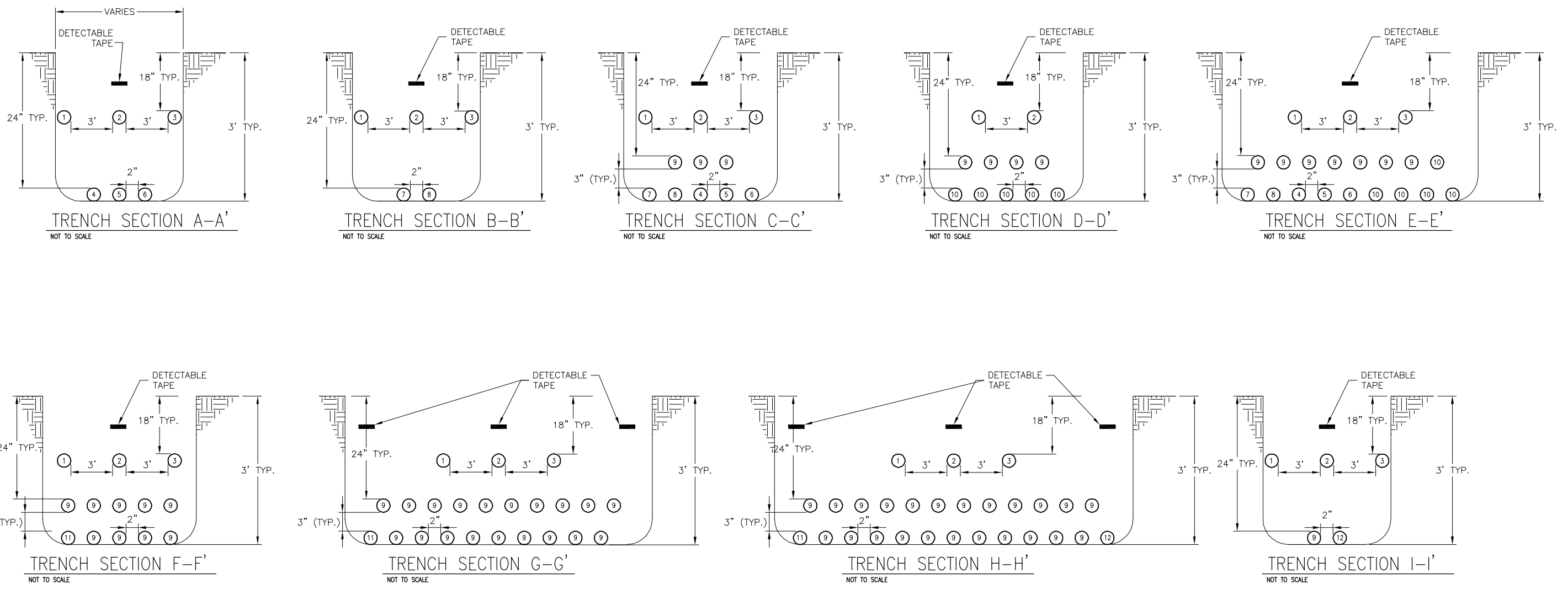


FIGURE 10-4

CITY: TAMPA, FL DIV: GROUP 85 DBJAR LD: (Opt) PIC: (Opt) PM: (Reed) TM: (Reed) LVR: (Opt) ON=OFF=REF*
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 PROJECT NAME: ...
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PIPE BEDDING DETAIL FOR
ON-FACILITY TRENCHES (TYP.)

TRENCH CROSS SECTION PIPE KEY

PIPE ID	MATERIAL	COMMENT
1	PVC	ELECTRICAL CONDUIT
2	PVC	CONTROL CONDUIT
3	PVC	FIBER OPTIC CONDUIT
4	DOUBLE CONTAINED HDPE	GROUNDWATER EXTRACTION HEADER FROM SW QUADRANT WELLS
5	HDPE	TREATED WATER HEADER TO INFILTRATION GALLERIES
6	DOUBLE CONTAINED HDPE	GROUNDWATER EXTRACTION HEADER FROM SE QUADRANT WELLS
7	DOUBLE CONTAINED HDPE	GROUNDWATER EXTRACTION HEADER FROM NW QUADRANT WELLS
8	DIP	POTW DISCHARGE LINE
9	DOUBLE CONTAINED HDPE	ON-FACILITY EXTRACTION WELL LINE
10	HDPE	ON-FACILITY INJECTION WELL LINE
11	DOUBLE CONTAINED HDPE	GROUNDWATER EXTRACTION HEADER FROM 17TH ST. WELLS
12	DOUBLE CONTAINED HDPE	GROUNDWATER EXTRACTION HEADER FROM NORTH CENTRAL WELLS

NOTES:

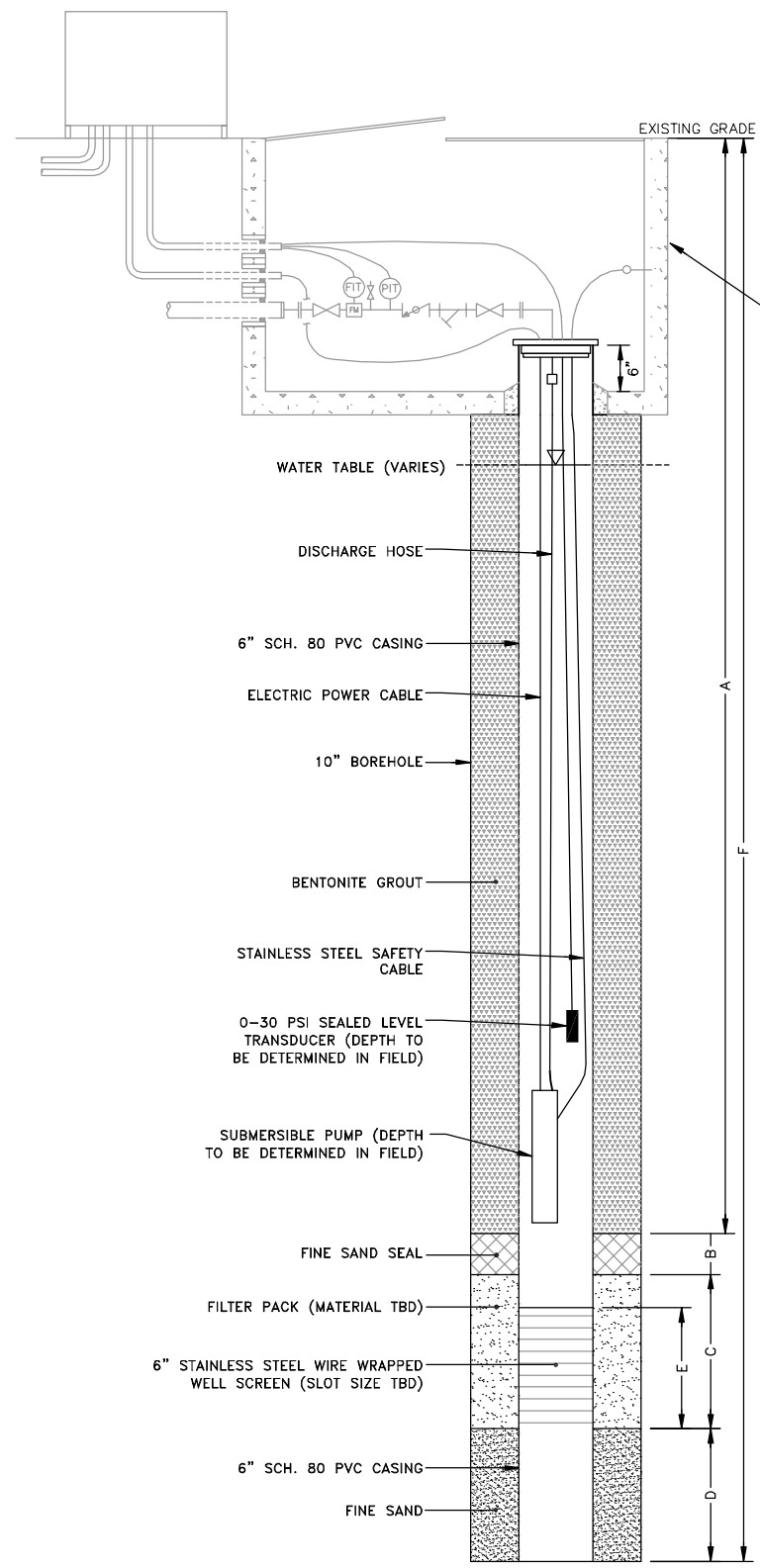
1. PIPE DIAMETER NOT SHOWN FOR CLARITY.
2. PIPE BEDDING MATERIAL AND CLEAN BACKFILL SHALL BE SAND OR GRAVEL FROM AN OFF-SITE LOCATION.
3. BACKFILL SHALL BE COMPACTED IN 6-INCH LIFTS TO MINIMUM 95% OF MAXIMUM DRY DENSITY.
4. EXCAVATED SOIL SHALL BE DISPOSED OF OFF-SITE.
5. MULTIPLE STRIPS OF DETECTABLE TAPE WILL BE PLACED IN TRENCHES GREATER THAN 3 FEET IN WIDTH.
6. SURFACE SHALL BE REPAIRED TO EXISTING CONDITIONS.

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

ON-FACILITY TRENCH SECTIONS

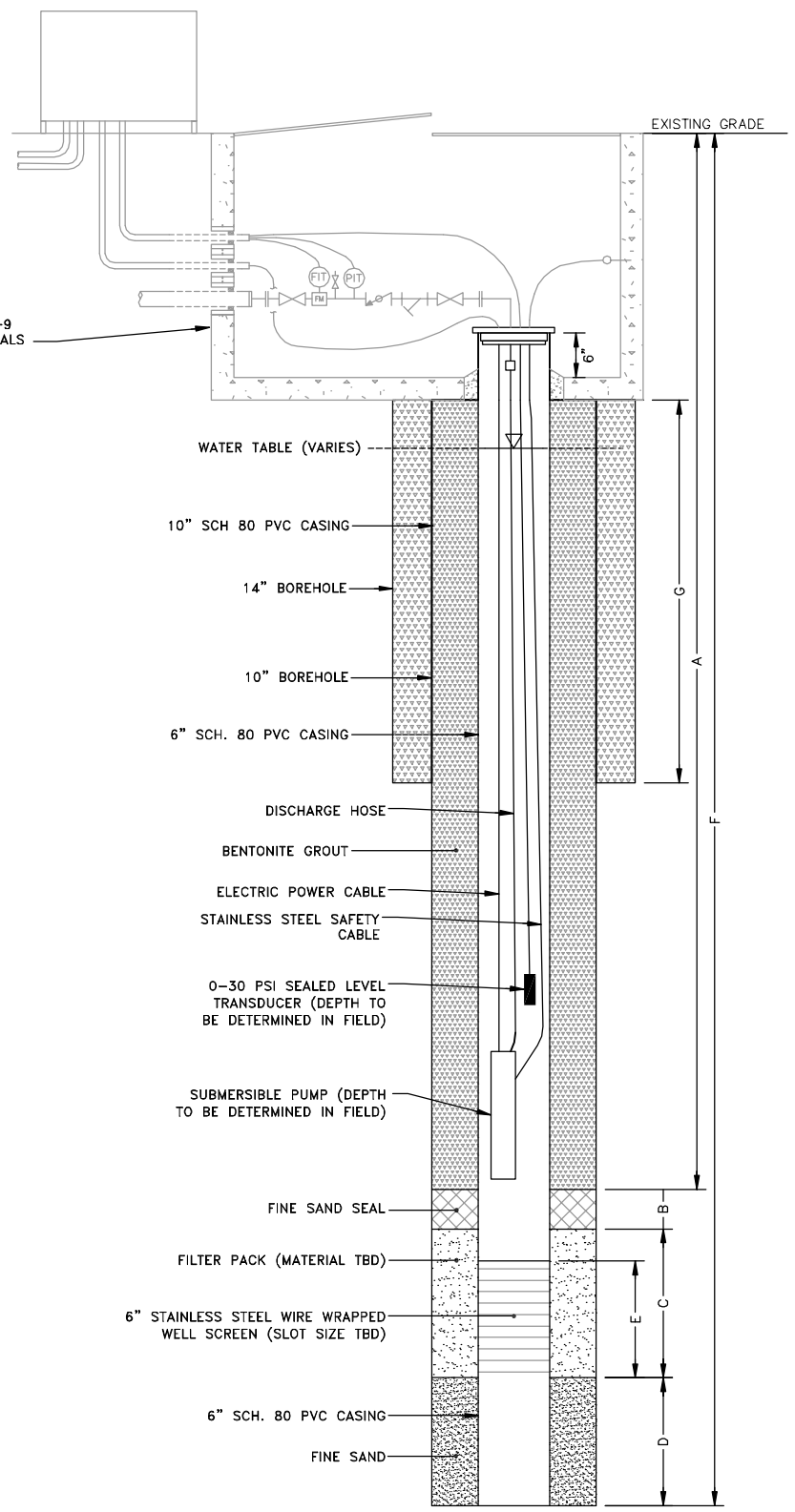
FIGURE
10-5

CITY: TAMPA, FL DIV/GROUP: 85 DE: JAR LD: (Opt) PIC: (Opt) PK: (Rev) TM: (Opt) LY: (Opt) ON: (OFF) REF*
 G:\ENVCAD\Tempa-BVACT\B0038055001\3000002\RAP\2009\B0038055F\045-10.dwg LAYOUT: FIG 10-6 SAVED: 7/7/2009 3:06 PM ACADVER: 17.05 (LMS TECH) PLOTTABLE: PLTCONT.CTB PLOTTED: 7/7/2009 3:37 PM BY: RICHARDS, JIM
 XREFS: IMAGES: PROJECTNAME:



USAS & LSAS EXTRACTION WELL DETAIL
NOT TO SCALE

REFER TO FIGURE 10-9 FOR WELL VAULT DETAILS



AF GRAVELS & S&P SANDS EXTRACTION WELL DETAIL
NOT TO SCALE

WELL TYPE	TARGET AQUIFER	NO. OF WELLS	DIMENSIONS (FEET)						
			A	B	C	D	E ²	F	G
EXTRACTION	USAS	37 ¹	22	2	10	0	5	34	
EXTRACTION	LSAS	27 ¹	31	2	7	5	5	45	
EXTRACTION	AF GRAVELS	11	101	2	7	5	5	115	50 ³
EXTRACTION	S&P SANDS	2	141	2	12	5	10	160	50 ³

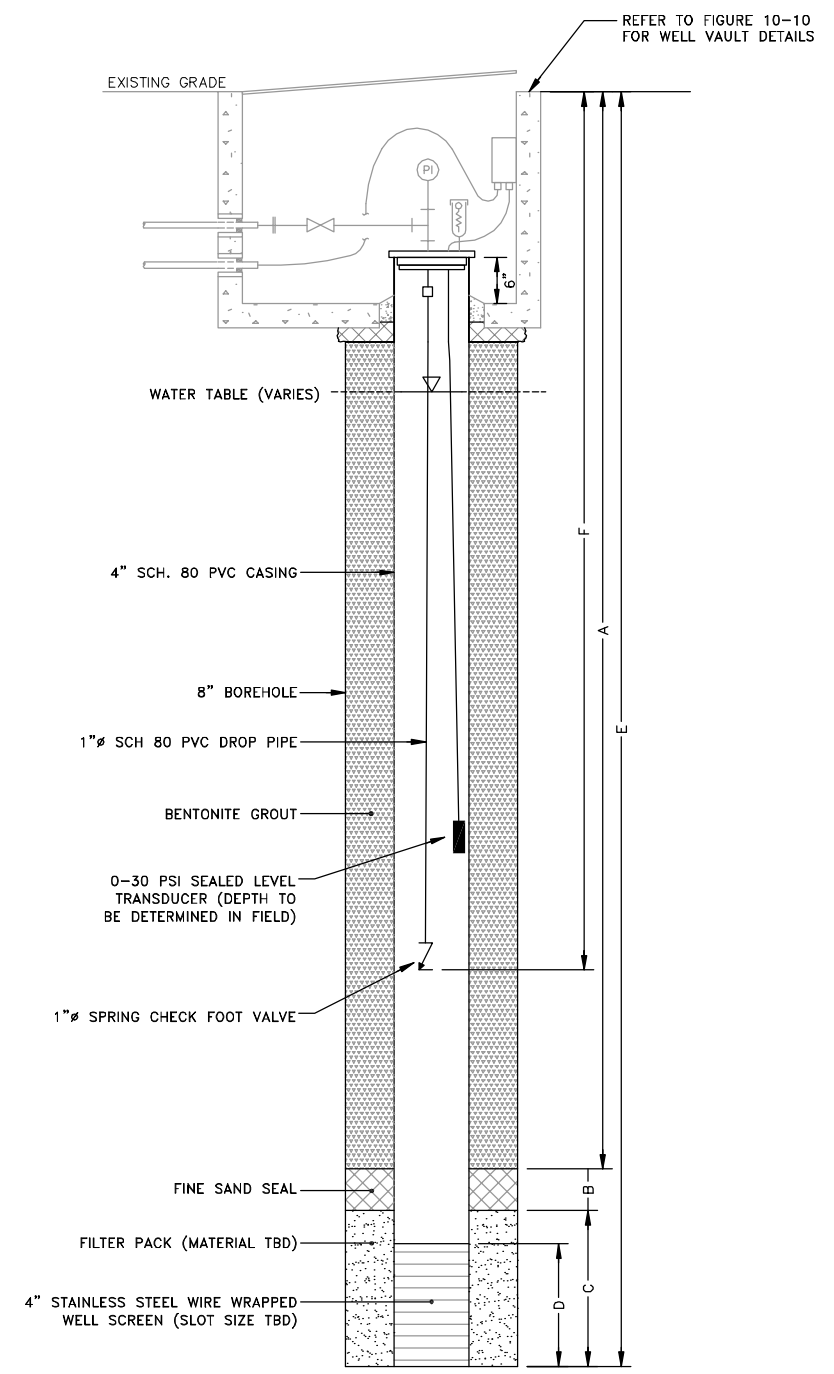
- NOTES:
- TEN EXISTING IRA WELLS TO BE ABANDONED AND NEW WELLS INSTALLED
 - ACTUAL WELL SCREEN LENGTHS TO BE DETERMINED BASED ON FIELD CONDITIONS
 - OUTER CASING WILL EXTEND APPROXIMATELY 5 FEET INTO COMPETENT VENICE CLAY

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

EXTRACTION WELL CONSTRUCTION DETAILS

FIGURE 10-6

CITY: TAMPA, FL DIV: GROUP#85 DE: JAR LD: (Opt) PIC: (Opt) PK: (Read) TM: (Opt) LYS: (Opt) ON: OFF=REF*
 G:\E\VCAD\Tempa-B\ACT\10038055001\3000002\RAP\2009\B\0038055F\045-10.dwg LAYOUT: FIG 10-7 SAVED: 7/7/2009 3:06 PM
 ACADVER: 17.05 (LMS TECH) PAGES: 17 PLOTTED: 7/7/2009 3:07 PM BY: RICHARDS, JIM
 XREFS: IMAGES: PROJECTNAME: ---



INJECTION WELL DETAIL
 NOT TO SCALE

WELL TYPE	TARGET AQUIFER	NO. OF WELLS	DIMENSIONS (FEET)					
			A	B	C	D	E	F
INJECTION	USAS	5	22	2	10	5'	34	15

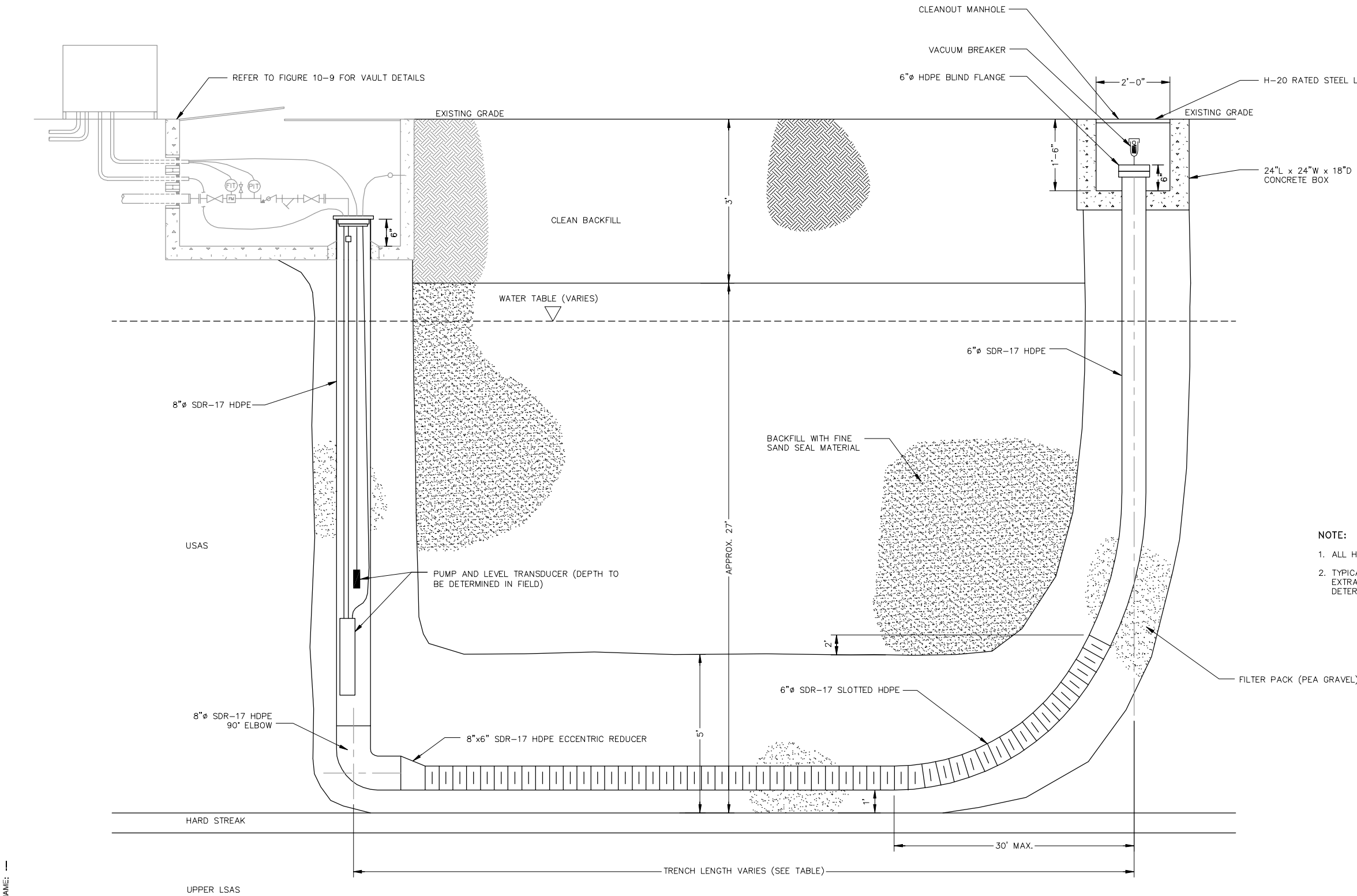
NOTES:
 1. ACTUAL WELL SCREEN LENGTH TO BE DETERMINED BASED ON FIELD CONDITIONS

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**INJECTION WELL
 CONSTRUCTION DETAILS**



CITY: TAMPA, FL DIV: GROUP 285 DB: JAR LD: (Opt) PIC: (Opt) PM: (Read) TM: (Opt) LYS: (Opt) ON: (Off) REF: G:\ENVCAD\Tempa-BVACT\10038055001\3000002\2\RA\2009\B0038055\1045-10.dwg LAYOUT: FIG 10-8 SAVED: 7/8/2009 4:12 PM ACADVER: 17.05 (LMS TECH) PAGES: 17 PLOT: PLOTCONT.CTB PLOTTED: 7/8/2009 4:13 PM BY: RICHARDS, JIM



WELL NAME	APPROXIMATE TRENCH LENGTHS
EW-2101	400 FT
EW-2102	320 FT
EW-2103	340 FT
EW-2104	350 FT

- NOTE:**
1. ALL HDPE JOINTS ARE BUTT WELDED ABOVEGROUND PRIOR TO INSTALLATION.
 2. TYPICAL TRENCH DEPTH SHOWN IS APPROXIMATELY 30 FEET BELOW GROUND SURFACE. EXTRACTION TRENCH INSTALLED TO TOP OF HARD STREAK. FINAL TRENCH DEPTH TO BE DETERMINED IN THE FIELD.

EXTRACTION TRENCH DETAIL
NOT TO SCALE

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**EXTRACTION TRENCH
CONSTRUCTION DETAILS**


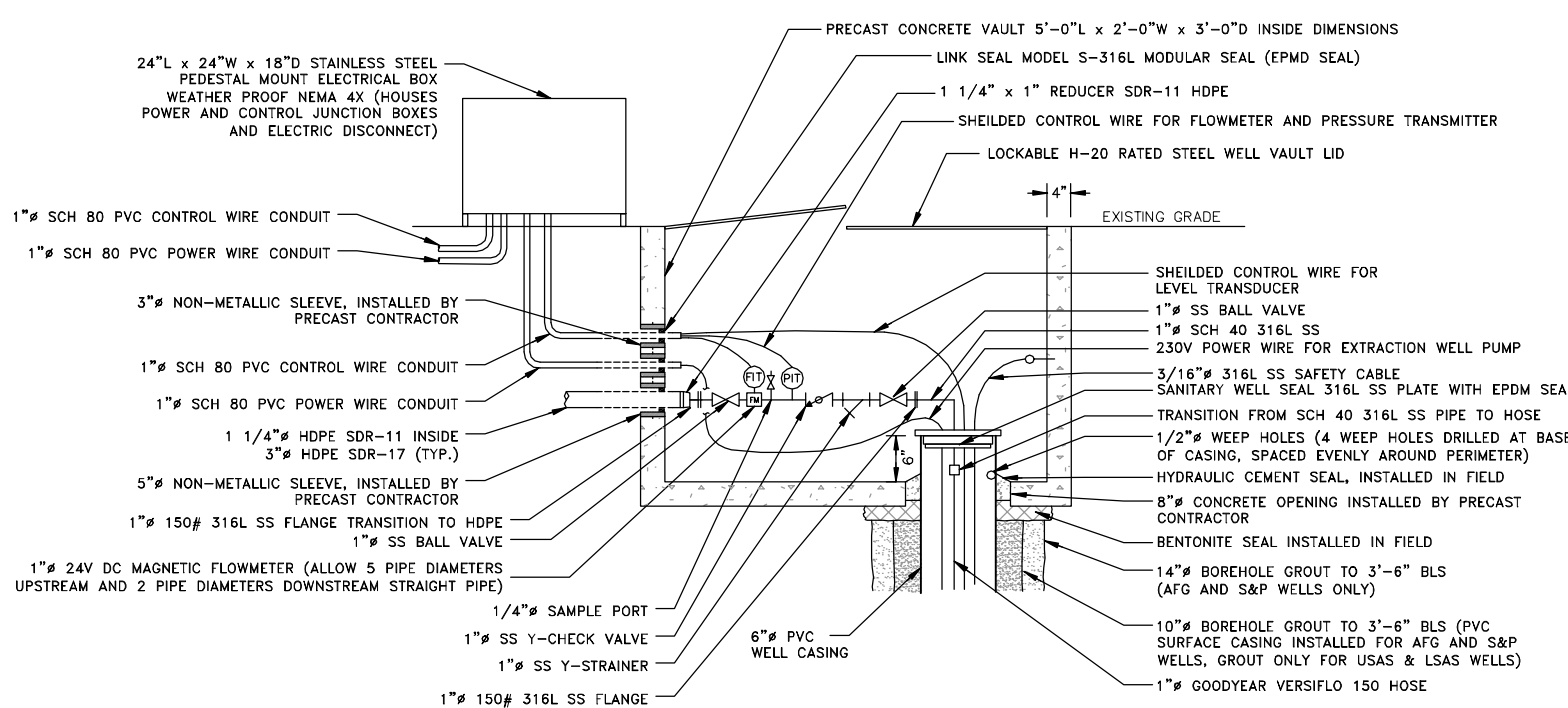


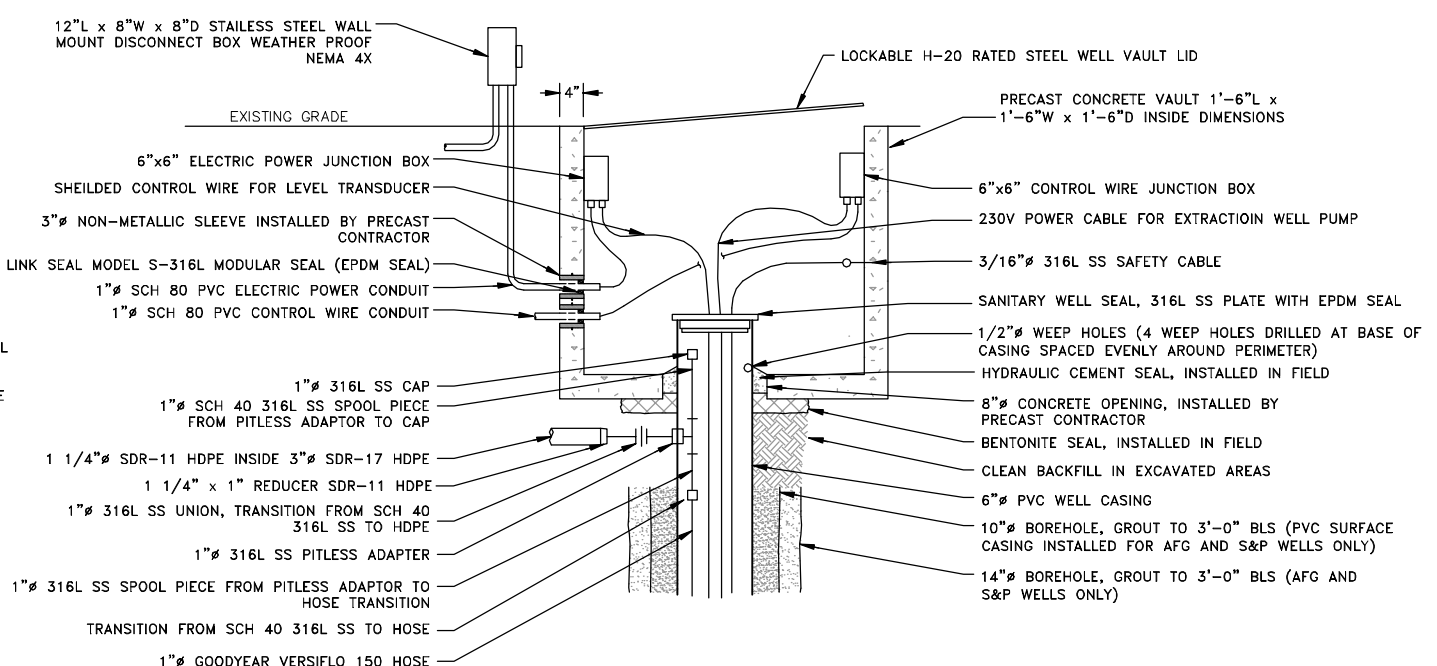
FIGURE
10-8

CITY: TAMPA, FL DIV/GROUP: 85 DE: JAR LD: (Opt) PK: (Rep) TM: (Opt) LY: (Opt) ON: (Off) REF: G:\E\VCAD\Tampa-BACT\10038055001\300002\RAP-2009\B0038055\045-10.dwg LAYOUT: FIG 10-9 SAVED: 7/8/2009 3:04 PM ACADVER: 17.05 (LMS TECH) PAGESETUP: PLOTSETUP: PLOTSTYLETABLE: PLTCONT.CTB PLOTTED: 7/8/2009 3:34 PM BY: RICHARDS, JIM



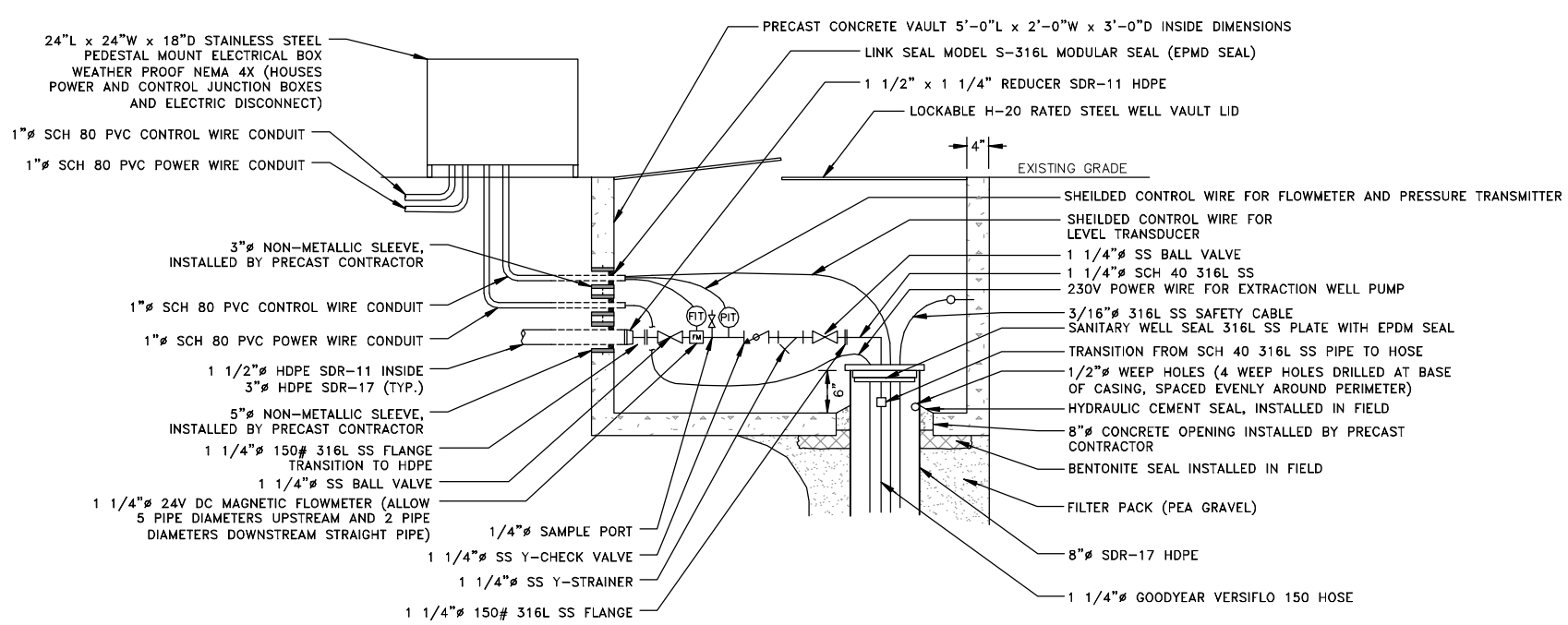
OFF-FACILITY EXTRACTION WELL VAULT DETAIL

NOT TO SCALE



ON-FACILITY EXTRACTION WELL VAULT DETAIL

NOT TO SCALE



OFF-FACILITY EXTRACTION TRENCH WELL VAULT DETAIL

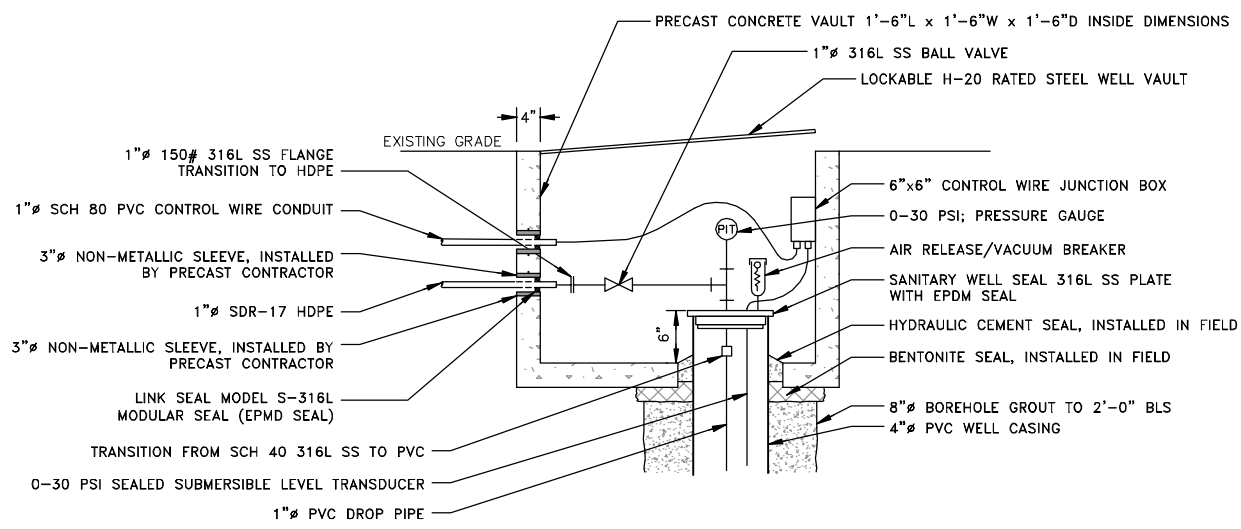
NOT TO SCALE

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

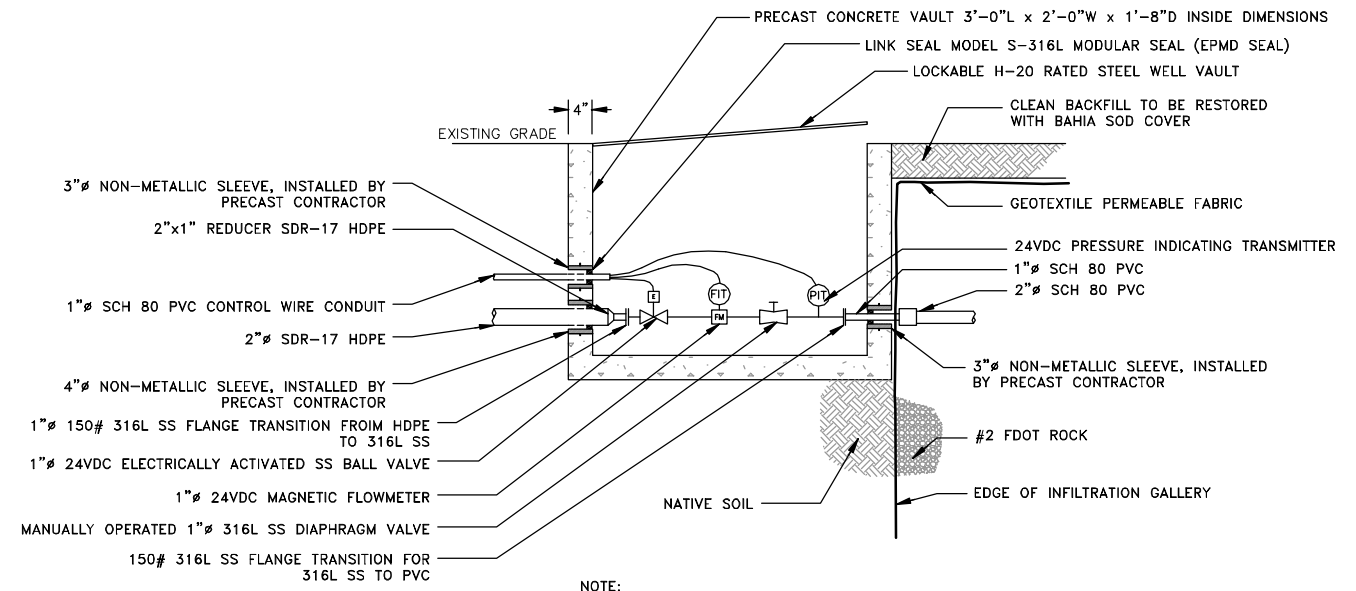
EXTRACTION SYSTEM VAULT DETAILS

FIGURE
10-9

CITY: TAMPA, FL DIV: GROUP 285 DE: JAR LD: (Opt) PK: (Read) TM: (Opt) LY: (Opt) ON: (Off) REF: G:\EN\CAD\TEMP\BACT\100038055\001\300002\RAP\2009\B0038055\1045-10.dwg LAYOUT: FIG 10-10 SAVED: 7/8/2009 2:46 PM ACADVER: 17.05 (LMS TECH) PLOTSETUP: PLTCONTCTB PLOTTED: 7/8/2009 2:46 PM BY: RICHARDS, JIM

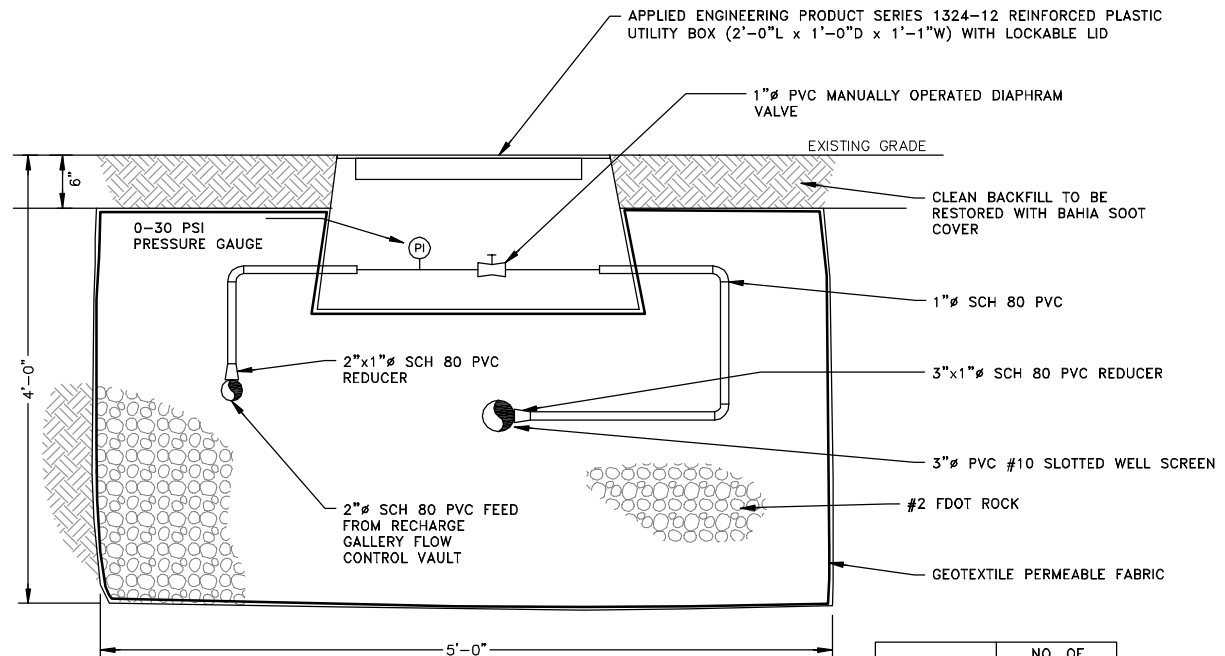


INJECTION WELL VAULT DETAIL
NOT TO SCALE



RECHARGE GALLERY FLOW CONTROL VAULT DETAIL
NOT TO SCALE

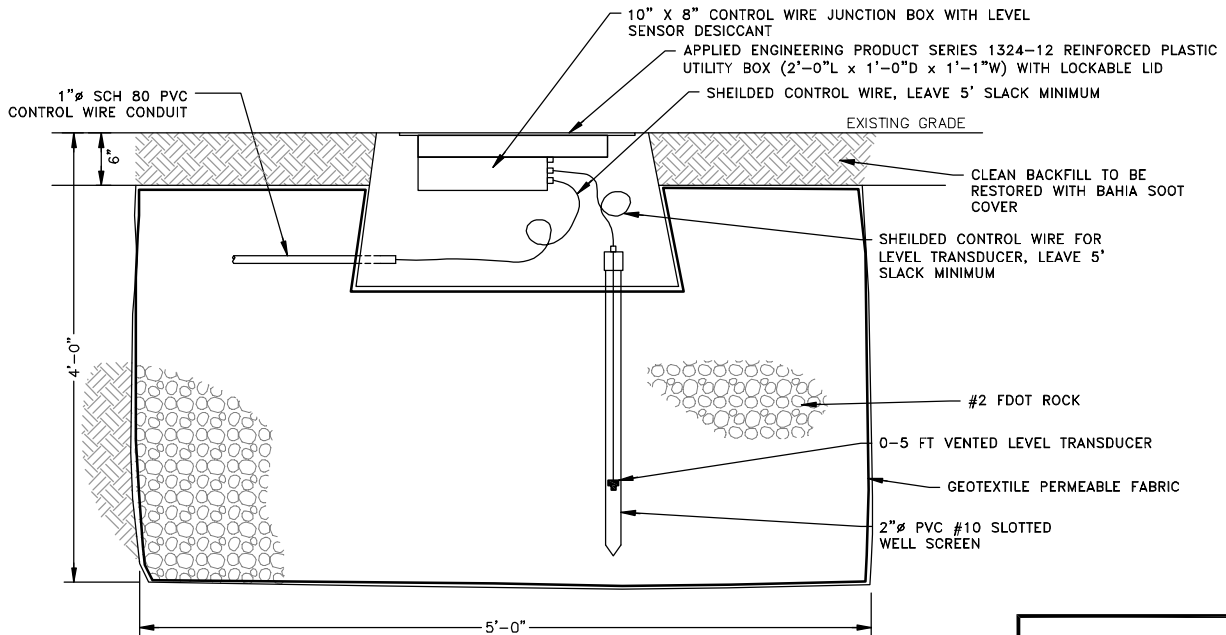
NOTE: EACH RECHARGE GALLERY WILL UTILIZE ONE FLOW CONTROL VAULT



GALLERY	NO. OF VALVE BOXES
RC-7001	3
RC-7002	5
RC-7003	2

RECHARGE GALLERY INJECTION POINT VALVE BOX DETAIL
NOT TO SCALE

NOTE: RECHARGE GALLERY INJECTION POINT VAULT BOXES WILL BE INSTALLED AT APPROXIMATE 100 FT INTERVALS ALONG THE LENGTH OF THE GALLERY.



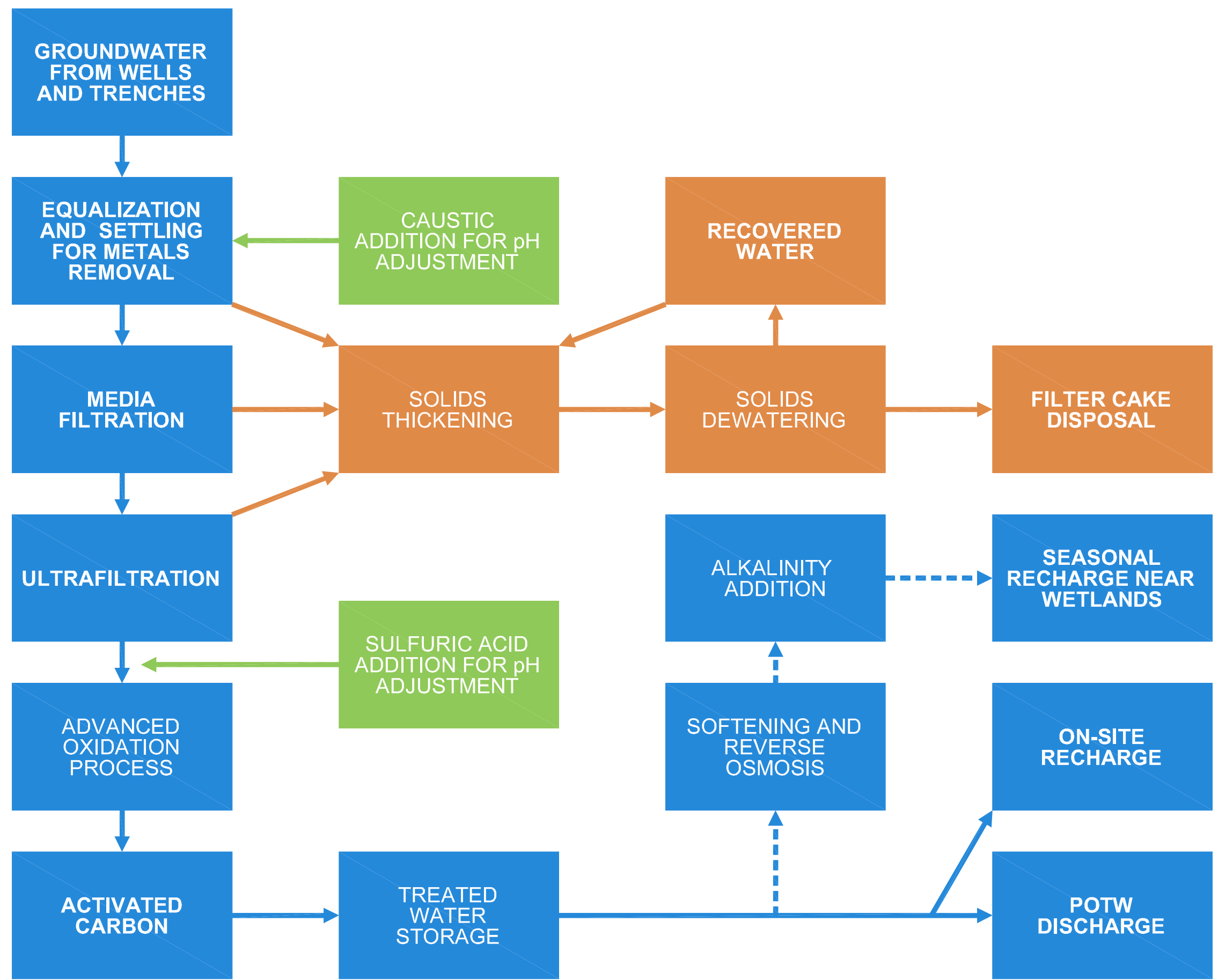
RECHARGE GALLERY PEIZOMETER DETAIL
NOT TO SCALE

NOTE: EACH RECHARGE GALLERY WITH UTILIZE TWO PEIZOMETER VALVE BOXES FOR LEVEL MEASUREMENT IN THE GALLERY.

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

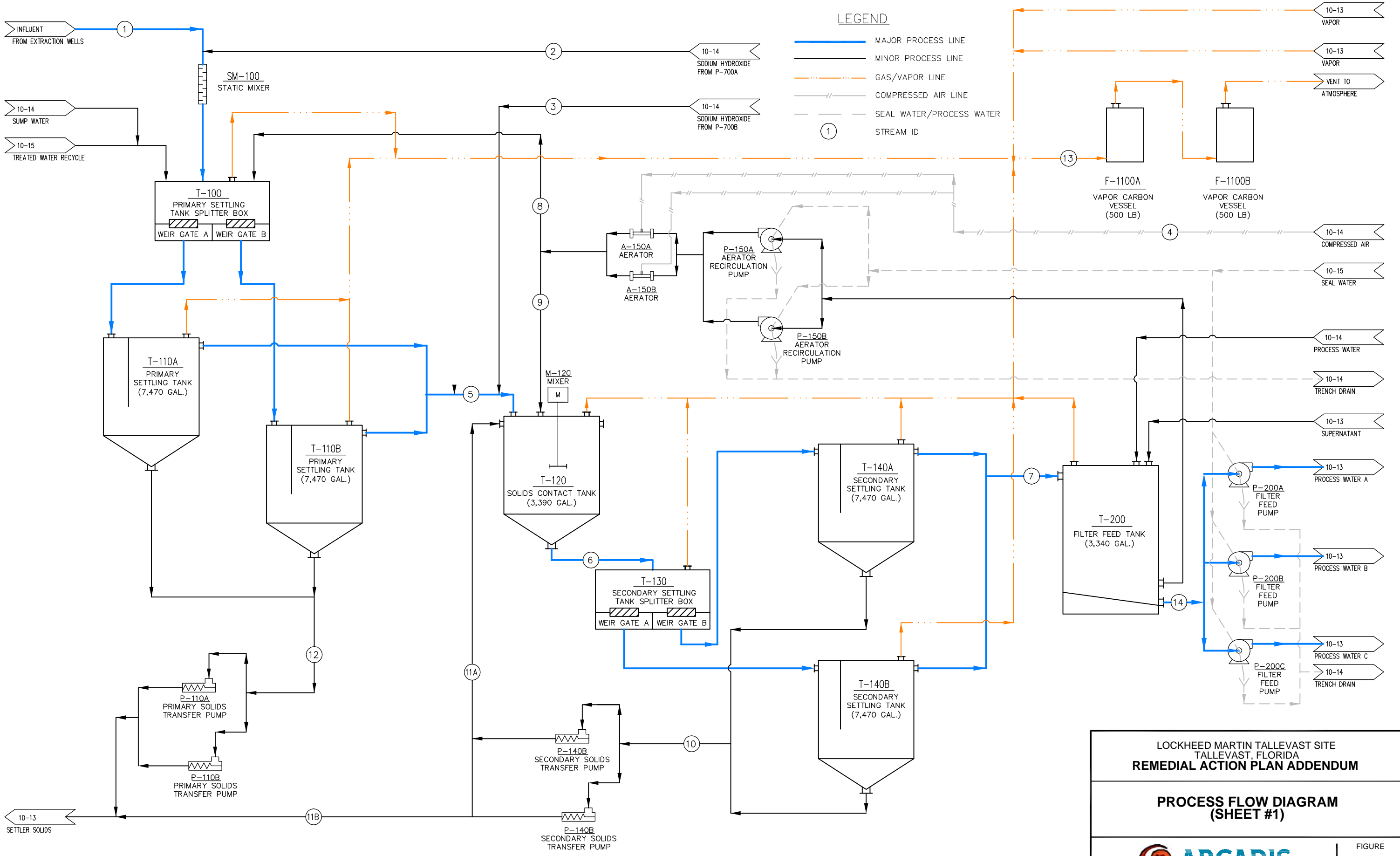
RECHARGE AND INJECTION SYSTEM VAULT DETAILS

CITY: TAMPA, FL DIV: GROUP 285 DB: JAR LD: (Opt) PK: (Read) TM: (Opt) LYS: (Opt) OFF: (REF*) G:\ENVCAD\Tempa-BACT\180038055001300002\RAP 2009\B0038055F10-11.dwg LAYOUT: 10-11 SAVED: 7/22/2009 10:23 AM ACADVER: 17.05 (LMS TECH) PAGES: 17 PLOTSTYLETABLE: PLT: LULLCTB PAGESETUP: --- PLOTSTYLETABLE: PLT: LULLCTB PLOTTED: 7/27/2009 3:09 PM BY: RICHARDS, JIM



LOCKHEED MARTIN TALLEVAST SITE TALLEVAST, FLORIDA REMEDIATION ACTION PLAN ADDENDUM	
TREATMENT PROCESS BLOCK DIAGRAM	
	FIGURE 10-11

CITY: SYRACUSE DIV/GROUP: 141 DB: GMS PM: G. SUAREZ LVR: ON="OFF"=REF G:\project\Lockheed\038055\LMC_Tallevast\add\RAP_Design\RAP_PFD_rev.2.dwg LAYOUT: 10-12 SAVED: 7/7/2009 11:18:AM ACADVER: 17.0S (LMS TECH) PAGES: 11X17 PLOT STYLE TABLE: COLOR.PID.CTB PLOTTED: 7/7/2009 11:23 AM BY: SEPPANEN, MAUA XREFS: IMAGES: PROJECTNAME: ...



LEGEND

- MAJOR PROCESS LINE
- MINOR PROCESS LINE
- - - GAS/VAPOR LINE
- - - COMPRESSED AIR LINE
- - - SEAL WATER/PROCESS WATER
- ① STREAM ID

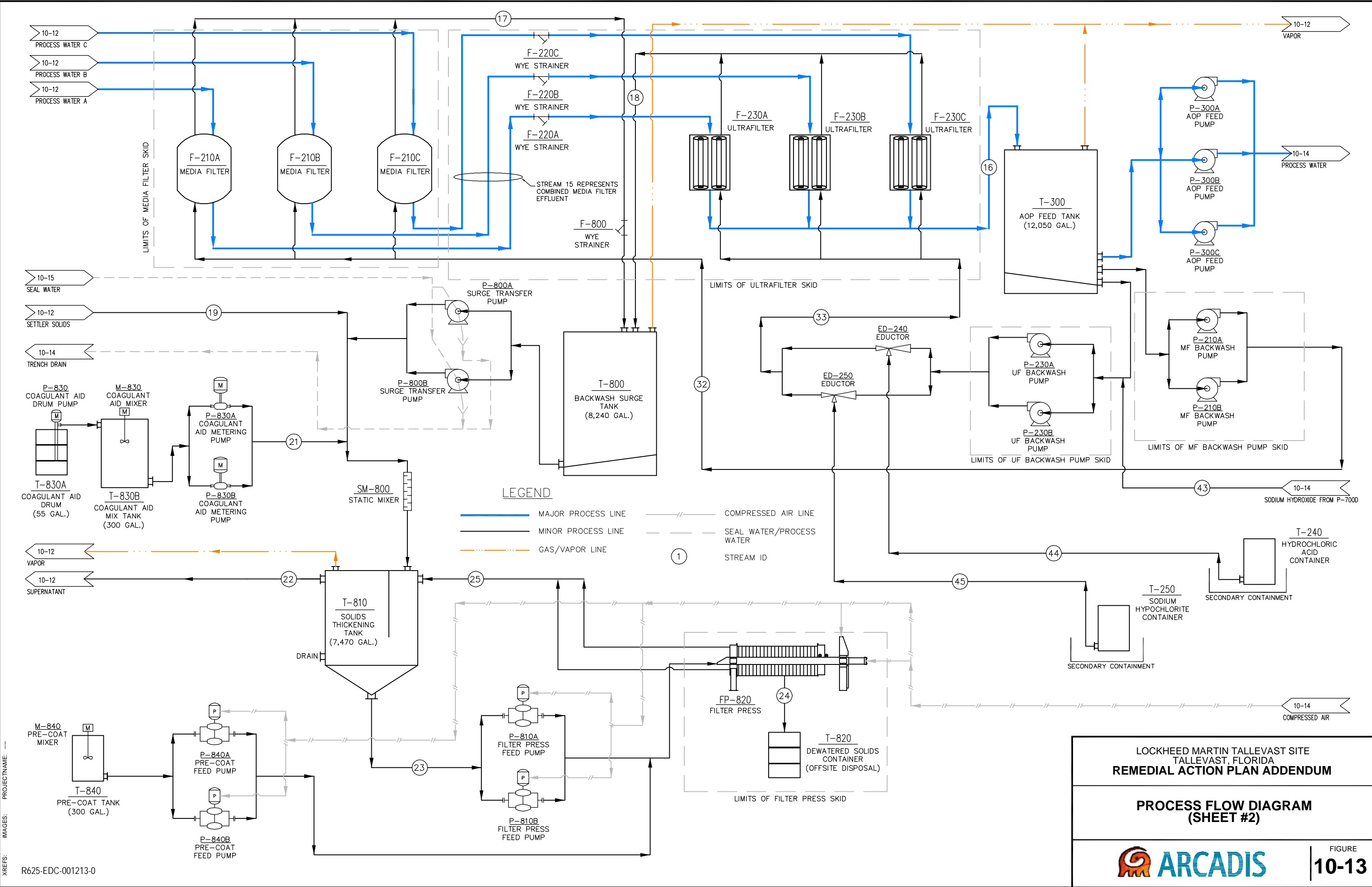
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**PROCESS FLOW DIAGRAM
(SHEET #1)**

ARCADIS

FIGURE
10-12

CITY: SYRACUSE DIV/GROUP: 141 DB: GMS PM: G. SUAREZ LVR: ON="OFF"-REF
 G:\Project\Lockheed\030551\LMC_Tallevast\cad\RAP Design\RAP PFD_rev.2.dwg LAYOUT: 10-13
 XREFS: IMAGES: PROJECTNAME: ...
 R625-EDC-001213-0

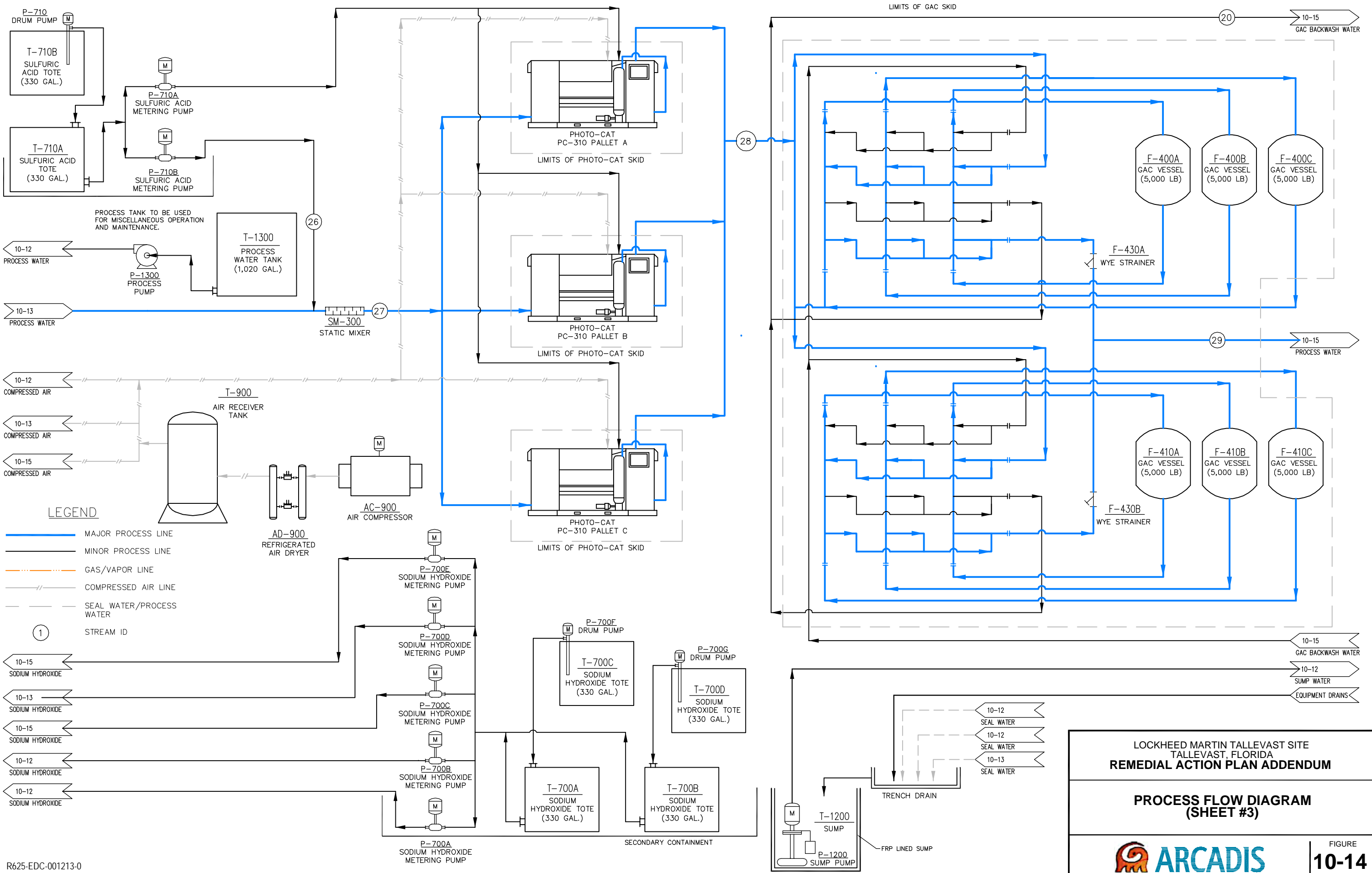


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

PROCESS FLOW DIAGRAM
(SHEET #2)

FIGURE
10-13

CITY: SYRACUSE DIV/GROUP: 141 DB: GMS P/M: G. SUAREZ LVR: ONL=OFF=REF
 G:\Project\Lockheed\030551\LMC_Tallevast\add\RAP Design\RAP PFD_rev 2.dwg LAYOUT: 10-14 SAVED: 7/7/2009 11:18:AM ACADVER: 17.05 (LMS TECH) PAGES: 17 PLOT: 11X17 PLOT STYLE: TABLE: COLOR: PLOT: 11:25 AM BY: SEPPANEN, MAUJA
 PROJECT NAME: ...
 XREFS:



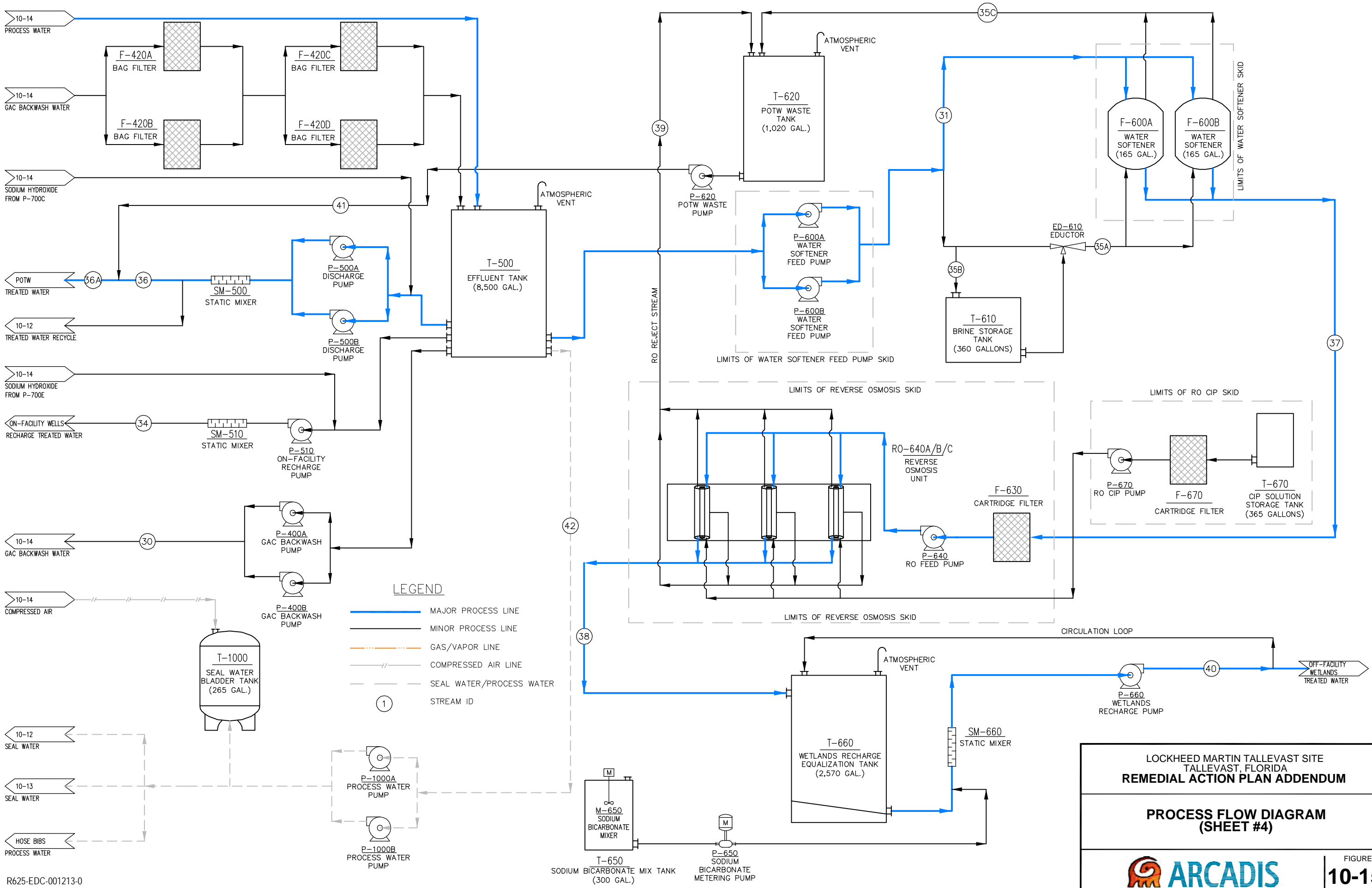
R625-EDC-001213-0

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

PROCESS FLOW DIAGRAM
(SHEET #3)

FIGURE
10-14

CITY: SYRACUSE DIV/GROUP: 141 DB/GMS PM: G. SUAREZ LVR: ON="OFF"=REF
 G:\Project\Lockheed\030551\LMC_Tallevast\add\RAP Design\RAP PFD_rev.2.dwg LAYOUT: 10-15 SAVED: 7/7/2009 11:18:AM ACADVER: 17.05 (LWS TECH) PAGES: 11x17 PLOT STYLE: TABLE: COLOR: PLOT: CTB PLOTTED: 7/7/2009 11:25 AM BY: SEPPANEN, MAUA
 XREFS: IMAGES: PROJECTNAME: ...



R625-EDC-001213-0

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

PROCESS FLOW DIAGRAM
(SHEET #4)

FIGURE
10-15

CITY: SYRACUSE DIV/PROJECT: 141 DB: GMS PM: G. SUAREZ LYN: ONL=OFF=REF G:\projects\lockheed\030551\MC_Tallevast\rap\rap.pfd_rev_2.dwg LAYOUT: 10-16 SAVED: 7/7/2009 3:22 PM ACADVER: 17.05 (LMS TECH) PAGES: 11 X 17 PLOT: PLOTSTYLETABLE: COLOR.PID.CTB PLOTTED: 7/8/2009 1:38 PM BY: SEPPANEN, MAUA

PARAMETERS	UNITS	1	2	3	4	5	6	7	8	9	10	11A	11B	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		INFLUENT	SODIUM HYDROXIDE TO T-100	SODIUM HYDROXIDE TO T-120	SPARGE AIR	T-110A/B EFFLUENT (5)	T-120 EFFLUENT	T-140A/B EFFLUENT (7)	RE-CIRCULATED AIR TO T-100	RE-CIRCULATED AIR TO T-120	T-140A/B BOTTOM	T-120 SOLIDS RECYCLE	WASTE SOLIDS FROM T-140A/B	T-110A/B BOTTOM	TANK VAPORS	MF INFLUENT	MF EFFLUENT (8)	UF EFFLUENT	MF BACKWASH SOLIDS	UF BACKWASH SOLIDS	CLARIFIER SOLIDS	GAC BACKWASH SOLIDS	COAGULANT AID	SUPERNATANT	FILTER PRESS FEED	DEWATERED SOLIDS	FILTER PRESS RETURN
PLANT IS DESIGNED FOR 100-300 GPM																											
FLOW RATE (LIQUID)	GPM	201.5 (1)	0.012 (2)	0.033 (3)	---	207	231	223	10	20	8.5	4.5	4.6	---	226	226	226	5.0 (15)	20.0 (16)	8.6	5.8 (32)	---	32.8	0.9	---	0.6	
FLOW RATE (LIQUID INSTANTANEOUS)	GPM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	400	400	---	---	---	---	---	---	---	
FLOW RATE (AIR)	CFM	---	---	---	10 (4)	---	---	---	---	---	---	---	---	10	---	---	---	---	---	---	---	---	---	---	---	---	
POLYMER DOSAGE	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	(36)	---	---	---	---	
GENERAL WATER QUALITY PARAMETERS (1)																											
pH	SU	6.5	---	---	---	7.0	8.5	8.5	8.5	8.5	8.5	8.5	8.5	7.0	---	8.5	8.5	8.5	8.5	8.5	8.5	8.5	---	8.5	8.5	8.5	8.5
TEMPERATURE	F	80	---	---	---	81	81	81	82	81	81	81	81	81	---	82	82	82	82	82	82	81	---	82	82	83	83
ENERGY	BTU/hr	8,066,448	---	---	---	8,385,343	9,378,387	9,033,861	410,328	810,648	344,525	182,396	162,130	187,260	---	9,258,564	9,258,564	9,258,564	205,164	820,656	353,703	236,439	---	1,344,158	35,365	---	24,920
DISSOLVED OXYGEN	mg/L	0.5	---	---	---	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	---	6.0	6.0	6.0	6.0	6.0	6.0	6.0	---	6.0	6.0	6.0	6.0	
IRON																											
CONCENTRATION	mg/L	10	---	---	---	10.1	17.9 (6)	1.8	1.8	1.8	451	451	451	0	---	1.83	0.27	0.01	1.56	0.27	209	0.00	---	1.00	2,107	5,266	1.00
MASS LOADING	lb/day	24.2	---	---	---	25.1	49.9	4.9	0.2	0.4	46.0	24.4	21.6	0	---	4.96	0.74	0.02	0.09	0.06	21.6	0.00	---	0.39	21.80	54.5	---
ALUMINUM																											
CONCENTRATION	mg/L	0.180	---	---	---	0.027	0.027	0.004	0.004	0.004	0.023	0.023	0.023	7.600	---	0.004	0.001	0.000	0.003	0.001	4.084	0.000	---	0.000	40.9	102	0.000
MASS LOADING	lb/day	0.436	---	---	---	0.067	0.069	0.011	0.000	0.001	0.002	0.001	0.001	0.422	---	0.011	0.002	0.000	0.000	0.000	0.423	0.000	---	0.000	0.423	1.058	---
TOTAL SUSPENDED SOLIDS																											
CONCENTRATION	mg/L	8.00	---	---	---	100	166	16.6	16.6	16.6	4,500	4,500	4,500	5,000	---	16.6	4.20	0.12	12.5	4.0	4,768	0.00	---	30	47,853	119,631	30
MASS LOADING	lb/day	19.4	---	---	---	248	496	44.4	1.99	3.99	459	243	216	277	---	45.0	11.2	0.34	0.75	0.97	494	0.00	---	11.80	495	1,238	---
HARDNESS (Ca AND Mg)																											
CONCENTRATION (as CaCO3)	mg/L	305	---	---	---	305	305	305	305	305	305	---	---	---	---	305	305	305	---	---	---	305	---	---	---	---	---
MASS LOADING	lb/day	737	---	---	---	757	846	815	36.6	73.1	31.1	---	---	---	---	825	825	825	---	---	---	21.3	---	---	---	---	---
SODIUM																											
CONCENTRATION	mg/L	34.3	---	---	---	34.3	34.3	34.3	34.3	34.3	34.3	---	---	---	---	34.3	34.3	34.3	---	---	---	34.3	---	---	---	---	---
MASS LOADING	lb/day	83	---	---	---	85.2	95.3	91.8	4.12	8.24	3.50	---	---	---	---	92.9	92.9	92.9	---	---	---	83	---	---	---	---	---
CHLORIDE																											
CONCENTRATION	mg/L	58.9	---	---	---	58.9	58.9	58.9	58.9	58.9	58.9	---	---	---	---	58.9	58.9	58.9	---	---	---	58.9	---	---	---	---	---
MASS LOADING	lb/day	143	---	---	---	146	164	158	7.07	14.1	6.01	---	---	---	---	160	160	160	---	---	---	4.10	---	---	---	---	---
TOTAL METALS CONCENTRATIONS (1)																											
ARSENIC	ug/L	2.84	---	---	---	2.84	2.84	2.84	2.84	2.84	2.84	---	---	---	---	2.84	2.84	0.09	---	2.75	---	---	---	0.03	2.7	6.8	0.03
BERYLLIUM	ug/L	0.07	---	---	---	0.07	0.07	0.07	0.07	0.07	0.07	---	---	---	---	0.07	0.07	0.07	---	0.07	---	---	---	0.001	0.1	0.2	0.001
CADMIUM	ug/L	0.13	---	---	---	0.13	0.13	0.13	0.13	0.13	0.13	---	---	---	---	0.13	0.13	0.13	---	0.13	---	---	---	0.001	0.1	0.3	0.001
CALCIUM	ug/L	72,186	---	---	---	72,186	72,186	72,186	72,186	72,186	72,186	---	---	---	---	72,186	72,186	57,749 (10)	---	70,020	---	---	---	700	69,320	173,301	700
CHROMIUM	ug/L	0.87	---	---	---	0.87	0.87	0.87	0.87	0.87	0.87	---	---	---	---	0.87	0.87	0.66 (11)	---	0.84	---	---	---	0.01	0.8	2.1	0.01
COPPER	ug/L	2.04	---	---	---	2.04	2.04	2.04	2.04	2.04	2.04	---	---	---	---	2.04	2.04	2.04	---	1.98	---	---	---	0.02	2.0	4.9	0.02
LEAD	ug/L	0.15	---	---	---	0.15	0.15	0.15	0.15	0.15	0.15	---	---	---	---	0.15	0.15	0.15	---	0.15	---	---	---	0.0010	0.1	0	0.001
MAGNESIUM	ug/L	30,250	---	---	---	30,250	30,250	30,250	30,250	30,250	30,250	---	---	---	---	30,250	30,250	25,713 (12)	---	29,343	---	---	---	293	29,049	72,623	293
MANGANESE	ug/L	42.5	---	---	---	42.5	42.5	42.5	42.5	42.5	42.5	---	---	---	---	42.5	42.5	9.78 (13)	---	41.23	---	---	---	0.41	40.8	102	0.41
NICKEL	ug/L	1.73	---	---	---	1.73	1.73	1.73	1.73	1.73	1.73	---	---	---	---	1.73	1.73	0.73 (14)	---	1.68	---	---	---	0.02	1.7	4.2	0.02
SELENIUM	ug/L	0.61	---	---	---	0.61	0.61	0.61	0.61	0.61	0.61	---	---	---	---	0.61	0.61	0.61	---	0.59	---	---	---	0.01	0.6	1.5	0.01
THALLIUM	ug/L	0.70	---	---	---	0.70	0.70	0.70	0.70	0.70	0.70	---	---	---	---	0.70	0.70	0.70	---	0.68	---	---	---	0.01	0.7	1.7	0.01
ZINC	ug/L	9.79	---	---	---	9.79	9.79	9.79	9.79	9.79	9.79	---	---	---	---	9.79	9.79	9.79	---	9.50	---	---	---	0.09	9.4	24	0.09
GENERAL ORGANICS (1)																											
1,4-DIOXANE	ug/L	138	---	---	---	138	138	138	138	138	138	---	---	---	---	138	138	138	---	---	---	---	---	---	---	---	---
TRICHLOROETHENE (TCE)	ug/L	629	---	---	---	629	629	629	629	629	629	---	---	---	---	629	629	629	---	---	---	---	---	---	---	---	---
TETRACHLOROETHENE (PCE)	ug/L	43.1	---	---	---	43.1	43.1	43.1	43.1	43.1	43.1	---	---	---	---	43.1	43.1	43.1	---	---	---	---	---	---	---	---	---
CIS-1,2-DICHLOROETHENE	ug/L	30.6	---	---	---	30.6	30.6	30.6	30.6	30.6	30.6	---	---	---	---	30.6	30.6	30.6	---	---	---	---	---	---	---	---	---
1,1-DICHLOROETHENE	ug/L	86.5	---	---	---	86.5	86.5	86.5	86.5	86.5	86.5	---	---	---	---	86.5	86.5	86.5	---	---	---	---	---	---	---	---	---
1,1-DICHLOROETHANE	ug/L	39.2	---	---	---	39.2	39.2	39.2	39.2	39.2	39.2	---	---	---	---	39.2	39.2	39.2	---	---	---	---	---	---	---	---	---

(1) BASED ON GROUNDWATER CAPTURE ANALYSIS AND GROUNDWATER RECOVERY WELL DATA AS OF 5/12/09.
 (2) ESTIMATED 0.06 mL NaOH (50%) PER LITER TREATED WATER TO INCREASE pH FROM 6.5 TO 7, BASED ON MODELING RESULTS.
 (3) ESTIMATED 0.16 mL NaOH (50%) PER LITER TREATED WATER TO INCREASE pH FROM 7 TO 8.5, BASED ON MODELING RESULTS.
 (4) USED "AIR SPARGE" WORKSHEET TO CALCULATE REQUIRED AIR TO CONVERT FERROUS TO FERRIC IRON, ASSUMED 2% TRANSFER EFFICIENCY AND 50% SAFETY FACTOR.
 (5) ASSUMED 85% REMOVAL OF ALUMINUM AND 50% REMOVAL OF TSS. ASSUMED THAT IRON AND OTHER METALS PASS THROUGH DUE TO LOWER pH.
 (6) IRON CONCENTRATION = T-100 EFFLUENT + T-300 A/B RECYCLE
 (7) ASSUMED 85% REMOVAL OF IRON AND ALUMINUM AND 75% REMOVAL OF TSS. ASSUMED OTHER METALS PASS THROUGH.
 (8) ASSUMED 85% REMOVAL OF IRON AND ALUMINUM AND 25% REMOVAL OF TSS. ASSUMED OTHER METALS PASS THROUGH.
 (9) ASSUMED 97% REMOVAL OF ARSENIC, IRON, ALUMINUM AND TSS.
 (10) ASSUMED 20% REMOVAL OF CALCIUM, BASED ON APRIL 2009 BENCH TESTING.
 (11) ASSUMED 24% REMOVAL OF CHROMIUM, BASED ON APRIL 2009 BENCH TESTING.
 (12) ASSUMED 15% REMOVAL OF MAGNESIUM, BASED ON APRIL 2009 BENCH TESTING.
 (13) ASSUMED 87% REMOVAL OF MANGANESE, BASED ON APRIL 2009 BENCH TESTING.
 (14) ASSUMED 58% REMOVAL OF NICKEL, BASED ON APRIL 2009 BENCH TESTING.
 (15) BASED ON 2 FILTER BEDS, EACH BACKWASHED ONCE PER DAY, 54 INCH DIAMETER BED, 25 GPM/FT² BED = 400 GPM * 9 MINUTE BACKWASH = 7,200 GPD BACKWASH WATER REQUIRED, ON AVERAGE = 5.0 GPM
 (16) BASED ON 3 ULTRAFILTERS, EACH BACKWASHED ONCE PER HOUR WITH 400 GALLONS PER BACKWASH. TOTAL VOLUME = 28,800 GALLONS/DAY; ON AVERAGE = 20.0 GPM.
 (17) ESTIMATED 0.0095 mL OF SULFURIC ACID (98%) PER LITER OF TREATED WATER TO DECREASE pH FROM 8.5 TO 7, BASED ON MODELING RESULTS.
 (18) ASSUMED CALCIUM AND MAGNESIUM ARE REMOVED FROM SOFTENING PROCESS.
 (19) APPROXIMATELY 222 lb/day OF SODIUM IS ADDED TO PRODUCE BRINE FOR SOFTENER REGENERANT.
 (20) APPROXIMATELY 222 lb/day OF CHLORIDE IS ADDED TO PRODUCE BRINE FOR SOFTENER REGENERANT.
 R625-EDC-001213-0

(21) ASSUMED 100% OF SODIUM ADDED IN BRINE SOLUTION IS EXCHANGED BACK ONTO THE RESIN BED DURING SOFTENING REGENERATION PROCESS.
 (22) ASSUMED 100% OF CHLORIDE IN BRINE SOLUTION PASSES THROUGH THE WATER SOFTENER.
 (23) ASSUMED 100% HARDNESS IS REMOVED IN WATER SOFTENING PROCESS.
 (24) ASSUMED 98% REMOVAL OF ALL METALS, SODIUM, CHLORIDE, AND TSS IN THE RO SYSTEM. VOCs WILL NOT BE REJECTED BY THE RO SYSTEM.
 (25) SECONDARY DRINKING WATER STANDARD.
 (26) pH SHALL NOT VARY MORE THAN ONE UNIT ABOVE OR BELOW THE NATURAL BACKGROUND OF PREDOMINANTLY FRESH WATERS AND COASTAL WATERS AS DEFINED IN SECTION 62-302.520(3)(b). F.A.C., OR MORE THAN TWO-TENTHS UNIT ABOVE OR BELOW NATURAL BACKGROUND OF OPEN WATERS AS DEFINED IN SECTION 62-302.520(3)(f), F.A.C., PROVIDED THAT THE pH IS NOT LOWERED TO LESS THAN 6 UNITS IN PREDOMINANTLY FRESH WATERS, OR LESS THAN 6.5 UNITS IN PREDOMINANTLY MARINE WATERS, OR RAISED ABOVE 8.5 UNITS.
 (27) Cd < e^{-0.782}[H] - 3.49, WHERE H=HARDNESS AND IS DESIGNATED AS 110 mg/L AS CaCO3 WHICH IS THE HARDNESS VALUE FOR MW-40, THE LOWEST OF ALL USAS WELLS.
 (28) Cu < e^{-0.8545}[H] - 1.702, WHERE H=HARDNESS AND IS DESIGNATED AS 110 mg/L AS CaCO3 WHICH IS THE HARDNESS VALUE FOR MW-40, THE LOWEST OF ALL USAS WELLS.
 (29) Pb < e^{-1.273}[H] - 4.705, WHERE H=HARDNESS AND IS DESIGNATED AS 110 mg/L AS CaCO3 WHICH IS THE HARDNESS VALUE FOR MW-40, THE LOWEST OF ALL USAS WELLS.
 (30) Ni < e^{-0.846}[H] + 0.0584, WHERE H=HARDNESS AND IS DESIGNATED AS 110 mg/L AS CaCO3 WHICH IS THE HARDNESS VALUE FOR MW-40, THE LOWEST OF ALL USAS WELLS.
 (31) Zn < e^{-0.847}[H] + 0.884, WHERE H=HARDNESS AND IS DESIGNATED AS 110 mg/L AS CaCO3 WHICH IS THE HARDNESS VALUE FOR MW-40, THE LOWEST OF ALL USAS WELLS.
 (32) BASED ON 2 GAC BEDS, EACH BACKWASHED ONCE PER CHANGE-OUT, 72 INCH DIAMETER BED, 10 GPM/FT² BED = 280 GPM * 15 MINUTE BACKWASH = 8,400 GPD BACKWASH WATER REQUIRED, ON AVERAGE = 5.8 GPM.
 (33) CHEMICAL ENHANCED BACKWASH BASED ON 200 ppm OF 50% SODIUM HYDROXIDE. THIS EQUALS 0.06 GALLONS PER CYCLE, 65 SECOND CYCLE PER DAY = 0.065 GPM.
 (34) CHEMICAL ENHANCED BACKWASH BASED ON 200 ppm OF 38% HYDROCHLORIC ACID. THIS EQUALS 0.079 GALLONS PER CYCLE, 65 SECOND CYCLE PER DAY = 0.086 GPM.
 (35) CHEMICAL ENHANCED BACKWASH BASED ON 200 ppm OF 12.5% SODIUM HYPOCHLORITE. THIS EQUALS 0.24 GALLONS PER CYCLE, 65 SECOND CYCLE PER DAY = 0.26 GPM.

**LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM**

**MASS BALANCE
 (SHEET #1)**


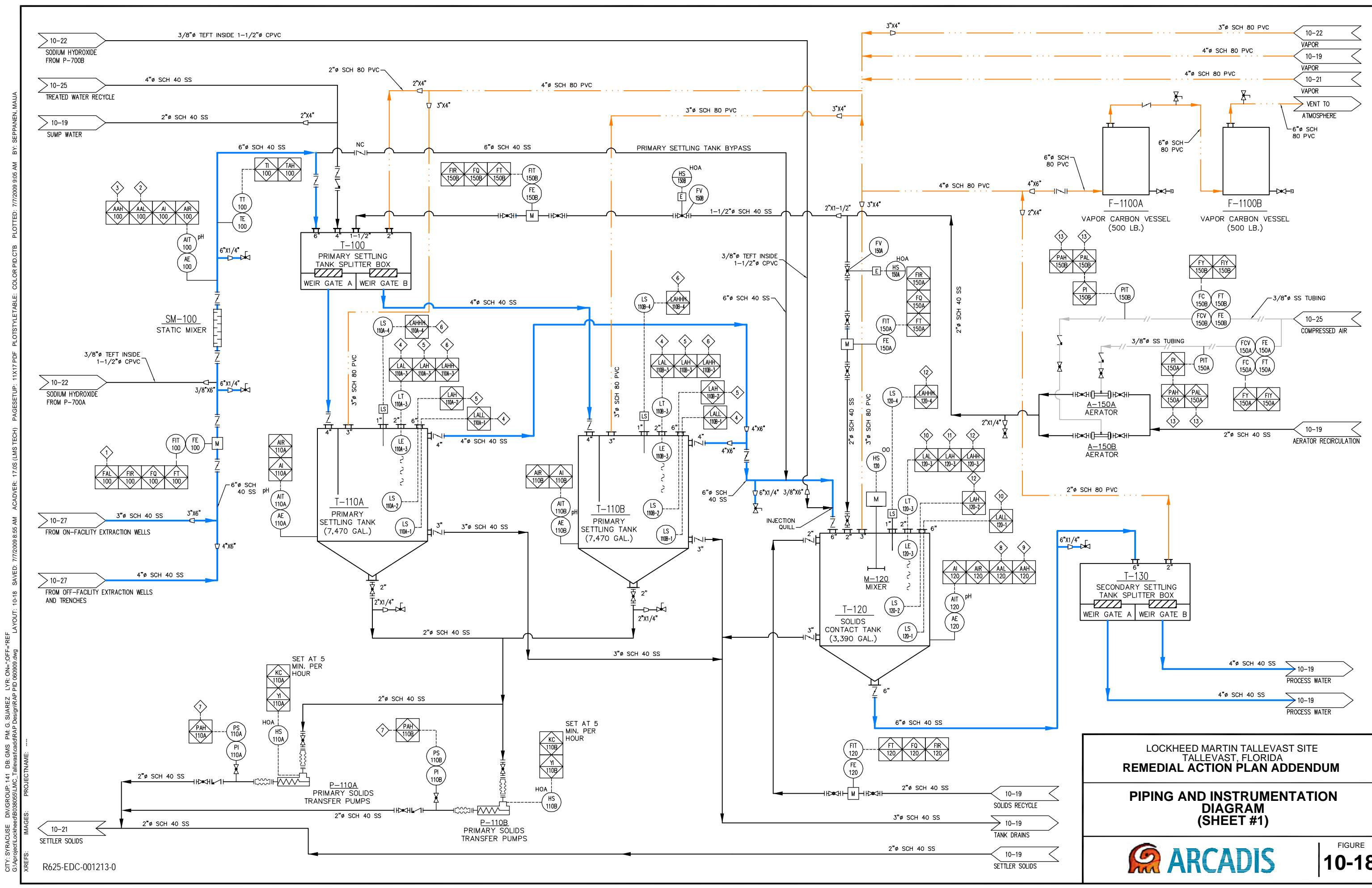


FIGURE
10-16

CITY: SYRACUSE DIV/GRP: 141 DB: GMS PM: G. SUAREZ LVR: ONL=OFF=REF LAYOUT: 10-17 SAVED: 7/7/2009 3:22 PM ACADVER: 17.05 (LMS TECH) PAGESETUP: 11X17.PDF PLOTSTYLETABLE: COLOR.PID.CTB PLOTTED: 7/8/2009 1:38 PM BY: SEPPANEN, MAUA
 G:\projects\lockheed\030905\LMC_Tallevast\rap\rap_PFD_rev_2.dwg PROJECTNAME: REMEDIATION OF LOCKHEED MARTIN TALLEVAST SITE
 XREFS: IMAGES:

PARAMETERS	UNITS	26	27	28	29	30	31	32	33	34	35A	35B	35C	36	36A	37	38	39	40	41	42	43	44	45	INDUSTRIAL DISCHARGE PERMIT STANDARDS	GROUNDWATER STANDARDS	CLASS III SURFACE WATER STANDARDS			
		SULFURIC ACID	AOP INFLUENT	AOP EFFLUENT	GAC EFFLUENT	GAC BACKWASH WATER	RO SYSTEM FEED	MF BACKWASH WATER	UF BACKWASH WATER	ON-FACILITY INJECTION	SOFTENER REGENERATION FEED	SOFTENER BRINE FEED	REGENERANT TO PTOW	POTW DISCHARGE	TOTAL POTW DISCHARGE	WATER SOFTENER EFFLUENT	RO EFFLUENT (24)	RO REJECT	WETLAND RECHARGE	P-620 POTW WASTE	PROCESS WATER	SODIUM HYDROXIDE	HYDROCHLORIC ACID	SODIUM HYPOCHLORITE						
PLANT IS DESIGNED FOR 100-300 GPM																														
FLOW RATE (LIQUID)	GPM	0.002 (17)	201	201	201	5.8	100	5.0	20.0	10	20	20	20	66	111	100	75	25	75	45	5	0.065 (33)	0.086 (34)	0.26 (35)	---	---	---			
FLOW RATE (LIQUID INSTANTANEOUS)	GPM	---	---	---	---	280	---	240	400	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
FLOW RATE (AIR)	CFM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
POLYMER DOSAGE	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
GENERAL WATER QUALITY PARAMETERS (1)																														
pH	SU	---	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	---	---	---	---	5 - 11.5	6.5 - 8.5	(26)			
TEMPERATURE	F	---	82	97	96	96	96	82	82	95	96	96	96	95	95	95	95	95	95	95	---	---	---	---	---	---	---			
ENERGY		---	8,232,744	9,738,734	9,638,335	280,224	4,803,840	205,164	820,656	475,380	960,768	960,768	960,768	3,120,305	5,259,515	4,753,800	3,565,350	1,188,450	3,565,350	2,139,210	---	---	---	---	---	---	---			
DISSOLVED OXYGEN	mg/L	---	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	---	---	---	---	---	---	---			
IRON																														
CONCENTRATION	mg/L	---	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.02	---	---	---	---	---	0.3 (25)	1.0			
MASS LOADING	lb/day	---	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.01	---	---	---	---	---	---	---			
ALUMINUM																														
CONCENTRATION	mg/L	---	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	---	---	---	---	0.200	0.200 (25)	0.013			
MASS LOADING	lb/day	---	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	---	---	---	---	---	---	---			
TOTAL SUSPENDED SOLIDS																														
CONCENTRATION	mg/L	---	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.17	0.12	0.001	0.12	0.00	0.25	---	---	---	---	---	---	---			
MASS LOADING	lb/day	---	0.30	0.30	0.30	0.01	0.15	0.01	0.03	0.01	0.03	0.03	0.03	0.10	0.23	0.15	0.000	0.04	0.00	0.13	---	---	---	---	---	---	---			
HARDNESS (Ca AND Mg)																														
CONCENTRATION (as CaCO3)	mg/L	---	305	305	305	305	305	305	305	305	305	305	305	305	305	0 (23)	0	0	0	305	---	---	---	---	---	---	---			
MASS LOADING	lb/day	---	734	734	734	21.3	366	18.3	73.1	36.6	73.1	73.1	73.1	240	405	0	0	0	165	---	---	---	---	---	---	---	---			
SODIUM																														
CONCENTRATION	mg/L	---	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	326	192	5.11	752	5.11	752	---	---	---	---	---	---	160	---			
MASS LOADING	lb/day	---	82.6	82.6	82.6	2.40	41.2	2.06	8.24	4.12	8.24	230 (19)	0	27.0	433	230	4.60	226	4.60	226	---	---	---	---	---	---	---			
CHLORIDE																														
CONCENTRATION	mg/L	---	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	58.9	983	924	58.9	254	58.9	1.57	231	1.57	539	---	---	---	0.25	---			
MASS LOADING	lb/day	---	142	142	142	4.13	70.7	3.54	14.1	7.07	14.1	236 (20)	222 (22)	46.4	338	70.7	1.41	69.3	1.41	291	---	---	---	---	---	---	---			
TOTAL METALS CONCENTRATIONS (1)																														
ARSENIC	ug/L	---	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	---	0.09	0.05	0.09	0.002	0.33	0.002	0.002	---	---	---	---	2,510	10	50		
BERYLLIUM	ug/L	---	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	---	0.07	0.04	0.07	0.001	0.27	0.001	0.001	---	---	---	---	4	4	0.13 AVG		
CADMIUM	ug/L	---	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	---	0.13	0.13	0.13	0.003	0.51	0.003	0.510	---	---	---	---	730	5	1.2 (27)		
CALCIUM	ug/L	---	57,749	57,749	57,749	57,749	57,749	57,749	57,749	57,749	57,749	57,749	57,749	57,749	57,749	0 (18)	0	0	0	57,749	---	---	---	---	---	---	---	---		
CHROMIUM	ug/L	---	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	---	0.66	0.40	0.66	0.013	2.59	0.013	0.013	---	---	---	---	9,900	100	11		
COPPER	ug/L	---	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	---	2.04	1.23	2.04	0.041	8.00	0.041	0.041	---	---	---	---	28,480	1,000 (25)	10.12 (28)		
LEAD	ug/L	---	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	---	0.15	0.09	0.15	0.003	0.59	0.003	0.003	---	---	---	---	1,870	15	3.59 (29)		
MAGNESIUM	ug/L	---	25,713	25,713	25,713	25,713	25,713	25,713	25,713	25,713	25,713	25,713	25,713	25,713	25,713	0 (18)	0	0	0	25,713	---	---	---	---	---	---	---	---		
MANGANESE	ug/L	---	9.78	9.78	9.78	9.78	9.78	9.78	9.78	9.78	9.78	9.78	9.78	---	9.78	5.88	9.78	0.196	38.32	0.196	0.196	---	---	---	---	---	50	---		
NICKEL	ug/L	---	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	---	0.73	0.44	0.73	0.015	2.85	0.015	0.015	---	---	---	---	11,080	100	56.54 (30)		
SELENIUM	ug/L	---	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	---	0.61	0.37	0.61	0.012	2.39	0.012	0.012	---	---	---	---	---	50	5		
THALLIUM	ug/L	---	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	---	0.70	0.42	0.70	0.014	2.74	0.014	0.014	---	---	---	---	2	7	6.3		
ZINC	ug/L	---	9.79	9.79	9.79	9.79	9.79	9.79	9.79	9.79	9.79	9.79	9.79	---	9.79	5.89	9.79	0.196	38.38	0.196	0.196	---	---	---	---	4,780	5,000 (25)	129.89 (31)		
GENERAL ORGANICS (1)																														
1,4-DIOXANE	ug/L	---	138	<3.2	<3.2	<3.2	<3.2	<3.2	<3.2	<3.2	<3.2	<3.2	<3.2	---	<3.2	<3.2	<3.2	<3.2	<3.2	<3.2	<3.2	---	---	---	---	---	---	REPORT	3.2	120
TRICHLOROETHENE (TCE)	ug/L	---	629	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	---	<3	<3	<3	<3	<3	<3	<3	---	---	---	---	---	---	---	---	---
TETRACHLOROETHENE (PCE)	ug/L	---	43.1	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	---	<3	<3	<3	<3	<3	<3	<3	---	---	---	---	---	---	---	---	---
CIS-1,2-DICHLOROETHENE	ug/L	---	30.6	<70	<70	<70	<70	<70	<70	<70	<70	<70	<70	---	<70	<70	<70	<70	<70	<70	<70	---	---	---	---	---	---	---	---	---
1,1-DICHLOROETHENE	ug/L	---	86.5	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	---	<7	<7	<7	<7	<7	<7	<7	---	---	---	---	---	---	---	---	---
1,1-DICHLOROETHANE	ug/L	---	39.2	<70	<70	<70	<70	<70	<70	<70	<70	<70	<70	---	<70	<70	<70	<70	<70	<70	<70	---	---	---	---	---	---	---	---	---

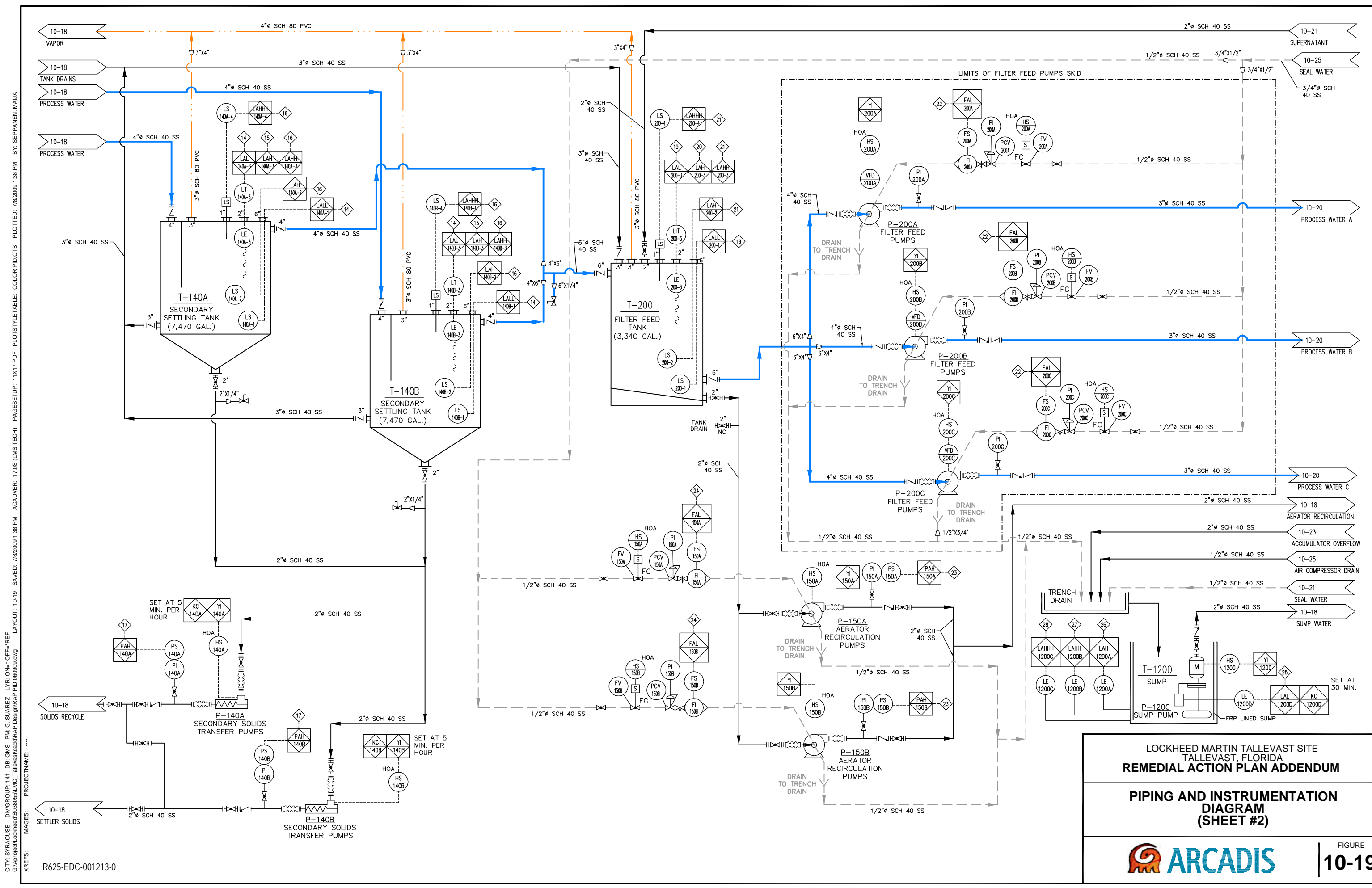
(1) BASED ON GROUNDWATER CAPTURE ANALYSIS AND GROUNDWATER RECOVERY WELL DATA AS OF 5/12/09.
 (2) ESTIMATED 0.06 mL NaOH (50%) PER LITER TREATED WATER TO INCREASE pH FROM 6.5 TO 7, BASED ON MODELING RESULTS.
 (3) ESTIMATED 0.16 mL NaOH (50%) PER LITER TREATED WATER TO INCREASE pH FROM 7 TO 8.5, BASED ON MODELING RESULTS.
 (4) USED "AIR SPARGE" WORKSHEET TO CALCULATE REQUIRED AIR TO CONVERT FERROUS TO FERRIC IRON, ASSUMED 2% TRANSFER EFFICIENCY AND 50% SAFETY FACTOR.
 (5) ASSUMED 85% REMOVAL OF ALUMINUM AND 50% REMOVAL OF TSS. ASSUMED THAT IRON AND OTHER METALS PASS THROUGH DUE TO LOWER pH.
 (6) IRON CONCENTRATION = T-100 EFFLUENT + T-300 A/B RECYCLE
 (7) ASSUMED 85% REMOVAL OF IRON AND ALUMINUM AND 75% REMOVAL OF TSS. ASSUMED OTHER METALS PASS THROUGH.
 (8) ASSUMED 85% REMOVAL OF IRON AND ALUMINUM AND 25% REMOVAL OF TSS. ASSUMED OTHER METALS PASS THROUGH.
 (9) ASSUMED 97% REMOVAL OF ARSENIC, IRON, ALUMINUM AND TSS.
 (10) ASSUMED 20% REMOVAL OF CALCIUM



LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIATION ACTION PLAN ADDENDUM
**PIPING AND INSTRUMENTATION
 DIAGRAM
 (SHEET #1)**

FIGURE
10-18

CITY: SYRACUSE DIV: GROUP: 141 DB: GMS PM: G. SUAREZ LVR: ONL=OFF=REF
 G:\Project\Lockheed\B030551\LMC_Tallevast\add\RAP Design\RAP Design.dwg LAYOUT: 10-18
 ACADVER: 17.0S (LWS TECH) PAGES: 17.0S (LWS TECH) PLOTSETUP: 11X17 PLOTSTYLETABLE: COLOR.PID.CTB PLOTTED: 7/7/2009 9:05 AM BY: SEPPANEN, MAJIA
 XREFS: IMAGES: PROJECTNAME: R625-EDC-001213-0



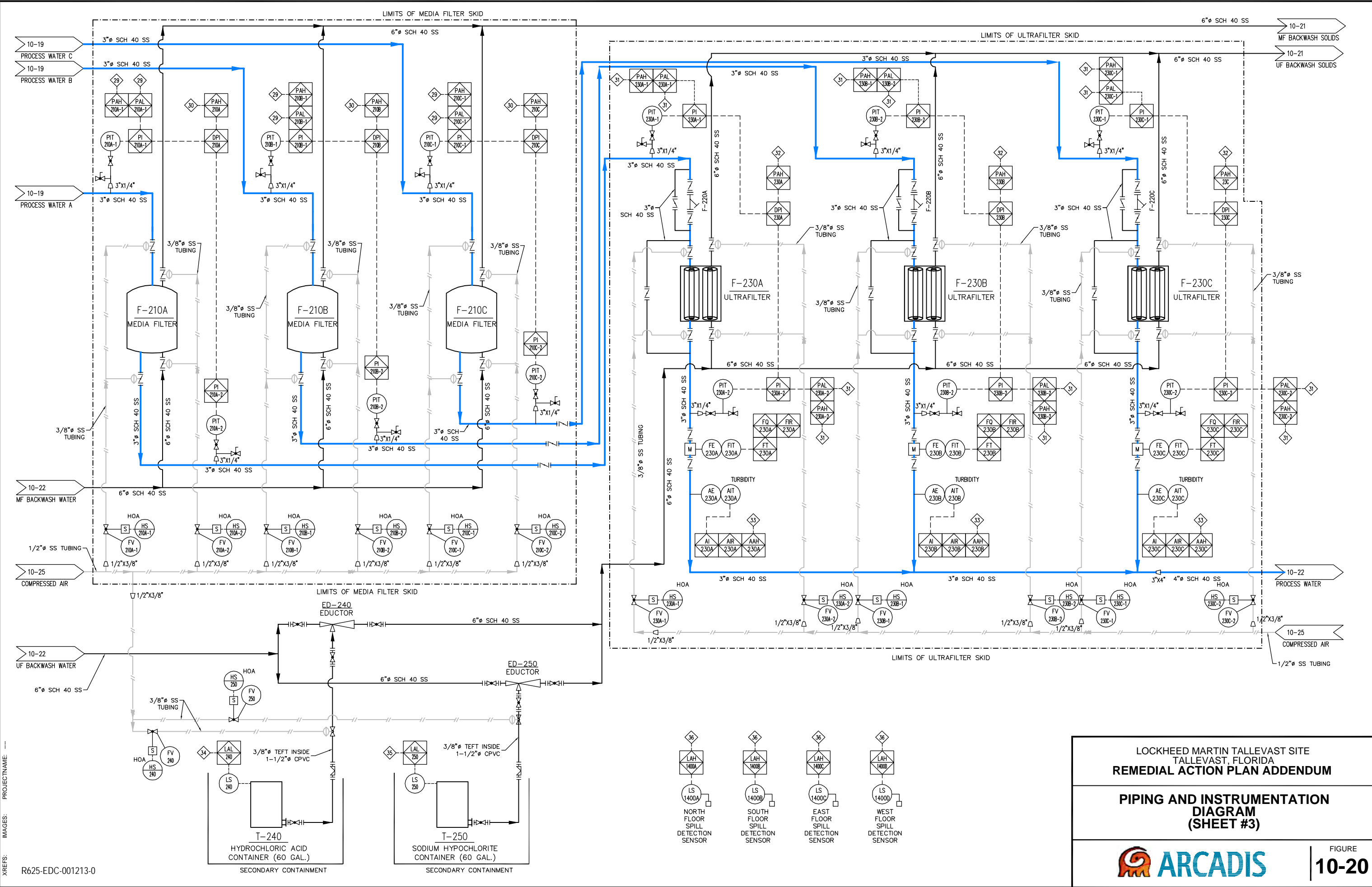
CITY: SYRACUSE DIV/GROUP: 141 DB/GMS PM: G. SUAREZ LVR: ON="OFF"-REF G:\Project\Lockheed\B038055\LMC_Tallevast\rap\rap.dwg ACADVER: 17.0S (LMS TECH) PAGES: 17 7/8/2009 1:38 PM BY: SEPPANEN, MAUI
 LAYOUT: 10-19 SAVED: 7/8/2009 1:38 PM PLOTTED: 7/8/2009 1:38 PM
 PROJECTNAME: R625-EDC-001213-0

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM
PIPING AND INSTRUMENTATION
DIAGRAM
(SHEET #2)



FIGURE
10-19

CITY: SYRACUSE DIV: GROUP: 141 DB: GMS PM: G. SUAREZ LVR: ONL="OFF"=REF
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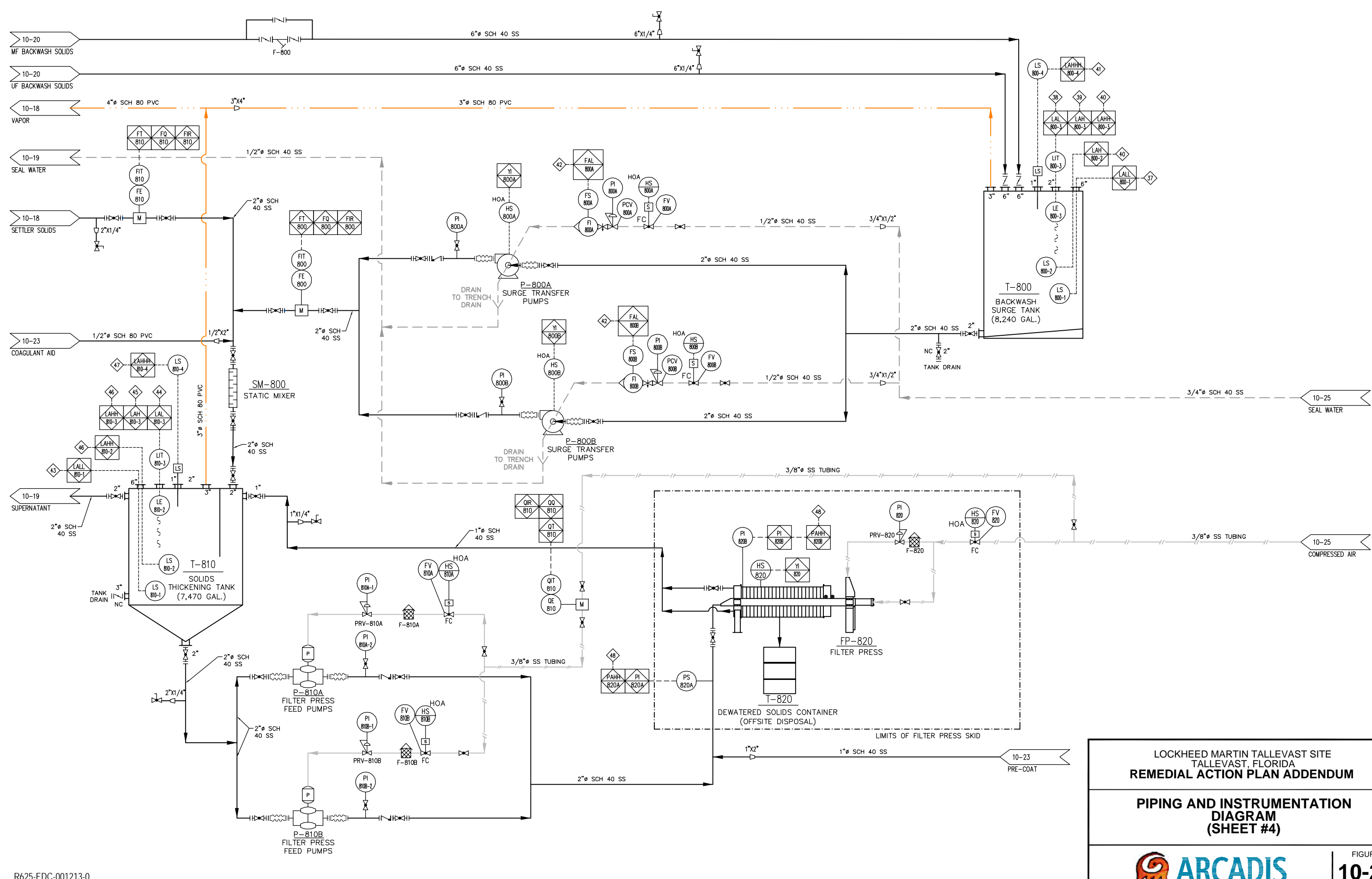


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

PIPING AND INSTRUMENTATION
DIAGRAM
(SHEET #3)

FIGURE
10-20

CITY: SYRACUSE DIV/GROUP: 141 DB: GMS PM: G. SUAREZ LVR: ONL="OFF"-REF
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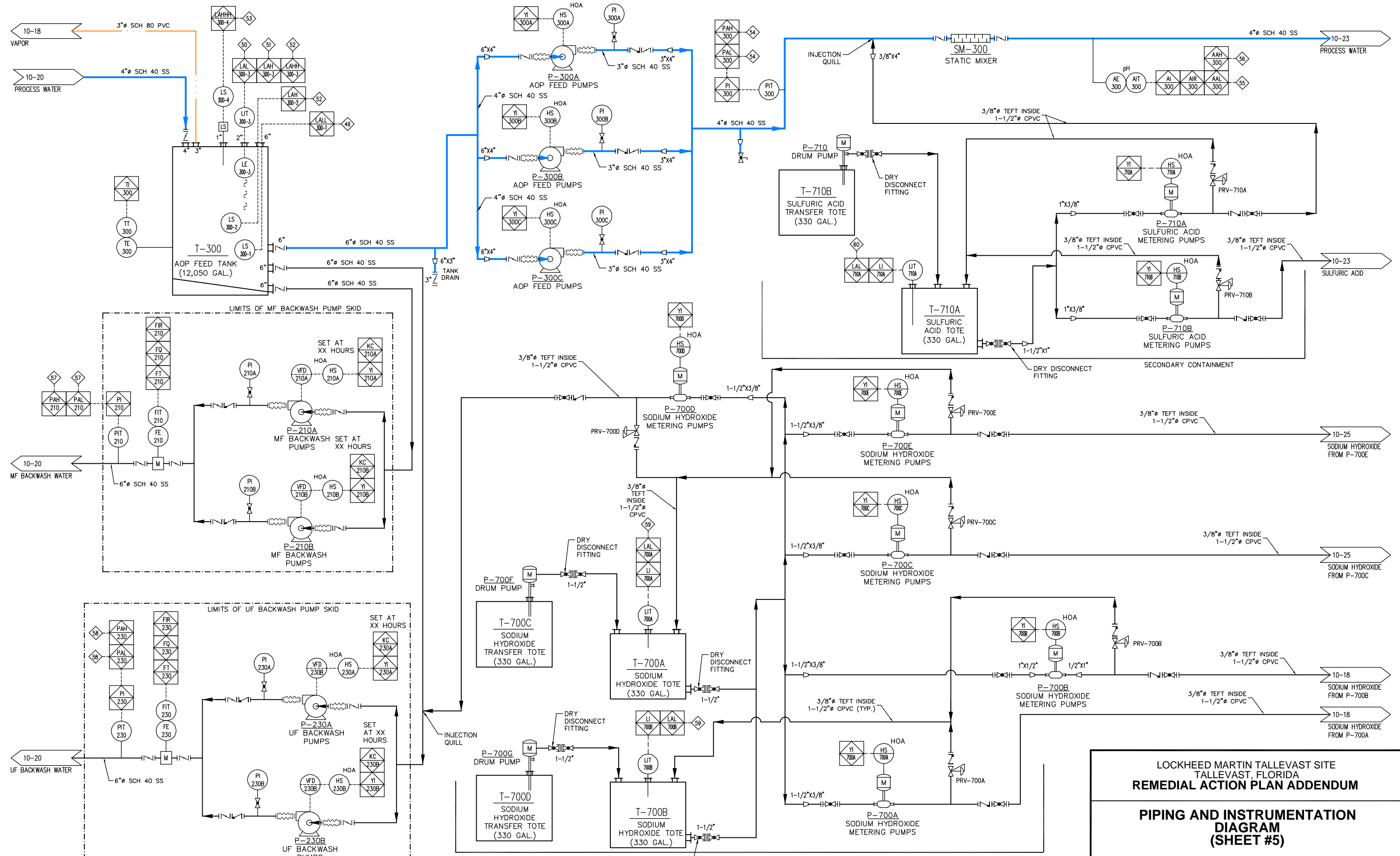
LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**PIPING AND INSTRUMENTATION
 DIAGRAM
 (SHEET #4)**

ARCADIS

FIGURE
10-21

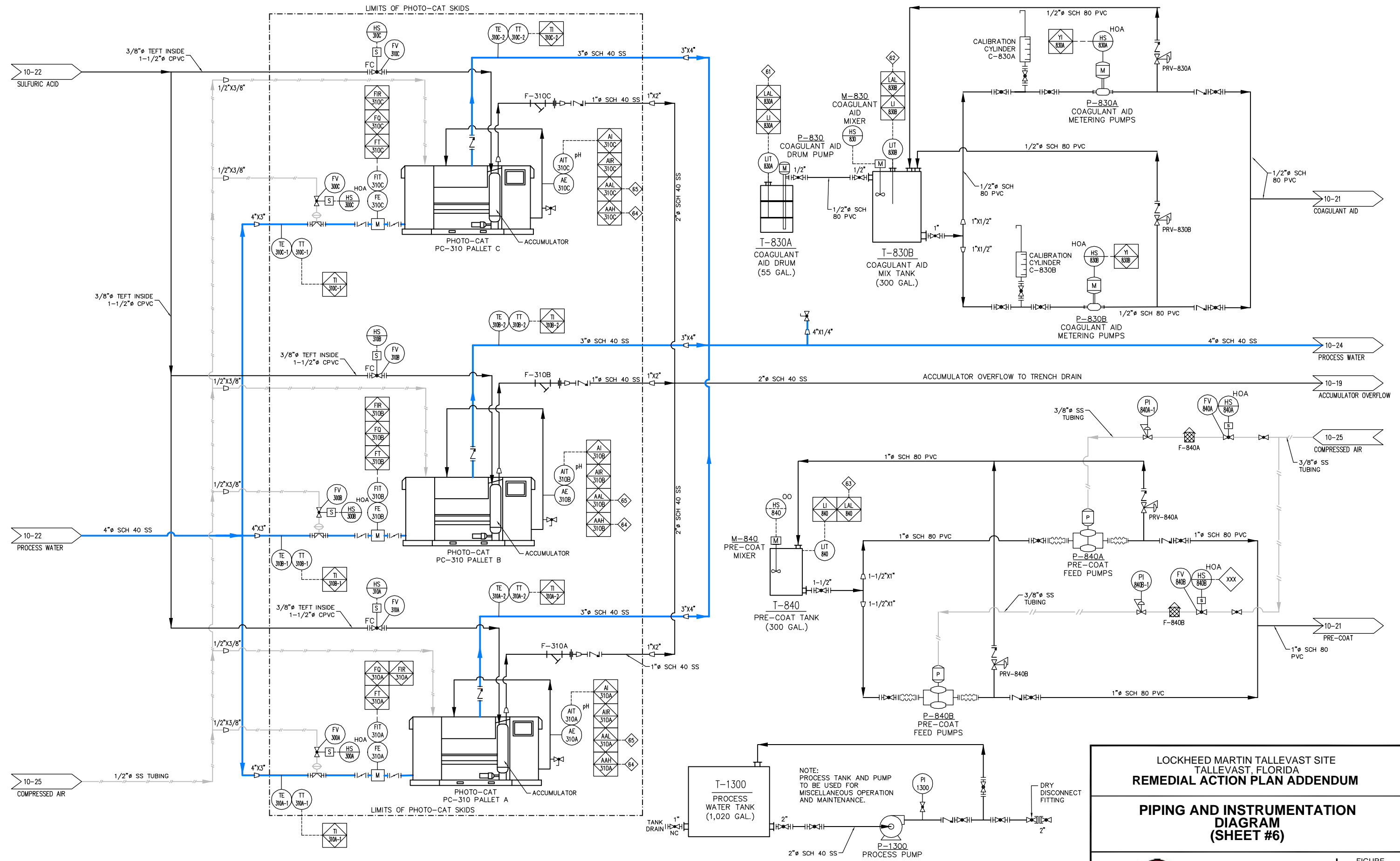
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 PROJECT NAME: R625-EDC-001213-0



LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIATION ACTION PLAN ADDENDUM

**PIPING AND INSTRUMENTATION
 DIAGRAM
 (SHEET #5)**

CITY: SYRACUSE DIV/GROUP: 141 DB/GMS PM: G. SUAREZ LVR: ON="OFF"-REF
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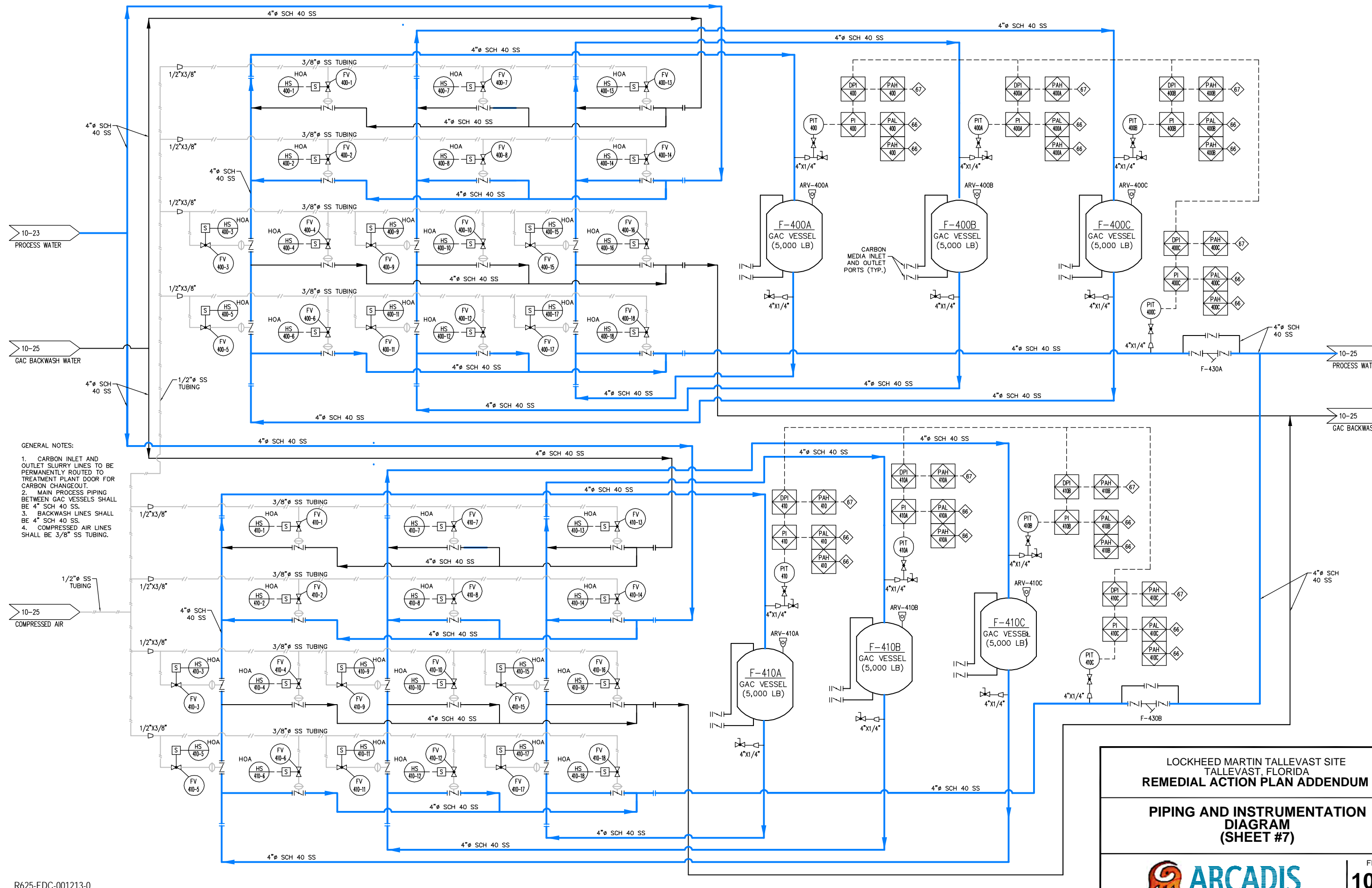
T-1300
 PROCESS WATER TANK
 (1,020 GAL.)
 P-1300
 PROCESS PUMP
 NOTE: PROCESS TANK AND PUMP TO BE USED FOR MISCELLANEOUS OPERATION AND MAINTENANCE.
 DRY DISCONNECT FITTING

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM
**PIPING AND INSTRUMENTATION
 DIAGRAM
 (SHEET #6)**



FIGURE
10-23

CITY: SYRACUSE DIV: GROUP: 141 DB: GMS PM: G. SUAREZ LVR: ON="OFF" REF: G:\project\Lockheed\030505\LMC_Tallevast\cad\RAP Design\RAP Design.dwg LAYOUT: 10-24 SAVED: 7/7/2009 9:30 AM ACADVER: 17.0S (LMS TECH) PAGES: 17 OF 17 PLOTTED: 7/7/2009 9:30 AM BY: SEPPANEN, MAJIA



- GENERAL NOTES:
1. CARBON INLET AND OUTLET SLURRY LINES TO BE PERMANENTLY ROUTED TO TREATMENT PLANT DOOR FOR CARBON CHANGEOUT.
 2. MAIN PROCESS PIPING BETWEEN GAC VESSELS SHALL BE 4" SCH 40 SS.
 3. BACKWASH LINES SHALL BE 4" SCH 40 SS.
 4. COMPRESSED AIR LINES SHALL BE 3/8" SS TUBING.

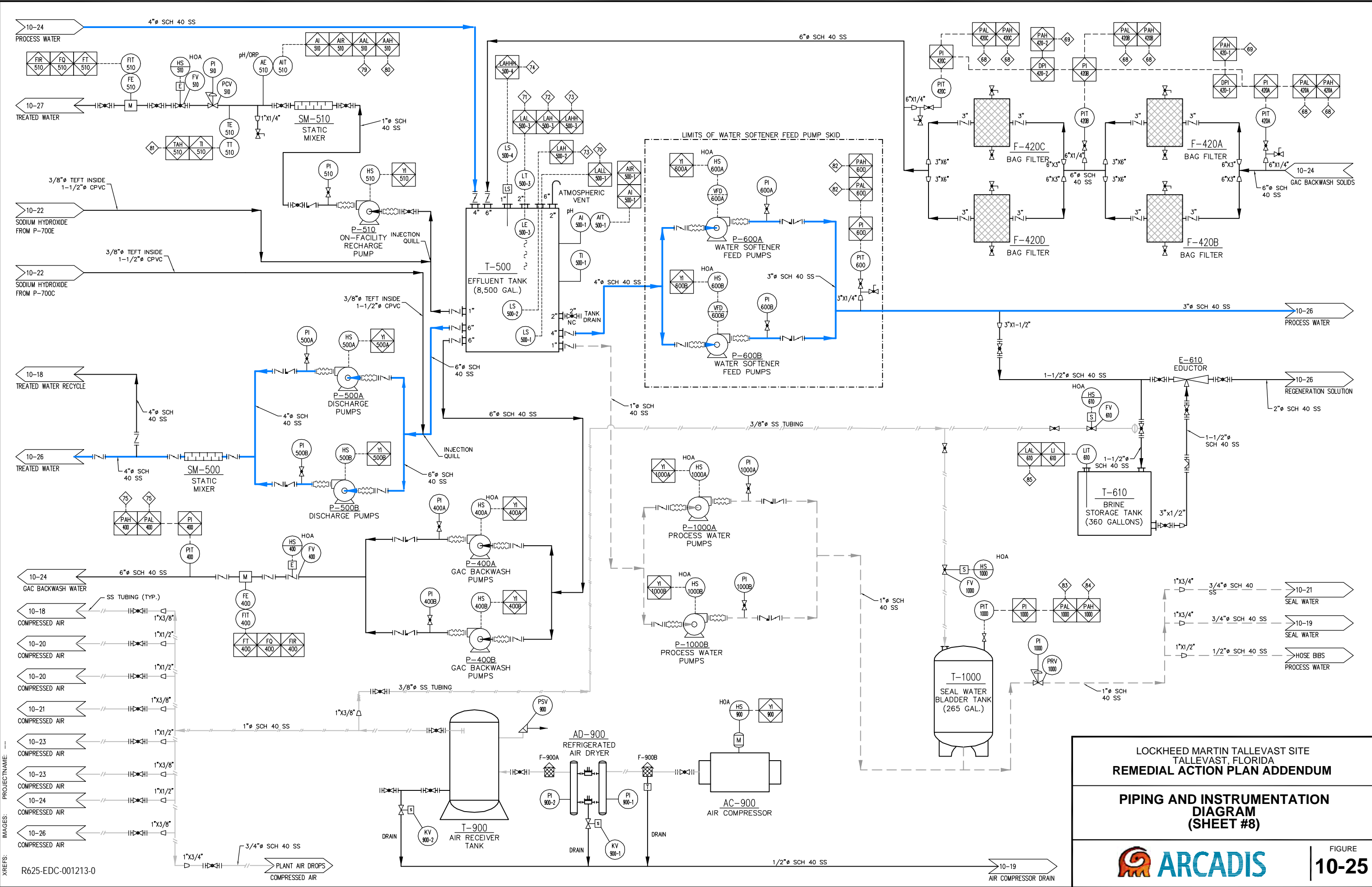
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**PIPING AND INSTRUMENTATION
DIAGRAM
(SHEET #7)**

ARCADIS

FIGURE
10-24

CITY: SYRACUSE DIV/GROUP: 141 DB/GMS PM: G. SUAREZ LVR: ON="OFF"=REF
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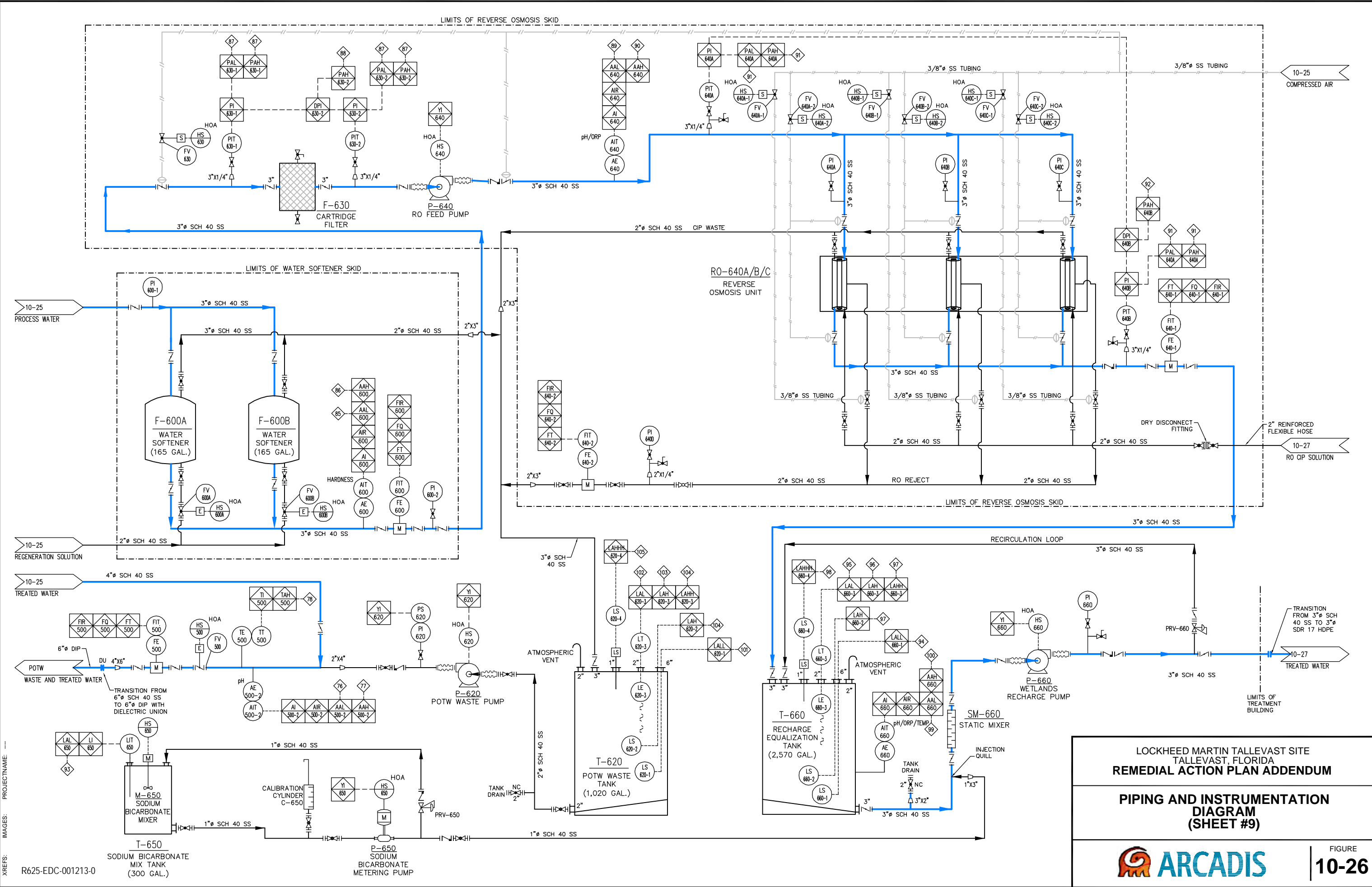


LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIATION ACTION PLAN ADDENDUM

PIPING AND INSTRUMENTATION
DIAGRAM
(SHEET #8)

FIGURE
10-25

CITY: SYRACUSE DIV: GROUP: 141 DB: GMS PM: G. SUAREZ LVR: ONL="OFF" REF: G:\Project\Lockheed\B038055\LMC_Tallevast\cad\RAP Design\RAP Design.dwg LAYOUT: 10-26 SAVED: 7/7/2009 8:55 AM ACADVER: 17.0S (LMS TECH) PAGESETUP: 11X17.PDF PLOTSTYLETABLE: COLOR.PID.CTB PLOTTED: 7/7/2009 9:07 AM BY: SEPPANEN, MAUI



LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIATION ACTION PLAN ADDENDUM
PIPING AND INSTRUMENTATION
DIAGRAM
(SHEET #9)


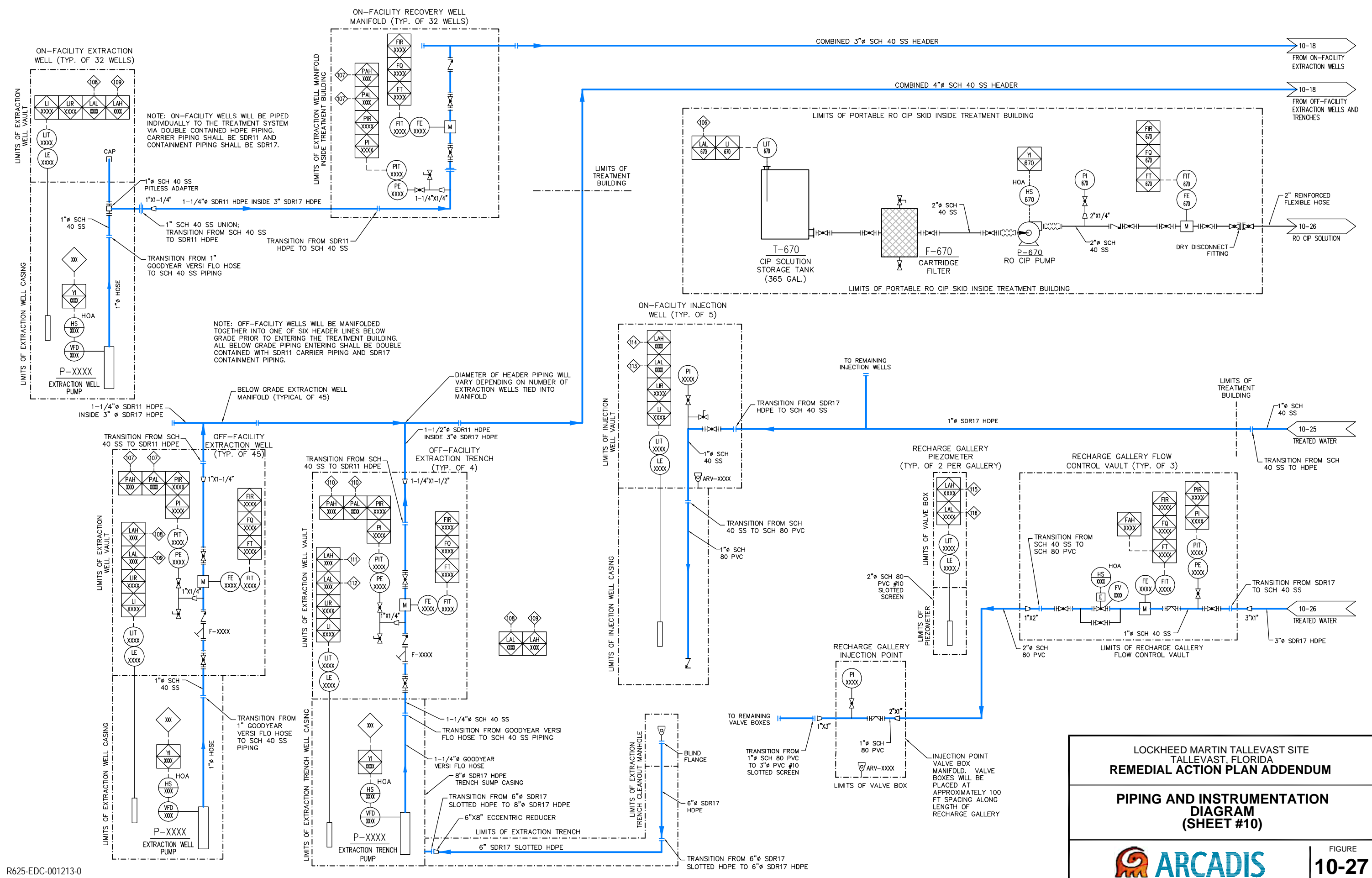


FIGURE
10-26

R625-EDC-001213-0

CITY: SYRACUSE DIV/GROUP: 141 DB: GMS PM: G. SUAREZ LVR: ON="OFF"=REF
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 XREFS: IMAGES: PROJECTNAME: R625-EDC-001213-0



**LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM**

**PIPING AND INSTRUMENTATION
 DIAGRAM
 (SHEET #10)**

ARCADIS

FIGURE
10-27

CITY: SYRACUSE DIV/GROUP: 141 DB: GMS PM: G. SUAREZ LVR: ON="OFF"-REF G:\Project\Lockheed\030551\MC_Tallevast\add\RAP Design\RAP Design.dwg LAYOUT: 10-28 SAVED: 7/7/2008 8:55 AM ACADVER: 17.05 (LMS TECH) PAGES: 17 OF 28 PLOTTED: 7/7/2009 9:07 AM BY: SEPPANEN, MAUA

INSTRUMENT IDENTIFICATION LETTERS

FIRST LETTER		SUCCEEDING LETTERS		
MEASURE OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A = ANALYSIS		ALARM		
B = BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C = USER'S CHOICE			CONTROL, CLOSED	
D = USER'S CHOICE	DIFFERENTIAL			
E = VOLTAGE		SENSOR (PRIMARY ELEMENT)		
F = FLOW RATE	RATIO (FRACTION)			
G = USER'S CHOICE		GLASS, VIEWING DEVICE		
H = HAND				HIGH
I = CURRENT (ELECTRICAL)		INDICATE		
J = POWER	SCAN			
K = TIME, TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L = LEVEL		LIGHT		LOW
M = USER'S CHOICE	MOMENTARY			MIDDLE, INTERMEDIATE
N = USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O = USER'S CHOICE		ORIFICE, RESTRICTION	OPEN	
P = PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q = QUANTITY	INTEGRATE, TOTALIZE			
R = RADIATION		RECORD	RUN	
S = SPEED, FREQUENCY	SAFETY	SWITCH	STOP	
T = TEMPERATURE			TRANSMIT	
U = MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V = VIBRATION, MECH. ANALYSIS			VALVE, DAMPER, LOUVER	
W = WEIGHT, FORCE		WELL		
X = UNCLASSIFIED	X AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y = EVENT, STATUS OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT	
Z = POSITION, DIMENSION	Z AXIS		DRIVE, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

- NOTES:**
- ANY FIRST LETTER COMBINED WITH MODIFIER REPRESENTS A NEW AND SEPARATE MEASURED VARIABLE. EXAMPLES: PD = DIFFERENTIAL PRESSURE FQ = TOTALIZED OR INTEGRATED FLOW. EXCEPTION IS THE MODIFIER "J" FOR MULTIPOINT SCANNING.
 - FOR ANALYSIS NOT IDENTIFIED BY A SPECIFIC LETTER IN THE TABLE, USE FIRST LETTER "A" NEAR THE INSTRUMENT SYMBOL, SPECIFY THE NATURE OF THE ANALYSIS. EXAMPLE: PH
 - MEANING OF A "USER CHOICE" LETTER SHALL BE CONSISTENT THROUGHOUT A PROJECT, AND SHALL BE SPECIFIED IN THE DRAWING LEGEND.
 - UNCLASSIFIED LETTER MAY HAVE A FEW DIFFERENT MEANINGS ON A PROJECT. THE MEANING SHALL BE SPECIFIED NEAR EACH INSTRUMENT SYMBOL USING THE UNCLASSIFIED LETTER.
 - THE MODIFIER "SCAN" APPLIES TO MULTIPOINT PRINTING INSTRUMENTS, SUCH AS C.JRS (MULTIPOINT CONDUCTIVITY RECORDER WITH ALARM SWITCHES).

- GENERAL NOTES:**
- ALL ANALOG SET POINTS SHALL BE FIELD ADJUSTED BY OPERATOR AT HMI INTERFACE SCREEN.
 - ALARMS THAT SHUT DOWN EXTRACTION WELLS AND TREATMENT EQUIPMENT MUST BE CLEARED BY OPERATOR BEFORE BEING RESTARTED.
 - THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

INSTRUMENT SYMBOLS

	PRIMARY CONTROL PANEL NORMALLY ACCESSIBLE TO OPERATOR	FIELD MOUNTED	AUXILIARY PANEL OR RACK NORMALLY ACCESSIBLE TO OPERATOR
DISCRETE INSTRUMENTS	○	○	○
SHARED DISPLAY, SHARED CONTROL	◐	◐	◐
COMPUTER FUNCTION INCLUDING DISTRIB. CNTL. SYS.	⬡	⬡	⬡
PROGRAMMABLE LOGIC CONTROLLER FUNCTION	◊	◊	◊

LEGEND:

- PRIMARY PROCESS PIPING
- SECONDARY PROCESS PIPING
- SEAL FLUSH WATER
- COMPRESSED AIR PIPING
- VAPOR
- INSTRUMENT SIGNAL
- BALL VALVE
- BUTTERFLY VALVE
- GLOBE VALVE
- SWING CHECK VALVE
- SAMPLE PORT
- ANALYZER ELEMENT
- FLOW METER (MECH.)
- FLANGED CONNECTION
- UNION
- FLANGED CONNECTION WITH DIELECTRIC UNION
- ECCENTRIC REDUCER
- REDUCER
- CENTRIFUGAL PUMP
- METERING PUMP
- DOUBLE DIAPHRAGM PUMP
- PROGRESSIVE CAVITY PUMP
- PRESSURE RELIEF VALVE
- PRESSURE REGULATING VALVE
- PNEUMATIC ACTUATOR
- IN-LINE AERATOR
- ISO DAMPENER FITTING
- AIR FILTER
- STATIC MIXER
- INTERLOCK (SEE CONTROL LOGIC TABLE)
- WYE STRAINER

ABBREVIATIONS:

- A AERATOR
- AAH ANALYZER ALARM HIGH
- AAL ANALYZER ALARM LOW
- AC AIR COMPRESSOR
- AD AIR DRYER
- AE ANALYZER ELEMENT
- AI ANALYZER INDICATOR
- AIT ANALYZER INDICATING TRANSMITTER
- ARV AIR RELEASE VALVE
- CPVC CHEMICAL POLYVINYL CHLORIDE
- DIP DUCTILE IRON PIPE
- DPI DIFFERENTIAL PRESSURE INDICATOR
- DU DIELECTRIC UNION
- F FILTER
- FCV FLOW CONTROL VALVE
- FE FLOW ELEMENT
- FIR FLOW INDICATING RECORDER
- FRP FIBERGLASS REINFORCED PLASTIC
- FS FLOW SWITCH
- FT FLOW TRANSMITTER
- FQ FLOW TOTALIZER
- GAC GRANULAR ACTIVATED CARBON
- HDPE HIGH DENSITY POLYETHYLENE
- HS HAND SWITCH
- HOA HAND OFF AUTO
- NC NORMALLY CLOSED
- OO ON/OFF
- PAH PRESSURE ALARM HIGH
- PAL PRESSURE ALARM LOW
- PC PHOTO-CAT
- PCV PRESSURE CONTROL VALVE
- PI PRESSURE INDICATOR
- POTW PUBLICLY OWNED TREATMENT WORKS
- PRV PRESSURE REGULATING VALVE
- PVC POLYVINYL CHLORIDE PIPE
- SCH SCHEDULE
- SDR STANDARD DIMENSIONAL RATIO
- SS STAINLESS STEEL (316L)
- T TANK
- TEFT TEFLON TUBING
- TI TEMPERATURE INDICATOR
- TT TEMPERATURE TRANSMITTER
- TYP TYPICAL
- VFD VARIABLE FREQUENCY DRIVE
- ∅ DIAMETER

WELL NAME	UNIQUE ID NO. (XXXX)	DROP PIPE SIZE	PUMP NAME
USAS WELLS	2001 THROUGH 2037	1"	P-2001 THROUGH P-2037
USAS TRENCHES	2101 THROUGH 2104	1-1/4"	P-2101 THROUGH P-2104
LSAS WELLS	3001 THROUGH 3027	1"	P-3001 THROUGH P-3027
AF GRAVELS WELLS	4001 THROUGH 4011	1"	P-4001 THROUGH P-4011
S&P SANDS WELLS	5001; 5002	1"	P-5001; P-5002

WELL NAME	UNIQUE ID NO. (XXXX)	DROP PIPE SIZE
ON-FACILITY INJECTION WELLS	6001 THROUGH 6005	1"
OFF-FACILITY RECHARGE GALLERIES	7001; 7002; 7003	1"

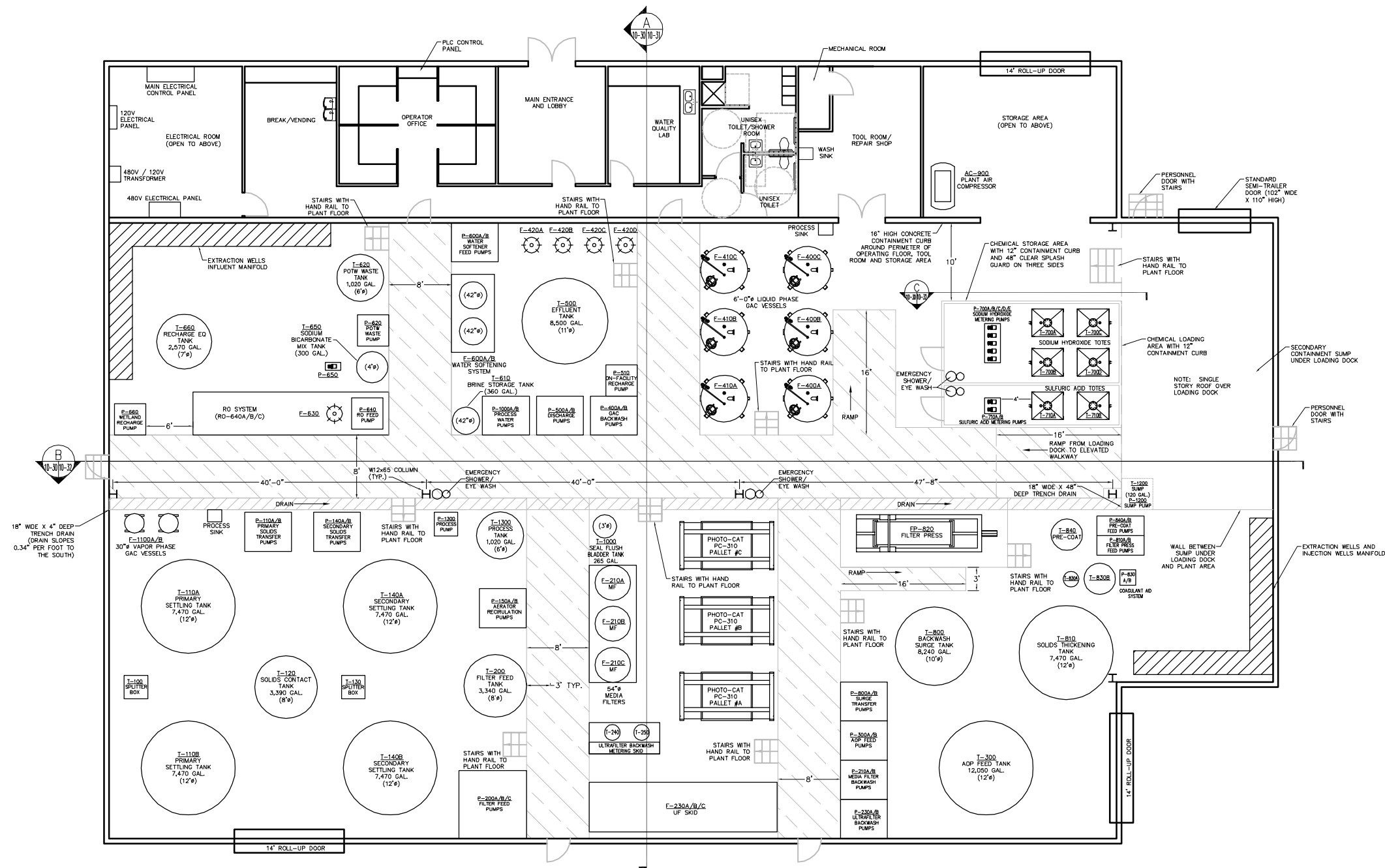
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

LEGEND SHEET

FIGURE
10-28

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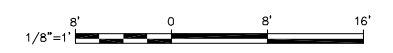
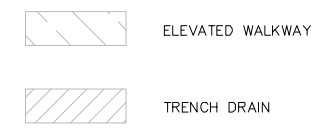
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GENERAL NOTES:

- HALLWAY, OFFICE AREA, LAB, ELECTRICAL ROOM AND BATHROOM WILL BE ELEVATED 16 INCHES HIGHER THAN MAIN TREATMENT PLANT FLOOR.
- ELEVATED WALKWAY WILL BE 16 INCHES HIGHER THAN MAIN TREATMENT PLANT FLOOR.
- FILTER PRESS WILL BE AT THE SAME ELEVATION AS THE ELEVATED WALKWAY.
- LOADING DOCK WILL BE ELEVATED 24 INCHES HIGHER THAN THE MAIN TREATMENT PLANT FLOOR AND WILL CONTAIN A 48-INCH DEEP SUMP BELOW.

LEGEND:



THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING. USE TO VERIFY FIGURE REPRODUCTION SCALE.

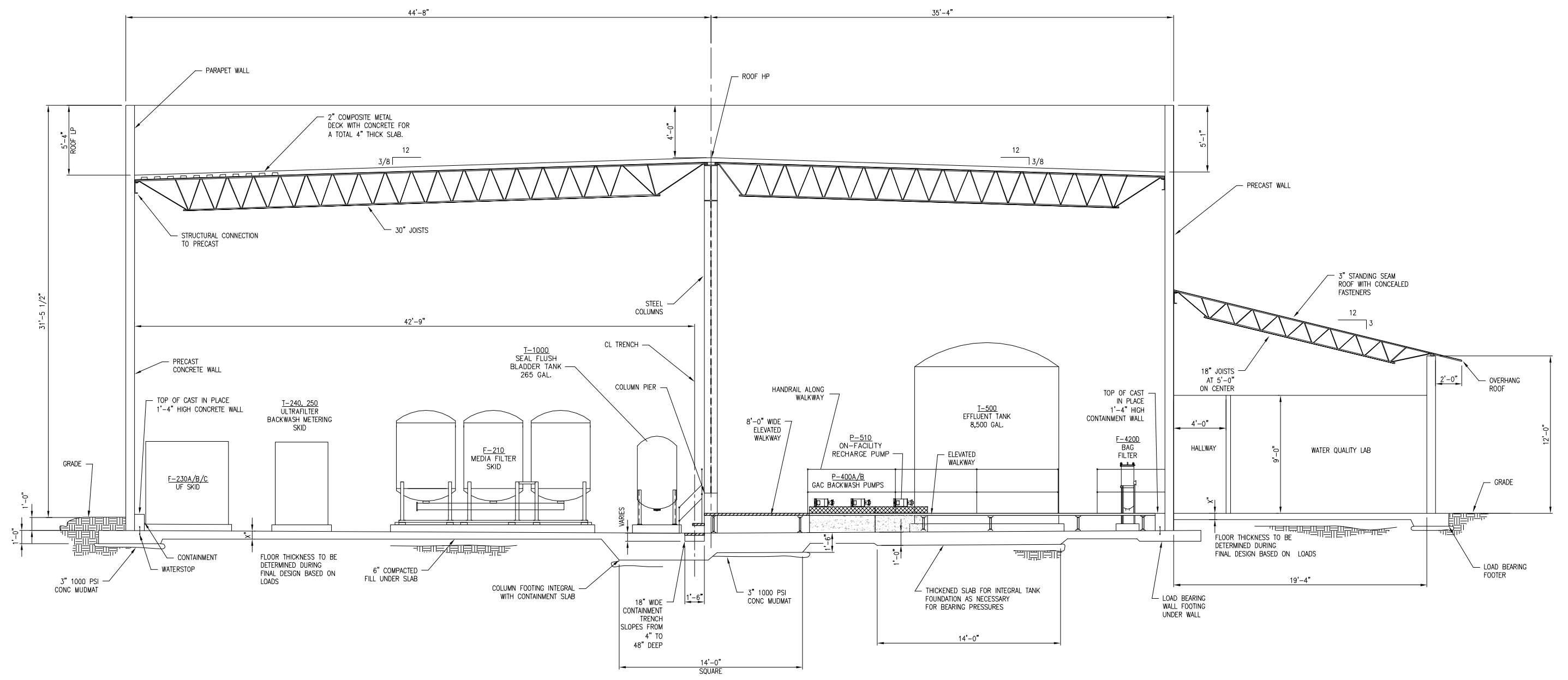
LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

GENERAL ARRANGEMENT PLAN



FIGURE
10-30

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 RAP layout ARCADIS Color Logo.jpg
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A EAST-WEST CROSS SECTION
 10-30 | 10-31 SCALE: 1/4"=1'

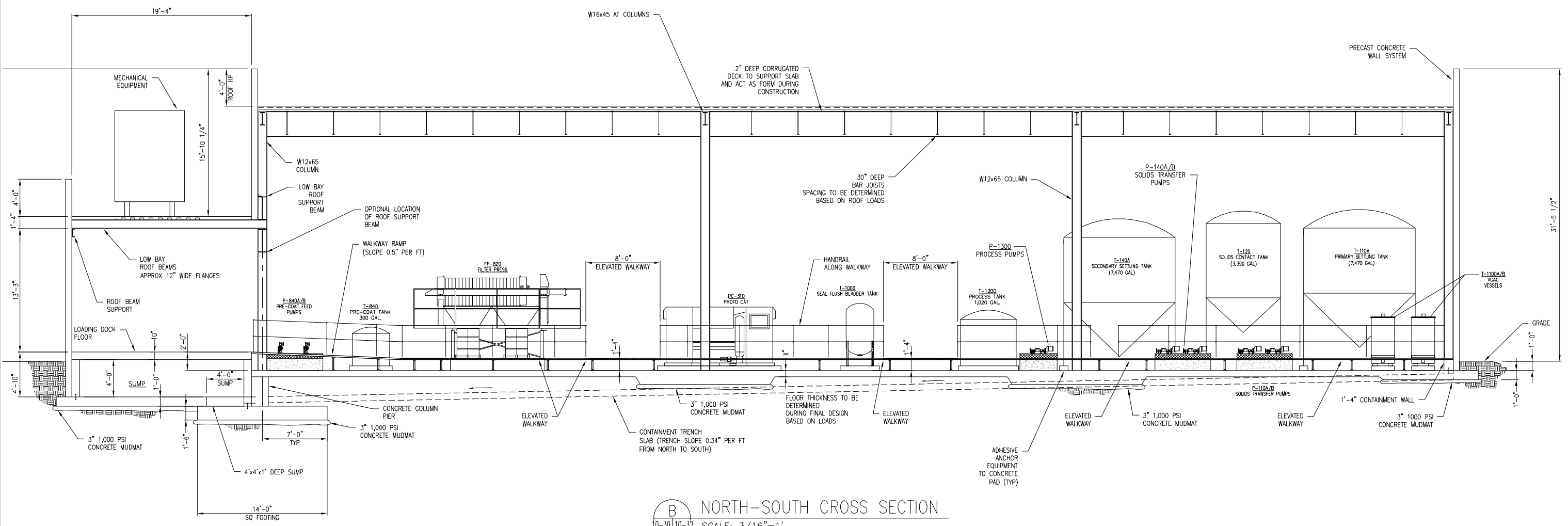
THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING:  USE TO VERIFY FIGURE REPRODUCTION SCALE

LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

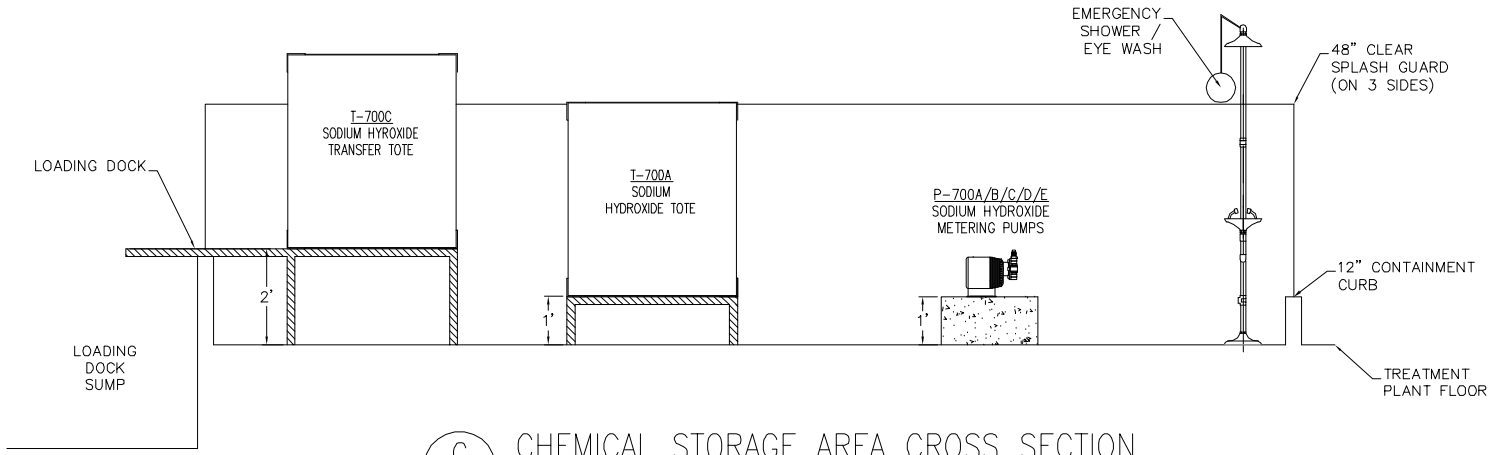
**PROPOSED TREATMENT BUILDING
 EAST - WEST SECTION**

 **FIGURE 10-31**

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B NORTH-SOUTH CROSS SECTION
10-30 | 10-32 SCALE: 3/16"=1'




C CHEMICAL STORAGE AREA CROSS SECTION
10-30 | 10-32 SCALE: 1/2"=1'

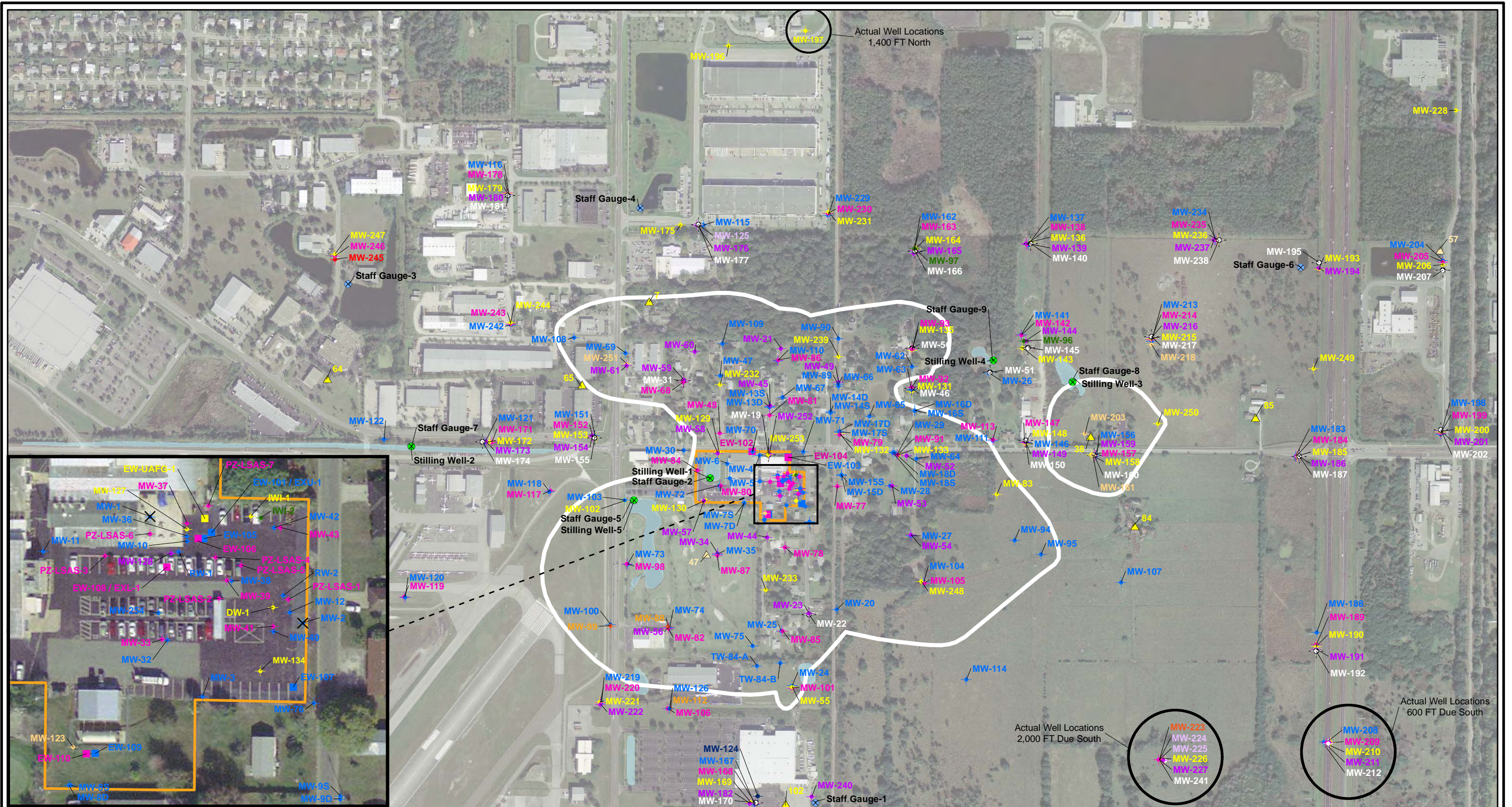
THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING:  USE TO VERIFY FIGURE REPRODUCTION SCALE

LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM

**PROPOSED TREATMENT BUILDING
NORTH - SOUTH SECTIONS**

 **FIGURE 10-32**

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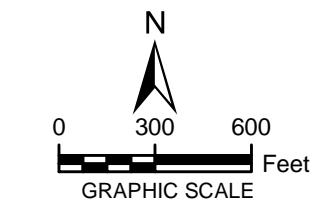
ZONE	WELL TYPE		
	EXTRACTION	MONITORING	PRIVATE
USAS	Blue square	Blue circle	Blue triangle
HARD STREAK CLAY	Red square	Red circle	Red triangle
LSAS	Pink square	Pink circle	Pink triangle
VENICE CLAY	Light pink square	Light pink circle	Light pink triangle
CLAY/SAND ZONE 1	Orange square	Orange circle	Orange triangle
AF GRAVEL	Yellow square	Yellow circle	Yellow triangle
CLAY/SAND ZONE 2	Dark blue square	Dark blue circle	Dark blue triangle
S&P SANDS	Purple square	Purple circle	Purple triangle

ZONE	WELL TYPE		
	EXTRACTION	MONITORING	PRIVATE
CLAY/SAND ZONE 3-4	Green square	Green circle	Green triangle
LOWER AF SANDS	White square	White circle	White triangle
FLORIDAN	Brown square	Brown circle	Brown triangle

⊗ SURFACE STAFFING GAUGE
 ⊙ SURFACE STILLING WELL
 □ LOCKHEED MARTIN TALLEVAST FACILITY
 ■ POND

NOTE:
 1. THIS MAP PRESENTS PRIVATE WELLS SAMPLED DURING THE MARCH/APRIL 2009 ANNUAL EVENT. ADDRESSES ASSOCIATED WITH PRIVATE WELLS ARE LISTED IN TABLE 3-1.
 2. X - MW-1 WAS REMOVED IN 2004 AND MW-2 WAS REMOVED IN 2006.
 3. THIS MAP DOES NOT INCLUDE MONITORING WELLS INSTALLED BY OTHERS.

— TEMPORARY POINT OF COMPLIANCE LINE 2009

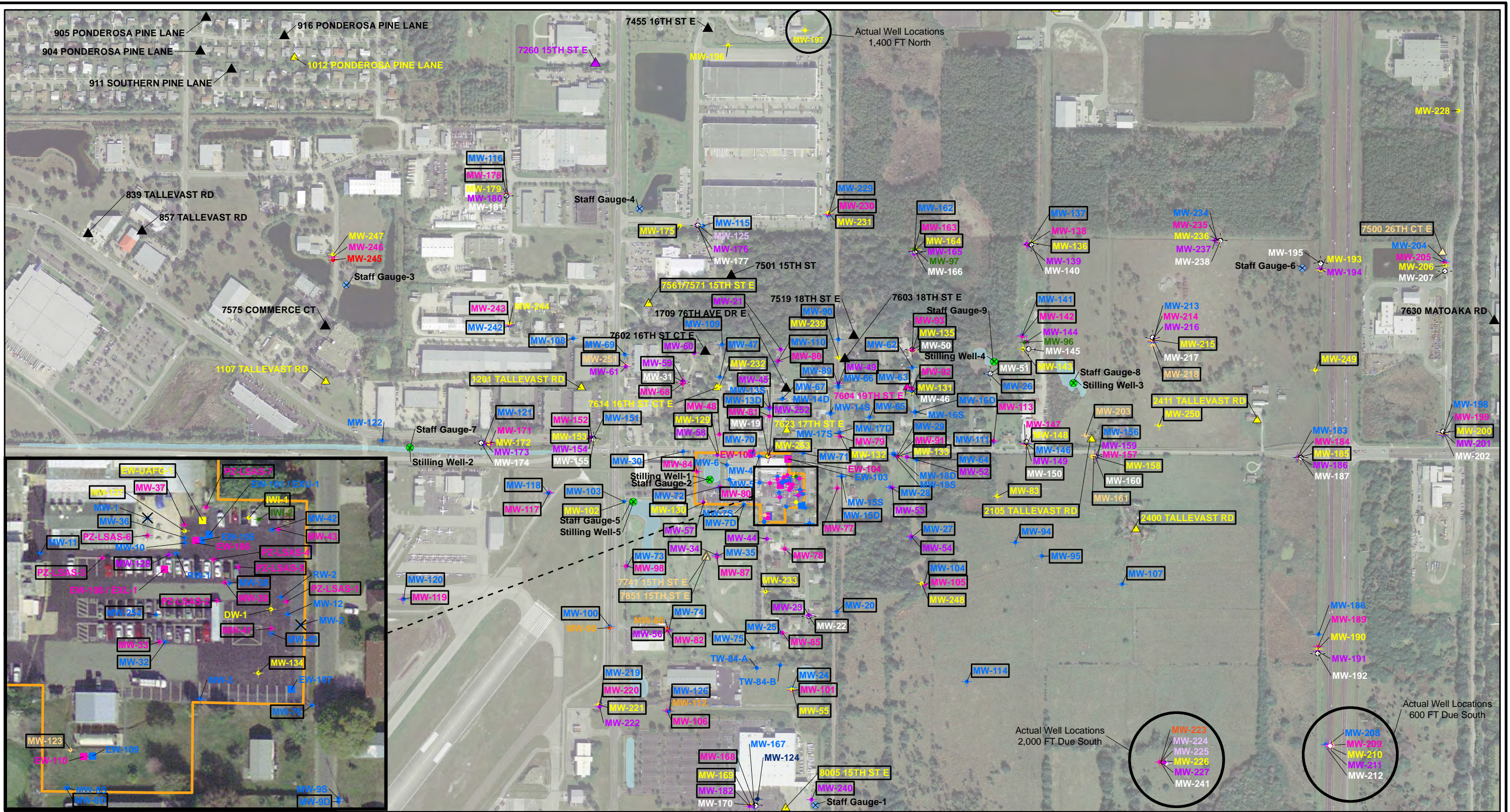


LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM

TEMPORARY POINT OF COMPLIANCE MAP

FIGURE 10-33

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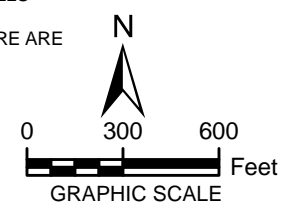


ZONE	WELL TYPE		
	EXTRACTION	MONITORING	PRIVATE
USAS	Blue square	Blue circle	Blue triangle
HARD STREAK CLAY	Red square	Red circle	Red triangle
LSAS	Pink square	Pink circle	Pink triangle
VENICE CLAY	Light purple square	Light purple circle	Light purple triangle
CLAY/SAND ZONE 1	Orange square	Orange circle	Orange triangle
AF GRAVEL	Yellow square	Yellow circle	Yellow triangle
CLAY/SAND ZONE 2	Dark blue square	Dark blue circle	Dark blue triangle
S&P SANDS	Purple square	Purple circle	Purple triangle

ZONE	WELL TYPE		
	EXTRACTION	MONITORING	PRIVATE
CLAY/SAND ZONE 3-4	Green square	Green circle	Green triangle
LOWER AF SANDS	White square	White circle	White triangle
FLORIDAN	Brown square	Brown circle	Brown triangle

⊗	SURFACE STAFFING GAUGE	▭	LOCKHEED MARTIN TALLEVAST FACILITY
⊙	SURFACE STILLING WELL	▭	PONDS
▲	PRIVATE WELL CHARACTERISTICS UNKNOWN	▭	WELL INCLUDED IN ANNUAL MONITORING

NOTE:
 1. X - MW-1 WAS REMOVED IN 2004 AND MW-2 WAS REMOVED IN 2006.
 2. THIS MAP DOES NOT INCLUDE MONITORING WELLS INSTALLED BY OTHERS.
 3. THE PRIVATE WELLS PRESENTED ON THIS FIGURE ARE ACTIVE WELLS.



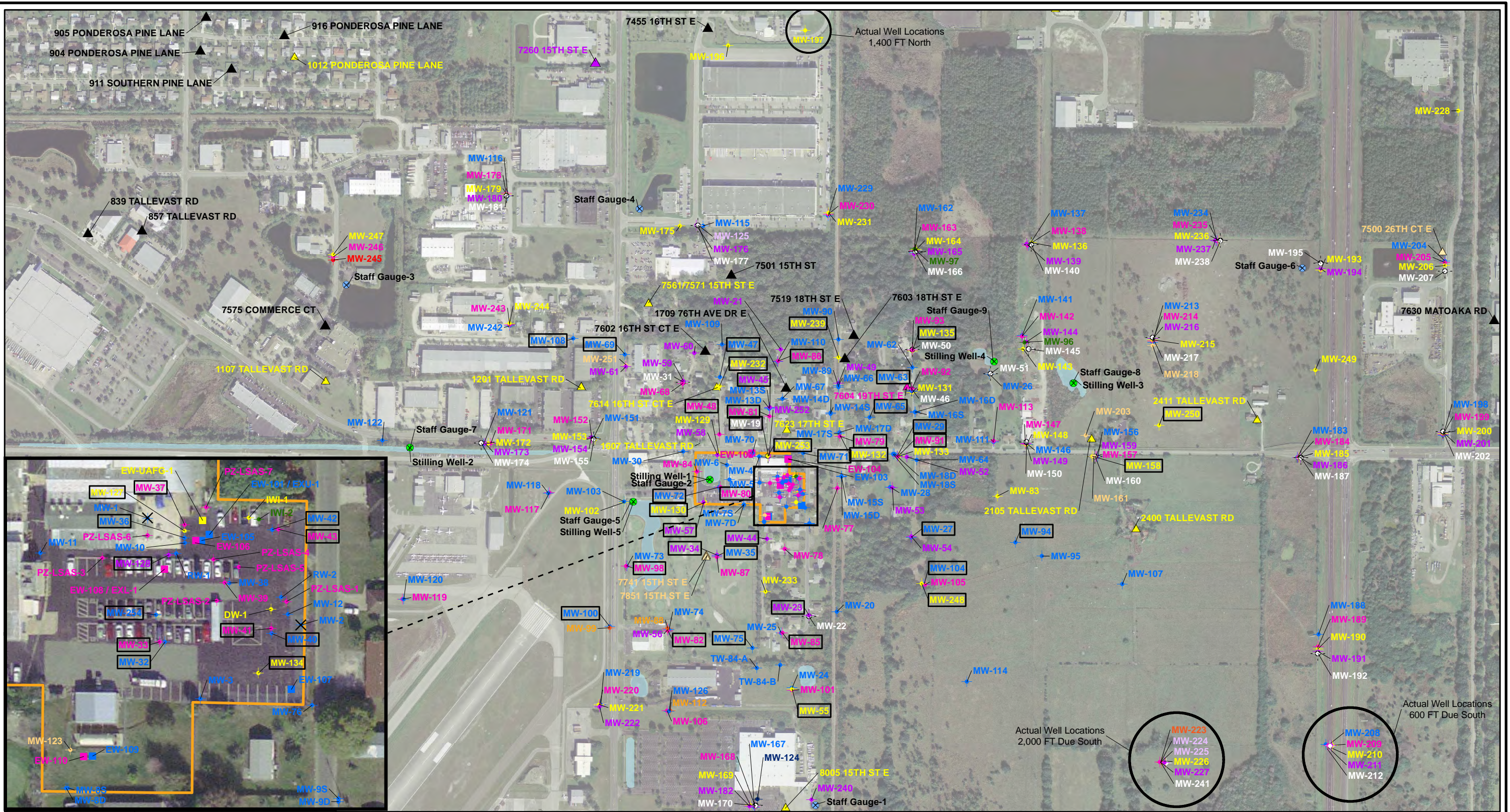
LOCKHEED MARTIN TALLEVAST SITE
 TALLEVAST, FLORIDA
 REMEDIAL ACTION PLAN ADDENDUM

**PROPOSED ANNUAL
 MONITORING LOCATIONS**

ARCADIS

FIGURE
13-1

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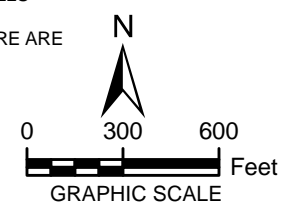


ZONE	WELL TYPE		
	EXTRACTION	MONITORING	PRIVATE
USAS	Blue square	Blue circle	Blue triangle
HARD STREAK CLAY	Red square	Red circle	Red triangle
LSAS	Pink square	Pink circle	Pink triangle
VENICE CLAY	Light blue square	Light blue circle	Light blue triangle
CLAY/SAND ZONE 1	Orange square	Orange circle	Orange triangle
AF GRAVEL	Yellow square	Yellow circle	Yellow triangle
CLAY/SAND ZONE 2	Dark blue square	Dark blue circle	Dark blue triangle
S&P SANDS	Purple square	Purple circle	Purple triangle

ZONE	WELL TYPE		
	EXTRACTION	MONITORING	PRIVATE
CLAY/SAND ZONE 3-4	Green square	Green circle	Green triangle
LOWER AF SANDS	White square	White circle	White triangle
FLORIDAN	Brown square	Brown circle	Brown triangle

⊗	SURFACE STAFFING GAUGE	⬜	LOCKHEED MARTIN TALLEVAST FACILITY
⊙	SURFACE STILLING WELL	⬜	PONDS
▲	PRIVATE WELL CHARACTERISTICS UNKNOWN	⬜	WELL INCLUDED IN QUARTERLY MONITORING

NOTE:
 1. X - MW-1 WAS REMOVED IN 2004 AND MW-2 WAS REMOVED IN 2006.
 2. THIS MAP DOES NOT INCLUDE MONITORING WELLS INSTALLED BY OTHERS.
 3. THE PRIVATE WELLS PRESENTED ON THIS FIGURE ARE ACTIVE WELLS.



**LOCKHEED MARTIN TALLEVAST SITE
TALLEVAST, FLORIDA
REMEDIAL ACTION PLAN ADDENDUM**

**PROPOSED QUARTERLY OR
SEMI-ANNUAL MONITORING**

ARCADIS

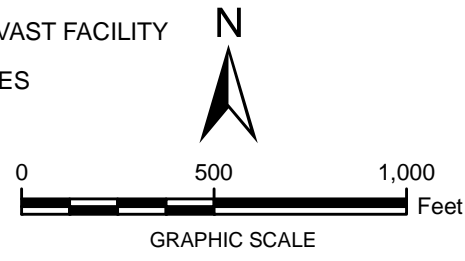
**FIGURE
13-2**



LEGEND

- LOCKHEED MARTIN TALLEVAST FACILITY
- 2009 WETLAND BOUNDARIES
- PARCELS
- TRANSECTS

TW - TARGET WETLAND
 RW - REFERENCE WETLAND
 R625-EDC-001213-0



LOCKHEED MARTIN TALLEVAST SITE TALLEVAST, FLORIDA REMEDIAL ACTION PLAN ADDENDUM	
WETLAND AND TRANSECT LOCATION MAP	
	FIGURE 13-3

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