



- 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
- 300- CHLORIDE CONTOUR (µg/L)

BASEMAP NOTES

- 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 SOUTH OF THE SUMP TO A TD OF 57 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS AT DEPTH AND LIGHT NON-AQUEOUS PHASE (LNAPL) WAS ENCOUNTERED ON THE GROUNDWATER. SUBSURFACE ENVIRONMENTAL ASSESSMENT 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 23' X 15'. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (D) 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.
- A SUBSURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE OIL & WATER SUMP IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF 3 BORINGS RANGING IN TD FROM 22' TO 57 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS IN THE INTERMEDIATE SOLE AT 47 FEET BGS AND LNAPL WAS ENCOUNTERED ON THE GROUNDWATER. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SUBSURFACE ENVIRONMENTAL ASSESSMENT 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 23' X 15'. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (D) 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.
- A SUBSURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE JET TURBINE SUMP IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF 3 BORINGS RANGING IN TD FROM 22' TO 57 FEET BGS. ANALYTICAL RESULTS INDICATED HYDROCARBON IMPACTS TO BOTH THE SOILS AND GROUNDWATER IN ALL 3 BORINGS. TWO OF THE THREE BORINGS WERE CONVERTED TO MONITOR WELLS (MW 1 & MW 2). INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SUBSURFACE ENVIRONMENTAL ASSESSMENT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED SEPTEMBER 1996.
- TWO SEPARATE SHALLOW SUBSURFACE INVESTIGATIONS WERE CONDUCTED IN THE VICINITY OF ENGINE SUMP #8 IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SHALLOW SOIL BORING DIRECTLY NORTH OF THE ENGINE SUMP #8 TO A TD OF 10 FEET BGS. RESULTS AT TD INDICATED HYDROCARBON IMPACTS AT DEPTH. THE JUNE 1997 BORING (EAST, WEST & SOUTH OF THE SUMP) TO A MAXIMUM DEPTH OF 4 FEET BGS. NO HYDROCARBON IMPACTS WERE DETECTED AT DEPTH (D) INDICATED HYDROCARBON IMPACTS IN THE SOILS. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE FINAL INVESTIGATION REPORT DATED JULY 1997.
- A SHALLOW SUBSURFACE INVESTIGATION WAS PERFORMED IN THE VICINITY OF ENGINE SUMP #11 IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SHALLOW SOIL BORING SOUTH OF THE SUMP TO A TD OF 8 FEET BGS. NO HYDROCARBON IMPACTS WERE DETECTED AT DEPTH (D) INDICATED HYDROCARBON IMPACTS IN THE SOILS. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SUBSURFACE ENVIRONMENTAL ASSESSMENT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED SEPTEMBER 1996.
- A SHALLOW SUBSURFACE INVESTIGATION WAS CONDUCTED ON THE SOUTHWEST CORNER OF THE EMERGENCY FLARE SUMP IN AUGUST 1996. THE INVESTIGATION INCLUDED A SHALLOW TRINCH BORING THAT EXCAVATED 3 FEET BGS. CONFIRMATION SAMPLES AT DEPTH (D) WERE BELOW LABORATORY DETECTION LIMITS. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SUBSURFACE ENVIRONMENTAL ASSESSMENT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED SEPTEMBER 1996.
- AN INTERMEDIATE SUBSURFACE INVESTIGATION WAS PERFORMED IN THE VICINITY OF THE HES FLARE SUMP IN AUGUST 1996. THE INVESTIGATION INCLUDED THE INSTALLATION OF A SINGLE SOIL BORING TO A TD OF 27 FEET BGS. HYDROCARBON IMPACTS WERE DETECTED IN THE SHALLOW (0-2 FEET BGS) NEAR THE HES FLARE SUMP. ANALYTICAL RESULTS AT THE 27 FEET BGS INTERVAL WERE BELOW LABORATORY DETECTION LIMITS. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE SUBSURFACE ENVIRONMENTAL ASSESSMENT GENERATED BY HIGHLANDER ENVIRONMENTAL CORP. DATED SEPTEMBER 1996.
- A SUBSURFACE INVESTIGATION WAS PERFORMED IN THE DIRECT VICINITY OF THE FUEL OIL PIT #9 IN NOVEMBER 1995. 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 EXTENDING TO 45 FEET BGS. GROUNDWATER WAS NOT ENCOUNTERED DURING THE INSTALLATION OF THE BORING. INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE FINAL INVESTIGATION 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.
- THE EAST SUMP WAS CONSTRUCTED OF CONCRETE AND MEASURED 8' X 20'. THE EAST SUMP WAS REMOVED IN SEPTEMBER 2000 AND THE AREA WAS OVEREXCAVATED TO APPROXIMATELY 12' X 12' X 10'. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (D) 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.
- 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 TD OF 51 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 8' X 12' X 10'. CONFIRMATION SAMPLES FROM THE EXCAVATION AT DEPTH (D) 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.
- THE NORTH BRINE WATER RETENTION POND (POND #2) MEASURED APPROXIMATELY 24' X 24' X 15' AND HAD A DESIGNED CAPACITY OF 75,000 BARRELS (BBL). USAGE OF THIS POND WAS DISCONTINUED IN EARLY 1998. THIS NORTH BRINE WATER RETENTION POND WAS CAPPED AND CROWNED WITH A CLAY CAP SLATE 2000.
- THE SOUTH BRINE WATER RETENTION POND (POND #3) MEASURED APPROXIMATELY 18' X 24' X 15' AND HAD A DESIGNED CAPACITY OF 50,000 BARRELS (BBL). USAGE OF THIS POND WAS DISCONTINUED IN MID 1998. THIS SOUTH BRINE WATER RETENTION POND WAS CAPPED AND CROWNED WITH A CLAY CAP SLATE 2000.
- THE FORMER TANK BATTERY LOCATION WAS STRUCK BY LIGHTNING IN MAY 2005. THIS FORMER TANK BATTERY LOCATION WAS USED FOR FLUID (LNAPL AND PRODUCED WATER) STORAGE BY THE GROUNDWATER REMEDIATION SYSTEM LOCATED ON THE EAST SIDE OF THE PLANT. APPROXIMATELY 300 BBL'S OF FLUIDS WERE RELEASED AND 30 BBL'S WERE RECOVERED. EXCAVATION OF THE FORMER TANK BATTERY IS SUMMARIZED IN A TRANSMITTAL LETTER OF A SEMI-ANNUAL GROUNDWATER MONITORING REPORT FOR THE SOURCE SOUTH GAS PLANT GENERATED BY SECOR INTERNATIONAL INC. DATED MARCH 3, 2006.
- A SUBSURFACE INVESTIGATION WAS CONDUCTED IN THE VICINITY OF THE FORMER TRUCK LAMBER AREA LOCATED SOUTH OF THE PLANT IN NOVEMBER 2005. THE INVESTIGATION INCLUDED THE INSTALLATION OF 3 BORINGS TO GROUNDWATER. HYDROCARBON IMPACTS WERE DETECTED IN THE SHALLOW (24 FEET BGS) AND IN THE INTERMEDIATE (20-28 BGS) IN AT LEAST ONE BORING. TWO OF THE THREE WELLS WERE CONVERTED INTO MONITOR WELLS (MW 33 & MW 34). INVESTIGATION ACTIVITIES ARE SUMMARIZED IN THE 2005 ANNUAL SUMMARY OF INVESTIGATION AND REMEDIATION FOR THE SOUTH ENDRICE GAS PLANT GENERATED BY SECOR INTERNATIONAL INC. IN JULY 2006.
- THE NORTHWEST BRINE WATER RETENTION POND (POND #3) WAS CAPPED IN JULY 2007. EXCAVATION ACTIVITIES OF THE NORTHWEST BRINE WATER RETENTION POND (POND #3) ARE SUMMARIZED IN THE 2007 ANNUAL SUMMARY OF INVESTIGATION AND REMEDIATION FOR THE SOUTH ENDRICE GAS PLANT GENERATED BY SECOR INTERNATIONAL INC. IN MARCH 7, 2008.

WELL ID	TMW-6	ALL CONCENTRATIONS IN MILLIGRAMS PER LITER (mg/L)
	Chloride	<1.0
	TDS	1000
TOTAL DISSOLVED SOLIDS		EXCEEDENCE

- NOTES:**
- SAMPLES WERE COLLECTED IN FEBRUARY 2009 BY THE PREVIOUS SITE CONSULTANT.
 - THE EAST AND WEST SIDE SHALLOW LNAPL RECOVERY WELLS (RW-1, RW-2, RW-3, RW-4, RW-5, MW-28, MW-5, AND MW-20) AND THE TEMPORARY MONITOR WELLS (TMW-1 AND TMW-2) WERE GAUGED IN MARCH 2009. SAMPLES WERE NOT COLLECTED DUE TO THE PRESENCE OF LNAPL.
 - WELLS MARKED WITH "LNAPL" WERE NOT SAMPLED DUE TO THE PRESENCE OF LIGHT NON-AQUEOUS PHASE LIQUID.
 - CHLORIDE WAS ANALYZED BY EPA METHODS 300.0 & 325.3.
 - TOTAL DISSOLVED SOLIDS (TDS) WAS ANALYZED BY SM 2540C.
 - BOLD INDICATES THAT A COC WAS DETECTED.
 - SHADING INDICATES THAT A DETECTED RESULT EXCEEDED THE MHWQCC STANDARD 20.6.2.3103.B.
 - SHALLOW MONITOR WELLS MW-8 AND MW-11 AND TEMPORARY MONITOR WELL TMW-3 WERE NOT SAMPLED (NS).

SCALE VERIFICATION

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

Chevron Environmental Management Company

EUNICE SOUTH

CHLORIDE & TDS CONCENTRATION MAP SHALLOW WELLS - FEBRUARY 2009

COMESTOGA-ROVERS & ASSOCIATES

USGS 1968 AERIAL

Project Manager:	J. ORNELAS	Reviewed By:	T. LARSON	Date:	FEBRUARY 2009
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