



Annual Summary of Oil and Hazardous Substance Spills

Fiscal Year 2014 (July 1, 2013 - June 30, 2014)

Alaska Department of Environmental Conservation ■ Division of Spill Prevention and Response ■ January 2015

Significant Responses

BPXA, H-08 Flowline Three-Phase Liquid Release

On April 28, 2014, a deadleg off the well H-08 flowline ruptured, releasing a large amount of natural gas and produced water. Approximately 33 acres of snow-covered tundra and two acres of gravel pad were sprayed with an oily mist to varying degrees of coverage. For more than one week, cleanup personnel worked on clearing oil-contaminated snow from the tundra and removing oil that coated areas on well housing and piping on H Pad. Approximately 1,600 cubic yards of contaminated snow were removed and transported to BP's grind and inject facility for final disposal. Recovered melt-water and assorted fluids totaled 1,788 barrels, which were taken to Pad 3 for injection disposal.



Piping showing oil from BPXA spill event, May 2, 2014 (Photo/John Ebel-ADEC)

F/V Arctic Hunter Grounding

On November 1, 2013, the F/V *Arctic Hunter* grounded on the east side of Unalaska Bay, approximately 5 miles northeast of Dutch Harbor. The vessel owner hired Resolve-Magone to contain the spill and execute salvage operations. Resolve-Magone estimates that there were 12,000 gallons of fuel on board, of which 5,500 gallons were recovered. Resolve-Magone estimates that 6,500 gallons of fuel were lost. Heavy surf damaged the vessel too much for intact retrieval, so it was dismantled on scene and hauled away on a barge.

Tug *Silver Bay II* Sinking

On January 14, 2014, after a very strong storm, the tug *Silver Bay II* sunk in approximately 120 feet of water at the Silver Bay facility dock in Wrangell. Initial reports estimated 3,500 gallons of diesel fuel on board; the exact amount was never confirmed because all the diesel was released through the vessel's fuel vents and dissipated or was recovered with sorbent material. USCG and SART Ketchikan responded providing guidance on necessary cleanup actions and assisted deploying sorbent and containment boom. ADEC's local response container was immediately accessed and the equipment was used in the initial response. Signs advising the public of the spill and precautions for collecting subsistence food were posted where oil was found on the beach.

Kake Tribal Fuel Gasoline Spill

On December 14, 2013, Kake Tribal Fuel reported an estimated 8,000-9,000 gasoline spill from their facility. A damaged line at their floating fuel dock released the gasoline into Keku Strait. During the initial spill response, strong odor and pooling fuel was reported around the fuel facility and the small boat harbor. A safety zone was established near the fuel facility, vessels removed from the small boat harbor, and the local fire department



Arctic Hunter aground at Unalaska Bay, November 5, 2013 (Photo/Coast Guard)

FY 2014 Summary

Top 5 Products

Product	Spills	Gallons
Produced Water	41	96,736
Diesel	527	67,889
Aviation Fuel	68	18,855
Process Water	21	14,385
Drilling Muds	28	14,209

Top 5 Facility Types

Facility Type	Spills	Gallons
Natural Gas Production	28	85,037
Oil Production	335	53,188
Air Transportation	65	19,358
Vessel	166	18,997
Mining Operation	305	16,547

Top 5 Causes

Cause	Spills	Gallons
Seal Failure	70	92,992
Human Error	354	26,623
Leak	301	24,638
Line Failure	124	23,831
Overfill	74	23,719

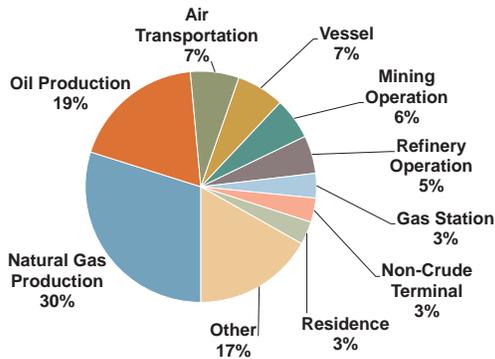
misted the area with water to suppress and disperse flammable vapors. The beaches surrounding the fuel facility are important for personal use and subsistence shellfish harvesting because they are the only shellfish beaches accessible without a skiff. ADEC Division of Environmental Health tested the shellfish using the organoleptic technique and found no indication of petroleum contamination. SART worked closely with the Department of Health and Social Services and ADEC Division of Environmental Health to post signs notifying the public of the spill and recommending against personal use and subsistence shellfish harvesting because of the threat of Paralytic Shellfish Poisoning.

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All Products - FY 2014

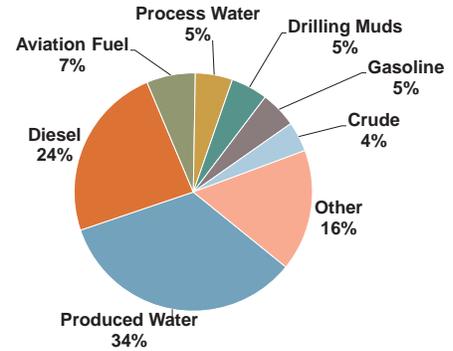
Number of Spills Reported 2,028
 Total Gallons 284,729

Volume Released by Facility Type



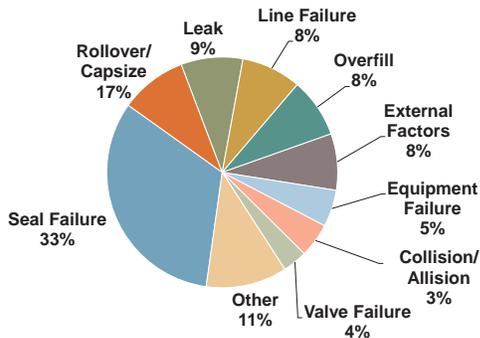
'Other' includes facility categories comprising 3% or less of the total volume released.

Volume Released by Product



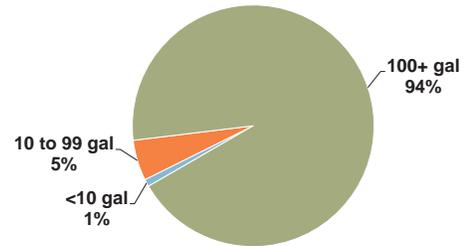
'Other' includes product categories comprising 3% or less of the total volume released.

Volume Released by Cause



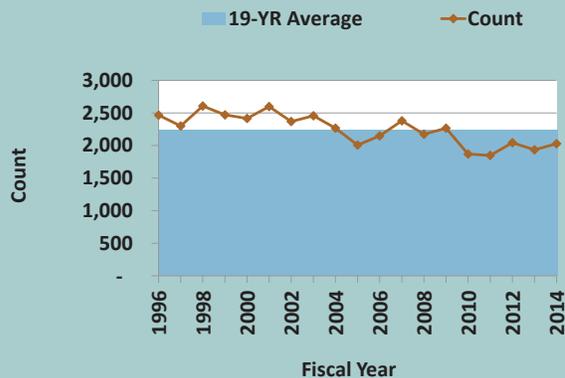
'Other' includes cause categories comprising 3% or less of the total volume released.

Volume Released by Size Class

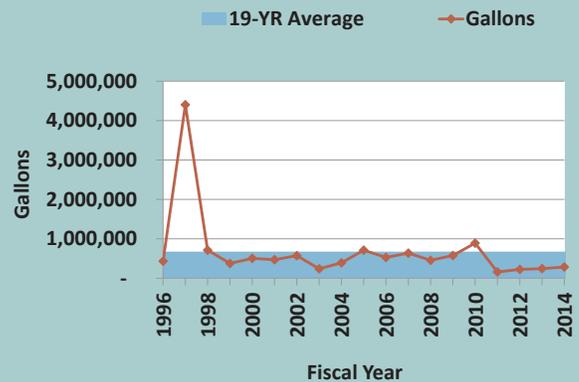


19-Year Trend

Number of Spills by Fiscal Year



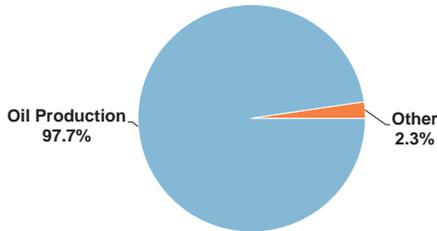
Total Volume by Fiscal Year*



*Notes: 1/25/1997 (FY 1997) - a barge capsized and lost 25,000,000 lbs of Urea (Solid).
 3/17/1997 (FY 1997) - 995,400 gal of Seawater released at ARCO DS-14 in Prudhoe Bay

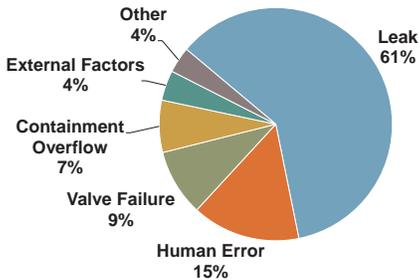
Number of Spills Reported 47
 Total Gallons 11,614

Volume Released by Facility Type



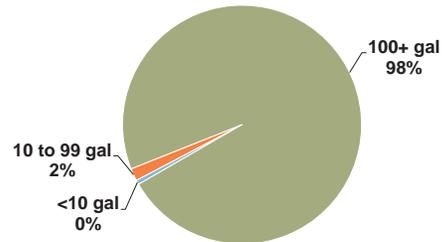
'Other' includes facility categories comprising 4% or less of the total volume released.

Volume Released by Cause

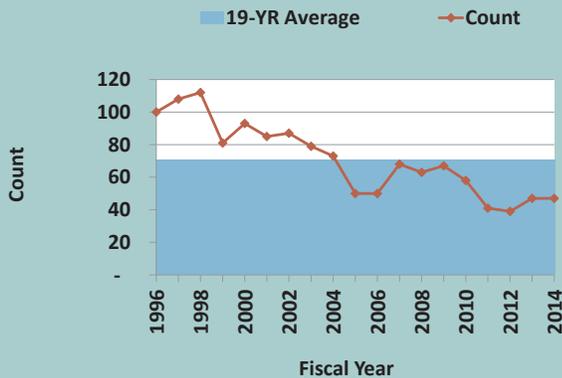


'Other' includes cause categories comprising 3% or less of the total volume released.

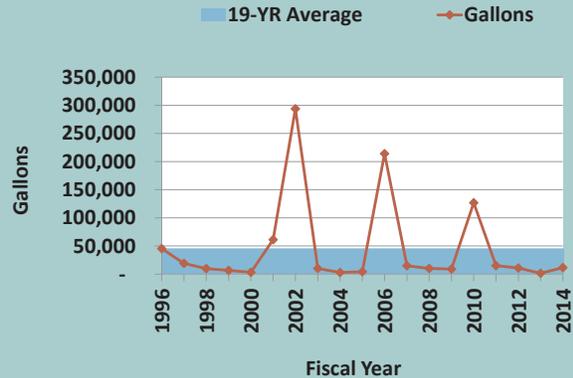
Volume Released by Size Class



Number of Spills by Fiscal Year



Total Volume by Fiscal Year*



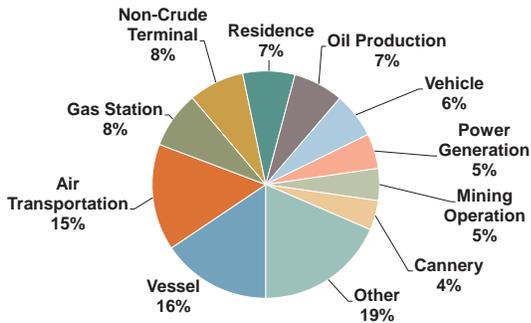
19-Year Trend

*Notes: 10/4/2001 (FY 2002) - TAPS Bullet Hole Release; 285,600 gal Crude
 3/2/2006 (FY 2006) - BP GC-2 Oil Transit Line Release; 212,252 gal Crude

Non-crude Oil - FY 2014

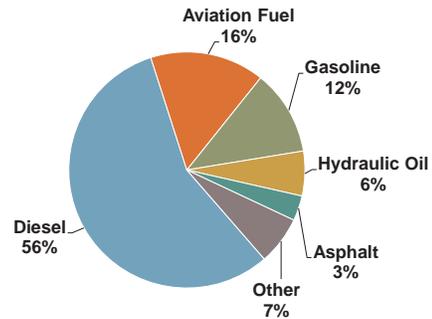
Number of Spills Reported 1,525
 Total Gallons 121,517

Volume Released by Facility Type



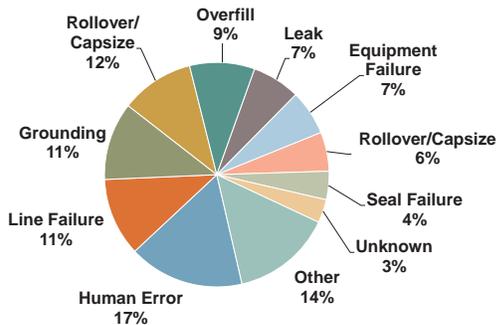
'Other' includes facility categories comprising 4% or less of the total volume released.

Volume Released by Product



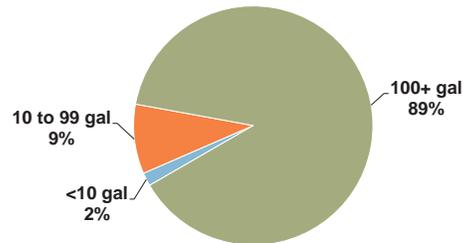
'Other' includes product categories comprising 2% or less of the total volume released.

Volume Released by Cause



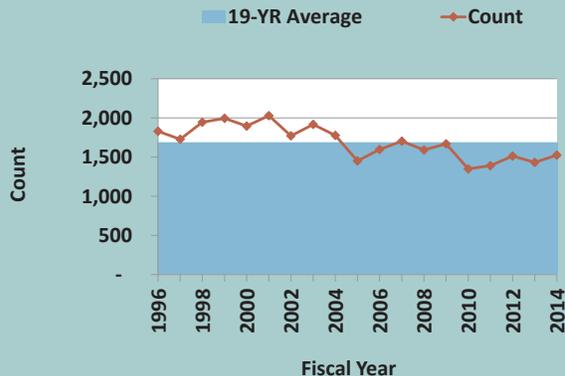
'Other' includes cause categories comprising 3% or less of the total volume released.

Volume Released by Size Class

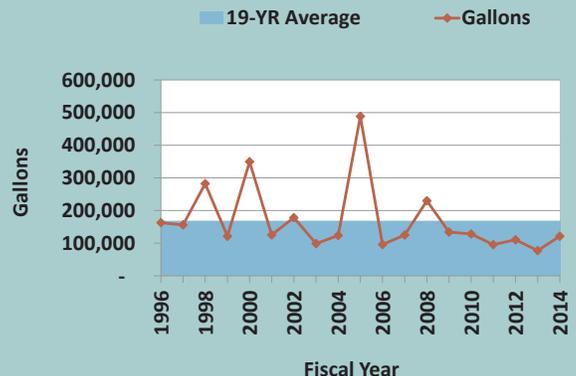


19-Year Trend

Number of Spills by Fiscal Year



Total Volume by Fiscal Year*

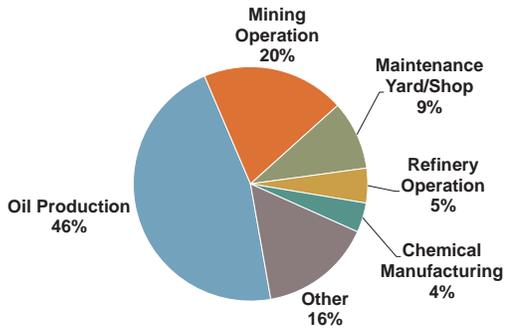


*Notes: 12/8/2004 (FY 2005) - the M/V Selendang Ayu broke apart, releasing 321,052 gal of IFO 380 and 14,680 gal of Diesel

Hazardous Substances - FY 2014

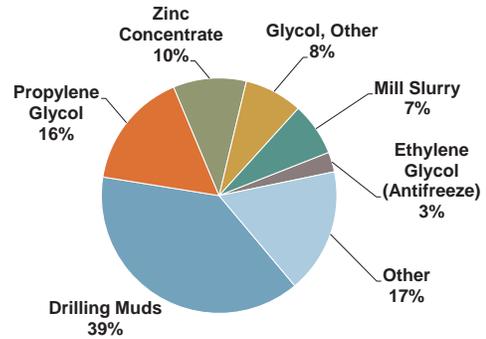
Number of Spills Reported 386
 Total Gallons 36,764

Volume Released by Facility Type



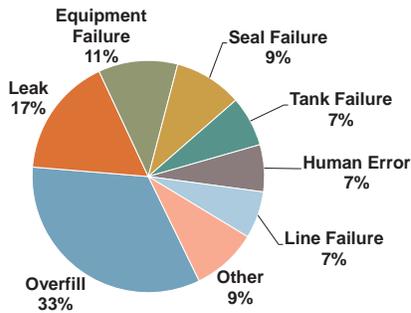
'Other' includes facility categories comprising 4% or less of the total volume released.

Volume Released by Product



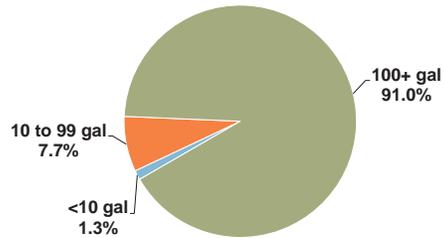
'Other' includes product categories comprising 2% or less of the total volume released.

Volume Released by Cause



'Other' includes cause categories comprising 3% or less of the total volume released.

Volume Released by Size Class



Number of Spills by Fiscal Year

Total Volume by Fiscal Year*

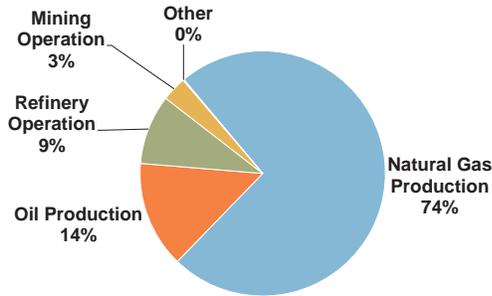
19-Year Trend

*Notes: 1/25/1997 (FY 1997) - a barge capsized and lost 25,000,000 lbs of Urea (Solid).

Process Water - FY 2014

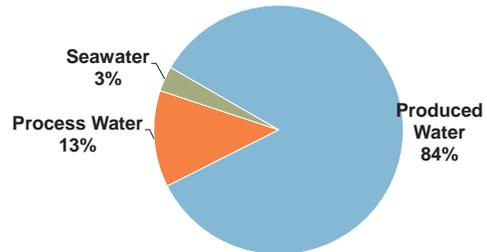
Number of Spills Reported 70
 Total Gallons 114,835

Volume Released by Facility Type

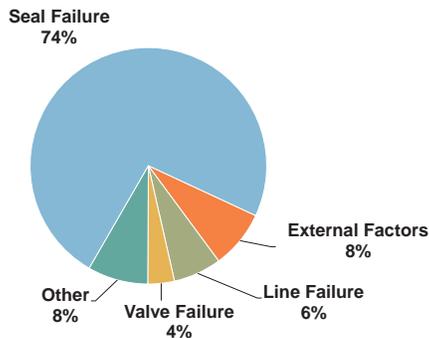


'Other' includes facility categories comprising 2% or less of the total volume released.

Volume Released by Product

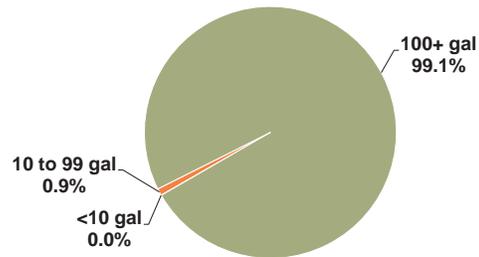


Volume Released by Cause



'Other' includes cause categories comprising 3% or less of the total volume released.

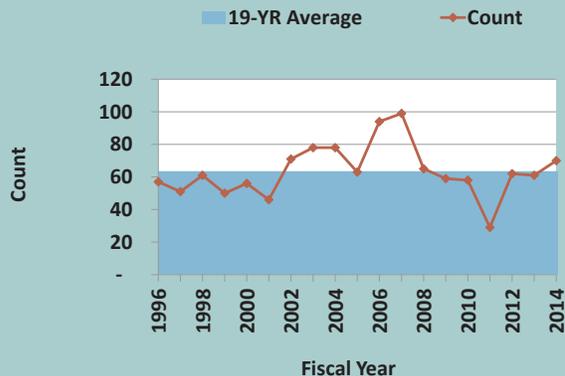
Volume Released by Size Class



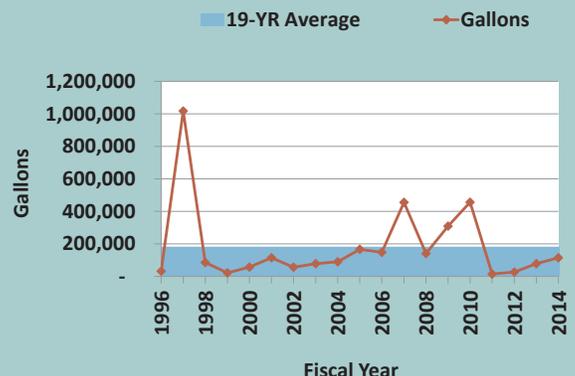
FY14_pie.xlsx/CauseDetail_PW_gal

19-Year Trend

Number of Spills by Fiscal Year



Total Volume by Fiscal Year*



*Notes: 3/17/1997 (FY 1997) - 995,400 gal of Seawater released at ARCO DS-14 in Prudhoe Bay

Process Water (Oil Exploration and Production Operations): Process water includes seawater (and occasionally freshwater), produced water and commingled or mixed water.

Seawater is typically from the Beaufort Sea that has undergone primary treatment at the Seawater Treatment Plant.

Produced Water is water that was included with crude oil and natural gas pumped from the formation then separated from the oil and gas and treated for disposal or reuse. Produced water includes some level of crude oil but the amount varies. Commingled or mixed water is typically a mix of seawater and produced water, although other combinations exist in the operations on the North Slope.

The percentage of crude oil occurring in process water can vary somewhat based on the source of the spill.

Process Water (Mining Operations): Process water for mining operations includes water taken from tailing ponds for the milling process (reclaim water), water that has been through the water treatment plant but not the sand filter (process water), water that has been through both the water treatment and sand filter (discharge water), water mixed with ground ore materials (slurry) or water used in the milling and product recovery process (process solution water).

Spill: a discharge or release of oil or a hazardous substance to the lands, waters or air of the State of Alaska as defined in Alaska Statutes 46.03.826(9).

DISCLAIMER

The data presented and summarized in this report is provisional due to ongoing quality assurance/quality control on the part of data entry staff and primary users. Additional on-going reviews will further refine the accuracy of the data.

NOTES:

- Some spill incidents involve releases of multiple substances. In FY 2014, there were 1,952 spill incidents, resulting in 2,028 oil and hazardous substance releases.
- Some releases (such as gases and solids) are reported in pounds rather than gallons. For graphing purposes, spill quantities reported in pounds were converted to gallons using a conversion factor of 8 pounds per gallon.

Significant Responses - continued from page 1

NOSI Diesel Truck Rollover Dalton Highway Milepost 299.4

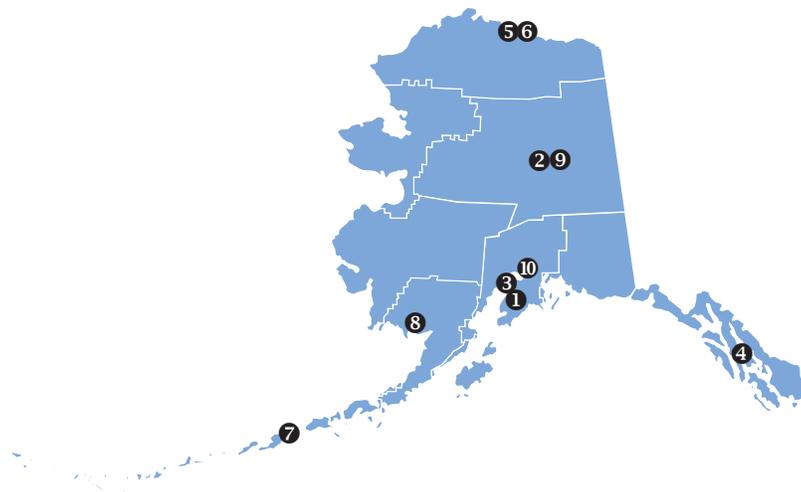
On June 7, 2014 a northbound NANA Oilfield Services fuel tanker departed the Dalton Highway near Slope Mountain at mile post (MP) 299.4 releasing approximately 2,561 gallons of ultra-low sulfur diesel fuel onto tundra grass. Fuel flowed down slope hundreds of feet in a water wash channel developed by an up gradient highway road culvert through tundra grass and a willow plant community, eventually reaching a small stream at the base of the slope. The release affected some of the underground utilities owned by TAPS.

Response actions consisted of developing four shore seal boom treatment cells, which were combined with numerous river and absorbent boom containment and recovery cells. A flush and recovery tactic allowed fuel to release from the plant community and float with the deluge water to recovery points at the treatment cells. Collections cells developed along the stream channel kept fuel contained within the affected area. Analytical monitoring of the plant community, soil and water chemistry will continue over next several years.



ADEC Responder monitoring flushing operations.
(Photo/Kayley Moen-ADEC)

10 Largest Releases FY 2014



Map Key	Spill Date	Spill Name	Product	Gallons
①	01/23/14	Hilcorp Kenai Gas Field Produced Water Spill	Produced Water	84,000
②	10/29/13	Eielson, Blair Lakes Jettison Area 12239 Gal JP-8	Aviation Fuel	12,239
③	07/26/13	Tesoro API Tank Bypass Spill 7-26-2013	Process Water	9,100
④	12/14/13	Kake Tribal Fuel Gasoline Spill	Gasoline	9,000
⑤	03/27/14	ENI Nikaitchuq 7,430 Gal Drilling Fluid	Drilling Mud	7,430
⑥	09/24/13	BPXA, MPU Well I-10 Subsurface Crude release	Crude	6,972
⑦	11/01/13	F/V Arctic Hunter Grounding	Diesel	6,500
⑧	05/14/14	M/V Devon Grounding, Nushagak River	Diesel	5,500
⑨	09/11/13	Eielson AFB Bldg 3241 JP-8	Aviation Fuel	4,761
⑩	04/19/14	Flint Hills, Anchorage, 4,273 Gal Gasoline	Gasoline	4,273

Total Volume by Subarea FY 2014

Subarea	Gallons
Cook Inlet	126,259
North Slope	49,438
Interior Alaska	39,294
Southeast Alaska	22,825
Northwest Arctic	14,653
Aleutian	11,103
Western Alaska	7,737
Bristol Bay	6,857
Prince William Sound	4,329
Kodiak Island	2,234

