



## Significant Responses This Quarter

### ARRC Mile 152.8 – Wasilla

**Spill Date:** July 12, 2000  
**Product/Quantity:** unleaded gasoline, 578 gallons  
**Cause:** Derailment

An estimated 578 gallons of unleaded gasoline was released from a tank car when a train derailed near Wasilla. Eleven cars derailed, including 5 fuel tank cars. Four of the tank cars slid down a 25-foot embankment. Railroad personnel tightened the valve of the damaged tank car, stopping the leak. Sorbent boom was deployed around the damaged tanker car as a prevention measure. The local fire department responded to provide foaming capability during lightering operations. The derailment was caused by a deteriorating rail bed on a problem curve. The Department will assess the extent of contamination and determine cleanup requirements.



### BP Gathering Center 2 Spills – Prudhoe Bay

**Spill Date:** August 21, 2000  
**Product/Quantity:** 1) crude oil/water, 29,400 gallons; 2) ethylene glycol, 2,100 gallons  
**Cause:** Control System Equipment Failure

An estimated 29,400 gallons of crude oil mixed with water was released when the control system failed and the Overflow Skim Oil Tank failed to contain the release. Wells were shut in to decrease flow to the gathering center. All of the crude/water spill was contained in a lined containment cell surrounding the tank. An estimated 2,100 gallons of ethylene glycol was also spilled during the incident. Almost all of the glycol was contained within the building where the spill occurred. Approximately forty gallons of glycol leaked out of the building into lined containment. Vacuum trucks were used to recover the spilled crude and ethylene glycol.



ARRC derailment at Mile 152.8 -- aerial view

### Alaska Nitrogen Products Ammonia Release – Nikiski

**Spill Date:** September 21, 2000  
**Product/Quantity:** ammonia; 8,000 pounds  
**Cause:** Power Failure

A power failure resulted in the loss of instrument air, which controls the pressure relief valves on ammonia storage tanks. To avoid a possible overpressuring of the storage tanks, these valves are designed to open when instrument air control is lost. The tank in Plant 1 vented for 10 minutes and the tank in Plant 2 vented for 40 minutes, releasing an estimated 8,000 pounds of ammonia. Plant personnel were immediately evacuated. Nine workers were treated for ammonia exposure. Air monitoring outside the facility detected only traces of ammonia. Alaska Nitrogen Products will evaluate the routing of the storage tank pressure relief valves to the plant flare rather than to the atmosphere.



### Williams Glycol Spill – North Pole

**Spill Date:** September 27, 2000  
**Product/Quantity:** propylene glycol; 800 gallons  
**Cause:** Unknown

An estimated 800-gallon leak of propylene glycol occurred from an underground line at Williams Alaska Petroleum in North Pole. Several thousand gallons of product mixed with water were pumped from a nearby monitoring well and a recovery well. Groundwater samples from both wells contained glycol and petroleum hydrocarbons from a previous release. The plume size is unknown. It is also unknown if releases of propylene glycol in 1997 and 1998 of 7,400 gallons and 5,000 gallons, respectively, added to the sample discoloration that was observed. Samples from other wells at the facility perimeter tested negative for glycol; however, the wells are shallow and it is unknown if the plume is passing under them.

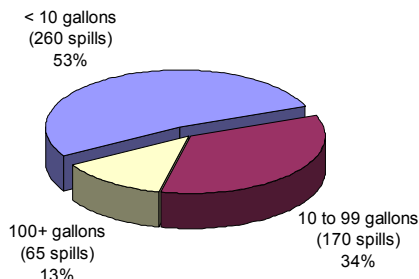


ARRC derailment at Mile 152.8 -- lightering operations

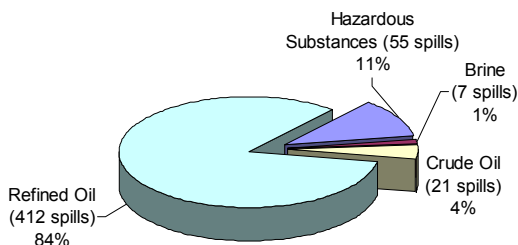
# Data Summary

## Oil and Hazardous Substance Spills July 1 - September 30, 2000

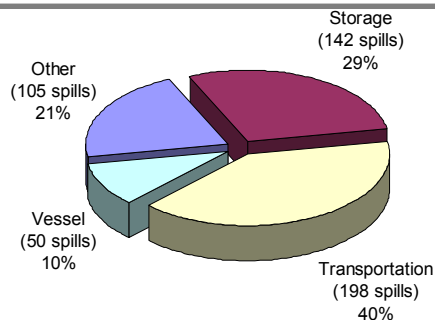
(releases reported in pounds were not included)



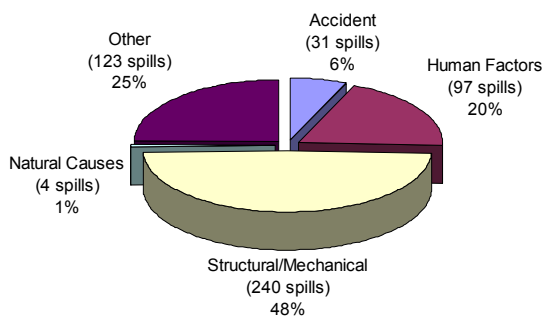
**Spills by Size Class**



**Spills by Product**



**Spills by Source**



**Spills by Cause**

# Spill News

## GOLD CREEK UPDATE

On July 27, the Department met with the contractor hired by Alaska Railroad Corporation (ARRC) to discuss an immediate and long-term cleanup plan, and the need for interim removal action of heavily contaminated soils; relining of the interception trench with impermeable material; and, development of an operational schedule. The contractor verbally provided a conceptual plan for extending the existing remediation system. No agreement was reached regarding the actual cleanup plan.

Staff from the Department of Environmental Conservation (DEC) and the Department of Natural Resources (DNR) traveled to Gold Creek on August 3 for an on-site discussion of the contractor's remediation proposals. Along with nearby private property owners, the parties reviewed the remediation systems currently under construction and the plans presented for the system. A visit to the interception trench near the river showed nearly 80% of it had dewatered, making it largely ineffective. A followup teleconference was held August 4 to refine the contractor's plan. A separate plan to upgrade the trench will be submitted by the contractor for review by the Department.



*Gold Creek -- Soil Vapor Extraction system and lines being installed on the west side of the spill site.*

The water table has dropped at the site to the point that free product is beginning to show up in the outer monitoring wells and there are increased levels of product in the core spill area. The railroad has established a technical review team of academic professionals and consultants to determine the risk to the river which will have an impact on verifying the appropriate long term remediation system. This study will require an assimilation and detailed analysis of the data (well logs, sampling, monitoring, etc) collected to date.



## RCCL SETTLEMENT RESPONSE EQUIPMENT

The Department issued a letter to Royal Caribbean Cruises Ltd. (RCCL) on August 21 giving approval for RCCL to proceed with the purchase and donation of an estimated \$1,545,000 in spill response materials and equipment. The equipment to be donated includes two, 48-foot oil spill response vessels, additional boom, skimming, communications and air monitoring equipment and brings the total value of equipment brought to Southeast Alaska by the RCCL settlement to 2.1 million dollars. The list of equipment to be purchased was developed by the Southeast Alaska Subarea Committee and guided in part by the evaluation criteria recommended by the Cruise Ship Initiative Oil Spill Response Work Group. RCCL will now work with Southeast Alaska Petroleum Resource Organization (SEAPRO) to complete the purchasing and donation process. RCCL has not yet confirmed delivery dates, however it is anticipated that the equipment should be in place by the 2001 cruise season.



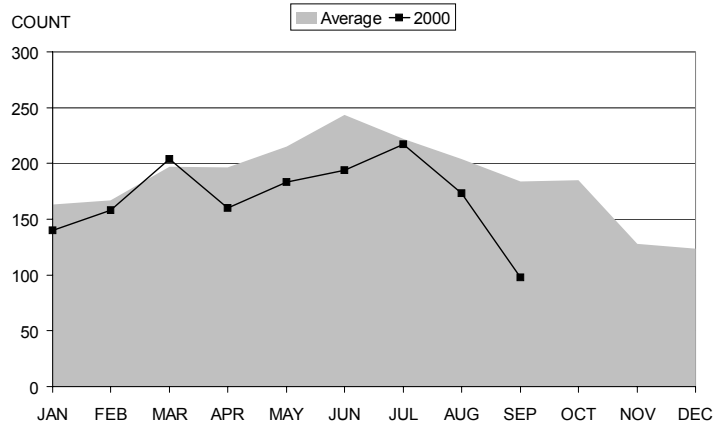
## DRILLS

The Department participated in two drills held in Ketchikan during the week of September 11.

# Annual Spill Trends -- July 1995 - September 2000 (excluding Brine)

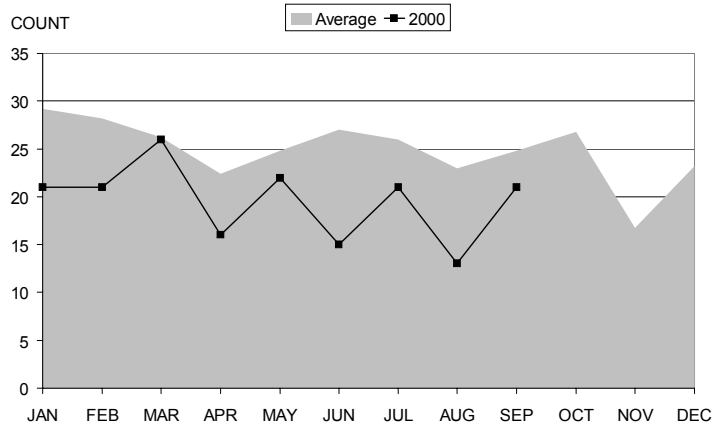
## ALL SPILLS

Month	1995	1996	1997	1998	1999	2000	Average
JAN		179	160	176	162	140	163
FEB		156	161	165	194	158	167
MAR		162	189	220	211	204	197
APR		179	211	214	219	160	197
MAY		207	228	263	194	183	215
JUN		237	233	264	289	194	243
JUL	237	217	218	205	239	217	222
AUG	276	193	179	196	208	173	204
SEP	227	184	194	189	210	98	184
OCT	192	157	151	212	213		185
NOV	129	123	111	146	130		128
DEC	143	109	118	110	137		123
<b>Total</b>	<b>1,204</b>	<b>2,103</b>	<b>2,153</b>	<b>2,360</b>	<b>2,406</b>	<b>1,527</b>	



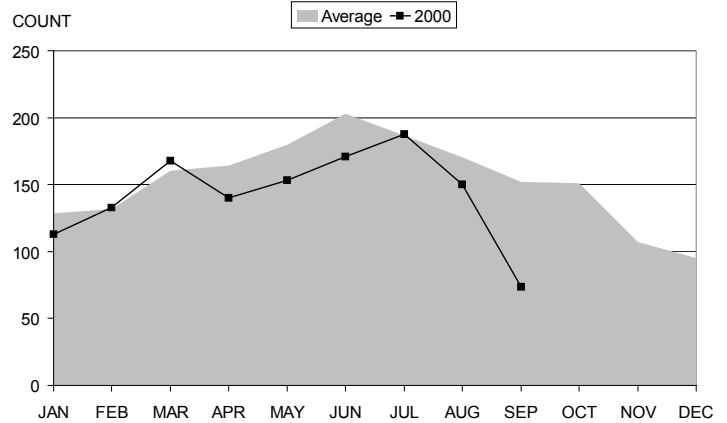
## HAZARDOUS SUBSTANCES

Month	1995	1996	1997	1998	1999	2000	Average
JAN		33	35	32	25	21	29
FEB		30	23	36	31	21	28
MAR		23	26	29	27	26	26
APR		16	23	38	19	16	22
MAY		16	31	34	21	22	25
JUN		21	27	49	23	15	27
JUL	35	18	36	20	26	21	26
AUG	47	16	22	19	21	13	23
SEP	23	20	23	26	36	21	25
OCT	30	31	26	25	22		27
NOV	19	15	23	11	16		17
DEC	26	25	30	12	23		23
<b>Total</b>	<b>180</b>	<b>264</b>	<b>325</b>	<b>331</b>	<b>290</b>	<b>176</b>	



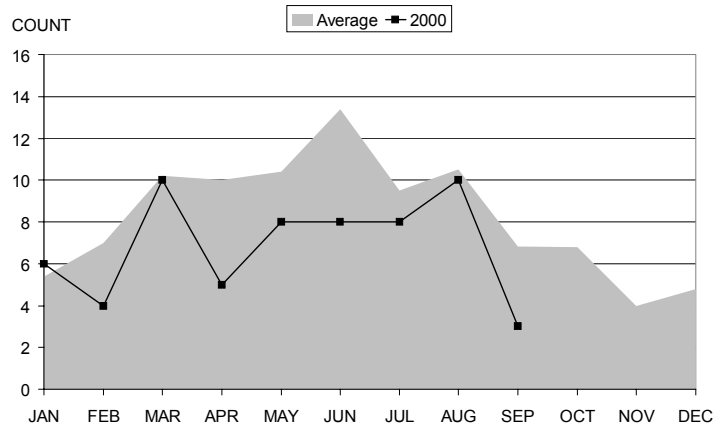
## REFINED OIL PRODUCTS

Month	1995	1996	1997	1998	1999	2000	Average
JAN		143	120	135	133	113	129
FEB		116	133	120	156	133	132
MAR		134	152	177	173	168	161
APR		148	177	160	197	140	164
MAY		180	185	216	165	153	180
JUN		199	195	199	251	171	203
JUL	192	187	175	177	201	188	187
AUG	217	162	149	172	174	150	171
SEP	200	150	163	158	167	74	152
OCT	155	120	119	180	183		151
NOV	109	103	84	130	109		107
DEC	109	82	82	94	110		95
<b>Total</b>	<b>982</b>	<b>1,724</b>	<b>1,734</b>	<b>1,918</b>	<b>2,019</b>	<b>1,290</b>	



## CRUDE OIL

Month	1995	1996	1997	1998	1999	2000	Average
JAN		3	5	9	4	6	5
FEB		10	5	9	7	4	7
MAR		5	11	14	11	10	10
APR		15	11	16	3	5	10
MAY		11	12	13	8	8	10
JUN		17	11	16	15	8	13
JUL	10	12	7	8	12	8	10
AUG	12	15	8	5	13	10	11
SEP	4	14	8	5	7	3	7
OCT	7	6	6	7	8		7
NOV	1	5	4	5	5		5
DEC	8	2	6	4	4		4
<b>Total</b>	<b>42</b>	<b>115</b>	<b>94</b>	<b>111</b>	<b>97</b>	<b>62</b>	

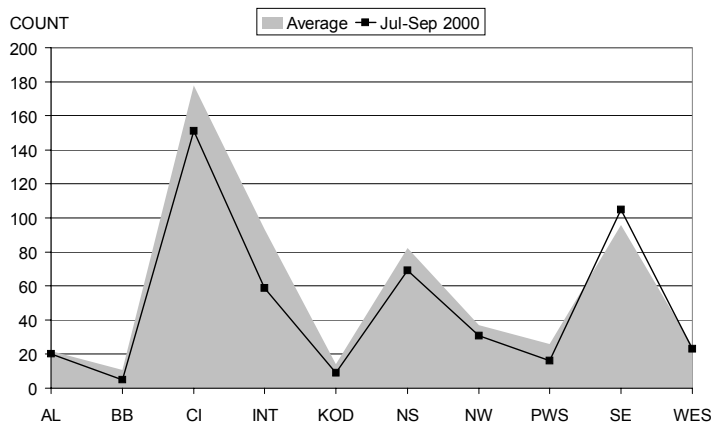


# spills reported by SUBAREA (excluding Brine)

## ALL SPILLS

July - Sept 2000 compared to same quarter in prior years

Subarea	July-September						Average
	1995	1996	1997	1998	1999	2000	
Aleutian (AL)	53	27	21	16	26	20	22
Bristol Bay (BB)	6	11	12	10	15	5	11
Cook Inlet (CI)	265	190	144	197	207	151	178
Interior (INT)	129	88	136	92	92	59	93
Kodiak (KOD)	5	12	11	20	18	9	14
North Slope (NS)	126	100	97	70	76	69	82
Northwest Arctic (NW)	39	23	35	47	50	31	37
Prince William Sound (PWS)	42	31	32	29	22	16	26
Southeast (SE)	59	90	72	82	130	105	96
Western Alaska (WES)	16	22	31	27	21	23	25
<b>Total for Quarter</b>	<b>740</b>	<b>594</b>	<b>591</b>	<b>590</b>	<b>657</b>	<b>488</b>	

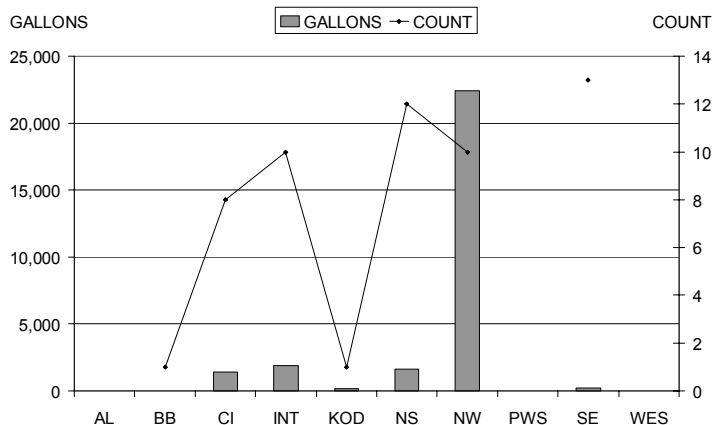


## HAZARDOUS SUBSTANCES

July 1-September 30, 2000

Subarea	Count	Gallons
Aleutian (AL)		
Bristol Bay (BB)	1	1
Cook Inlet (CI)	8	1,437
Interior (INT)	10	1,879
Kodiak (KOD)	1	150
North Slope (NS)	12	1,621
Northwest Arctic (NW)	10	22,439
Prince William Sound (PWS)		
Southeast (SE)	13	197
Western Alaska (WES)		
<b>Total for Quarter</b>	<b>55</b>	<b>27,724</b>

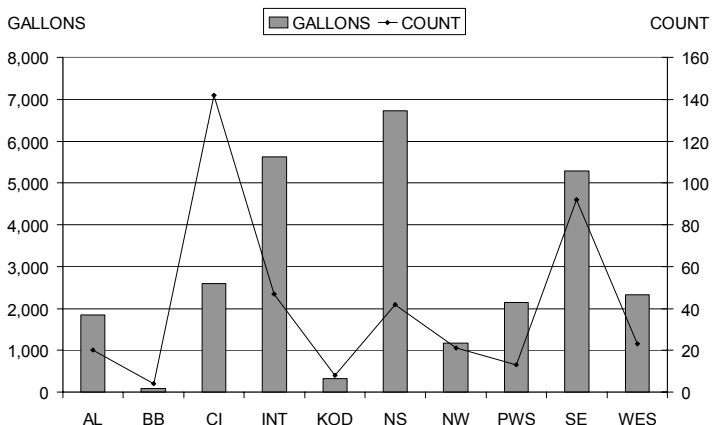
Excludes releases reported in pounds: Anhydrous Ammonia (6 releases, 11,340 lbs); Freon (1 release, 36 lbs); Other (3 releases, 3,780 lbs)



## REFINED OIL PRODUCTS

July 1-September 30, 2000

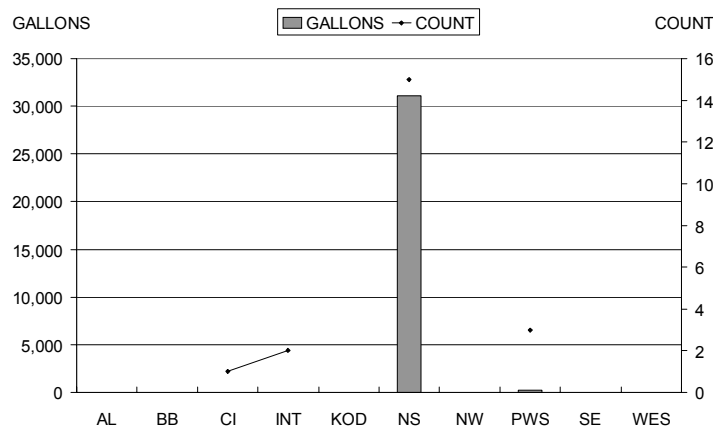
Subarea	Count	Gallons
Aleutian (AL)	20	1,838
Bristol Bay (BB)	4	76
Cook Inlet (CI)	142	2,598
Interior (INT)	47	5,617
Kodiak (KOD)	8	320
North Slope (NS)	42	6,734
Northwest Arctic (NW)	21	1,169
Prince William Sound (PWS)	13	2,141
Southeast (SE)	92	5,290
Western Alaska (WES)	23	2,318
<b>Total for Quarter</b>	<b>412</b>	<b>28,101</b>



## CRUDE OIL

July 1-September 30, 2000

Subarea	Count	Gallons
Aleutian (AL)		
Bristol Bay (BB)		
Cook Inlet (CI)	1	12
Interior (INT)	2	35
Kodiak (KOD)		
North Slope (NS)	15	31,103
Northwest Arctic (NW)		
Prince William Sound (PWS)	3	210
Southeast (SE)		
Western Alaska (WES)		
<b>Total for Quarter</b>	<b>21</b>	<b>31,360</b>

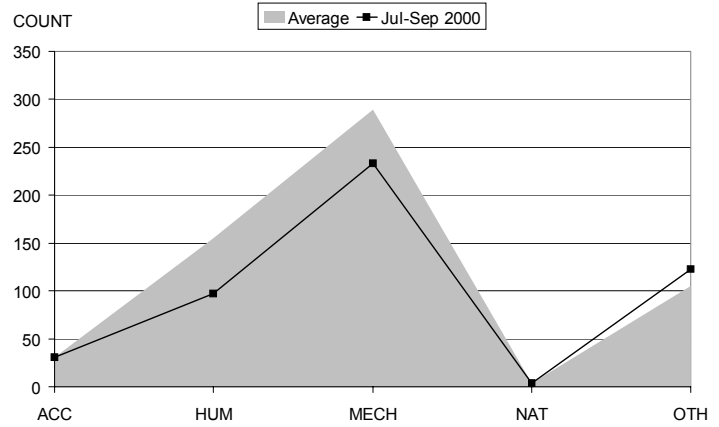


# spills reported by CAUSE (excluding Brine)

## ALL SPILLS

July -Sept 2000 compared to same quarter in prior years

Subarea	July-September						Average
	1995	1996	1997	1998	1999	2000	
Accident (ACC)	54	27	39	30	27	31	31
Human Factors (HUM)	194	179	159	163	178	97	155
Structural/Mechanical (MECH)	345	284	300	289	342	233	290
Natural Causes (NAT)	9	2	3	3	5	4	3
Other/Unknown (OTH)	138	102	90	105	105	123	105
<b>Total for Quarter</b>	<b>740</b>	<b>594</b>	<b>591</b>	<b>590</b>	<b>657</b>	<b>488</b>	

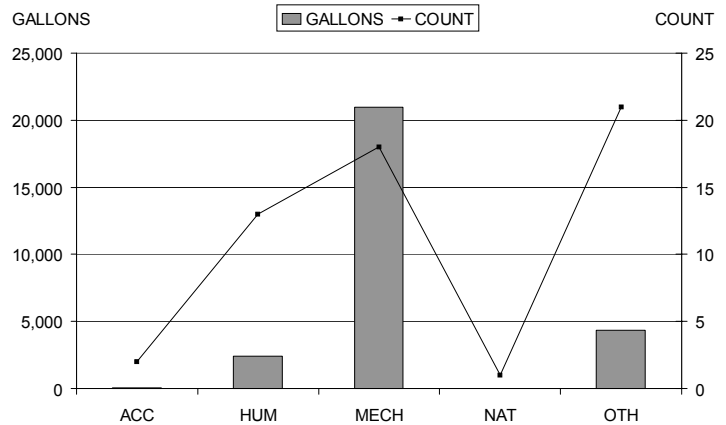


## HAZARDOUS SUBSTANCES

July 1-September 30, 2000

Cause	Count	Gallons
Accident (ACC)	2	49
Human Factors (HUM)	13	2,398
Structural/Mechanical (MECH)	18	20,967
Natural Causes (NAT)	1	1
Other/Unknown (OTH)	21	4,309
<b>Total for Quarter</b>	<b>55</b>	<b>27,724</b>

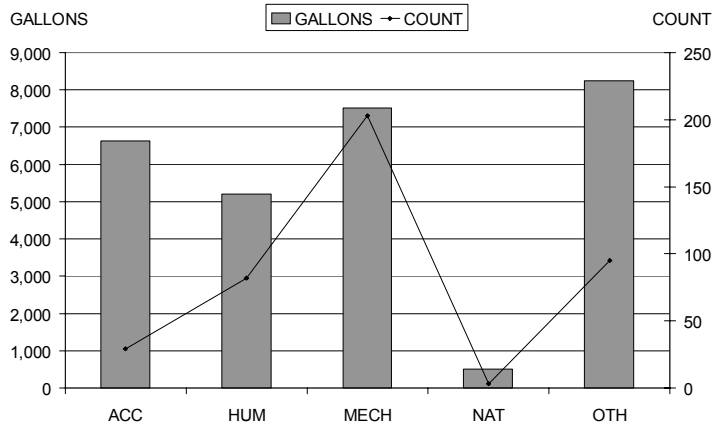
Excludes releases reported in pounds: Anhydrous Ammonia (6 releases, 11,340 lbs); Freon (1 release, 36 lbs); Other (3 releases, 3,780 lbs)



## REFINED OIL PRODUCTS

July 1-September 30, 2000

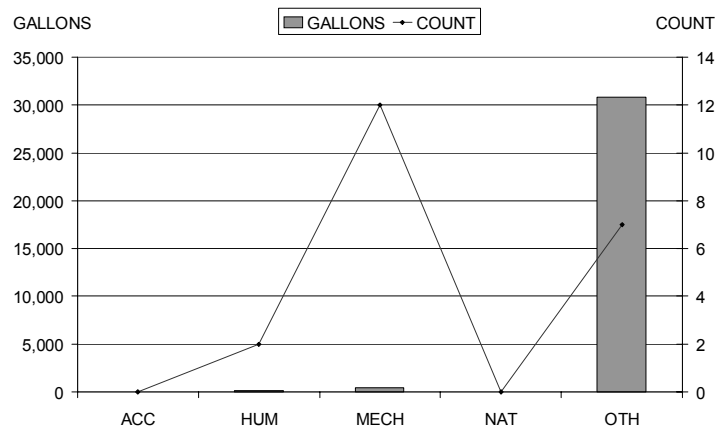
Cause	Count	Gallons
Accident (ACC)	29	6,641
Human Factors (HUM)	82	5,198
Structural/Mechanical (MECH)	203	7,507
Natural Causes (NAT)	3	512
Other/Unknown (OTH)	95	8,243
<b>Total for Quarter</b>	<b>412</b>	<b>28,101</b>



## CRUDE OIL

July 1-September 30, 2000

Cause	Count	Gallons
Accident (ACC)		
Human Factors (HUM)	2	129
Structural/Mechanical (MECH)	12	433
Natural Causes (NAT)		
Other/Unknown (OTH)	7	30,798
<b>Total for Quarter</b>	<b>21</b>	<b>31,360</b>

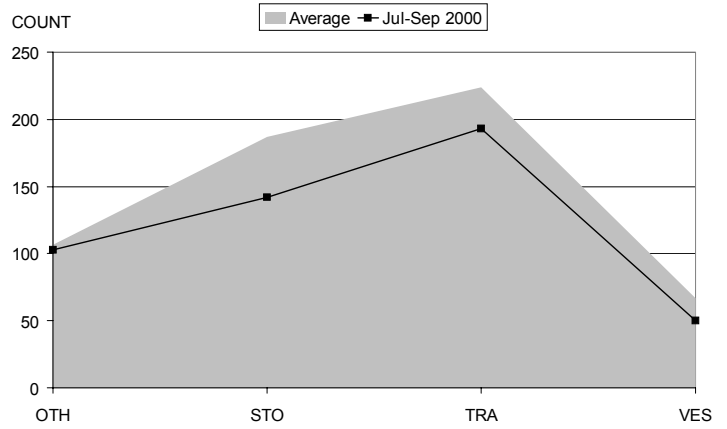


# spills reported by SOURCE (excluding Brine)

## ALL SPILLS

July - Sept 2000 compared to same quarter in prior years

Source	July-September						Average
	1995	1996	1997	1998	1999	2000	
Other/Unknown (OTH)	161	123	95	97	115	103	107
Storage (STO)	247	195	192	198	206	142	187
Transportation (TRA)	253	206	229	226	266	193	224
Vessel (VES)	79	70	75	69	70	50	67
<b>Total for Quarter</b>	<b>740</b>	<b>594</b>	<b>591</b>	<b>590</b>	<b>657</b>	<b>488</b>	

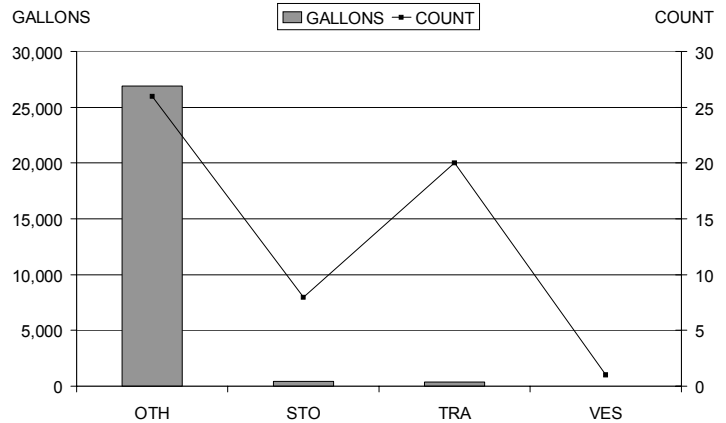


## HAZARDOUS SUBSTANCES

July 1-September 30, 2000

Source	Count	Gallons
Other/Unknown (OTH)	26	26,930
Storage (STO)	8	417
Transportation (TRA)	20	372
Vessel (VES)	1	5
<b>Total for Quarter</b>	<b>55</b>	<b>27,724</b>

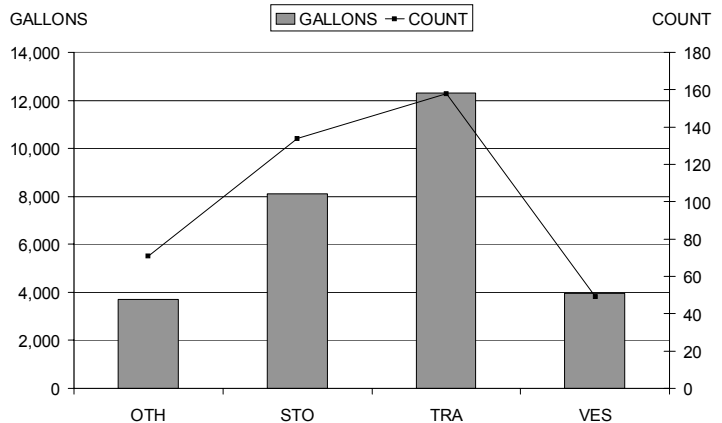
Excludes releases reported in pounds: Anhydrous Ammonia (6 releases, 11,340 lbs); Freon (1 release, 36 lbs); Other (3 releases, 3,780 lbs)



## REFINED OIL PRODUCTS

July 1-September 30, 2000

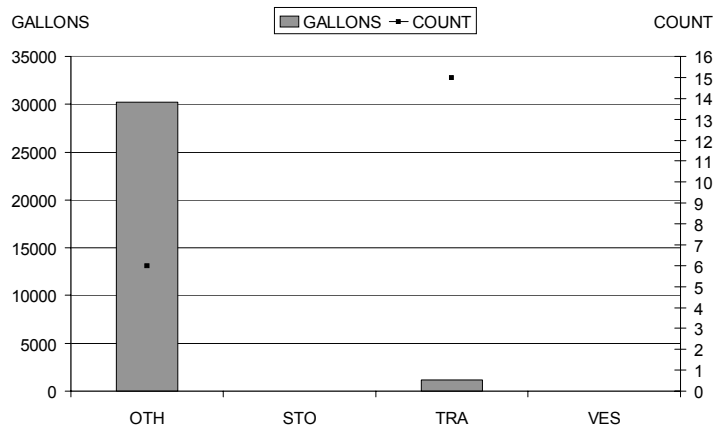
Source	Count	Gallons
Other/Unknown (OTH)	71	3,717
Storage (STO)	134	8,118
Transportation (TRA)	158	12,302
Vessel (VES)	49	3,964
<b>Total for Quarter</b>	<b>412</b>	<b>28,101</b>



## CRUDE OIL

July 1-September 30, 2000

Source	Count	Gallons
Other/Unknown (OTH)	6	30,223
Storage (STO)		
Transportation (TRA)	15	1,137
Vessel (VES)		
<b>Total for Quarter</b>	<b>21</b>	<b>31,360</b>



CANUSDIX 2000, a joint Canadian/U.S. tabletop management tabletop exercise, covered situation analysis, initial actions, command structure, strategy development and issues of concern for a remote spill scenario in Dixon Entrance. Representatives from the U.S. and Canadian Coast Guards, British Columbia Ministry of Environment, Lands and Parks, SeaCoast Towing, Southeast Alaska Petroleum Resource Organization (SEAPRO), Burrard Clean, the CANUSDIX International Wildlife Team and DEC participated in the drill. The drill included a shoreline cleanup assessment team (SCAT) refresher course, tabletop workshop and on-water equipment deployment exercise. This was the first time that industry and B.C. environmental agency representatives had participated in a CANUSDIX drill, which greatly benefited the discussion. During the on-water portion of the drill, the Canadian Coast Guard tested a beach flushing system utilizing the 93.5-foot air-cushioned vehicle CGHC Siyay, which accessed the beach from the water. The USCG deployed the vessel of opportunity skimming system (VOSS) from the CGC Woodrush.

Staff from the Departments of Environmental Conservation (DEC), Fish and Game (DFG) and Natural Resources (DNR) attended the National Preparedness for Response Exercise Program (NPREP) drill sponsored by SeaCoast Towing, which included two days of general and section-specific Incident Command Section (ICS) training, a tabletop exercise, and an on-water equipment deployment exercise. Section-specific ICS training was followed by a tabletop scenario in which all sections worked issues independently, a format conducive to training new staff. PERP staff made a presentation on the Alaska Incident Management System (AIMS). New staff from the DEC logistics and finance groups and Southeast region staff from DFG and DNR took advantage of the training opportunity. During the on-water exercise, staff monitored deployment of SEAPRO's mini-barge skimming and lightering systems, double booming of a large barge, and a USCG VOSS deployment from the CGC Anthony Petit.



## All Significant Responses (July-September 2000)

### JULY 2000

- 7/6 Summit Lake Truck Rollover
- 7/12 ARRC derailment, Mile 152.8
- 7/24 T/V POLAR CALIFORNIA
- 7/26 KPL Recirculation Line
- 7/26 Chefnak Tank Farm

### AUGUST 2000

- 8/2 Valdez Marine Terminal-West Tank Farm
- 8/11 Inlet Fish Producers' Barge Harvester
- 8/13 Grounded Qayuuttag Dredge
- 8/21 BP Gathering Center

### SEPTEMBER 2000

- 9/1 Unocal - Swanson River Produced Water
- 9/11 Tug Millennium Star
- 9/15 Duck Creek Heating Oil Leak
- 9/20 Whittier Harbor Fertilizer Spill
- 9/20 Seward Highway MP 109
- 9/21 Alaska Nitrogen Products Ammonia Release
- 9/27 Monashka Bay Fish Kill
- 9/27 Williams Glycol Spill

More information is available on the web at

<http://www.state.ak.us/dec/dspar/perp>

## Oil and Hazardous Substance Spills reported to DEC July 1-September 30, 2000

### HAZARDOUS SUBSTANCES

(does not include brine or releases reported in pounds)

**Total Count:** 55      **Total Gallons:** 27,724

#### Top 5 Substances

Product	Count	Gallons
Propylene Glycol	6	1,588
Ethylene Glycol (Antifreeze)	12	1,533
Sodium Cyanide (Solution) *	1	300
Methyl Alcohol (Methanol)	3	55
Corrosion Inhibitor	1	20

#### Top 5 Causes

Product	Count	Gallons
Containment Overflow	3	20,353
Valve Left Open	5	2,205
Line Ruptured	5	355
Seal Failure	1	144
Third Party Act	2	120

#### Top 5 Sources

Product	Count	Gallons
Industrial Vehicle	9	215
Tank Farm	2	210
Drum/s	5	187
Well	4	75
Other Vehicles	1	45

### CRUDE AND REFINED OIL

**Total Count:** 433      **Total Gallons:** 59,461

#### Top 5 Substances

Product	Count	Gallons
Crude	23	31,360
Diesel	201	15,932
Drilling Muds	4	4,534
Gasoline	87	2,616
Asphalt	1	2,000

#### Top 5 Causes

Product	Count	Gallons
Valve Left Open	17	2,835
Overturn/Capsized	9	2,785
Sinking	10	2,121
Leak, Other	60	1,966
Valve Faulty	11	1,894

#### Top 5 Sources

Product	Count	Gallons
Well	15	4,594
Industrial Vehicle	74	4,488
Fishing	23	2,706
Home Heating Tank	22	2,475
Tank Farm	6	2,121

# 2000 Drill Calendar

TBD	Cruise Ship Away Team Deployment Exercise (USCG), Southeast AK
November 2	North Slope Mutual Aid Drill (BP), North Slope
November 9	Valdez Marine Terminal Drill (APSC), Valdez

Visit the PERP website for updated information on drills and training. [http://www.state.ak.us/dec/dspar/perp/drill\\_tr.htm](http://www.state.ak.us/dec/dspar/perp/drill_tr.htm)

## SEND COMMENTS AND SUBSCRIPTION REQUESTS TO:

Camille Stephens, 410 Willoughby Ave., Juneau, AK 99801

or

email: [cstephen@envircon.state.ak.us](mailto:cstephen@envircon.state.ak.us)

## At a glance... July 1 - September 30, 2000

### Spill Summary

Total Spills Reported* (includes 7 brine releases):	505
Oil -- Total Gallons Released	59,461
Hazardous substances* -- Total Gallons Released	27,724
Brine -- Total Gallons Released	3,688

### Oil Releases

Total Spills Reported:	433
Largest Volume Released by Category	
Substance (21 spills; 31,360 gal)	Crude
Cause (17 spills; 2,835 gal)	Valve left open
Source (14 spills; 4,594 gal)	Well
Largest Single Release	Crude; 30,030 gal

### Hazardous Substance Releases \* (excluding brine)

Total Spills Reported:	55
Largest Volume Released by Category	
Substance (6 spills; 1,588 gal)	Propylene glycol
Cause (3 spills; 20,353 gal)	Containment overflow
Source (9 spills; 215 gal)	Industrial Vehicle
Largest Single Release	Antifreeze; 1,470 gal

\*excludes 10 releases reported in pounds



Prevention and Emergency Response Program  
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<http://www.state.ak.us/dec/dspar/perp/perphome.htm>  
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maillabel

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