



# **Exxon Valdez Oil Spill**

## **FAQs, Links, and Unique Resources at ARLIS**

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*ARLIS's Exxon Valdez Oil Spill Collection is the most comprehensive of its kind.*

The *Exxon Valdez* Oil Spill Trustee Council (EVOSTC) is one of the eight Founding Partners of the Alaska Resources Library and Information Services (ARLIS) and has entrusted ARLIS with its extensive collection of materials on the *Exxon Valdez* oil spill (EVOS). Many of the items in this collection are unique and available only at ARLIS.

ARLIS has also acquired EVOS materials representing diverse perspectives from state and federal agencies, universities, the private sector, the media, and the general public. Topics include the grounding of the tanker, oil spill response, cleanup, damage assessment, impacts to the environment and people, research, and restoration.

The collection contains books, reports, maps, photos, documentary films, video footage, and data, in print and digital formats. ARLIS even has works of poetry, novels, children's books, a theatrical play, and a made-for-TV movie, all pertaining to EVOS.

This guide provides links to numerous full-text publications and many more are available full-text through the ARLIS catalog at [www.arlis.org](http://www.arlis.org). Most items may be checked out. ARLIS also loans to other libraries around the world. People who are not located in Anchorage may borrow ARLIS materials through their local library. Special collection items are in-library use only. Contact ARLIS for assistance at 907-27-ARLIS (272-7547) or [reference@arlis.org](mailto:reference@arlis.org).

## Unique EVOS Resources at ARLIS

1. **Alyeska Emergency Center recordings** — [audio recording](#) and [transcript](#) of excerpts of telephone calls made from 4:57 a.m. on March 24, 1989 to 6:00 a.m. on March 26, 1989 by Exxon and Alyeska officials, including Frank Iarossi, Don Cornett, George Nelson and Steve Dietrich. (DVD GC1552.P75E88 2010; the digital files are also available for download via the catalog record.)
2. **DOMS Reports: Alaska Oil Spill Cleanup Support** — daily reports from the U.S. Army, Director of Military Support on the military involvement in the spill cleanup. (SPEC COLL TD427.P4U566 v.1-3)
3. **EVOS Trustee Council Public Record** — this extensive collection documents 25 years of Trustee Council research and restoration work, and contains damage assessment studies, restoration project reports, annual restoration work plans, land appraisals, administrative policies and procedures, budgets and financial reports, briefing papers, meeting transcripts, resolutions, public comments, and other materials used in the Council's decision process. ARLIS also houses the public copies of the Administrative Records for the 1994 *Exxon Valdez* Oil Spill Restoration Plan, the document that guides the Trustee Council's restoration work, and the Final Environmental Impact Statement for the 1994 Restoration Plan.
4. **Exxon Corporation's publicity materials** — brochures, newsletters, and booklets on cleanup operations and environmental impacts.
5. **Exxon Valdez Oil Spill Federal Trial Transcript**, 1994, A89-0095 civil. (GC1552.P75T752 1994 pt.1-4)
6. **Exxon Valdez Oil Spill State Trial Transcript**, 1994, 3AN-89-2533 civil. (GC1552.P75T753 1994 pt.1-5)
7. **Hazelwood Trial Transcript and Exhibits** — material from the 1990 trial of Joseph Hazelwood, captain of the T/V *Exxon Valdez*, including a video recording of closing arguments. (SPEC COLL GC1552.P75H38 1990 v.1-35, SPEC COLL GC1552.P75H37 1990 v.1-4, VID-00028)
8. **National Transportation Safety Board Hearings** on the Grounding of the T/V *Exxon Valdez*, May 16-20, 1989 — video recordings (VIDEO TD427.P4O45 1989) and [full-text transcript](#). (GC1552.P75U56 1990)
9. **On the Rocks: The Great Alaska Oil Spill** — a board game invented in 1989 by Richard Lynn of Valdez and sold by On the Rocks Enterprises for \$16.69, the hourly wage that Exxon's contractor paid its cleanup workers. The game was featured in a March 11, 1991 article in Fortune Magazine.
10. **Sea otter treatment records** — Seward Otter Rescue Center files documenting the care of oiled sea otters in 1989, including daily observation logs, diet records, and medical treatment.
11. **Shoreline Oiling Evaluations** — Surveys conducted from 1989 through 1993 by interagency groups to assess oiling conditions in the spill area; organized by survey, geographic area, and shoreline segment number. Impact maps and summary reports are included. (COL-00020)
12. **Public comments** — United State of America v. Exxon and Exxon Shipping, public comments on the criminal plea and consent decree, 1990. (SPEC COLL GC1552.P75U5 1991 v.1-6)
13. **Valdez Vessel Traffic Center Radio Transmissions**, March 23–24, 1989 — audio recording and [transcript](#), including Captain Joseph Hazelwood's report to the U.S. Coast Guard that the tanker had run aground and was leaking oil. (CD-ROM GC1552.P75R23 2010; the digital transcript is also available for download via the catalog record.)
14. **Volume of Oil Spilled**, 1990 — a two-volume set of documents containing information about the volume of oil spilled from the *Exxon Valdez*, including reports and correspondence from Exxon Shipping Company, Caleb Brett U.S.A. Inc., U.S. Coast Guard, Alaska Department of Environmental Conservation, and consulting engineers. (COL-00025)

# FREQUENTLY ASKED QUESTIONS ABOUT THE *EXXON VALDEZ* OIL SPILL

*Opinions differ on various aspects of the oil spill. Information from a variety of perspectives and sources is provided where possible. For more information contact ARLIS at 907-27-ARLIS (272-7547) or [reference@arlis.org](mailto:reference@arlis.org).*

## **THE SPILL**

### **1. How did the Exxon Valdez oil spill happen?**

Alaska Oil Spill Commission [Final Report](#), 1990.

[Executive Summary](#).

[Appendix A–I](#), Miscellaneous Reports.

[Appendix J–L](#), Miscellaneous Reports.

[Appendix M](#), Legal Research Reports.

[Appendix N](#), Chronology.

Exxon Valdez Oil Spill Trustee Council, [Details about the Accident](#).

[Federal On-Scene Coordinator’s Report](#), U.S. Coast Guard, 1993.

[National Transportation Safety Board Report](#), 1990.

[State On-Scene Coordinator’s Report](#), Alaska Department of Environmental Conservation, 1993.

U.S. Coast Guard National Response Team [Report to the President](#), 1989. \*available through Interlibrary Loan from your local library

#### **Chronologies:**

Alaska Oil Spill Commission Final Report, [Appendix N](#), 1990.

Alyeska Pipeline Service Company, [Supplemental Twenty-Four Hour Chronology](#), 1989

Exxon Corporation’s [Chronology of Exxon’s Response to the Exxon Valdez Incident](#), 1989.

[Federal On-Scene Coordinator’s Report](#), U.S. Coast Guard, 1993, page 22.

NOAA Response and Restoration Blog, [Looking Back: What Led up to the Exxon Valdez Oil Spill?](#) 2014.

U.S. Coast Guard National Response Team [Report to the President](#), 1989. \*available through Interlibrary Loan from your local library

### **2. How much oil was spilled?**

Exxon Valdez Oil Spill Trustee Council, [Questions and Answers](#).

[Federal On-Scene Coordinator’s Report](#), U.S. Coast Guard, 1993.

Total cargo: T/V *Exxon Valdez* carried 53,094,510 gallons (1,264,155 barrels) of oil.

Amount spilled: 20% of total cargo = 10.8 million gallons = 257,000 barrels = 35,000 metric tonnes (38,800 short tons)

Remaining cargo: 80% of the cargo (44 million gallons) was retained in the tanker and lightered off to the T/V *Exxon Baton Rouge*, *Exxon San Francisco*, and *Exxon Baytown*. Lightering began March 25, 1989 and was completed April 4, 1989.

See Also:

Ott, R. and P. Miller. 2004. [Sound truths and Exxon myths](#) – the 15<sup>th</sup> dark anniversary of the *Exxon Valdez* oil spill and beyond. Alaska Forum for Environmental Responsibility and Alaska Community Action on Toxics, 3 p.

### **3. How is the size of an oil spill determined from observations of the slick**

NOAA's [Open Water Oil Identification Job Aid for Aerial Observation](#) describes the tools and information used to make aerial observations to determine the size of an oil spill to prioritize response and direct cleanup activities. It includes:

- a glossary of Standard Oil Spill Observation Terms,
- a chart for estimating the thickness and volume of oil on the water,
- a checklist for recording observations,
- photos of various types and distributions of oil on water and common response activities, and
- examples of overflight maps.

### **4. How far did the oil spread?**

*Exxon Valdez* Oil Spill Trustee Council, [Questions and Answers](#).

“Approximately 1,300 miles. 200 miles were heavily or moderately oiled (meaning the impact was obvious); 1,100 miles were lightly or very lightly oiled (meaning light sheen or occasional tarballs). By comparison, there is more than 9,000 miles of shoreline in the spill region. From Bligh Reef the spill stretched 460 miles to the tiny village of Chignik on the Alaska Peninsula.” [Map of the spill area](#).

[State On-Scene Coordinator's Report](#), Alaska Department of Environmental Conservation, 1993, Map: Spread of Oil from the *Exxon Valdez* Oil Spill, page vii.

“Composite overview of oil spill tracking from March 24, 1989 to June 20, 1989. All categories of oil are represented. Approximate are: 28,500 sq. km.” 28,500 square kilometers equals 11,003 square miles.

### **5. What is the spreading property of oil?**

EPA [Enforcement Alert](#), Volume 3 Number 8, September 2000, page 1.

“Even a pint of oil released onto the water can spread and cover one acre of water surface area and can seriously damage an aquatic habitat.”

Oregon State Marine Board, [Oregon Clean Marina Guidebook](#), August 2005, page 15.

“One quart of oil will create an oil slick over two acres in size – the equivalent of nearly three football fields.”

Franklin, Benjamin, 1774, [“Of the stilling of waves by means of oil,”](#) *Philosophical Transactions* 64: 445-460, doi:10.1098.

Benjamin Franklin found that a teaspoon of oil poured on the surface of a pond spread out to form an oil slick about a half-acre in area

## 6. **What is the difference between heavy and light crude oil?**

U.S. Environmental Protection Agency, [Types of Crude Oil](#), 2009.

## **CLEANUP**

### 7. **How was the oil cleaned up?**

Cleanup activities began in 1989 and continued through September, when operations were halted for the winter. Cleanup activities continued each summer through 1992. "At the peak of cleanup activity in 1989, more than 11,000 workers, 1,400 vessels, and 80 aircraft were involved."

[Federal On-Scene Coordinator's Report](#), U.S. Coast Guard, 1993, page 22a.

*See Also:*

Alaska's Big Spill: Can the Wilderness Heal, National Geographic, January 1990, Vol. 177, No. 1, pages 18-19.

Exxon Production Research Company, Valdez Oil Spill Technology: 1989 Operations, 1990. (TD427.P4V3 1990)

[State On-Scene Coordinator's Report](#), 1993, Chapter 2: Technology, pages 61-87.

### 8. **Who cleaned up the oil spill?**

[Federal On-Scene Coordinator's Report](#), U.S. Coast Guard, 1993, page 113.

"Exxon hired thousands of additional workers through several companies. The most prominent of these was the VECO Corporation of Anchorage. VECO engaged hundreds of shoreline workers at a basic pay rate of \$16.69 per hour, in addition to many other boat crewmen, laborers, and specialists.<sup>42</sup> The response also required Exxon's use of a number of miscellaneous contractors (table 5.3). Collectively, personnel from "other" contractors provided about one-third of the work force during most of the 1989 cleanup season."

#### *Selected Exxon Contractors and their Purpose/Service*

<u>Contractors</u>	<u>Purpose/Service Provided</u>
Catering Contractors International	Catering for all vessels
Chemical Waste Management, Inc.	Oily waste disposal
Chugach/ Nana/Marriott	Catering and housekeeping
Crawford and Company	Vessel and aircraft tracking
Crowley Marine Corporation	Vessel services
Ensco Marine Company	Vessel services
ERA Aviation, Inc.	Helicopter services
Gulf Fleet Marine Operations	Vessel services
Martech USA, Inc.	Vessel services
Otto Candies, Inc.	Vessel services
Tidex Corporation	Vessel services
VECO	General contractor
Woodward Clyde Consultants	Scientific research services

During 1989 cleanup, Exxon's primary cleanup contractor, VECO, purchased:

Beef	the equivalent of 900 cattle
Pork	the equivalent of 500 hogs
Poultry	the equivalent of 280,000 chickens and 800 turkeys
Milk	enough to fill 24 tanker trucks
Total Food	9.8 million pounds (4,900 tons)
Rain suits	157,000 sets
Rubber boots	65,000 pairs
Hard hats	30,000
Coveralls	125,000 sets
Toilet paper	530 miles, if unrolled.

## **9. How much did the cleanup cost?**

[Governments' Memorandum in Support of Agreement and Consent Decree](#), Oct. 8, 1991.

Exxon spent more than \$2.5 billion on cleanup costs.

## **10. What happened to the oil?**

Wolfe, et al. 1994. The fate of the oil spilled from the *Exxon Valdez*, *Environmental Science & Technology*, 28(13):560A-568A.

- 20% evaporated and underwent photolysis in the atmosphere
- 50% biodegraded either in situ on beaches or in the water column
- 14% recovered or disposed
- < 1% remained in the water column (except as biodegradation products)
- 2% remained on intertidal shorelines (with a very large proportion of this as highly weathered, biologically inert residuals)
- ~13% remained in subtidal sediments, mostly in the GOA and mostly as highly weathered residuals.

## **11. Is oil still out there in the spill area?**

Exxon Valdez Oil Spill Trustee Council, [Lingering Oil](#).

"According to research by NOAA Fisheries researchers at Auke Bay Laboratory, Alaska, 21,000 gallons remain subsurface in the mid- and lower intertidal area. Additional full-text reports and journal articles on lingering oil, including the impact on sea ducks and sea otters, can be found on page 4 of [the EVOS Trustee Council's web page on lingering oil](#)."

See Also:

Exxon Valdez Oil Spill Trustee Council, [Lingering Oil Report](#), 2016.

## **12. What role did the military play in spill response and cleanup?**

[Federal On-Scene Coordinator's Report](#), U.S. Coast Guard, 1993.

Hanable, W.S., [Military Support for Cleanup of the Exxon Valdez Oil Spill](#), Headquarters Alaska Air Command, 1990.

## **IMPACT ON ANIMALS & ENVIRONMENT**

### **13. How many animals died outright from the oil spill?**

Exxon Valdez Oil Spill Trustee Council, [Questions and Answers](#).

“No one knows. The carcasses of more than 35,000 birds and 1,000 sea otters were found after the spill, but since most carcasses sink, this is considered to be a small fraction of the actual death toll. The best estimates are: 250,000 seabirds, 2,800 sea otters, 300 harbor seals, 250 bald eagles, up to 22 killer whales, and billions of salmon and herring eggs.”

See Also:

Exxon Corporation and Exxon Shipping Company. April 1991. Summary regarding natural resources. (Contact ARLIS for this document.)

U.S. Government. March 1991. [Summary of Effects of the Exxon Valdez Oil Spill on Natural Resources and Archaeological Resources](#).

### **14. How were the oiled birds and animals cleaned?**

[International Bird Rescue Research Center](#), Overview of Bird Search and Rescue: [Response Efforts during the Exxon Valdez Oil Spill](#).

Smith, R., Sea Otter Rescue: The Aftermath of an Oil Spill, 1990, page 44.

“Washing a sea otter was a very involved process that could take four people over two hours to complete, depending on how badly the otter was oiled... Washing proceeded by wetting the otter with a solution of Dawn® dishwashing detergent mixed with water.”

### **15. What happened to the rehabilitated sea otters?**

Some rehabilitated sea otters were released, others were sent to zoos or aquariums. Click here for video footage of rehabilitated [Exxon Valdez sea otters](#), [Nyac](#), who lived to the age of twenty at the Vancouver Aquarium, and [Nuka](#), who lived to be 21 years old at the Seattle Aquarium. The last surviving [Exxon Valdez sea otter](#), 25-year-old [Homer](#), was euthanized at the Point Defiance Zoo and Aquarium on June 24, 2013 due to serious medical issues.

### **16. Is it true that two oiled seals were rehabilitated at a cost of \$80,000 each and upon being released into the wild were promptly eaten by a killer whale?**

No. This is an urban legend, as explained at [Snopes.com](#). However, it is true that the cost to clean and rehabilitate oiled sea otters was about \$80,000 per animal. Source: Monahan, T.P. and A.W. Maki, The Exxon Valdez 1989 Wildlife Rescue and Rehabilitation Program, 1991 International Oil Spill Conference, pages 131-136.

### **17. Have the animals recovered?**

Ballachey, B.E, et al. 2014. [2013 update on sea otter studies to assess recover from the 1989 Exxon Valdez oil spill, Prince William Sound, Alaska](#), U.S. Geological Survey Open File Report 2014-1030, 40 p.

Exxon Valdez Oil Spill Trustee Council, [Lingering Oil](#).

Exxon Valdez Oil Spill Trustee Council, [Status of Injured Resources and Services](#).

U.S. Geological Survey, [25 Years After the Exxon Valdez, Sea Otter Populations at Pre-Spill Levels](#), February 2014.

U.S. Geological Survey, [Effects of the Exxon Valdez Oil Spill on Sea Otters](#), 2014.

## **IMPACT ON PEOPLE**

### **18. What was the impact of the spill on people living in the spill area?**

Impacts include economic, social, psychological, and health. Details are provided in these sources. Contact ARLIS for referrals to scientists, environmental activists, commercial fishers, public process participants, and spill community leaders.

#### **Articles, Reports, and Theses:**

Cohen, M.J., Economic Aspects of Technological Accidents: an Evaluation of the *Exxon Valdez* Oil Spill on Southcentral Alaska, 1993. (TD427.P4C632 1993)

Fall, J.A. et al., Long-term Consequences of the *Exxon Valdez* Oil Spill for Coastal Communities of Southcentral Alaska: [Final Report](#), 2001.

Fall, J.A. et al., [Update](#) of the Status of Subsistence Uses in *Exxon Valdez* Oil Spill Area Communities, 2006.

Davis, N.Y. 1996. The *Exxon Valdez* oil spill, Alaska. In: Mitchell, J.K. editor. The long road to recovery: community responses to industrial disaster. Tokyo; New York: United Nations University Press; 1996. P. 231-272.

Fiolek, A., L. Pikula, and B. Voss. 2010. [Resources on oil spills, response, and restoration: a selected bibliography](#). National Oceanic and Atmospheric Administration. 206 p.

Gill, D.A., J.S. Picou, and L.A. Ritchie. 2012. The *Exxon Valdez* and BP oil spills: a comparison of initial social and psychological impacts, *American Behavioral Scientist*, 56(1):3-23.

Gorman, R. W., et al. 1991. [Health hazard evaluation report: Exxon Valdez oil spill](#). National Institute for Occupational Safety and Health, HETA 89-200 and 89-273-2111.

Holliday, M.G. and J.M. Park. 1993. Occupational health implications of crude oil exposure: literature review and research needs. Washington, D.C.: Marine Spill Response Corporation. Technical Report Series 93-007. 55 p. (TD427.P4T43 no.93-007)

McDowell Group, [An assessment of the impact of the Exxon Valdez Oil Spill on the Alaska tourism industry](#): Phase I, Initial Assessment, 1990. (GC1552.P75E99 EC-1 no.1)

Ott, R., Sound Truth and Corporate Myth\$: the Legacy of the *Exxon Valdez* Oil Spill, 2005 (Health issues for oil spill cleanup workers).

Palinkas, L. 2010. Psychological impacts of oil spills: the *Exxon Valdez* disaster. In: McCoy, M.A. and J.A. Salerno, rapporteurs. [Assessing the effects of the Gulf of Mexico oil spill on human health: a summary of the June 2010 workshop](#). Washington, D.C.: National Academy Press; 2010. P. 64-68.

Palinkas, L., J.S. Peterson, J. Russell, and M.A. Downs. 1993. [Community patterns of psychiatric disorders after the Exxon Valdez oil spill](#). *American Journal of Psychiatry*. 150(10):1517-1523.

Picou, J.S. and C.G. Martin, [Long-term Community Impacts of the Exxon Valdez Oil Spill](#): Patterns of Social Disruption and Psychological Stress Seventeen Years after the Disaster, 2007.



Picou, J.S., D.A. Gill, and M.J. Cohen, *The Exxon Valdez Disaster: Readings on a Modern Social Problem*, 1999. (GC1552.P75E8932 1999)

Thayer, E.C. 2001. Chemical human health hazards associated with oil spill response. Washington, D.C.: American Petroleum Institute.

### **Documentary Films:**

Cornellier, R. and P. Carvalho, *Black Wave: the Legacy of the Exxon Valdez*, 2008.

Hartwell, K., *Our Alutiiq Journey*, 2002 (Impact on subsistence).

Ott, R., *Beyond March 24, 1989: the Legacy of the Exxon Valdez Oil Spill*, 2007 (Health issues for oil spill cleanup workers). (DVD GC1552.P75O88 2007)

Taylor Productions, *Alutiiq Pride: a Story of Subsistence*, 1998.

Taylor Productions, *Tatitlek: Changing Tides*, 1999 (Impact on subsistence).

Sierra Club Productions, Oakland, Ca. *Sierra Club Chronicles: The Day The Water Died*, 2006.

<https://www.youtube.com/watch?v=IreQEUCcUdk>

*Exxon Valdez Oil Spill Trustee Council*, Anchorage, AK: *Listening to the Sound: The work of the Exxon Valdez Oil Spill Trustee Council*, 2019.

[http://www.evostc.state.ak.us/static/mp3/ListeningToTheSound\(720\).mp4](http://www.evostc.state.ak.us/static/mp3/ListeningToTheSound(720).mp4)

### **Personal Accounts:**

Bushell, S. and S. Jones, *Spill: Personal Stories from the Exxon Valdez Disaster*, 2009 (Interviews done twenty years after the spill include first responders, tanker crew members, Exxon officials, spill area residents and scientists.).

Gavenus, Katie Aspen, Jennifer Tobin-Gurley, and Lori Peek. 2013. [Children of the Spills](#) – Phase 1: Alaska and the Exxon Valdez Oil Spill, *Children, Youth and Environments*, 23(1):155-166

Savage, Merle. 2003, rev. 2010. Silence in the sound, 237 p.

Spencer, P., *White Silk & Black Tar: a Journal of the Alaska Oil Spill*, 1990.

### **Worker Health:**

[Corexit 9580, Material Safety Data Sheet](#). Houston, Texas: Exxon Chemical Americas. 1989.

Gorman, R. W., et al. 1991. [Health hazard evaluation report: Exxon Valdez oil spill](#). National Institute for Occupational Safety and Health, HETA 89-200 and 89-273-2111.

Holliday, M.G. and J.M. Park. 1993. Occupational health implications of crude oil exposure: literature review and research needs. Washington, D.C.: Marine Spill Response Corporation. Technical Report Series 93-007. 55 p. (TD427.P4T43 no.93-007)

O'Neill, Annie K. 2003. [Self-reported exposures and health status among workers from the Exxon Valdez oil spill cleanup, Master's thesis, Yale University](#). (links to downloadable pdf)

Ott, R. 2007. *Beyond March 24, 1989: the Legacy of the Exxon Valdez Oil Spill*. (Health issues for oil spill cleanup workers). (DVD GC1552.P75O88 2007)

Seegal, J. 1989. [Report of the public health team assessing the Exxon Valdez oil spill cleanup](#). Laborers' National Health and Safety Fund. (TD427.P4R476 1989) (links to downloadable pdf)

Solomon, G.M. and S. Janssen. 2010. Health effects of the Gulf oil spill. *Journal of the American Medical Association*. 304(10):1118-1119. (Includes a section on historic oil spills, including EVOS.)

Thayer, E.C. 2001. Chemical human health hazards associated with oil spill response. Washington, D.C.: American Petroleum Institute.

U.S. Department of Health & Human Services, Disaster Information Management Research Center, [Crude Oil Spills and Health](#), 2014.

### **19. *Is it true that almost all of the Exxon Valdez oil spill workers are dead?***

No. This statement was made on CNN News on June 30, 2010 by Kerry Kennedy a few months after the blowout at BP's Deepwater Horizon rig in the Gulf of Mexico, and spread by numerous media services. Crude oil and the chemicals used to clean it up are toxic substances and may be hazardous to human health. However, no evidence, scientific studies, or other documentation has been located to support Ms. Kennedy's statement. Many Alaskans have living friends and family members who worked on the oil spill. For information on worker health issues related to the *Exxon Valdez* oil spill, see the following:

[Crude Oil Spills and Health](#), U.S. Department of Health & Human Services, Disaster Information Management Research Center.

O'Neill, Annie K. 2003. [Self-reported exposures and health status among workers from the Exxon Valdez oil spill cleanup](#), Master's thesis, Yale University.

Ott, R., Beyond March 24, 1989: the Legacy of the *Exxon Valdez* Oil Spill, 2007 (Health issues for oil spill cleanup workers). (DVD GC1552.P75O88 2007)

Ott, R., Sound Truth and Corporate Myth: the Legacy of the *Exxon Valdez* Oil Spill, 2005 (Health issues for oil spill cleanup workers).

Seegal, J. 1989. [Report of the public health team assessing the Exxon Valdez oil spill cleanup](#). Laborers' National Health and Safety Fund. (TD427.P4R476 1989)

Solomon, G.M. and S. Janssen. 2010. Health effects of the Gulf oil spill. *Journal of the American Medical Association*. 304(10):1118-1119. (Includes a section on historic oil spills, including EVOS.)

## **RESTORATION**

### **20. *What is the Exxon Valdez Oil Spill Trustee Council?***

The [Trustee Council](#) was formed to oversee restoration of the injured ecosystem through the use of a \$900 million fund resulting from the [settlement](#) of civil litigation in 1991 between the State of Alaska, United States and Exxon Corporation. The Trustee Council consists of three state and three federal trustees and is advised by members of the [public](#) and by members of the [scientific community](#). Trustee Council meetings are open to the public.

For a history of the Trustee Council, see: [Mission without a Map: The Politics and Policies of Restoration Following the Exxon Valdez Oil Spill, 1991-2002](#), Exxon Valdez Oil Spill Trustee Council, 2009.

See also this documentary from the Exxon Valdez Oil Spill Trustee Council, Anchorage, AK: Listening to the Sound: The work of the Exxon Valdez Oil Spill Trustee Council, 2019.

[http://www.evostc.state.ak.us/static/mp3/ListeningToTheSound\(720\).mp4](http://www.evostc.state.ak.us/static/mp3/ListeningToTheSound(720).mp4)

The EVOS Trustee Council Public Record is housed at ARLIS. This extensive collection documents 25 years of the Council's work and includes meeting transcripts, policies and procedures, appraisals, annual work plans, final and annual project reports, and other materials used in the Council's decision process.

ARLIS also houses the public records for the 1994 Restoration Plan and Final Environmental Impact Statement.

For detailed information on EVOSTC restoration projects and project reports, go to [Restoration Project Search](#). Search by topic, project number, principle investigator, or project year.

## **21. How was the environment restored?**

Exxon Valdez Oil Spill Trustee Council, [1994 Restoration Plan](#).

Exxon Valdez Oil Spill Trustee Council, [Legacy of an Oil Spill: 20 years after Exxon Valdez](#), 2009 Status Report.

## **22. What are the current environmental conditions in the spill area?**

Exxon Valdez Oil Spill Trustee Council

[Case Study: Sea Otters](#)

[Exxon Valdez Oil Spill: Have We Recovered?](#), 2009, 12 minute film.

[Herring Research and Monitoring Program](#)

[Lingering Oil](#)

[Long-Term Monitoring Program/ GulfWatch Alaska](#)

[Status of Injured Resources and Services](#)

NOAA, [Hindsight and Foresight: 20 Years after the Exxon Valdez Oil Spill](#), 2009, award-winning documentary.

U.S. Geological Survey, [Effects of the Exxon Valdez Oil Spill on Sea Otters](#), 2014.

## **SCIENCE & RESTORATION**

### **23. What scientific research has been done on the spill?**

It has been said that that *Exxon Valdez* oil spill is the most studied oil spill in history. Research on a variety of topics and perspectives is ongoing.

EVOS Trustee Council [Restoration Program](#) information:

Information about program components:

[Habitat Protection](#)

[Herring Research and Monitoring Program](#)

[Long-Term Monitoring Program/GulfWatch Alaska](#)

[Research, Monitoring and Restoration](#)

[Project Final Reports](#)

Reports and detailed information about restoration projects:

[Restoration Project Search](#) Search by topic, project number, researcher, or project year.

[Project Final Reports](#)

[Topic Bibliographies](#)

ExxonMobil's research and lessons learned:

Wiens, John A., ed. *Oil in the Environment: Legacies and Lessons of the Exxon Valdez Oil Spill*, Cambridge University Press, 2013. (GC1552.P75O386 2013) The [Bibliography of Exxon Valdez Oil Spill Publications](#) was too large to include in the book and is only available at the publisher's website. The bibliography,

current through April 25, 2013, contains 1,718 citations to scientific peer-reviewed publications, including journal articles, conference papers, dissertations, and books on spill-related research from a variety of funding sources.

APRILIS

## LESSONS LEARNED

### **24. What were the lessons learned from the spill?**

Much has been learned about oil spill prevention, response, cleanup, restoration, and the ecosystem as a result of this spill. In addition to the major reports listed under Question 1. *How did the Exxon Valdez oil spill happen?*, the reports listed below also cover lessons learned.

Bohn, Dede. 2011. [Appendix D: The Exxon Valdez oil spill experience](#): lessons learned from a coldwater spill in sub-Arctic waters. In: Holland-Bartels, Leslie and Brenda Pierce, editors. An evaluation of the science needs to inform decisions on Outer Continental Shelf Energy Development in the Chukchi and Beaufort Seas, Alaska. U.S. Department of the Interior, U.S Geological Survey, Circular 1370, p. 251-260.

Hanable, M.S., [The Exxon Valdez Oil Spill and the National Park Service: A Report on the Initial Response](#), 1990.

Kizzia, Tom, *Exxon Valdez – Legacy of an Oil Spill: Oil Spill Cleanup Questions Still Prove Vexing*, Anchorage Daily News, May 13, 1999.

National Park Service, [Kenai Fjords National Park: 20 Years Later: Exxon Valdez Oil Spill](#), 2009.

National Response Team, EPA and U.S. Department of Transportation, [The Exxon Valdez Oil Spill: A Report to the President](#), Executive Summary and Full Report, 1989. \*available through Interlibrary loan from your local library

NOAA, Office of Response and Restoration, [25 Years Later: Timeline of Recovery from Exxon Valdez Oil Spill](#), 2014. (This is a summary of [Twenty-Five Years After the Exxon Valdez Oil Spill: NOAA's Scientific Support, Monitoring, and Research](#).)

NOAA, Office of Response and Restoration, [Report: The Exxon Valdez Oil Spill Revisited 25 Years Later](#), 2014.

NOAA, Office of Response and Restoration, [Lessons Learned from the Exxon Valdez Spill](#).

Prince William Sound Regional Citizens' Advisory Council, [Then & Now: Changes in Prince William Sound Crude Oil Transportation Since the Exxon Valdez Oil Spill](#), 2009.

Shigenaka, G. 2014. [Twenty-Five Years After the Exxon Valdez Oil Spill: NOAA's Scientific Support, Monitoring, and Research](#). Seattle: NOAA Office of Response and Restoration. 78 p.

Townsend, R. and B. Heneman, *The Exxon Valdez Oil Spill: a Management Analysis*, 1989.

Wiens, John A., ed. *Oil in the Environment: Legacies and Lessons of the Exxon Valdez Oil Spill*, Cambridge University Press, 2013. (GC1552.P75O386 2013) The [Bibliography of Exxon Valdez Oil Spill Publications](#) was too large to include in the book and is only available at the publisher's website.

World Wildlife Fund, [Lessons Not Learned: 20 Years after the Exxon Valdez Disaster](#), 2009.

## **LEGAL ISSUES**

### **25. Did Exxon pay any fines?**

Source: Exxon Valdez Oil Spill Trustee Council, [Settlement](#).

#### Criminal Plea Agreement

Exxon was fined \$150 million, the largest fine ever imposed for an environmental crime. The court forgave \$125 million of that fine in recognition of Exxon's cooperation in cleaning up the spill and paying certain private claims. Of the remaining \$25 million, \$12 million went to the North American Wetlands Conservation Fund and \$13 million went to the national Victims of Crime Fund.

#### Criminal Restitution

As restitution for the injuries caused to the fish, wildlife, and lands of the spill region, Exxon agreed to pay \$100 million. This money was divided evenly between the federal and state governments.

#### Civil Settlement

Exxon agreed to pay \$900 million with annual payments stretched over a 10-year period. The final payment was received in September 2001.

### **26. What is the "reopener"? What is the status of the reopener?**

Exxon Valdez Oil Spill Trustee Council, [The Reopener](#), includes documents and press releases.

#### Civil Settlement

"At the time of the 1991 settlement, Exxon agreed to pay \$900 million with annual payments stretched over a 10-year period. The final payment was received in September 2001. The settlement contained a 'reopener window' between September 1, 2002 and September 1, 2006, during which the governments could make a claim for up to an additional \$100 million. The funds must be used to restore resources that suffered a substantial loss or decline as a result of the oil spill, the injuries to which could not have been known or anticipated by the six trustees from any information in their possession or reasonably available to any of them at the time of the settlement (September 25, 1991).

#### Reopener Claim

"On August 31, 2006, the U.S. Department of Justice and the State of Alaska Department of Law began the reopener claim process on behalf of the federal and state governments, providing ExxonMobil Corporation with a detailed project plan for the cleanup of lingering oil at an estimated cost of \$92 million.

"Questions on the current status of the reopener claim should be directed to Wyn Hornbuckle, Public Affairs, U.S. Department of Justice, Environment and Natural Resources Division, at 1-202-514-2007 or [Wyn.hornbuckle@usdoj.gov](mailto:Wyn.hornbuckle@usdoj.gov)."

See Also:

Rodgers, W.H., Jr., et al. 2005. [The Exxon Valdez Reopener](#): Natural Resources Damage Settlements and Roads Not Taken, 22 Alaska Law Review, 135.

### **27. What about the class action lawsuits against Exxon?**

For a history of the litigation filed by 30,000 commercial fishermen, Alaska Natives, Native corporations, land owners, area businesses, municipalities, cannery workers, processors, and others, see the following:

#### [Exxon Qualified Settlement Fund](#)

Exxon Valdez Oil Spill Trustee Council, [Private Plaintiff Action](#).

Faegre & Benson (now Faegre, Baker, Daniels), [Exxon Valdez Oil Spill Litigation Update](#), includes legal documents and a litigation timeline.

[Judge Holland's Order 364](#)

Lieff, Cabraser, Heimann and Bernstein, [Exxon Valdez Oil Spill Class Action Lawsuit](#).

[Supreme Court decision](#) on punitive damages, February 27, 2008.

Exxon Shipping Co. et al v. Gran Baker et al, Supreme Court of the United State, [oral arguments](#), February 27, 2008.

## **28. Where can I get copies of legal documents related to the oil spill cases?**

ARLIS has a large collection of legal documents pertaining to the state and federal criminal and civil cases against Exxon Corporation and Exxon Shipping Company, class action cases against Exxon Corporation and Exxon Shipping Company, Hazelwood trial, and National Transportation Safety Board hearing. Select documents have been cataloged and are available full-text via the [ARLIS catalog](#). For more information contact ARLIS at 907-27-ARLIS (272-7547) or [reference@arlis.org](mailto:reference@arlis.org).

Alaska State Archives has a collection of [Exxon Valdez litigation records](#) from the Alaska Department of Law. Some records are restricted and it is recommended that you contact the Archives to discuss your research before visiting.

## **WHERE ARE THEY NOW...**

### **29. What happened to the tanker?**

NOAA's Response and Restoration Blog, [What Happened to the Exxon Valdez?](#)

Wikipedia, [Exxon Valdez](#).

After the spill, the T/V *Exxon Valdez* was towed to San Diego, repaired, and renamed the *Exxon Mediterranean*. Congress barred the tanker from Alaska waters via the Oil Pollution Act of 1990, which stated that any vessel that had spilled more than one million gallons of oil anywhere was prohibited from operating in Prince William Sound. This included the former *Exxon Valdez* and 18 other vessels. The tanker was transferred to Exxon subsidiary SeaRiver Maritime and renamed the *SeaRiver Mediterranean*. The name was later shortened to *S/R Mediterranean* and then to *Mediterranean*. The tanker hauled Persian Gulf oil to Europe and Asia until European Union regulations prohibited single-hulled tankers. In January 2008, SeaRiver Maritime sold the tanker to Hong Kong Bloom Shipping to be converted for hauling bulk ore. The ore carrier was renamed *Dong Fang Ocean*. Following a November 2010 collision in the South China Sea with the cargo ship *Aali*, *Dong Fang Ocean* was towed to Shandong Province, China. It was purchased for scrap in March 2012 by Global Marketing Systems Inc. for \$16 million and sailed to a ship breaker in Singapore. The ship was eventually resold to Priya Blue Industries, renamed *Oriental Nicety*, and routed to Alang, India. After a court dispute to prevent the ship from being beached in India, the Supreme Court of India granted permission on July 30, 2012 for the owners of the *Oriental Nicety* to beach the ship for dismantling, and the vessel was beached on August 2, 2012.

### **30. What happened to Joseph Hazelwood?**

Joseph Hazelwood, captain of the T/V *Exxon Valdez*, was convicted of a misdemeanor charge of negligent discharge of oil, fined \$50,000, and sentenced to 1,000 hours of community service, which he served in Anchorage, Alaska at Bean's Café, a non-profit agency providing meals for the homeless. For

more than fifteen years, he was employed as a maritime consultant and paralegal with Chalos & Brown, the New York law firm that represented him.

For an interview with Joseph Hazelwood twenty years after the spill, see pages 27–28 and 279–280 in *Spill: Personal Stories from the Exxon Valdez Disaster*, by Sharon Bushell and Stan Jones, 2009. (GC1552.P75S7 2009)

*See Also:*

Lebedoff, David, 1997, *Cleaning Up: The Story Behind the Biggest Legal Bonanza of Our Time*, Free Press, New York.

State of Alaska v. Hazelwood, 1989–1990, trial transcript and exhibit. (SPEC COLL GC1552.P75H38 1990 v.1-35, SPEC COLL GC1552.P75H37 1990 v.1-4, VID-00028)

Wikipedia, [Joseph Hazelwood](#).

## **WHERE CAN I GET...**

### **31. *Where can I hear an audio recording of Hazelwood's report of the grounding?***

Exxon Valdez Oil Spill Trustee Council, [Oil Spill Facts: Questions and Answers](#), [Captain Hazelwood's radio call to the Valdez Vessel Traffic Center](#).

Valdez Vessel Traffic Center Radio Transmissions, March 23-24, 1989 – audio recording and [transcript](#), including Captain Joseph Hazelwood's notification that the tanker had run aground and was leaking oil. (CD-ROM GC1552.P75R23 2010; the digital transcript is also available for download via the catalog record.)

### **32. *Where can I get photos or video footage of the oil spill?***

Public domain photos are available at the Exxon Valdez Oil Spill Trustee Council [Photo Gallery](#) and at the [ARLIS Photostream](#) on Flickr. An [index](#) provides information on the ARLIS photos.

ARLIS also has public domain digital video footage of various aspects of the oil spill. To request copies of this footage, contact an ARLIS librarian at 907-27-ARLIS (272-7547) or [reference@arlis.org](mailto:reference@arlis.org)

Commercially prepared movies and documentaries are available for checkout or borrow through interlibrary loan. See a select list of titles below and check the ARLIS catalog for more at [www.arlis.org](http://www.arlis.org).

#### **Movies and Documentary Films:**

Cornellier, R. and P. Carvalho, *Black Wave: the Legacy of the Exxon Valdez*, 2008.

Dead Ahead: the *Exxon Valdez* Disaster, 1993; made-for-TV movie by BBC and aired on HBO Showcase as Disaster at Valdez.

Exxon Valdez Oil Spill Trustee Council, [Exxon Valdez Oil Spill: Have We Recovered?](#), 2009; 12 minute film.

Hartwell, K., *Our Alutiiq Journey*, 2002 (Impact on subsistence).

NOAA, [Hindsight and foresight: 20 Years after the Exxon Valdez Oil Spill](#), 2009; a short documentary.

Ott, R., *Beyond March 24, 1989: the Legacy of the Exxon Valdez Oil Spill*, 2007 (Health issues for oil spill cleanup workers).

Taylor Productions, *Alutiiq Pride: a Story of Subsistence*, 1998.



Taylor Productions, Tatitlek: Changing Tides, 1999 (Impact on subsistence).

Alaska Division of Libraries, Archives and Museums, [Hard Aground: A visual History of Alaska's Response to the Exxon Valdez Oil Spill](#), published 2016.

### **33. Where can I get oil spill materials geared for teachers and students?**

[Exxon Valdez Oil Spill: Resources for Teachers and Students](#), March 2009.

This 35-page annotated bibliography is a select list of books, videos and DVDs, websites, and articles from a variety of sources pertaining to the *Exxon Valdez* oil spill and related topics, chosen for their appeal to teachers, students of all ages, and the general public.

### **30. Where can I get maps of the spill area?**

Exxon Valdez Oil Spill Trustee Council, [Map of the Exxon Valdez Oil Spill](#).

Alaska Department of Natural Resources, Cooperatively Implemented Information Management System (CIIMMS) has a searchable [EVOS Map Library](#). Map topics include the spill area, oiling conditions, shoreline surveys and treatment, and habitat protection. Maps are available in PDF, JPG, TIF, and GIF formats and there is no charge for downloading PDFs.

## **MISCELLANEOUS**

### **31. Is it true that a play was written about the spill?**

Yes. In 1992, Dick Reichman wrote *Tanker on the Rocks: or the Great Alaskan Bad Friday Fish-Spill of '89*, The Official Valdez Oil Spill Melodrama. He later went on to write another play, *The Big One: a Chronicle of the Exxon Valdez Oil Spill*, which opened in Anchorage in September 2009.

The spill has also been the subject of novels, children's books, poetry, a movie, music, and a board game. Here are some examples:

Dead Ahead: the *Exxon Valdez* Disaster, 1993; made-for-TV movie by BBC and aired on HBO Showcase as Disaster at Valdez.

Larson, W., *The Sitka incident: Exxon Valdez Retold*, 2002; a novel.

O'Meara, J., ed., *Cries from the Heart: Alaskans Respond to the Exxon Valdez Oil Spill*, 1989; poetry, essays and drawings.

Rand, G. and T. Rand, *Prince William*, 1992; a boy rescues a baby seal hurt by an oil spill and watches it recover at a nearby animal hospital; children's book.

Robinson, R., *Light All Night*, 1996; a novel.

### **32. Is there really an oil spill cookbook?**

Yes. The *Two Billion Dollar Cookbook*, published in 1990, was the result of recipe contributions from oil spill cleanup workers, their families and friends. The title refers to the amount Exxon had paid for oil spill cleanup by the time the cookbook was published. Proceeds from the sale of the cookbook were donated to Bean's Café, an Alaskan charity. (TX703.T76 1990)

### **33. Is there a board game about the spill?**

*On the Rocks: The Great Alaska Oil Spill* is a board game invented in 1989 by Richard Lynn of Valdez. It was sold by On the Rocks Enterprises for \$16.69, the hourly wage that Exxon's contractor paid cleanup

workers. The game was featured in a March 11, 1991 article in Fortune Magazine. (ARLIS's copy does not circulate.)

### **34. *Is there music about the spill?***

Songs of Sound: Alaskans sing of Prince William Sound, Sound Renewal Project, Juneau, Alaska, 1989. (CASS M1629.7.A4S66 1989)

Troubled Waters, KT00-FM, Juneau, Alaska, a collection of songs in response to the *Exxon Valdez* oil spill from performances during the 15<sup>th</sup> Annual Alaska Folk Festival, April 10-16, 1989. (CASS M1629.7A4T77 1989)

Waterbound, Sometimes a Great Ocean, Stacy Studebaker, Juneau, Alaska, 1994– 2 songs, “Alaska’s Worth More” and “No Mousse is Good Mousse”, were written in response to EVOS. (CD-ROM M1629.7.A4W35 1994)

## **SOURCES FOR ADDITIONAL INFORMATION**

[American Petroleum Institute](#)

[ExxonMobil](#)

[ExxonMobil Historical Collection](#), 1790-2004, an archival depository at the Dolph Briscoe Center for American History, University of Texas at Austin.

NOAA, [Office of Response and Restoration](#)

Pratt, Joseph A. and William E. Hale. 2013. *Exxon: transforming energy, 1973-2005*. Austin, Texas: Dolph Briscoe Center for American History, University of Texas. (GC1552.P75P735 2013)

[Prince William Sound Regional Citizens’ Advisory Council](#)

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[Fish and Wildlife Service](#)

[National Park Service](#)

[U.S. Geological Survey](#)

[University of Alaska Anchorage](#)

For more information on the *Exxon Valdez* Oil Spill, contact:

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