



- LEGEND**
- TARGA'S ACTIVE INJECTION WELL
  - MONITOR WELL LOCATION (SHALLOW)
  - MONITOR WELL LOCATION (DEEP)
  - RECOVERY WELL LOCATION
  - WATER WELL LOCATION (INACTIVE)
  - OFFSITE PROPERTY WELLS 'NOT SAMPLED'
  - HYDROCARBON INVESTIGATION AREA
  - CHLORIDE INVESTIGATION AREA
  - 0.01' LNAPL THICKNESS (FEET)

**NOTE:**  
1. WELLS GAUGED IN FEBRUARY 2009

- NOTES**
1. A SUBSURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE SLOP OIL SUMP IN JULY 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING TO A DEPTH OF 10 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS AT DEPTH AND LIGHT NON-HALOGENATED HYDROCARBONS (LNAPL) WAS ENCOUNTERED ON THE GROUNDWATER. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SURFACE ENVIRONMENTAL ASSESSMENT REPORT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED SEPTEMBER 1996. REMEDIAL ACTIVITIES FOR THE SLOP OIL SUMP INCLUDED REMOVAL OF THE SUMP IN SEPTEMBER 2000. THE EXCAVATION AREA MEASURED 20 X 20 FEET. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (10) INDICATED HYDROCARBON IMPACTS IN THE SOILS. REMEDIAL ACTIVITIES ARE DETAILED IN THE 2000 ANNUAL SUMMARY OF INVESTIGATION & REMEDIATION GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. IN 2001.
  2. A SUBSURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE OIL & WATER SUMP IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING TO A DEPTH OF 20 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS IN THE INTERMEDIATE SOILS AT 17 FEET BGS AND LNAPL WAS ENCOUNTERED ON THE GROUNDWATER. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SURFACE ENVIRONMENTAL ASSESSMENT REPORT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED SEPTEMBER 1996. REMEDIAL ACTIVITIES FOR THE OIL & WATER SUMP INCLUDED REMOVAL OF THE SUMP IN SEPTEMBER 2000. THE EXCAVATION AREA MEASURED 20 X 20 FEET. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (10) INDICATED HYDROCARBON IMPACTS IN THE SOILS. REMEDIAL ACTIVITIES ARE DETAILED IN THE 2000 ANNUAL SUMMARY OF INVESTIGATION & REMEDIATION GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. IN 2001.
  3. A SUBSURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE JET TURBINE SUMP IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING TO A DEPTH OF 20 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS TO BOTH THE SOILS AND GROUNDWATER IN ALL 4 BORINGS. TWO OF THE THREE BORINGS WERE CONVERTED TO MONITOR WELLS (MW 1 & MW 2). INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SURFACE ENVIRONMENTAL ASSESSMENT REPORT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED SEPTEMBER 1996.
  4. TWO SEPARATE SHALLOW SUBSURFACE INVESTIGATIONS WERE CONDUCTED IN THE VICINITY OF ENGINE SUMP #3 IN AUGUST 1996 AND JUNE 1997. THE AUGUST 1996 INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SHALLOW SOIL BORING TO A DEPTH OF 10 FEET BGS. ANALYTICAL RESULTS AT 10 FEET BGS INDICATED HYDROCARBON IMPACTS AT DEPTH. THE JUNE 1997 INVESTIGATION INCLUDED THE INSTALLATION OF THREE SHALLOW SOIL BORINGS (EAST, WEST & SOUTH OF THE SUMP) TO A MAXIMUM DEPTH OF 4 FEET BGS. NO HYDROCARBONS WERE DETECTED IN ANY OF THE THREE BORINGS AT DEPTH (4 FEET). INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE FINAL INVESTIGATION REPORT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED JULY 1997.
  5. A SHALLOW SUBSURFACE INVESTIGATION WAS PERFORMED IN THE VICINITY OF ENGINE SUMP #51 IN AUGUST 1996. THIS INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING SOUTH OF THE SUMP TO A DEPTH OF 6 FEET BGS. NO HYDROCARBONS IMPACTS WERE DETECTED AT DEPTH. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SURFACE ENVIRONMENTAL ASSESSMENT REPORT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED SEPTEMBER 1996.
  6. A SHALLOW SUBSURFACE INVESTIGATION WAS CONDUCTED ON THE SOUTHWEST CORNER OF THE EMERGENCY FLARE SUMP IN AUGUST 1996. THE INVESTIGATION INCLUDED A SHALLOW TRENCH (FEET PIT) THAT WAS EXCAVATED TO 5 FEET BGS. CONFIRMATION SAMPLES AT DEPTH (5 FEET BGS) WERE BELOW LABORATORY DETECTION LIMITS. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SURFACE ENVIRONMENTAL ASSESSMENT REPORT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED SEPTEMBER 1996.
  7. AN INTERMEDIATE SUBSURFACE INVESTIGATION WAS PERFORMED IN THE VICINITY OF THE HSB FLARE SUMP IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING TO A DEPTH OF 27 FEET BGS. HYDROCARBON IMPACTS WERE DETECTED IN THE SHALLOW (15 FEET) SOILS NEAR THE HSB FLARE SUMP. ANALYTICAL RESULTS AT THE 27 FEET BGS INTERVAL WERE BELOW LABORATORY DETECTION LIMITS. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SURFACE ENVIRONMENTAL ASSESSMENT REPORT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED SEPTEMBER 1996.
  8. A SUBSURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE FIELD OIL PIT IN NOVEMBER 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING TO A TOTAL DEPTH (TD) OF FORTY-EIGHT (48) FEET BELOW GROUND SURFACE (BGS). ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS EXTENDED TO 40 FEET BGS. GROUNDWATER WAS NOT ENCOUNTERED DURING THE INSTALLATION OF THE BOREHOLE. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE FINAL INVESTIGATION REPORT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED SEPTEMBER 1996. REMEDIAL ACTIVITIES FOR THE FIELD OIL PIT "D" INCLUDED OVER-EXCAVATION ACTIVITIES THAT WERE PERFORMED IN FEBRUARY 2000. A TOTAL OF 312 CUBIC YARDS OF SOIL WERE REMOVED. REMEDIAL ACTIVITIES ARE DETAILED IN THE 2000 ANNUAL SUMMARY OF INVESTIGATION & REMEDIATION GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. IN 2001.
  9. THE EAST SUMP WAS CONSTRUCTED OF CONCRETE AND MEASURED 5 X 5 X 30'. THE EAST SUMP WAS REMOVED IN SEPTEMBER 2000 AND THE AREA WAS OVER-EXCAVATED TO APPROXIMATELY 7 X 13 X 10'. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (5) INDICATED HYDROCARBON IMPACTS IN THE SOILS. REMEDIAL ACTIVITIES ARE DETAILED IN THE 2000 ANNUAL SUMMARY OF INVESTIGATION & REMEDIATION GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. IN 2001.
  10. A SUBSURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE CONCRETE DRAIN SUMP IN SEPTEMBER 2000. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING TO A DEPTH OF 20 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS AT DEPTH. REMEDIAL ACTIVITIES FOR THE CONCRETE DRAIN SUMP INCLUDED REMOVAL OF THE SUMP IN SEPTEMBER 2000. THE EXCAVATION AREA MEASURED 9 X 13 X 6'. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (5) INDICATED HYDROCARBON IMPACTS IN THE SOILS. BOTH INVESTIGATION AND REMEDIATION ACTIVITIES ARE SUMMARIZED IN THE 2000 ANNUAL SUMMARY OF INVESTIGATION & REMEDIATION GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. IN 2001.
  11. THE NORTH BRINE WATER RETENTION POND (POND #2) MEASURED APPROXIMATELY 245 X 245 X 2' AND HAD A DESIGNED CAPACITY OF 75,000 BARRELS (BBL'S). USAGE OF THIS POND WAS DISCONTINUED IN EARLY 1993. THIS NORTH BRINE WATER RETENTION POND WAS CAPPED AND CROWDED WITH A CLAY CAP IN LATE 2000.
  12. THE SOUTH BRINE WATER RETENTION POND (POND #4) MEASURED APPROXIMATELY 190 X 240 X 10' AND HAD A DESIGNED CAPACITY OF 92,000 BARRELS (BBL'S). USAGE OF THIS POND WAS DISCONTINUED IN MID 1993. THIS SOUTH BRINE WATER RETENTION POND WAS CAPPED AND CROWDED WITH A CLAY CAP IN LATE 2000.
  13. THE FORMER TANK BATTERY LOCATION WAS STRUCK BY LIGHTNING IN MAY 2005. THIS FORMER TANK BATTERY LOCATION WAS USED FOR FLUID (LNAPL) AND PROCEDED WATER STORAGE BY THE GROUNDWATER REMEDIATION SYSTEMS LOCATED ON THE EAST SIDE OF THE PLANT. APPROXIMATELY 350 BBL'S OF FLUIDS WERE RELEASED AND 250 BBL'S WERE RECOVERED. DISCUSSION OF THE FORMER TANK BATTERY IS SUMMARIZED IN A TRANSMITTAL LETTER OF A SEMI-ANNUAL GROUNDWATER MONITORING REPORT FOR THE SOUTHWEST GAS PLANT GENERATED BY SECOR INTERNATIONAL INC. DATED MARCH 3, 2006.
  14. A SUBSURFACE INVESTIGATION WAS CONDUCTED IN THE VICINITY OF THE FORMER TRUCK LOADING AREA LOCATED SOUTH OF THE PLANT IN NOVEMBER 2006. THE INVESTIGATION INCLUDED THE INSTALLATION OF 3 BORINGS TO GROUNDWATER. HYDROCARBON IMPACTS WERE DETECTED IN THE SHALLOW (5-6 FEET BGS) AND IN THE INTERMEDIATE (25-26 BGS) IN AT LEAST ONE BORING. TWO OF THE THREE BOREHOLE WERE CONVERTED TO MONITOR WELLS (MW 22 & MW 23). INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE 2006 ANNUAL SUMMARY OF INVESTIGATION AND REMEDIATION FOR THE SOUTHWEST GAS PLANT GENERATED BY SECOR INTERNATIONAL INC. IN JULY 2006.
  15. THE NORTHWEST BRINE WATER RETENTION POND (POND #3) WAS CAPPED IN JULY 2007. DECONTAMINATION ACTIVITIES OF THE SOUTHWEST BRINE WATER RETENTION POND (POND #3) ARE SUMMARIZED IN THE 2007 ANNUAL SUMMARY OF INVESTIGATION AND REMEDIATION FOR THE SOUTHWEST GAS PLANT GENERATED BY SECOR INTERNATIONAL INC. IN MARCH 2007.

**SCALE VERIFICATION**  
THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

**Chevron Environmental Management Company**  
**EUNICE SOUTH**  
**LNAPL THICKNESS MAP - FEBRUARY 2009**

<b>CONESTOGA-ROVERS &amp; ASSOCIATES</b>	
Source Reference:	USGS 1998 AERIAL
Project Manager:	J. ORNELAS
Reviewed By:	T. LARSON
Date:	FEBRUARY 2009
Scale:	1:100
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