

# SPAR Annual Report

---

FISCAL YEAR 2020

DEC | SPILL PREVENTION AND RESPONSE



ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
DIVISION OF SPILL PREVENTION AND RESPONSE

OIL AND HAZARDOUS SUBSTANCE RELEASE  
PREVENTION & RESPONSE FUND ANNUAL REPORT

FISCAL YEAR 2020

Table of Contents

1.0 Response Fund History and Structure.....	3
2.0 Response Fund Health.....	6
3.0 Cost Recovery Program .....	10
3.1 Cost Recovery Information by Industry .....	12
4.0 FY20 Major Responses and Accomplishments.....	15
4.1 Prevention Preparedness and Response Program.....	16
4.2 Contaminated Sites Program.....	23
5.0 Tables, Charts, Graphics, and Statistics .....	29
6.0 Acronyms and Abbreviations .....	42

## 1.0 RESPONSE FUND HISTORY AND STRUCTURE

### *HISTORY OF THE RESPONSE FUND*

The Oil and Hazardous Substance Release Prevention and Response Fund (the Response Fund) was created by the Legislature in 1986 to provide a readily available funding source to investigate, contain, clean up and take other necessary action to protect public health, welfare and the environment from the release or threatened release of oil or hazardous substances. Alaska statute 46.08.030 states: “It is the intent of the legislature and declared to be the public policy of the state that funds for the abatement of a release of oil or a hazardous substance will always be available.” (SLA 1986 Sec.1 Ch. 59). Since 1989, the statutes governing the Response Fund have been amended several times to further define the usage, management, and funding sources.

### *STRUCTURE OF THE FUND*

In 1994, the Alaska legislature amended the Response Fund structure by dividing it into two separate accounts: The Response Account and The Prevention Account. These accounts fund the Department’s mission in distinct ways and have separate revenue sources.

### THE RESPONSE ACCOUNT

The Response Account is used to finance the state’s response to an oil or hazardous substance release disaster declared by the governor or to address a release or threatened release that poses an imminent and substantial threat to public health, welfare, or the environment. If the Response Account is accessed for any incident other than a declared disaster, the Commissioner of Environmental Conservation (or their designee) must provide the Governor and the Legislative Budget and Audit Committee a written report summarizing the release, and the state's actions and associated costs, both taken and anticipated, within 120 hours of that access.

The Response Account receives revenue from two sources:

1. a surcharge of \$0.01 per barrel that is levied on each taxable barrel of oil produced in Alaska deposited into the response surcharge account.
2. costs recovered from parties financially responsible for the release of oil or a hazardous substance deposited into the response mitigation account.

The legislature must annually appropriate revenue from the response surcharge and response mitigation accounts into the Response Account.

The \$0.01 (one cent) per barrel surcharge is suspended when the combined balances of the response surcharge account, the response mitigation account, and the unreserved and unobligated balance in the Response Account itself reaches or exceeds \$50 million.

The Commissioner of Administration reports the balance of the Response Account at the end of each calendar quarter and makes the determination if the \$0.01 surcharge shall be suspended. The combined balance of the Response Account as of December 31, 2020 was \$31.3 million; as a result, the \$0.01 surcharge remains in effect.

## THE PREVENTION ACCOUNT

The Prevention Account may be used to investigate, evaluate, clean up, and take other necessary action to address oil and hazardous substance releases that have not been declared a disaster by the governor or do not pose an imminent and substantial threat to the public health or welfare of the environment. The Prevention Account may also be used to fund Alaska's oil and hazardous substance release prevention programs and to fund activities related to cost recovery. The Prevention Account pays for most of the SPAR operating budget.

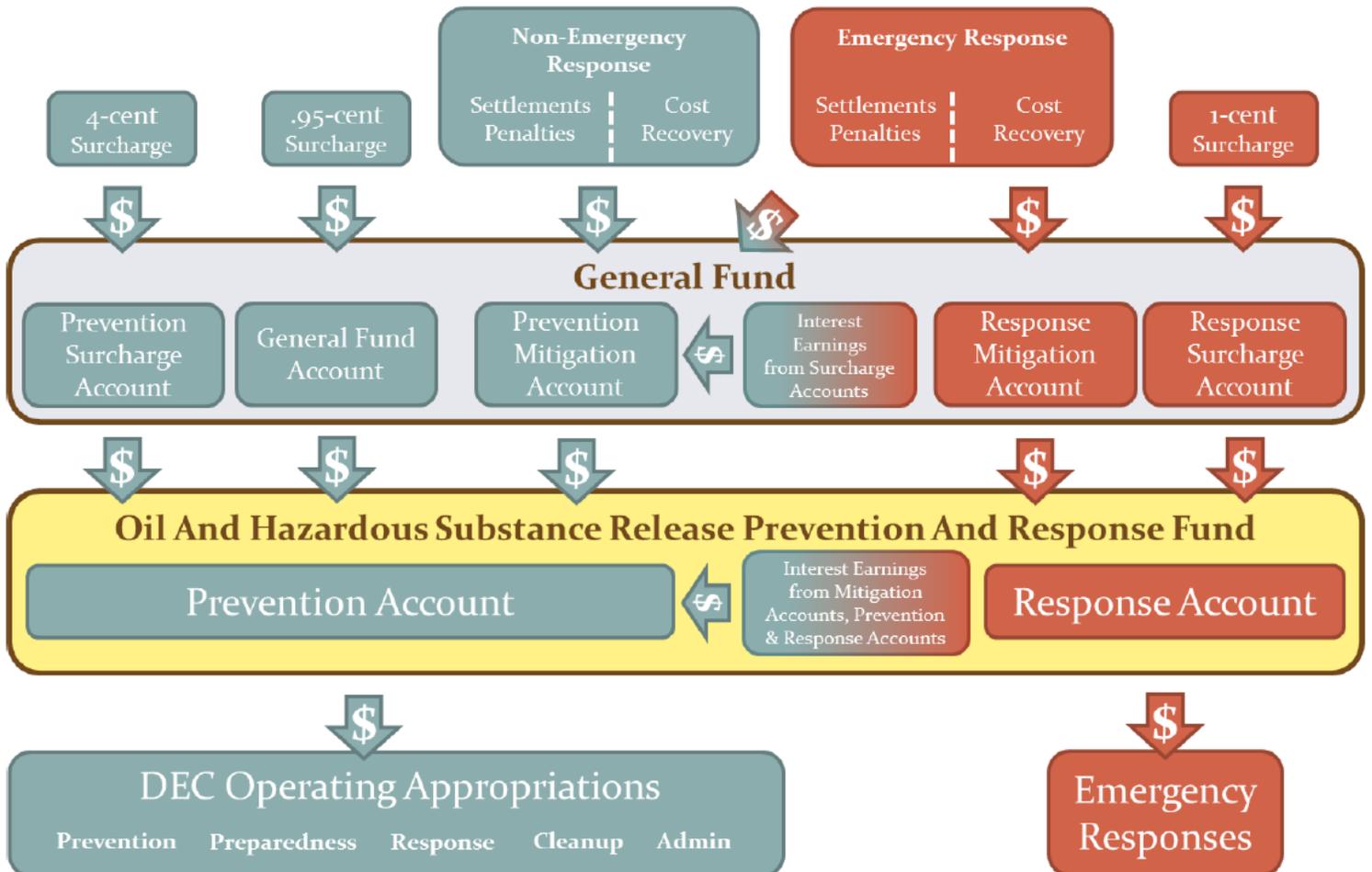
The Prevention Account receives funding from four sources:

1. a surcharge of \$0.04 per barrel that is levied on each taxable barrel of oil produced in the state which is deposited in the prevention surcharge account.
2. a surcharge of \$0.0095 per-gallon on refined fuel sold, transferred, or used at the wholesale level in Alaska (municipalities and electrical co-ops were exempted)
3. fines, settlements, penalties, and costs recovered from parties financially responsible for the release of oil or a hazardous substance deposited into the prevention mitigation account.
4. interest earned on the balance of each of the following accounts deposited into the general fund and credited to the Prevention Account: (a) the prevention account; (b) the prevention mitigation account; (c) the response account; and (d) the response mitigation account.

The legislature must annually appropriate revenue from the prevention surcharge and prevention mitigation accounts into the Prevention Account. The Department receives annual appropriations from the Prevention Account to fund SPAR.

The Prevention Account had an unobligated balance of \$7.9 million at the end of FY2020.

RESPONSE FUND FLOW CHART



## 2.0 RESPONSE FUND HEALTH

### IMMINENT OPERATIONAL IMPACTS FROM REVENUE SHORTFALL

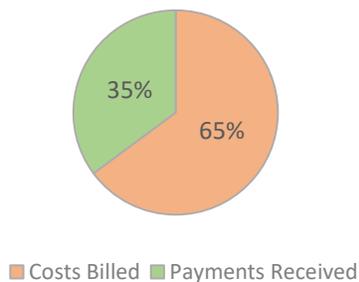
The Prevention Account is facing a critical revenue shortfall that will impact the Department’s ability to protect human health and the environment within the next five years. This is due in part to the continued decline in oil production.

In 2015, House Bill 158 was passed to address the shortfall by implementing a surcharge on refined fuel. It was broadly agreed this was a reasonable approach as most releases resulting in contaminated sites are associated with refined fuel, as opposed to crude oil.

At the time of passage, the refined fuel surcharge was estimated to bring in approximately \$7.5 million annually to fund the Department’s prevention and response activities. Unfortunately, the state overestimated annual fuel consumption. In addition, while the legislation intended to collect the surcharge on all refined fuel, a statutory conflict inadvertently exempted municipalities and electric co-ops from the surcharge. Altogether, the state has been collecting approximately \$1 million less per year than anticipated when the legislation passed.

### LOW RECOVERY RATE OF RESPONSE COSTS

Cost Recovery Rate in FY20



SPAR does not receive Unrestricted General Funds and primarily relies on surcharges on oil and refined fuel for revenue to fund its work. SPAR’s cost recovery billing process recoups some costs that are used to support future response work. However, SPAR’s claims for reimbursement lack statutory “teeth” and have historically experienced a low level of success when pursuing older costs. SPAR only recovers approximately 50% of what it invoices, leaving roughly \$1 million uncollected each year. Outstanding cost recovery invoices older than 6 years totaled \$6.6 million at the end of FY20. Due to these factors, unreimbursed costs are projected to grow. The trend will continue to drain the Prevention and Response Accounts and deteriorate fund health.

### EMERGENCY RESPONSE FUNDING AFFECTED BY DIRECT APPROPRIATIONS

For most of the Response Account history, the account had been accessed only when the Department determined that it was necessary to mitigate an imminent and substantial threat to life, health, and safety of Alaskans or the environment. In 2018, the Legislature made a \$5 million capital appropriation from the Response Account to export soil at the Wrangell Junkyard to a landfill in the Lower 48 instead of a previously identified on-island disposal site. Because there was not a viable responsible party for this site, the Department could not recover any of this expenditure.

There was also a \$9.4 million supplemental capital appropriation from the Response Account in 2019 to address per- and polyfluoroalkyl substance (PFAS) contamination at airports owned by the

Alaska Department of Transportation and Public Facilities (DOT&PF). Traditionally, state agencies have pursued their own funding, often unrestricted general funds, to pay for cleanup of sites where the state is the responsible party. This is in line with the statutory expectation that responsible parties reimburse the state for costs from the Response Fund when responding to a release.

These large draws on the Response Account have a direct impact on the amount of available funds to immediately respond to releases that pose a substantial threat to Alaskans. It also increases the duration that the \$0.01 per barrel of oil surcharge remains in effect.

### **TABLES 3-1 THROUGH 3-3: RESPONSE FUND FINANCIAL TABLES**

**Table 3-1 – Fiscal Year 2020 Expenditures (AS 46.08.060)**

This table summarizes the expenditures for appropriations funded by the Oil and Hazardous Substance Release Prevention and Response Fund (Response Fund) in Fiscal Year 2020.

	Appropriation	Budgeted <sup>1</sup>	Expended
<b>Operating Funds</b>			
Division of Spill Prevention and Response	181610700	\$ 14,120,100	\$ 13,204,684
DEC Administrative Services	181100700	\$ 1,692,300	\$ 1,581,874
DEC State Support Services	181200700	\$ 430,800	\$ 430,800
		<b>\$ 16,243,200</b>	<b>\$ 15,217,358</b>
<b>Capital Funds</b>			
Cook Inlet Pipeline Infrastructure Assessment	182190003		\$ 106,406
Home Heating Oil Tank Spill Assistance Pilot Project	182190004		\$ 105,060
Oil & Haz 1 <sup>st</sup> Responder Equipment & Preparedness	182130026		\$ 3,958
			<b>\$ 215,423</b>
<b>Response Account Funds</b>			
Flint Hills	18ER10200		\$ 252,423
Miller Salvage Leaking Drums	18ER18120		\$ 22,878
BPXA X-49 B Pad Crude Oil Release	18ER19024		\$ 8,709
Aleknagik Vessel Fire Gasoline Release	18ER20025		\$ 6,126
Arctic Pipe Inspection Pad Release	18ER18160		\$ 4,829
APL Yard Diesel Release Kodiak	18ER19017		\$ 4,303
Napakiak LKSO Tank Farm	18ER20001		\$ 3,179
Point Lay PIZ 30 Unknown Diesel Spill	18ER19019		\$ 2,437
Kaktovik PW Pump House	18ER17200		\$ 756
Colville Franklin Bluffs	18ER19003		\$ 618
BPXA DS4 Well 2A Crude Release	18ER19022		\$ 559
Kobuk IRA Building Release	18ER19018		\$ 325
Big State Logistics MP36 Dalton Hwy Release	18ER19023		\$ 308
3350 Black Knight Dr Houston HHOT	18ER19020		\$ 195
Beaver School Tank Farm Diesel Release	18ER19013		\$ 102
MP 318 Richardson Hwy US Army Tanker Rollover	18ER18310		\$ 77
Old Exit Glacier RD HHO Release	18ER19005		\$ 33
Hilcorp E Pad Test Header Pipeline Discharge	18ER19021		\$ 18
			<b>\$ 307,875</b>
<b>Total 2020 Fiscal Year Expenditures:</b>			<b>\$ 15,740,657</b>

<sup>1</sup> Budget amounts are not included for Capital and Response Account appropriations due to the multi-year nature of the work.

**Table 3-2 – Fiscal Year 2020 Revenues Received by the Department (AS 46.08.060)**

This table summarizes the amounts and sources of revenue received and recovered in the Oil and Hazardous Release Prevention and Response Fund and Mitigation Accounts in Fiscal Year 2020.

Revenue Source	Revenue
<b>Prevention Mitigation Account (Fund 3211)</b>	
Cost Recovery	\$ 944,954
Judgements/Settlements	\$ 28,051
Cost Recovery Late Fees	\$ 1,345
Other/Miscellaneous	\$ 500
	<b>\$ 974,851</b>
<b>Response Mitigation Account (Fund 3212)</b>	
Cost Recovery	\$ 167,356
	<b>\$ 167,356</b>
<b>Oil &amp; Hazardous Release Response Fund (Fund 1052)</b>	
Cost Recovery Late Fees	\$ 4,931
	<b>\$ 4,931</b>
<b>Total</b>	<b>\$ 1,147,137</b>

**Table 3-3 – Fund Revenue Source History (AS 46.080.060)**

This table summarizes the amounts and sources of revenue that have been appropriated by the State of Alaska to the Oil & Hazardous Release Prevention & Response Fund since Fiscal Year 2017.

Fiscal Year	Mitigation Accounts	4 Cents Oil Surcharge	1 Cent Oil Surcharge	Refined Fuel Surcharge	Total
<b>FY17</b>	6,643.0	6,836.6	1,709.1	6,543.6	21,732.3
<b>FY18</b>	1,705.5	6,950.7	1,737.6	6,615.5	17,009.2
<b>FY19</b>	1,773.0	6,563.7	1,675.8	6,349.4	16,361.9
<b>FY20</b>	1,233.2	6,612.6	1,654.1	6,275.9	15,775.8

All amounts above are in thousands.

## 3.0 COST RECOVERY PROGRAM

### OBLIGATION TO RECOVER

The Department has a statutory obligation to recover costs. Recovery of response costs are based on the provisions of AS 46.03.760(d), AS 46.03.822, AS 46.04.010, and AS 46.08.070. A person is liable under AS 46.03.760 and AS 46.03.822 for costs incurred by the Department or another state agency. Billable costs are the costs reasonably attributable to the investigation and cleanup of a site and/or the containment and cleanup of a spill incident. Billable costs also include legal costs, potentially responsible party (PRP) searches, obtaining site access, and enforcement actions. Billable costs are those of direct activities, support of direct activities, and interest charges for delayed payments. Recoverable monies are the costs incurred by the Department, contractors, or other entities acting at the direction of the Department.

### COST RECOVERABLE EXPENSES

Most site charges are cost recoverable and are billed to responsible parties. Non-personal services charges that are directly attributable to the site (travel, contractual, and supply charges) are billable. Most personal services charges are billable, but not all. Below is an outline of typical billable personnel activity types along with a general description (please note that this list is not exhaustive):

- **Site Discovery/PRP Identification:** New site information review, research and PRP identification, site intake activities.
- **Incident Management Team (IMT):** Time spent in an Incident Command Post (ICP), or remotely supporting the ICP, during a response.
- **Field Work:** Time spent traveling to/from field sites and time spent at spill sites for assessment, oversight, discussion, sampling etc.
- **Assessment/Characterization:** All activities associated with site characterization and selecting a remedy/cleanup alternative for a site. It includes correspondence and meetings with PRPs to develop and approve site characterization or assessment plans and reports, remedial investigations, risk assessments, feasibility studies, proposed plans, and records of decision. It covers development of site contracting documents and working with Department contractors.
- **Cleanup/Corrective Action:** All activities associated with developing, approving, and overseeing removal action and cleanup plans and reports, including issuing final "Cleanup Complete" determinations. For federal sites, this code includes activities associated with the review and comment on documents related to Base Realignment and Closure, and other property transfers (for example, Finding of Suitability to Lease, Finding of Suitability to Transfer, and Finding of Suitability for Early Transfer).
- **Case Management:** Time spent working on a spill case in the office typically during the project management phase of a spill response. Activities include updating spill files,

communicating with responsible parties, reviewing reports, and other site-specific work performed at the office.

- **Program Management and Development:** All non-administrative management activities including, but not limited to database/information management, staff management, site budget and financial management, contract management, and development of policy, guidance, and regulations as it relates to the management of a project or site.
- **Monitoring:** All activities associated with long term monitoring at sites after any necessary active cleanup has been completed, including requesting, reviewing, and commenting on monitoring plans and reports for soil, groundwater, or in-situ remediation systems. It includes site inspections during long term monitoring activities.
- **Enforcement:** Notices of Violation, compliance orders, litigation preparation, testimony (including depositions), and settlement agreements. Note – some instances related to enforcement (litigation-related or post litigation) may not be cost recoverable.
- **Institutional Controls (IC) Compliance Review:** Work consists of verifying that: deed notices or covenants have been filed with the Alaska Department of Natural Resources (DNR) Records Office; IC attachments appear on the public website; land use conditions have not changed; PRPs or landowners are complying with periodic reporting; IC tasks are being completed, such as site inspections, and IC integrity is maintained, such as engineering controls (signs, fencing, caps, and other measures). Note – if institutional controls are violated, then the personnel time is cost recoverable. In most other cases this time is not cost recoverable.

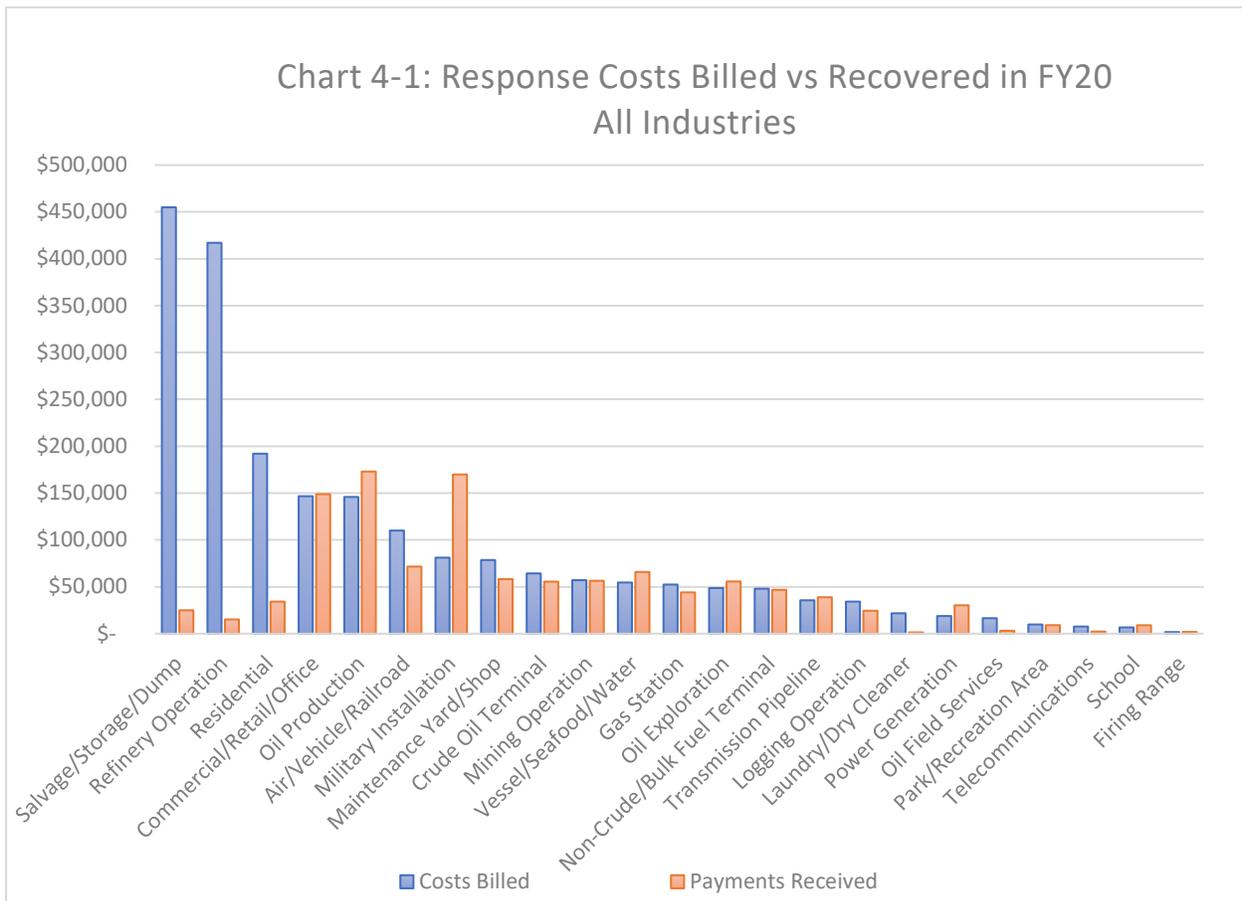
While the Department makes every effort to recover response and oversight costs from responsible parties, there are numerous reasons why billable costs are not recovered. A responsible party's inability to pay is the primary reason. In FY2017, the Department, in partnership with the Alaska Department of Law, established an internal inability to pay process that includes negotiations with the responsible party to recover partial costs and/or establish an installment payment plan. The Department further refined that process to include making ability-to-pay determinations for individuals and businesses by using U.S. Environmental Protection Agency (EPA) financial modeling software. Other reasons for low recovery rates relate to third party liability issues, unclear responsible party determination, and disputed liability.

### 3.1 COST RECOVERY INFORMATION BY INDUSTRY

**CHART 4-1 AND TABLE 4-1: COSTS BILLED IN FY 2020 VS RECOVERED BY INDUSTRY**

The chart and table below compare the amount of costs billed through the SPAR’s cost recovery billing process to responsible parties during the fiscal year with the total amounts of payments received during the fiscal year. Given the fact that projects span multiple years and costs are billed monthly, the payments received may relate to prior fiscal year expenses.

The industry types shown below reflect the type of facilities where releases have occurred. The “Residential” category includes releases at shared living facilities (such as nursing homes and correctional institutions) as well as home heating oil releases where cost recovery has not been exempted.



**Table 4-1: Response Costs Billed and Recovered in FY20**

Cost Recovery Invoices Billed and Payments Collected During the Fiscal Year

Industry Type	Costs Billed	Payments Received
Salvage/Storage/Dump	\$ 454,893	\$ 24,952
Refinery Operation	417,033	15,167
Residential	192,042	34,203
Commercial/Retail/Office	146,650	148,814
Oil Production	145,846	173,003
Air/Vehicle/Railroad	110,002	71,565
Gas Station	52,385	44,029
Maintenance Yard/Shop	78,573	58,173
Military Installation	81,088	169,876
Crude Oil Terminal	64,283	55,527
Mining Operation	57,068	56,434
Vessel/Seafood/Water	54,574	65,808
Oil Exploration	48,647	55,673
Non-Crude/Bulk Fuel Terminal	48,002	46,733
Transmission Pipeline	35,592	38,854
Logging Operation	34,176	24,467
Laundry/Dry Cleaner	21,741	1,386
Power Generation	18,813	30,255
Oil Field Services	16,505	3,083
School	6,661	8,985
Park/Recreation Area	9,781	9,043
Telecommunications	7,569	2,273
Firing Range	1,720	1,886
<b>Grand Total</b>	<b>\$ 2,103,644</b>	<b>\$ 1,140,189</b>



## **4.0 FY20 MAJOR RESPONSES AND ACCOMPLISHMENTS**

## 4.1 PREVENTION PREPAREDNESS AND RESPONSE PROGRAM

### PREVENTION AND PREPAREDNESS

#### IMPACTS OF COVID-19 ON ODPCP INSPECTIONS AND EXERCISES

SPAR approved all staff to telework in mid-March 2020 and continued to telework through the end of the calendar year. Soon thereafter the Program issued a *COVID-19 Caused Non-Compliance Concerns, No Action Assurance Memorandum* which outlined the process for industry to defer industry planned drills and exercises and to submit deferral requests for internal and external tank and associated facility oil piping inspections. SPAR's field work and in-person events have been canceled or kept to a minimum during the last quarter of FY20, including limiting spill response field work to essential visits only and canceling all in-person, Department-led facility inspections. Five exercises



*SPAR staff conduct terminal tank farm inspections at the North Pole facility in 2020.  
(Photo/DEC)*

scheduled for the second half of FY20 were postponed or canceled because of COVID related safety concerns. Integrity and Engineering staff provided specialized technical support during the review of aboveground storage tanks and facility oil piping integrity inspection and corrosion control system survey deferral requests due to COVID-19. All requests to defer third party inspections were reviewed on a case-by-case basis and evaluated for risk based on prior inspection results and the facility's proposed equivalent protections during the deferral period prior to approval. Equivalent levels of protections included more frequent in person monitoring of components and additional monitoring and communications during the movement of oil. In total, 62 tank specific inspection deferral requests were received by the program in FY20: five were disregarded because a waiver was not necessary, 37 external tank inspections were deferred, and 20 internal tank inspections were deferred. Additionally, piping inspections were deferred at three facilities and cathodic protection system inspections were deferred at three facilities.

#### PUBLIC SCOPING: OIL DISCHARGE PREVENTION AND CONTINGENCY PLAN REQUIREMENTS

To seek input on Oil Discharge Prevention and Contingency Plan regulations in 18 AAC 75, Article 4, the Department conducted an extensive public scoping process from October 15, 2019 through March 16, 2020 that included the solicitation of comments on the authorizing statutes in AS 46.04. SPAR asked the public how the regulations could be made clearer and more understandable without compromising environmental protection and to identify regulation areas that might be duplicative or outdated. SPAR used SmartComment software to ensure ease of commenting for interested parties and to ensure all comments were immediately available for anyone to see. In all, SPAR received 236 comments from 128 commenters that included agencies, tribal organizations, independent citizens,



*An Incident Management Team exercise hosted by Marathon Oil and CISPRI on October 24, 2019. (Photo/DEC)*

non-governmental organizations, and regulated industry members. Comments ranged from recommendations to make planning requirements more stringent to loosening planning requirements for the regulated industry. Some were general in nature, and others were highly detailed and specific. Each comment is valued by the Department. SPAR recognizes that no matter how brief or lengthy, each commenter took the time and important effort to ensure oil spill prevention and response preparedness requirements will serve Alaska and Alaskans well now and into the future.

Comments were sorted and categorized according to topic and/or regulatory citation. Staff considered every comment in detail, and over the

last quarter of FY20, staff met twice weekly with managers and the Commissioner's Office to review plan regulations and comments received. Looking forward into FY21, the Prevention, Preparedness, and Response Program (PPR) will work with the Commissioner's office to identify and draft recommended updates and revisions to the regulations.

The "Article 4" project was PPR's highest priority regulation project in FY20, and it remains so going into FY21. Even with that priority, the program worked on three other regulation projects that were intended to reduce regulatory burden, update technical standards, or that were required to be updated by law. Each of these smaller projects should reach completion in FY21.

#### INTERAGENCY SPILL RESPONSE PLANNING – WILDLIFE RESPONSE GUIDELINES

The Alaska Regional Response Team's Wildlife Protection Committee, a multi-agency and stakeholder workgroup including SPAR staff, U.S. Department of the Interior (DOI)-Office and Environmental Policy and Compliance, DOI-U. S. Fish and Wildlife Service, EPA, USCG, and National Oceanic and Atmospheric Administration (NOAA) completed a major update to the *Wildlife Protection Guidelines for Oil Spill Response in Alaska* (WPG) in FY20, and final signatures were obtained in early FY21. The WPG is a comprehensive, non-regulatory guidance document designed to help oil spill responders and contingency planners minimize the effects of oil spills on fish, wildlife, and their habitats. It was last updated in 2012. This stand-alone document is incorporated by reference into Alaska's four Area Contingency Plans (ACPs) and can be found on the Department's ACP References and Tools site. The revision is the culmination of over two years of intensive effort and involved participation by representatives from federal and state agencies including the Alaska Department of Fish and Game, Alaska Native organizations, industry, spill response organizations, regional citizens' advisory councils, wildlife response experts, and non-governmental organizations, as well as a formal public review process led by the Department. Major improvements include a reorganized format to match ACPs; new responder-focused forms, tables, and decision-making flowcharts; clarification and streamlining of procedures for permitting and required consultations; and updated reference information based on the latest science. The updated WPG was improved by field testing draft forms and procedures during several oil spill drills and incidents. It will continue to be improved upon annually based on user feedback.

### FINANCIAL RESPONSIBILITY REGULATIONS: DOLLAR AMOUNT ADJUSTMENT DEFERRED

Regulated oil industry operators are required to obtain approved proof of financial responsibility to ensure operators are financially able to respond to and clean up spills from their covered facilities in Alaska. AS 46.04.045 requires the dollar amount of the required financial responsibility proof to be adjusted according to the Anchorage Consumer Price Index by June 30 every three years. Regulations to implement this requirement were drafted and the public comment period was completed. Due to COVID-19 and the Governor's Declaration of Public Health Disaster Emergency, the regulation package adjusting financial responsibility dollar amounts was deferred and consequently not adopted at the end of FY20.

### HILCORP ALASKA, LLC GREATER PRUDHOE BAY MAJOR AMENDMENT

On June 30, 2020, Hilcorp Alaska, LLC (Hilcorp) acquired the remainder of BP Exploration Alaska Inc.'s (BPXA) upstream assets and took over as operator of Greater Prudhoe Bay, the largest oil field on the North Slope. To maintain compliance, Hilcorp submitted a major amendment incorporating the Greater Prudhoe Bay facilities into its existing Oil Discharge Prevention and Contingency Plan. Given the scale and complexity of this major amendment, the Department and Hilcorp engaged in multiple pre-application meetings prior to submittal, evaluating response planning standards and scenarios to ensure all required oil spill prevention and response requirements were met and key elements developed over the course of BPXA's ownership were included.

Upon submittal on January 22, 2020, the Department coordinated the public review, culminating with amendment approval on June 30, 2020, concurrent with the transaction. The Department included robust conditions as part of the amendment approval. As the climate on the North Slope changes and infrastructure ages, more discharges are occurring from wellhead surface casing leaks due to subsidence. Hilcorp has agreed to collaborate with the Department and the Alaska Oil and Gas Conservation Commission (AOGCC) to create a surface casing leak monitoring plan to prevent future surface casing leak discharges and to monitor wells with previous discharges. Additionally, Hilcorp performed a field study at Flow Station 2 in summer 2020 to evaluate the integrity of the secondary containment area. The secondary containment areas at Flow Stations 1, 2, and 3, constructed in 1978, rely on sheet metal curtain liner sides and permafrost bottoms. The study has shown that while the average temperature on the North Slope is increasing at a faster rate than previously modeled, the sheet metal liner at Flow Station 2 remains in contact with the permafrost, and according to the updated models it should remain that way for at least another ten years. Hilcorp and the Department are working together to ensure that these containments remain sufficiently impermeable to maintain regulatory compliance. The Hilcorp plan currently covers production and drilling activities at the Greater Prudhoe Bay, Endicott, Milne Point, and Northstar facilities along with flow lines, crude oil transmission pipelines, and regulated oil storage tanks.

## RESPONSE

### RELEASES OF FIRE-FIGHTING FOAM



*Totes containing High Expansion Foam (HEF) waste being stored at Rolling Stone, Inc. in Salcha on April 23, 2020. (Photo/ADEC)*

Releases of fire-fighting foam product/water solution were among the largest reported spills in FY20. By volume, 96% of the fire-fighting foam product released was part of routine, planned testing of fire suppression systems. Facilities are required to report to the Department and receive approval for transport and disposal of waste materials from fire suppression system tests. The volume of product released during routine system checks was 115,691 gallons (97% was fluorine-free) in FY20.

The largest single release was the intentional discharge of High Expansion Foam (HEF) wastewater generated from fire suppression system testing at the U. S. Eielson Air Force Base (Eielson AFB). Federal contractors improperly transported approximately 65,400 gallons of HEF wastewater to two private properties in Salcha where approximately 53,400 gallons were discharged untreated onto the ground between fall 2019 and spring 2020. The HEF waste contained ethylene glycols and several alcohols, which represented a potential risk to public and private drinking water wells. Sampling of waste from the same projects found PFAS exceeding State standards for protection of human health, raising the concern that the improperly disposed HEF waste may have also contained PFAS. The United States Air Force (USAF) and the Department tested two public wells near the dump sites and private wells within a quarter mile radius for contaminants of concerns associate with the release. No exceedances were reported in drinking water. The federal contractors sampled soil and groundwater at the discharge location to determine if environmental remediation is necessary, the Department is still reviewing those reports.

### ALYESKA VALDEZ MARINE TERMINAL CRUDE RELEASE

On April 12, 2020, a spill was discovered through observation of sheen near the Alyeska Pipeline Service Company's (APSC) Valdez Marine Terminal (VMT) Small Boat Harbor that is in the Port of Valdez. APSC identified the source as a sump that had overflowed a crude oil and water mix about a quarter mile uphill from the VMT Small Boat Harbor. After tactical digs were completed to understand the pathway of oily water from the sump to the shoreline, APSC discovered an underground culvert that runs under the area near the overflowing sump with an outfall near the VMT Small Boat harbor.

The Department along with APSC, and the U.S. Coast Guard responded as a Unified Command and more than 240 personnel worked to support the response efforts. Due to COVID-19 the Unified Command mostly operated remotely



*Overhead photo of the Valdez Marine Terminal Small Boat Harbor on April 16, 2020, looking west. (Photo/Alyeska Pipeline)*

with limited in-person interactions. Primary response actions included booming the culvert outfall location to keep oil contained in the vicinity of the VMT Small Boat Harbor and a water management project to collect water from the culvert before it entered the Port of Valdez. Within the boomed area and on land, crews recovered oil via skimming and passive collection. Protection boom was deployed to prevent impacts to the Solomon Gulch Hatchery, the Valdez Duck Flats, Saw Island, and Seal Island sensitive areas. Shoreline impacts were limited to the area near the VMT Small Boat Harbor and have been restored to pre-spill conditions.

Following the completion of oil recovery actions, APSC calculated that the volume spilled was 34 bbls. The cause analysis determined that debris had prevented a check valve attached to the sump system from closing and that the automatic leveling system did not function properly to lower the liquid level of the sump.

### SHUNGNAK SCHOOL TANK HEATING OIL RELEASE

On June 20, 2020, the Department was notified of an approximately 15,000-gallon heating oil release that occurred in Shungnak while fuel was being offloaded from a barge. The fuel delivery was intended for the Shungnak Native Store tanks; however, the fuel was inadvertently routed to Northwest Arctic Borough School District tanks via a three-way valve that was in the wrong position. The fuel entered one of the school tanks and overflowed, saturating the sandy soil in the area. A response crew from Shungnak responded to the spill immediately, removing the spilled heating oil using sorbent material and pumping heating oil into containers. Fortunately, the Kobuk River was not impacted.



*Home heating oil fuel tanks near Shungnak School along the Kobuk River on June 22, 2020. (Photo/DEC)*

The Department formed a Unified Command with EPA and the Native Village of Shungnak to oversee and manage the spill response. Daily meetings were held with involved parties and stakeholders to coordinate resources, discuss tactics, and negotiate a contaminated soil storage location. The initial daily meetings and ongoing collaboration proved to be invaluable to find the best outcomes to challenging issues that arose during the remote response.

In the initial cleanup, 350 yards of contaminated soil was excavated in the area near the tank farm and taken off site for temporary storage at the landfill. The contaminated soil was transferred to an appropriate location for storage until next summer, when it will be land farmed to reduce petroleum concentrations. Earthwork and cleanup measures will continue at the spill site next spring.

## DELTA WESTERN HAINES DIESEL FUEL RELEASE

On May 29, 2020, a spill was reported to the Department from the Delta Western Haines Terminal Tank Facility located in Haines. A discharge was observed at the base of Tank #1 that has a 516,721-gallon capacity. The operator estimated 1,000 gallons of diesel were released from the tank. Product released into the secondary containment area (SCA) escaped the containment area because of a failure in the liner. As a result, an estimated 735 gallons of diesel fuel was released into the environment.

Prior to staff traveling to the site, outreach to the local community was done to ensure responders followed all local COVID-19 protocols.



*A cleanup crew removes petroleum-impacted soil from the drainage swale in June 2020 after the Delta Western Haines Facility Tank 1 Release. Supersacks with impacted soil can be seen in the upper left. (Photo/DEC)*

On June 2, 2020 staff responded to the site of the release and conducted a walkthrough of the facility and a review of the facility documentation and records. During the walkthrough of the upper tank farm and the area surrounding the SCA, visual observations and gas detector readings indicated the soil outside of the SCA had been impacted with diesel fuel. In addition, free product was observed in the waters of a nearby creek located northwest of the upper tank farm.

Department staff worked with the responsible party to ensure adequate cleanup of the release occurred. This included the excavation and proper disposal of 457 cubic yards of impacted soil, 612 gallons of recovered product through skimming and absorbent pads from outside the SCA, and the collection 102 gallons of free product from within the

SCA. Following the release, Delta Western repaired the SCA and conducted an internal inspection of the tanks.

## COMMERCIAL TRUCKING INCIDENTS

During FY20, the Department received seven reports statewide of truck incidents where commercial trucks went off the roadway resulting in a release of fuel or hazardous substances, down from 16 reports the previous year. In FY20, only three of the seven incidents were associated with bulk fuel trucks. Approximately 1,398 gallons of diesel fuel were spilled in total from the incidents. A vehicle collision in January on the Klondike Highway north of Skagway resulted in the release of approximately 450 gallons of diesel from a fuel truck onto the roadside snow during blizzard conditions. The spill response was delayed because of the weather and contamination was eventually transported and tracked away from the accident site during road clearing and snow removal efforts, significantly complicating efforts to delineate and remove soil contamination during the summer and fall of 2020.



*A SPAR responder at a pipeline cleaning shutdown in February 2011. The device pictured, known as a pig, is used to clean and track critical maintenance for oil transport pipelines. (Photo/DEC)*

## **OUTREACH & INTEGRITY AND ENGINEERING SUPPORT**

In addition to their routine work, SPAR's Integrity and Engineering (IE) staff provided specialized technical support during the review of aboveground storage tanks and facility oil piping integrity inspection and corrosion control system survey deferral requests due to COVID-19. IE engineers reviewed inspection reports and industry standards to provide risk-based recommendations for the most important inspection aspects in integrity assurance. IE's technical reviews were an integral part of PPR's efforts in working with plan holders to address the pressing public health concerns and oil spill prevention regulatory requirements.

The IE Unit provided review and oversight of the Hilcorp assumption of operation for Greater Prudhoe Bay facilities, the largest and second oldest production field in the State. IE staff reviewed the Oil Discharge Prevention and Contingency Plan amendments and waivers to ensure that spill prevention requirements would be consistently and continually applied, and that expectations were adequately memorialized through the ownership transfer of the Prudhoe Bay field. For the 3<sup>rd</sup> year, IE staff continued the effort of reviewing statewide Cathodic Protection surveys reports.

## 4.2 CONTAMINATED SITES PROGRAM

### STATEWIDE PFAS

SPAR began requesting sampling and analysis for PFAS in 2009. By 2016, the Department established soil<sup>2</sup> and groundwater<sup>3</sup> cleanup levels for the two most studied PFAS: perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA).

In 2016, EPA issued a final Lifetime Health Advisory Level (LHA) for PFOS and PFOA in drinking water and advised people to limit consumption of water containing more than 70 parts per trillion (0.07 µg/L) of PFOS, PFOA, or a combination of the two. The EPA LHA is lower than the Department's groundwater cleanup levels of 0.4 ug/l for PFOS and PFOA individually. The Department currently uses as the LHA as the Action Level for determining when a responsible party should provide residents with alternative drinking water.

In FY20, the Contaminated Sites Program continued to identify and respond to PFAS contamination at sites across the State. Most PFAS impacts identified to date are attributed to the use and discharge of Aqueous Film Forming Foam (AFFF). Staff coordinated with DOT&PF and the Department's Drinking Water program to evaluate current and former state airports for potential risk from exposure to PFAS in drinking water. Contaminated Sites program staff conducted research, outreach, and drinking water sampling in Iliamna and Aniak in FY20; no drinking water samples were above the EPA LHA. The Contaminated Sites program continued coordinating with DOT&PF, Alaska Department of Administration's Risk Management Division, and the Alaska Department of Health and Social Services for on-going response actions in affected communities<sup>4</sup> including providing interim bottled water and evaluating the feasibility of long-term alternative water solutions.

Additionally, the Department continued working closely with the USAF, City of Fairbanks, APSC, and other responsible parties on their efforts to evaluate groundwater and drinking water for PFAS contamination, provide alternative drinking water, and work towards long term solutions for treated or alternative drinking water sources.

To provide information to the public, SPAR continued to post PFAS drinking water sample results on our webpage here: <https://dec.alaska.gov/spar/csp/pfas/sample-results/>. Over 350 PFAS impacted drinking water wells have been identified to date and thousands of residents who had unknowingly been drinking PFAS contaminated water now have access to alternative drinking water.

SPAR staff continued tracking nationwide information about PFAS toxicity, laboratory analytical methods, treatment technologies, regulatory standards and guidance, and public concerns. Staff participated on the Interstate Technology and Regulatory Council (ITRC) PFAS work group along with state, federal, and industry counterparts. Staff also participated on the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) work groups, which collaborate on environmental policy and regulatory issues, including PFAS, with EPA, the U.S. Department of Defense (DOD) and other stakeholders. Staff participated in regularly scheduled calls and web-

---

<sup>2</sup> 18 AAC 75.341, Table B1

<sup>3</sup> 18 AAC 75.345, Table C

<sup>4</sup> Communities affected by PFAS contamination above the EPA LHA in drinking water from DOT&PF managed airports includes Fairbanks, Gustavus, Yakutat, King Salmon, and Dillingham.

meetings regarding PFAS with EPA and other states and attended a two-day training in June 2020 to learn the latest information regarding the fate and transport of PFAS in the environment.

#### EIELSON AFB

The Department continued its regulatory oversight and partnership with the USAF and EPA to ensure proper management of contaminated sites at Eielson AFB, and at locations affected by groundwater contamination from Eielson AFB. Extensive community and agency coordination continued throughout FY20 regarding a significant PFOS and PFOA plume in groundwater that was discovered in 2015. PFOS and PFOA contaminated groundwater has migrated off base into the Moose Creek community. Since that time, upgrades to the Eielson AFB water treatment plant and efforts to provide alternate water or treatment systems to residential well users in Moose Creek have addressed the immediate drinking water exposure pathway. Construction of the City of North Pole's public drinking water system expansion to the community of Moose Creek continued and the main transmission line and a pumphouse were completed in FY20. The expansion of the public drinking water systems is part of a permanent remedy in accordance with the "Interim Record of Decision for Community of Moose Creek, Alaska, Long Term Water Supply". The remaining system components are scheduled for construction in FY21. Also, in FY20, the USAF applied to DNR to have a Critical Water Management Area established in Moose Creek to limit use of the contaminated groundwater, worked with property owners to get environmental covenants signed restricting groundwater use, and secured agreement from property owners to be connected to the water system when complete.

#### US ECOLOGY MOOSE CREEK FACILITY THERMAL REMEDIATION OF PFAS CONTAMINATED SOIL

The Moose Creek Facility was established in North Pole, Alaska in 1990 by OIT, Inc. to thermally treat petroleum contaminated soils and other related materials. The Moose Creek Facility was acquired by NRC, Alaska, LLC in April 2019. Following test trials indicating successful treatment of PFAS contaminated soil, an Air Quality Control Minor Permit (AQ0325MSS02) was issued in March of 2019 and an addendum to the existing Facility Operations Plan was approved in April 2019 to allow remediation of PFAS-contaminated soil on a case-by-case basis. The facility installed a wet scrubber in 2019 to decrease air emissions. In May 2019, SPAR and the Department's Division of Air Quality coordinated with NRC, Alaska LLC. to conduct a joint emissions source test and test burn of material to determine the efficacy of thermal treatment on the first PFAS contaminated waste accepted by the facility. Following the successful source test and test burn, the facility continued to accept and treat PFAS-contaminated soil. In November 2019, NRC Alaska merged with US Ecology. In March 2020, SPAR approved the facility's three-year renewal of the operations plan that incorporated the April 2019 addendum and allowed the facility to accept PFAS contaminated material without case-by case approval. In FY20, PFAS contaminated soil waste was successfully treated at the Moose Creek Facility.

The 2020 National Defense Authorization Act, signed into law in December 2019, prohibits thermal treatment of PFAS contaminated soil waste generated by DOD cleanups at the US Ecology Moose Creek Facility.

## NORTH POLE REFINERY

The sulfolane groundwater contamination originating from the former North Pole Refinery continues to be one of the largest contaminated groundwater plumes in the State, impacting 500-600 homes in the greater North Pole area. A trial was held in Alaska Superior Court during October 2019 involving the combined suits of the State of Alaska and Flint Hills Resources Alaska against the former refinery owner and operator, Williams Alaska Petroleum, Inc. A court ruling and judgement followed in early 2020 where Williams was found liable for releases of both sulfolane and PFAS



*Trial in Fairbanks during October 2019 regarding sulfolane and the former North Pole Refinery. (Photo/John Dougherty, KTVF)*

to soils and groundwater. Williams is in process of appealing the Court's decisions but has subsequently taken over offsite sulfolane monitoring in groundwater within the greater North Pole area. Williams has also engaged in a preliminary assessment of the distribution of PFAS in groundwater on the former refinery. PFAS is present because of former AFFF use on the refinery. Private well connections to the City of North Pole's expanded piped water (a result of a 2017 settlement agreement between the State of Alaska, the City of North Pole and Flint Hills Resources) were completed during 2020. A total of 638 properties have been hooked-up to the utility to provide clean drinking water to neighborhoods already impacted by sulfolane contamination, as well as those that may become impacted in the future.

Chronic toxicology studies of sulfolane undertaken by the National Toxicology Program were completed and some preliminary results were reported in 2019. Additional information is not expected to be available until FY21 or later.

## PORT CLARENCE LAND TRANSFER

In 1925, the United States Coast Guard began operating a light beacon at Point Spencer on the Seward Peninsula. This eventually became the Port Clarence LORAN Station which operated until 2010. Contaminated sites investigations at the facility have been underway since the 1980s. In 1976, Bering Straits Native Corporation (BSNC) filed an ANCSA claim for Point Spencer and the land occupied by the LORAN Station. In 1978, the State of Alaska filed under the 1958 Statehood Act for much of the same land. In 2014, the Department funded site characterization work at the facility to facilitate any land transfers. In February 2016, the U.S. Congress passed legislation which required the Department of the Interior (DOI) to offer ownership of Point Spencer Tracts 2 and 5 to BSNC.

SPAR staff, along with representatives from BSNC, Department of the Interior, and Bureau of Land Management (BLM) have met regularly since 2015 to accelerate cleanup actions and facilitate the land transfer. In FY2020, a Decision Document was finalized, the Patent was signed, the State of Alaska relinquished its interest, and the land was formally conveyed to BSNC on July 30, 2020. Contaminated sites investigations are ongoing at some parcels still owned by the Coast Guard.

Additionally, an environmental covenant is being prepared by BSNC and the Department on the conveyed Tracts 2 and 5 to allow continued access for these investigations.

## AMCHITKA ISLAND

In FY20, SPAR, in partnership with the University of Alaska Fairbanks (UAF), continued to provide regulatory oversight of United States Department of Energy (DOE) facilitated study of the long-term environmental impacts from three underground nuclear tests conducted between 1965 and 1971 on Amchitka Island. With the Department and UAF oversight, DOE facilitated hydrological, geophysical, and biological investigations to determine if there have been any releases of radionuclides into the marine environment because of the former underground detonations. The investigations conducted to date, including a 2016 sampling report recently finalized provided no evidence that test-related radionuclides have migrated to marine environments on or around Amchitka Island. Radionuclide levels measured in biota samples were below site-specific risk-based consumption levels and established international food safety guidelines.



*Dusty Rockfish, principal fish collected near Amchitka for radionuclide analysis.  
(Photo/UAF)*

## CLEAR AFS – BMEWS DEMOLITION AND LRDR CONSTRUCTION

Clear Air Force Station (Clear AFS) has been a major component of the United States' missile defense system since the Ballistic Missile Early Warning System (BMEWS) radar was constructed there in the late 1950s. In 2016, more than a billion dollars' worth of construction began at Clear AFS, to demolish the antiquated BMEWS and construct the new Long-Range Discrimination Radar (LRDR). Demolition of the massive BMEWS arrays involved removal and characterization of enormous quantities of steel, concrete, and other building materials, many of which were laden with polychlorinated biphenyls (PCBs) and other contaminants. SPAR staff coordinated with the Department's Division of Environmental Health Solid Waste Program, Alaska Department of Law, and a multitude of federal agencies to ensure adequate environmental protection while enabling construction to proceed on schedule. BMEWS demolition has been successfully completed, and the LRDR has been built. Operational testing of the LRDR has been delayed by COVID-19 but is slated for early 2021.

## RED DEVIL MINE

In FY20, SPAR staff participated in the Kuskokwim Corporation’s Middle Kuskokwim River Tribal Gathering and worked with the BLM to provide information about the site history, site areas of contamination and risk, cleanup alternatives, rationale for the proposed cleanup alternative, and how residents could provide comments to BLM. A series of public meetings were scheduled for March 2020 but were postponed due to the pandemic. This communication approach was developed with staff from the BLM and DNR as documented in the final Proposed Plan. A Proposed Plan is the main document used for outreach during the public comment period under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process.

## ANCSA SITES

Following the passing of the Alaska Native Claims Settlement Act (ANCSA) in 1971, the federal government conveyed over 44 million acres of land to Alaska Native Corporations. Regrettably, the conveyed lands included many contaminated sites. In 2016 the BLM reported to Congress on the status of these sites and developed a site inventory and a web-accessible map. Following the recommendations of the BLM report, a committee including the Department and many federal agencies, was established through the Statement of Cooperation (SOC) to refine the site inventory, conduct outreach efforts, and expedite the site cleanup process.

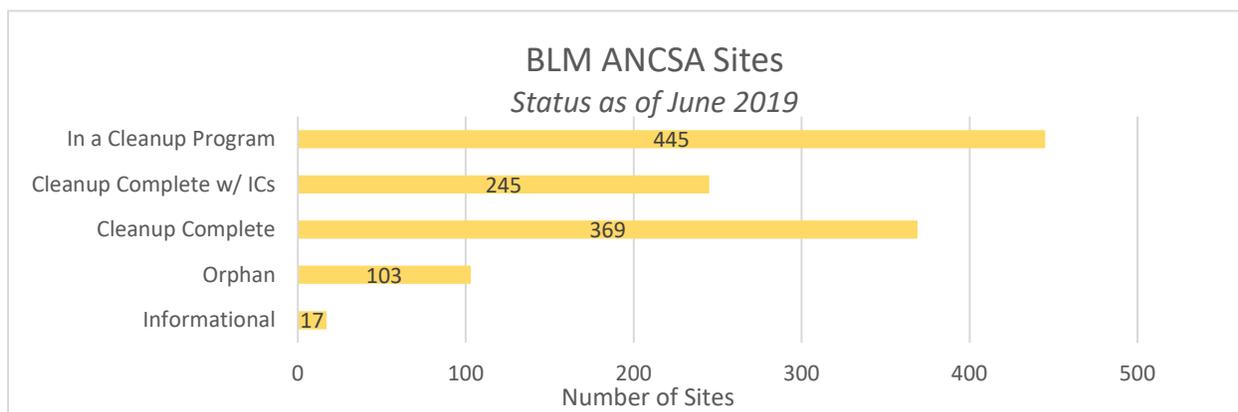
SPAR continues to work with the members of the Contaminated Lands Partnership Working Group, specifically, the Alaska Native Tribal Health Consortium, representatives from the Statement of Cooperation (SOC) agencies<sup>5</sup>, ANCSA village and regional corporations, tribes, and other interested entities to seek solutions to contaminated lands conveyed from the federal government to Alaska Native Corporations under ANCSA.

The BLM web map, which draws primarily from the Department’s Contaminated Sites Database, currently shows 1,179 ANCSA contaminated sites (last updated June 2019). Of these, 614 have been cleaned up (369 “Cleanup Complete”, 245 “Cleanup Complete with Institutional Controls”). Sites which are “In a Cleanup Program” number 445; these sites are in various phases of the cleanup process. There are 103 “Orphan” sites; these are sites where the landowner expressed concern to BLM. Some of the Orphan sites need verification of contamination, while others have been cleaned up but may need further review. The remaining 17 sites are “Informational” entries, where contamination may have been suspected but has not been confirmed.

SPAR continues to work ensuring the BLM inventory is complete and accurate, and compelling federal agencies to expedite cleanup at ANCSA-conveyed contaminated sites. Using funding provided by EPA, SPAR staff have improved the accuracy of the site inventory by removing duplicates, clarifying site locations, and researching site histories. Modifications to the Department’s Contaminated Sites Database have been made to enable better tracking of ANCSA sites. SPAR staff have participated in multiple SOC meetings and outreach efforts through the ANCSA Partnership Group, coordinated by the Alaska Native Tribal Health Consortium. Additionally, SPAR began planning a pilot project to conduct site assessments at locations that may be ANCSA contaminated sites but have not been confirmed.

---

<sup>5</sup> Statement of Cooperation – agreement between the Department, EPA, DOD Agencies in Alaska, Alaska Air and Army National Guard, Federal Aviation Administration, U.S. Coast Guard, U.S. Department of Interior, U.S. Forest Service, and the Denali Commission to work together to protect human health and the environment and address and resolve environmental issues in Alaska.



## **BROWNFIELDS PROGRAM**

SPAR’s Contaminated Sites Brownfields program is conducted under a Cooperative Agreement with the EPA. Brownfields program staff continue to coordinate and network with EPA, municipalities, tribes, and tribal response programs (TRPs) to address contamination challenges throughout Alaska’s communities and support reuse and redevelopment opportunities at brownfields sites. SPAR staff provided training and assistance to the community of Tuluksak and conducted field sampling at four different sites in the area. Brownfields staff provided technical assistance to the Municipality of Anchorage, Kodiak Island Borough, and Matanuska-Susitna Borough for their efforts conducting site characterization and cleanup planning under their EPA coalition community wide assessment grants.

A significant cornerstone of the Brownfields program is the Department’s Brownfield Assessment and Cleanup (DBAC) services that SPAR provides to support community projects on sites where there is perceived or actual contamination that is hindering a reuse. Municipalities, native corporations, tribes, and non-profits provide an application with the known site information and detailing the intended site reuse and benefit to the community. SPAR ranks the projects and conducts assessment and/or cleanup on as many projects as funding allows. In FY20, SPAR provided DBAC services in five communities, including Chenega, Delta Junction, Gakona, Golovin, and Kasaan.

## **UECA IMPLEMENTATION- SUMMARY OF ACTIVITIES AND LESSONS LEARNED IN OUR FIRST YEAR OF UECA IMPLEMENTATION**

SPAR began implementing the Uniform Environmental Covenants Act (UECA) in FY20 in coordination with the Alaska Department of Law. UECA, which was passed by the legislature in 2018, requires the placement of an Environmental Covenant or Notice of Activity and Use Limitations (NAUL, for Federal property) when contamination remains following a cleanup that does not allow for unrestricted use of the property. SPAR continues to refine the covenant and NAUL templates based on program experience and feedback from the regulated community.

## 5.0 TABLES, CHARTS, GRAPHICS, AND STATISTICS

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 an estimated conversion factor.

### TABLES 6-1 THROUGH 6-5: CASELOAD, PLAN, CERTIFICATE, AND RESPONSE CONTRACTOR DATA

TABLE 6-1: SPILL CASELOAD SUMMARY	
New spill cases (total spills reported in FY20)	2,067
Oil and hazardous substance releases (some spill cases involve releases of multiple substances)	2,125
New spill cases characterized by highest level of Department response:	
1) Field visit	127
2) Phone follow-up (Technical Assistance)	664
3) Took report	1,334
Cases Carried Over from Previous Fiscal Years	210
Cases Closed in FY20 (does not include cases transferred to CS)	1,891
Enforcement Actions - Notice of Violation (NOV)	0
Enforcement Actions – Referral to Dept of Law/Environmental Crimes Unit	1

TABLE 6-2: OIL DISCHARGE PREVENTION AND CONTINGENCY (ODPCP) PLANS	
New Plans	2
Plan renewals (plans are renewed every 5 years)	8
Major plan amendments (includes new owners and operators)	11
Other ODPCP applications (includes vessel additions and short-term approvals)	66
Exercises	28
Inspections	27
Enforcement Actions - Notice of Violation (NOV)	1
Enforcement Actions – Referral to Dept of Law/Environmental Crimes Unit	0
<b>Total ODPCP Plan Actions</b>	<b>143</b>

<b>TABLE 6-3: NONTANK VESSEL (NTV) CONTINGENCY PLANS</b>	
Active Plans	250
Plan Renewals (plans are renewed every 5 years)	29
Plan Amendments	75
Inspections	3
Enforcement Actions - Notice of Violation (NOV)	1
Enforcement Actions – Referral to Dept of Law/Environmental Crimes Unit	0
<b>Total NTV Contingency Plan Actions</b>	<b>358</b>

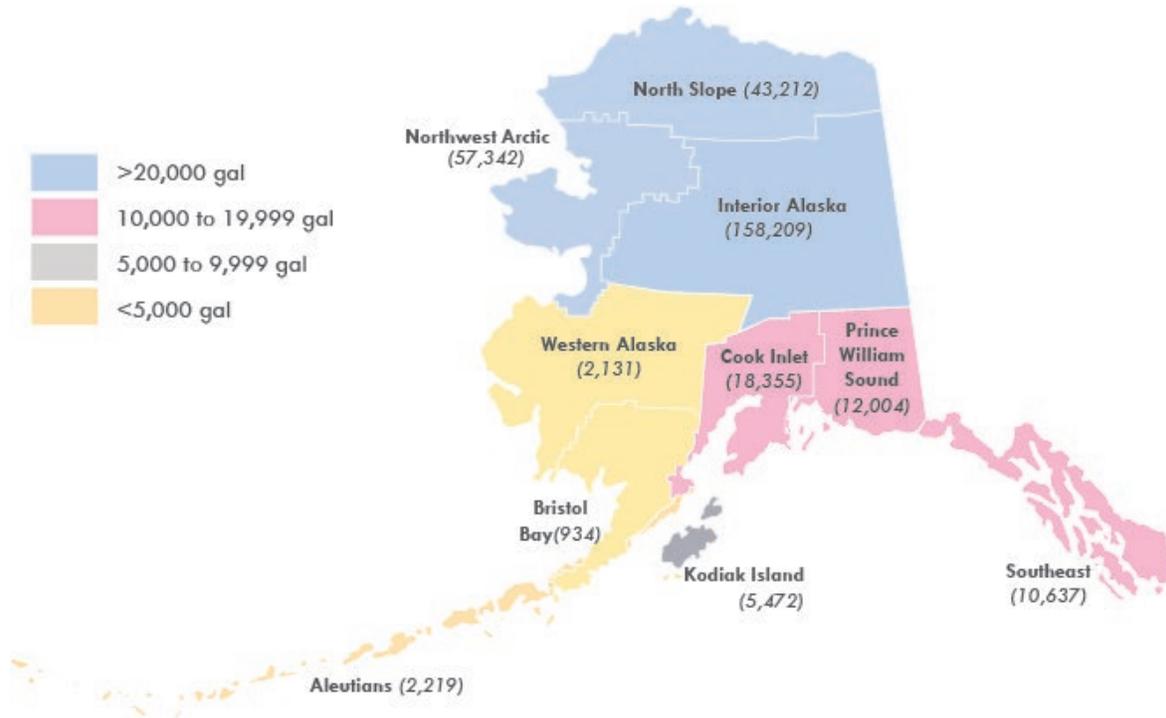
<b>TABLE 6-4: FINANCIAL RESPONSIBILITY CERTIFICATES (RENEWED ANNUALLY) <sup>6</sup></b>	
Oil Discharge Prevention and Contingency Plans (ODPCP)	126 <sup>7</sup>
Nontank Vessels (NTV) Streamline Plan	204
Underground Storage Tanks (UST)	242
Enforcement Actions - Notice of Violation (NOV)	7
Enforcement Actions – Referral to Dept of Law/Environmental Crimes Unit	0

<b>TABLE 6-5: PRIMARY RESPONSE ACTION CONTRACTORS (PRAC)</b>	
New Registration and Renewals (9 Active on ODPCP Plans)	12

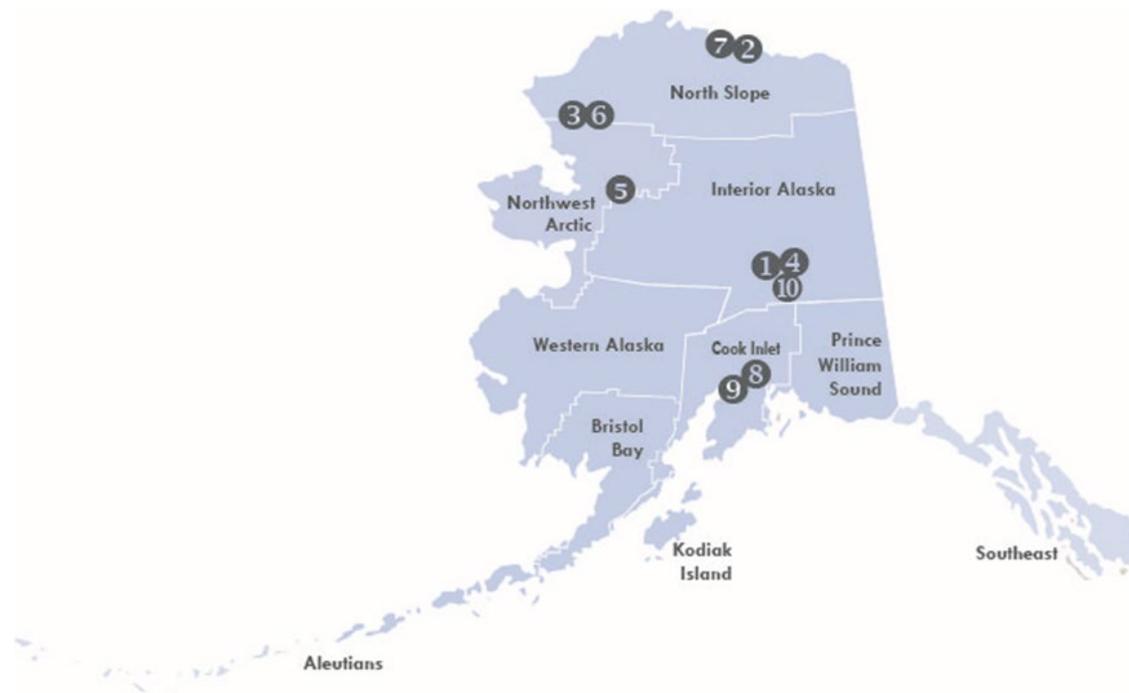
<sup>6</sup> NTV contingency plans are renewed on a 5-year cycle and companies may be operating during the whole plan period or a portion of that time. A regulated facility may not operate in Alaska without both an approved contingency plan and a certificate of financial responsibility. Fiscal responsibility certification is renewed annually for operations that will occur within 90 days of issuance. The count discrepancies the number of NTV contingency plans and the number of NTV financial responsibility certificates reflect this dynamic scenario.

<sup>7</sup> Contingency Plan 5154 was closing during FY20 and did not require the annual renewal of a fiscal responsibility certificate resulting in the discrepancy between ODPCP plans and ODPCP certificates numbers.

**GRAPHIC 6-1: TOTAL SPILL VOLUME BY GEOGRAPHIC ZONE FY20**



**GRAPHIC 6-2 AND TABLE 6-6: 10 LARGEST RELEASES IN FY20**



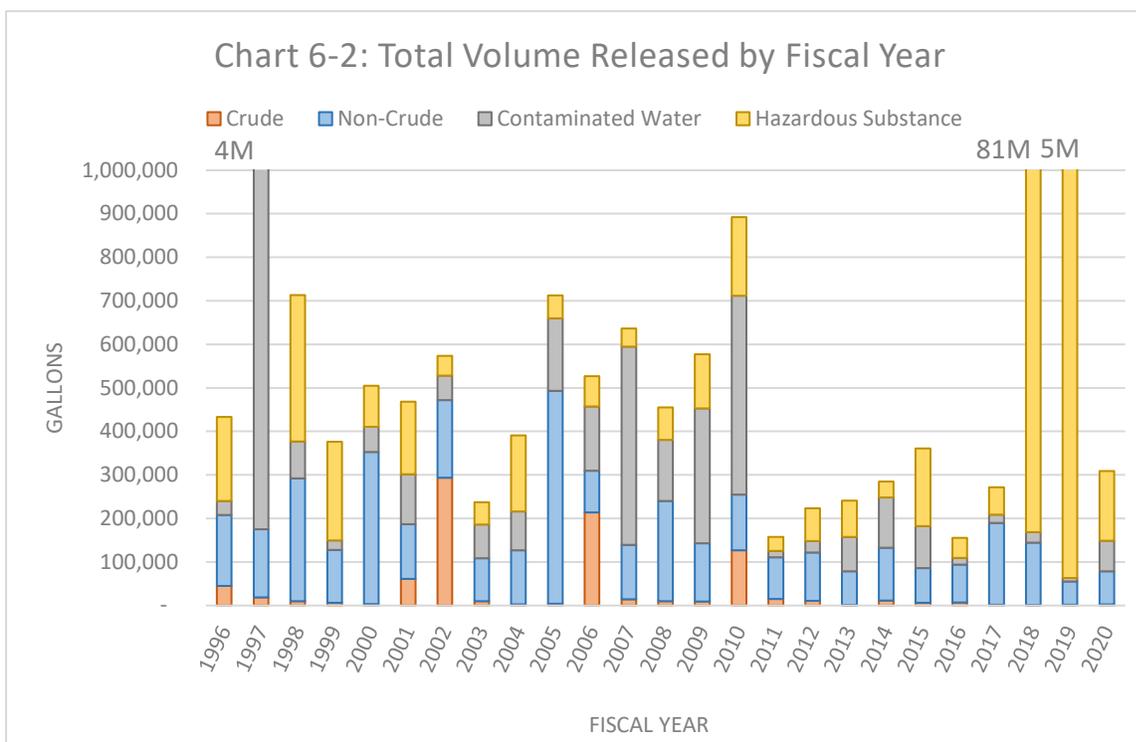
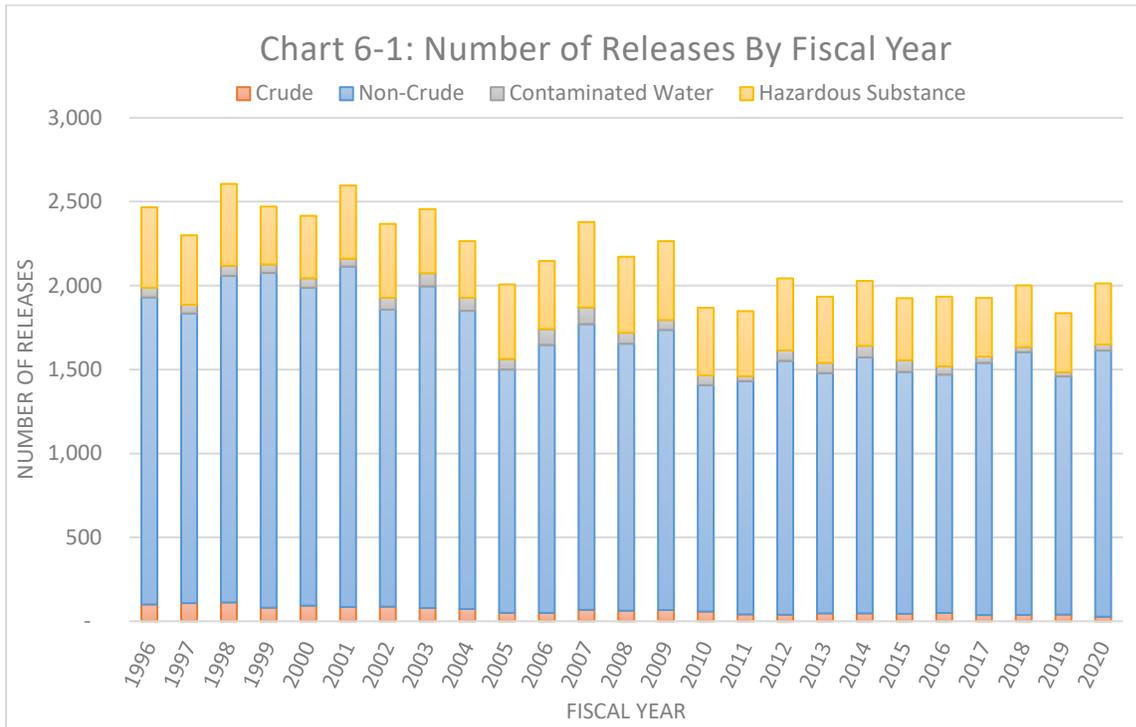
**TABLE 6-6: LARGEST RELEASES IN FY20**

MAP KEY	SPILL DATE	SPILL NUMBER	SPILL DESCRIPTION	PRODUCT <sup>8</sup>	GALLONS
1	4/23/2020	20309911405	HEF Waste Dumping at Rolling Stone Gravel Pits	Firefoam-fluorine-free <sup>9</sup>	53,400
2	10/21/2019	19399929401	BPXA FS3 Produced Water Equipment Failure Release	Produced Water	25,200
3	4/22/2020	20389911301	Red Dog Mine Trench Equipment Failure Release	Process Water	20,000
4	10/22/2019	19309929501	Fort Knox Detox Bldg Water w/Cyanide Equipment Failure Release	Process Water	18,000
5	6/20/2020	20389917201	Shungnak School Heating Oil Release	Diesel	15,000
6	5/9/2020	20389913002	Red Dog Mine Water Treatment Sludge Mechanical Failure Release	Zinc Slurry	10,000
7	3/14/2020	20399907401	Accumulate Energy Equipment Failure Release	Drilling Muds	5,250
8	7/2/2019	19229918301	Crowley Truck Rollover Mile 105 South Richardson Hwy	Diesel	5,000
9	2/3/2020	20239903401	JBER Accidental release of AFFF into Three Bays	Firefoam-fluorinated>2016	3,000
10	3/8/2020	20309906801	Eielson AFB Emergency Release of Jet Fuel	Aviation Fuel	2,985

<sup>8</sup> There were seven releases, six of fluorine-free firefoam that were each more than 3,533 gallons and one 3,000-gallon spill of Firefoam-fluorinated manufactured after 2016 that were not included here because they were intentional releases as part of regular testing of indoor fire suppression systems at in FY20.

<sup>9</sup> Waste associated with this release contained several fluorinated compounds based on laboratory testing. The Certificate of Composition of the HEF concentrate indicated it did not contain fluorinated compounds. PFAS was considered a Contaminant of Concern during the spill response though the spill is recorded as a release of fluorine free firefoam. More information about the release is available in the Response section of this report.

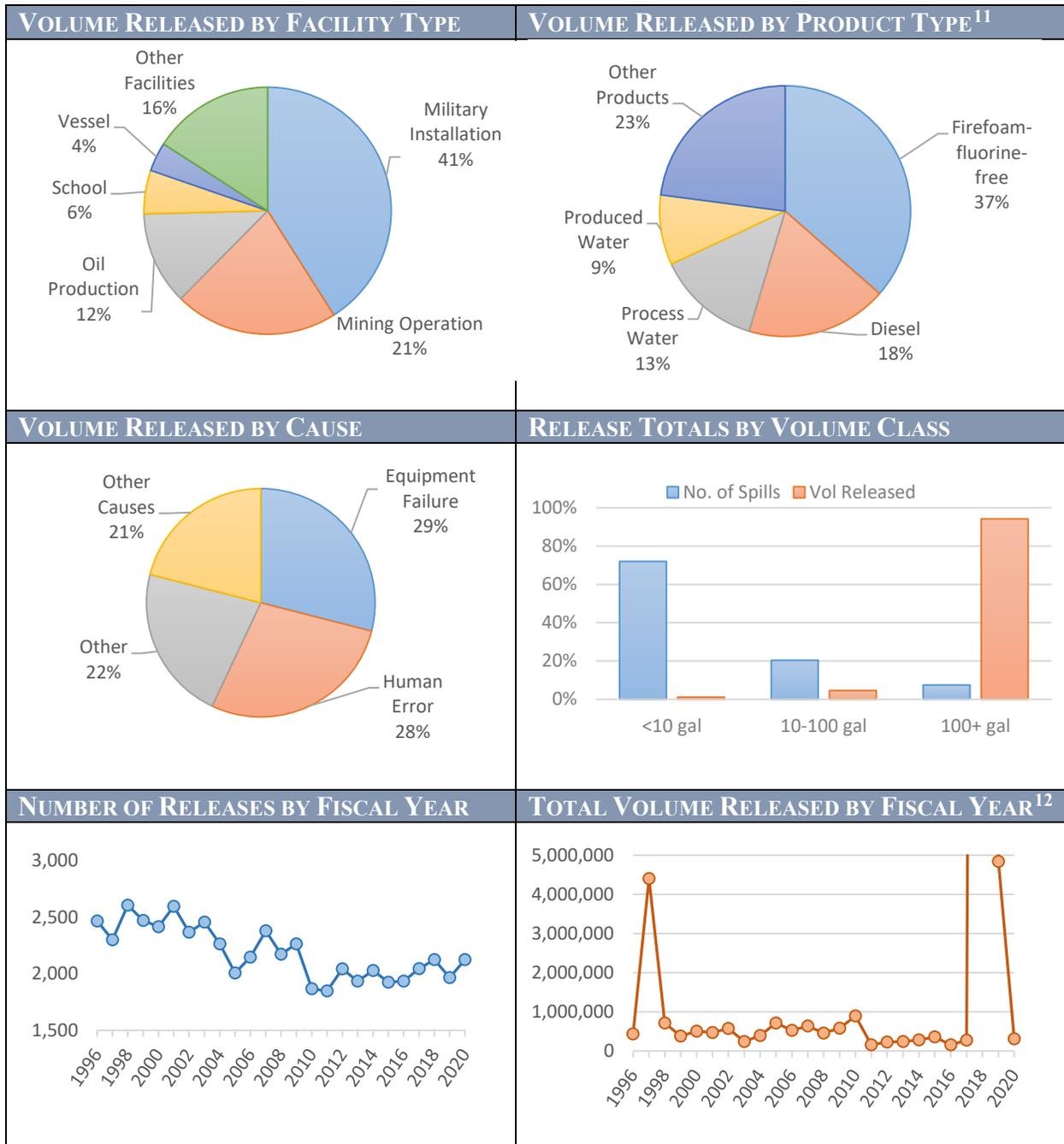
## CHARTS 6-1 AND 6-2 <sup>10</sup>: RELEASES AND VOLUME BY FISCAL YEAR



<sup>10</sup> In 2018 and 2019 the large spikes are due to the 81M and the 4.6M gallons of PFOS/PFOA contaminated water discharge at Eielson AFB; the large spike in 1997 is the result of two spills, one in January when a barge capsized and lost 25M lbs. of Urea (solid converted to gallons) and the other in March when 995,400 gallons of sea water were released at ARCO DS-14 in Prudhoe Bay.

## CHART SET 6-1: ALL PRODUCTS

Oil and Hazardous Substances Releases: 2,125; Total Gallons: 310,515

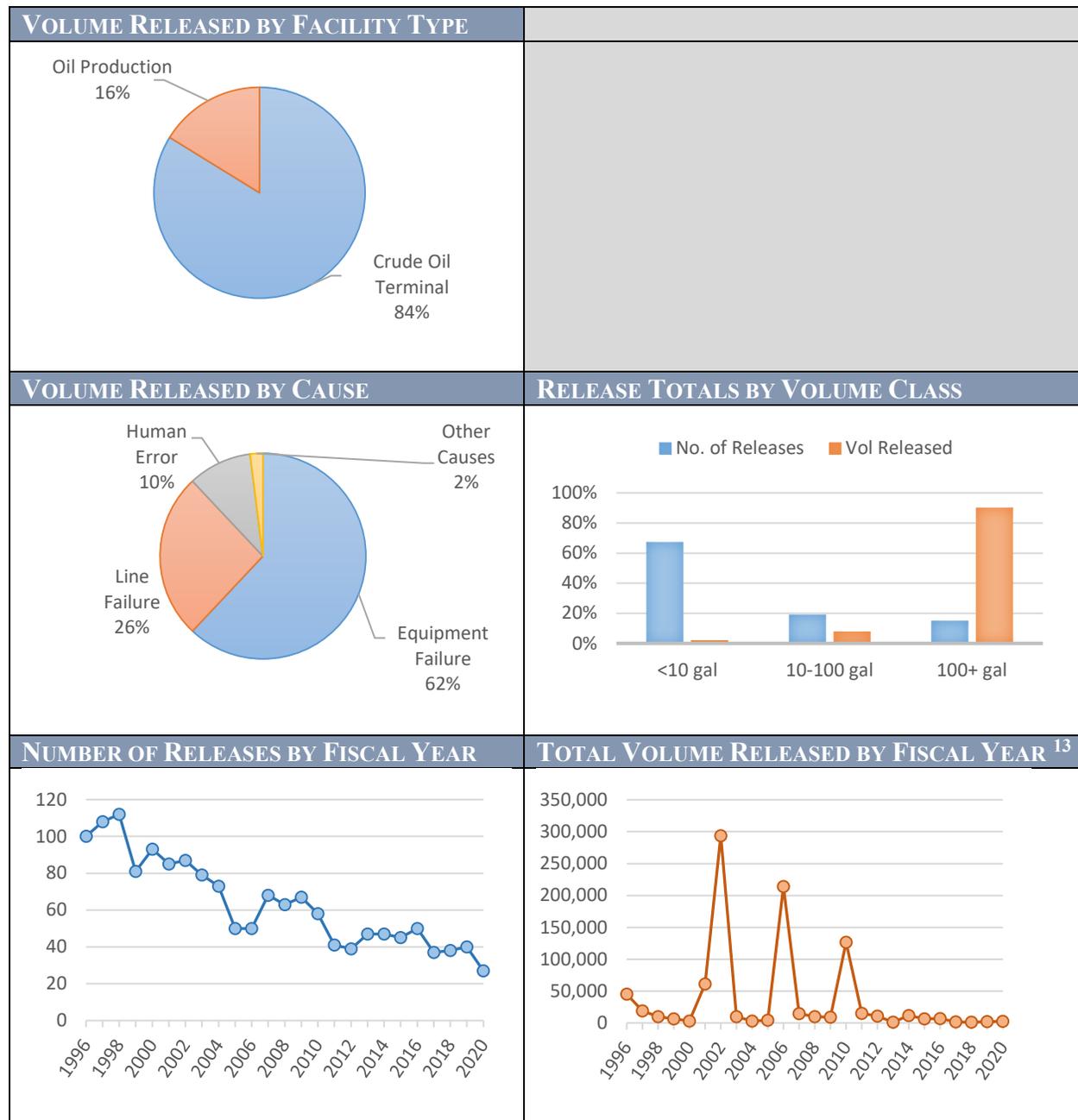


<sup>11</sup> Products <3% of the total volume are combined as Other Products for all FY20 data summaries.

<sup>12</sup> In 2018 and 2019 the large spikes are due to the 81 M and the 4.6 M gallons PFOS/PFOA contaminated water discharge at Eielson AFB; the large spike in 1997 is the result of two large spills, one in January when a barge capsized and lost 25,000,000 pounds of Urea (solid converted to gallons) and the other in March when 995,400 gallons of sea water were released at ARCO DS-14 in Prudhoe Bay.

## CHART SET 6-2: CRUDE OIL

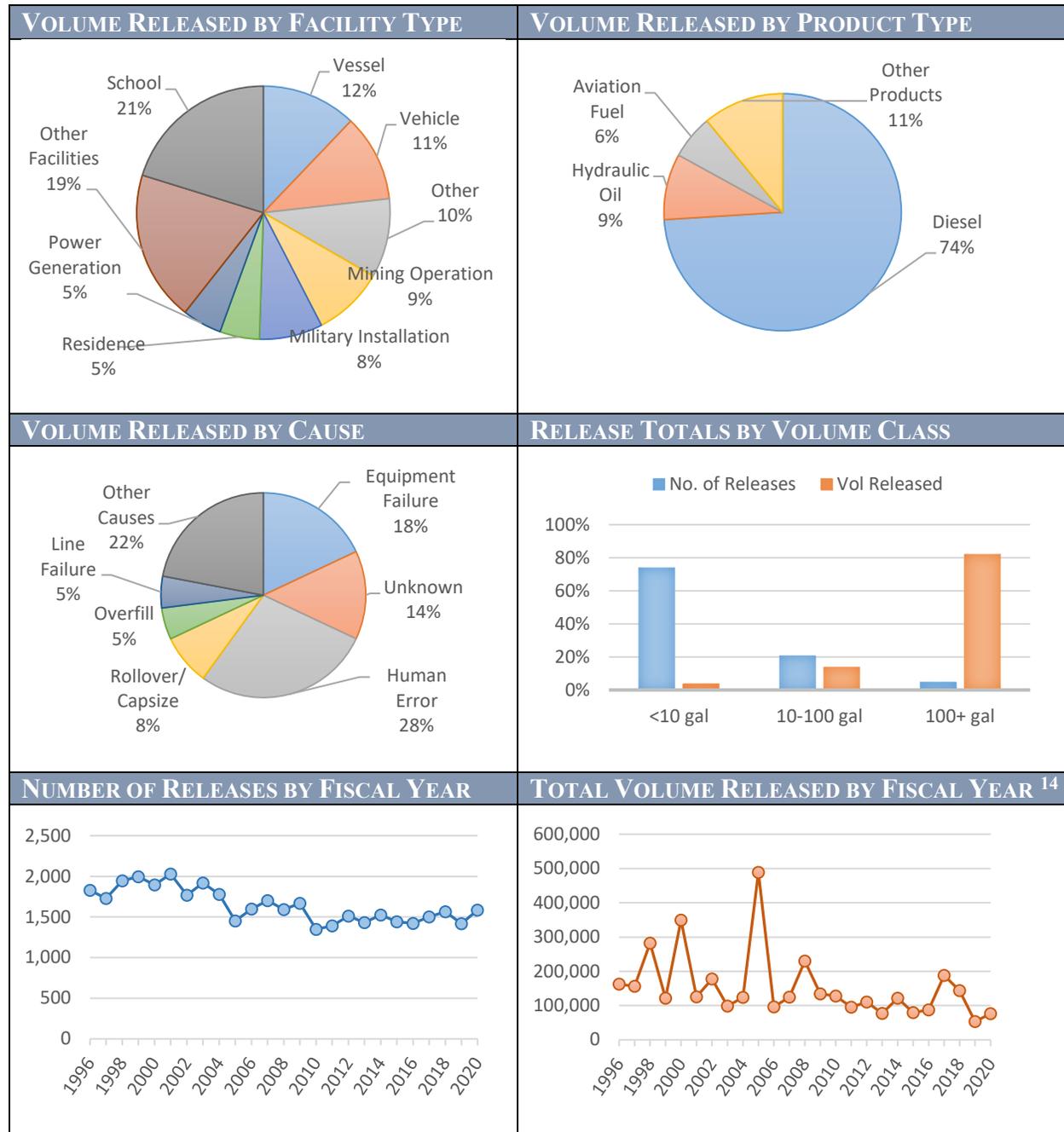
Crude Oil Releases: 27; Total Gallons: 2,627



<sup>13</sup> The largest spill volumes resulted from a) Trans Alaska Pipeline (TAPS) bullet hole 285,600 gallons release on 10/4/2001, b) BP GC-2 oil transit line release of 212,252 gallons on 3/2/2006, and c) TAPS pump station 9 released 108,360 gallons on 5/25/2010 to secondary containment.

### CHART SET 6-3: NON-CRUDE OIL

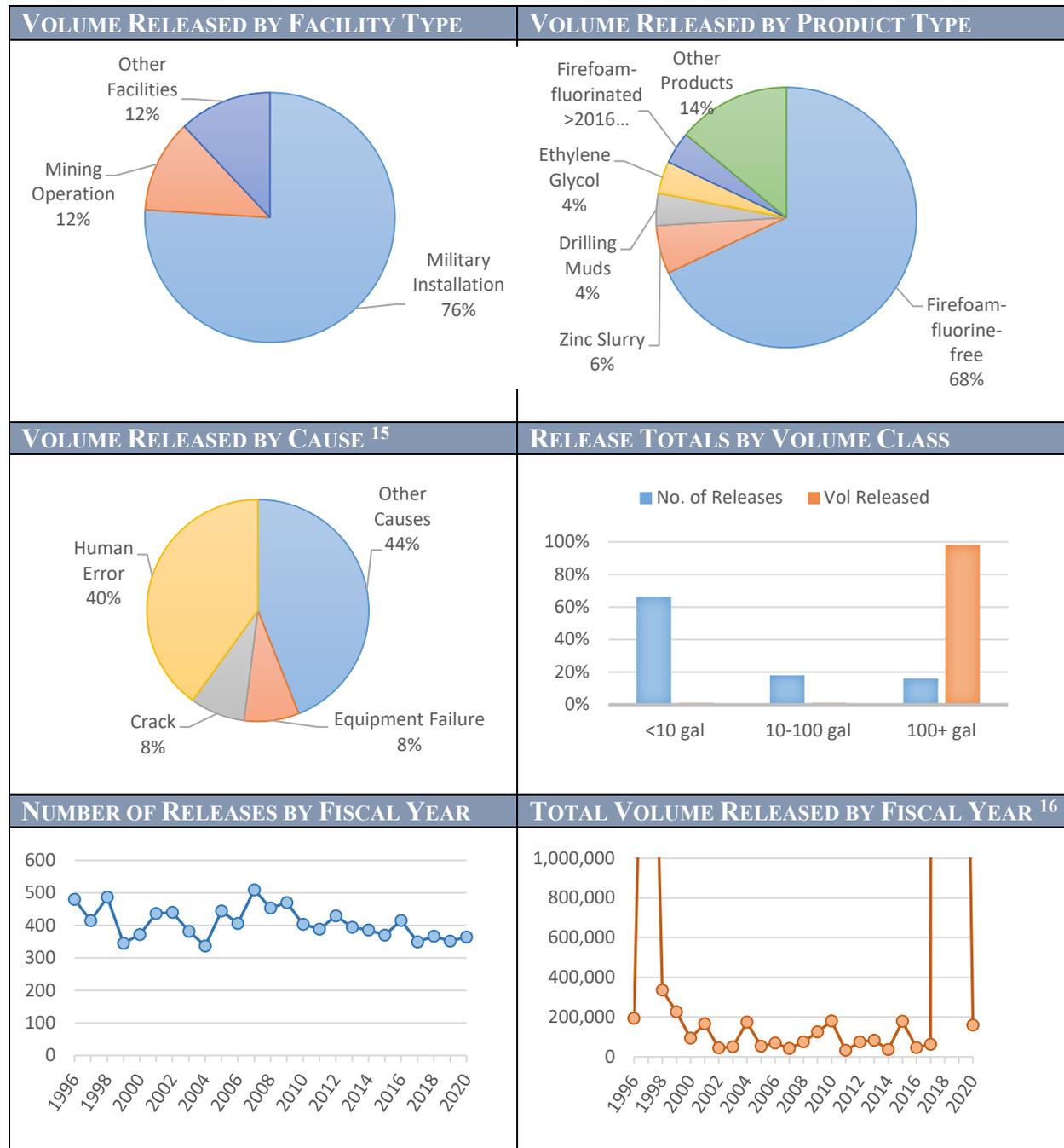
Non-Crude Oil Releases: 1,586; Total Gallons: 76,095



<sup>14</sup> The large spike in spill volume was the result of the breaking apart of the M/V Selendang Ayu on 12/8/2004 (FY05), which released 321,052 gallons of intermediate fuel oil 380 and 14,680 gallons of diesel.

## CHART SET 6-4: HAZARDOUS SUBSTANCES

Hazardous Substance Releases: 364; Total Gallons: 159,944

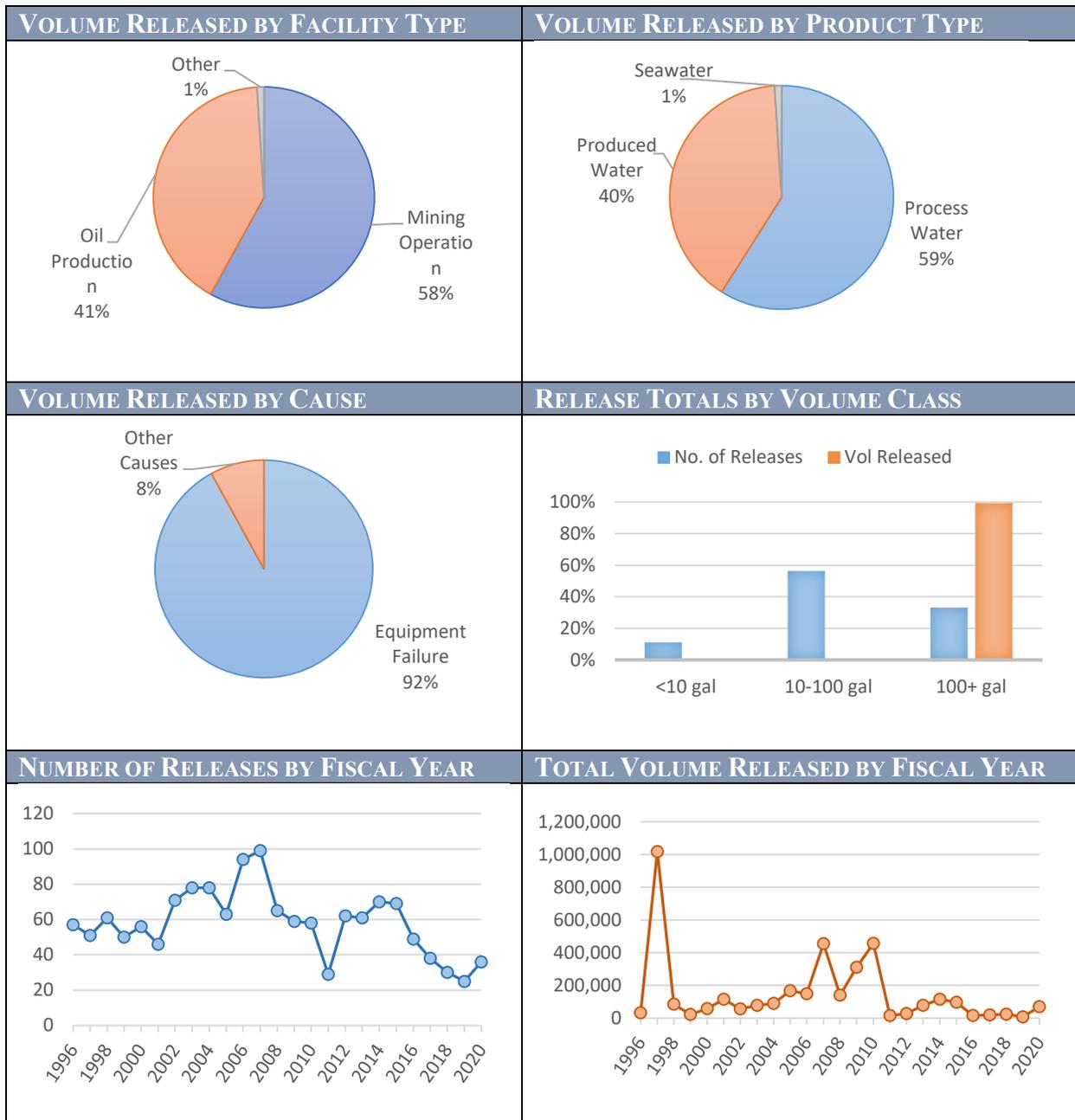


<sup>15</sup> "Other Causes" includes routine testing of fire suppression systems.

<sup>16</sup> The large spike in spill volume from 4.6M gallon (FY19) and 81 M gallon (FY18) PFOS/PFOA contaminated water discharge that occurred at Eielson AFB the large spike in 1997 is the result a large spill, in January when a barge capsized and lost 25,000,000 pounds of Urea (solid converted to gallons).

## CHART SET 6-5: CONTAMINATED WATER <sup>17</sup>

Contaminated Water Releases: 36; Total Gallons: 70,035



<sup>17</sup> Process Water: water used in industry processes that has hazardous chemicals in it; Produced Water: water is separated during crude oil processing and may contain <1% crude oil and have saline concentration similar to seawater; Source Water: in North Slope oil production, water is extracted from aquifers and injected into an oil formation to maintain pressure, it contains elevated levels of salt and is toxic to fresh water tundra vegetation; Sea Water: sea water spilled to freshwater environments in volumes >55gal are recorded.

## CHARTS 6-3 AND 6-4: CONTAMINATED SITE INFORMATION BY FISCAL YEAR

Chart 6-3 shows the open and closed sites trend since 1990. In 2005, the number of closed sites exceeded the number of open sites. This gap has widened steadily since 2005, indicating measurable progress and improvement in methods for reducing risk at the thousands of legacy contaminated properties in Alaska. In FY20, 92 new sites were identified. Of those, 20 presented a potentially high risk to human health or the environment. Of the new sites identified during FY20, 45% were the result of recent spills.

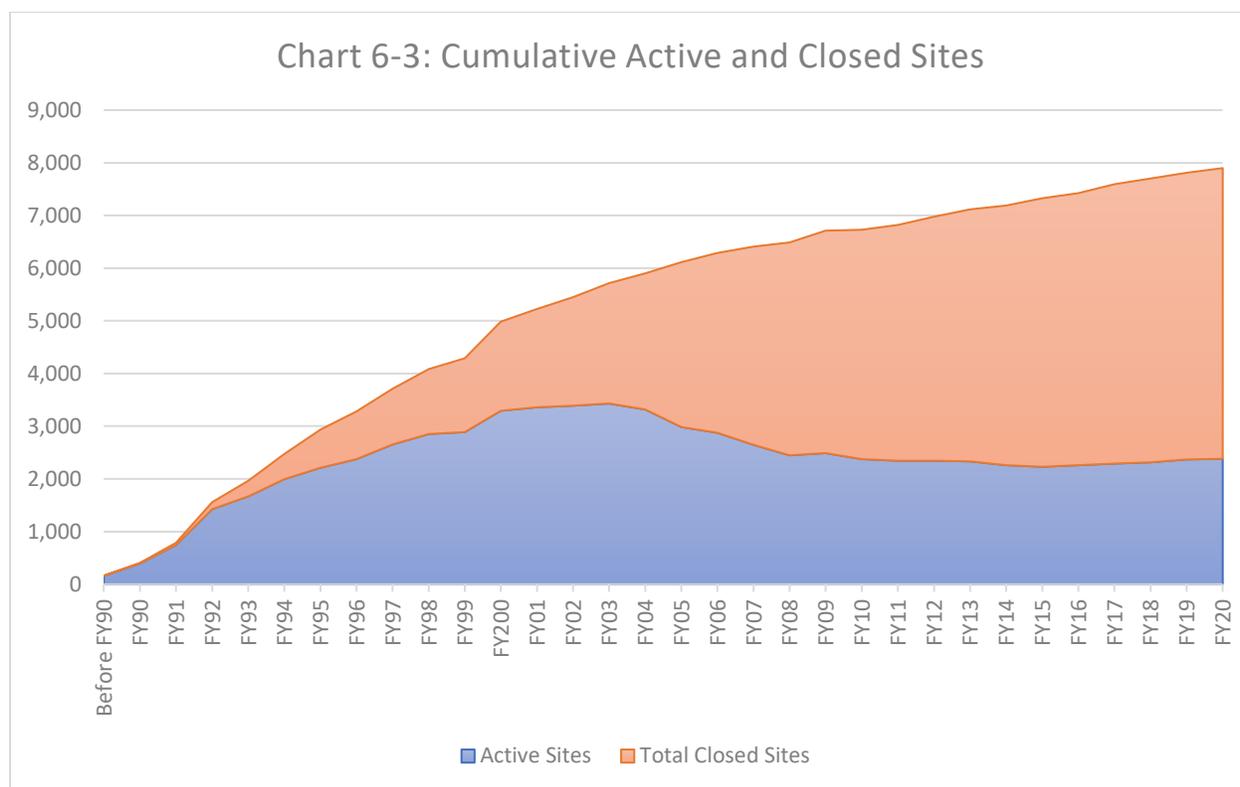
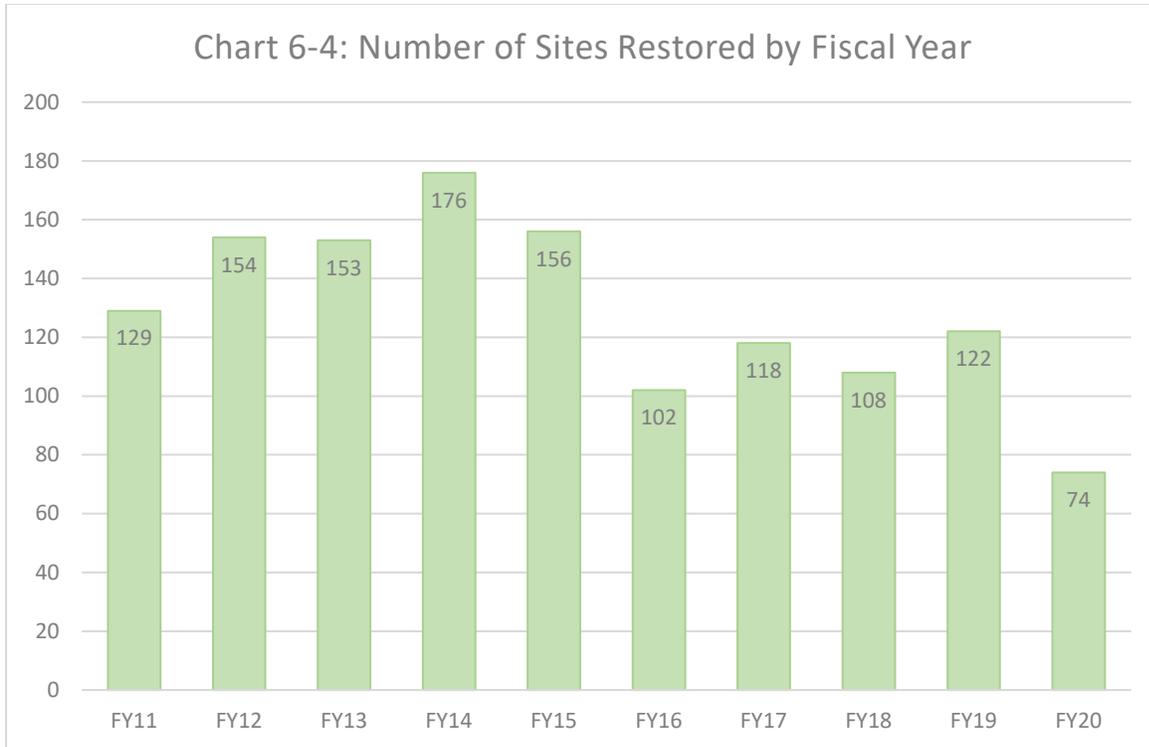


Chart 6-4 shows the number of contaminated sites where cleanup was determined to be complete by fiscal year. Since 2014 there has been a decline in the number of site closures due to several factors including a concerted focus on shifting efforts to addressing risks at the highest priority sites, where complete exposure pathways (such as contaminated groundwater used for drinking, or subsistence resources are impacted). However, cleanup and closure of these sites is often challenging and complex due to the type and extent of contamination, remote site locations, the existence of multiple responsible parties and a need to determine which will conduct the work and how costs will be allocated, and lack of willing or financially viable responsible parties to clean up the sites. During FY20, 5% of the site closures were risk-based closures that include institutional controls to limit future activities that could result in exposure to residual contamination and 95% of the closures were suitable for unrestricted future land use.



**CHART 6-5 AND TABLE 6-7: CONTAMINANTS OF CONCERN AT CURRENT ACTIVE SITES**

The chart and table show the percentage and number of current active sites that have been impacted by various contaminants of concern. Petroleum hydrocarbons are by far the most common contaminant and are the primary contaminant at 75% of the active sites. Other hazardous substances are the primary contaminant of concern at 25% of the active sites. PFAS have been identified as a contaminant of concern at only 5% of the active sites; however, PFAS have been found to have impacted more drinking water wells than any other contaminants and are therefore a high priority.

Chart 6-5: Contaminants of Concern Percentages

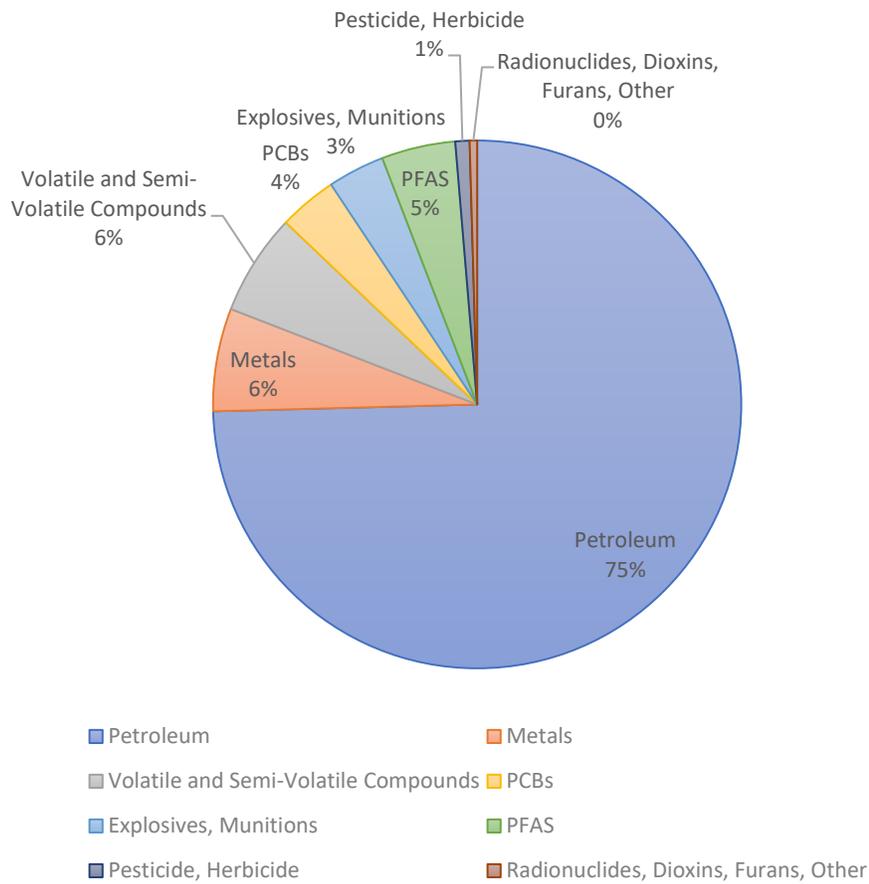


TABLE 6-7: NUMBER OF SITES WITH CONTAMINANTS OF CONCERN

CONTAMINANT OF CONCERN <sup>18</sup>	NUMBER OF ACTIVE SITES
Petroleum	1799
Metals	152
Volatile and Semi-Volatile Compounds	150
PCBs	86
Explosives, Munitions	84
PFAS	109
Pesticide, Herbicide	21
Radionuclides, Dioxins, Furans, Other	11

<sup>18</sup> This table lists the primary contaminant of concern at a site. Many sites have multiple contaminants present, only the primary contaminant class is shown in this table.

## 6.0 ACRONYMS AND ABBREVIATIONS

A list of acronyms and abbreviations used frequently throughout this report can be found on our website at <https://dec.alaska.gov/spar/reports>.