Figure 1
SITE LOCATION
North Pole Refinery
Flint Hills Resources Alaska, LLC

FHRA Property Boundary
SITE FEATURES
North Pole Refinery
Flint Hills Resources Alaska, LLC

Figure 3

- BermedContainmentAreas(CA)
- FHRAPropertyBoundary
- ParcelBoundaries

- Sumps
- WastewaterDischargeLine(Approximate)

- North Pole Refinery
- Flint Hills Resources Alaska, LLC

- Hazards WasteStorAgeArea
- EffluentBuilding
- Sump 908
- Sump 02/04-2
- Sumps
- WastewaterDischargeLine(Approximate)
- BermedContainmentAreas(CA)
- FHRAPropertyBoundary
- ParcelBoundaries
Figure 4
WELL NETWORK PRIOR TO OCTOBER 2009
North Pole Refinery
Flint Hills Resources Alaska, LLC

- Monitoring Well
- Observation Well
- Recovery Well
- Production Wells
- GVEA Injection Well (Approximate)
- GVEA Production Well (Approximate)
- FHRA Property Boundary
Figure 6
SOIL BORING LOCATIONS
North Pole Refinery
Flint Hills Resources Alaska, LLC

- COPC Soil Borings
- Standard Soil Borings
- LNAPL Mobility Assessment
- Soil Core Location
- New Well
- FHRA Property Boundary

Feet
Figure 9
GROUNDWATER ELEVATION
MONITORING NETWORK
North Pole Refinery
Flint Hills Resources Alaska, LLC

- Monitoring Well Within 10 Feet of the Water Table
- Monitoring Well 10 to 55 Feet Below the Water Table
- Monitoring Well 55 to 90 Feet Below the Water Table
- Monitoring Well 90 to 160 Feet Below the Water Table
- Observation Well Within 10 Feet of the Water Table
- Recovery Well Within 10 Feet of the Water Table

FHRA Property Boundary
Figure 10
RECOVERY WELL PUMPING TEST LAYOUT
North Pole Refinery
Flint Hills Resources Alaska, LLC
Figure 11
SINGLE-WELL PUMPING LOCATIONS
North Pole Refinery
Flint Hills Resources Alaska, LLC

Pumping Test Well Locations
- Monitoring Well Within 10 Feet of the Water Table
- Monitoring Well 10-55 Feet Below the Water Table
- Monitoring Well 55-90 Feet Below the Water Table
- Monitoring Well 90-160 Feet Below the Water Table
- Recovery Well Locations

Remediation System Piping
Pumping Test Well Locations
- Monitoring Well Within 10 Feet of the Water Table
- Monitoring Well 10-55 Feet Below the Water Table
- Monitoring Well 55-90 Feet Below the Water Table
- Monitoring Well 90-160 Feet Below the Water Table

Figure 12
TRACER TEST LOCATIONS
North Pole Refinery
Flint Hills Resources Alaska, LLC
Figure 13
INJECTION TEST LOCATIONS
North Pole Refinery
Flint Hills Resources Alaska, LLC

- Injection Well
- Injection Monitoring Well
- Monitoring Well
- Bermed Containment Areas
- Sulfolane Isopleth in µg/L from 4th Quarter 2011
Figure 14
HISTORICAL SOIL SAMPLING LOCATIONS
North Pole Refinery
Flint Hills Resources Alaska, LLC