
Incidents Associated with Oil and Gas Operations

Outer Continental Shelf 1999



Incidents Associated with Oil and Gas Operations

Outer Continental Shelf 1999

Authors:

Data Collected By

District Personnel

Database Managed By

Regional and District Personnel

Publication Compiled By

Kristen Stanley

Cheryl Anderson

L. John Chadwell

Karen Sagall

This report can also be obtained from the MMS homepage at <http://www.mms.gov>.

Foreword

The following is a compilation of incidents that occurred on the Outer Continental Shelf (OCS) during 1999. This report lists all of the incidents in each OCS Region by event type. (Note: This report does not have a section for the Alaska Region because no incidents occurred there in 1999.) An appendix that presents the information graphically follows the incident listings.

The Technical Information Management System (TIMS) is a database created by the Minerals Management Service (MMS) for both internal and public use. TIMS contains OCS information, such as incident data, platforms, number and type of wellbores, seismic analyses, leasing data, production rates, and royalty management. Data in this report have been compiled from the TIMS database for the Pacific and Gulf of Mexico OCS Regions. The MMS headquarters office in Herndon, Virginia performed multiple analyses and reviewed paper records in order to verify the data contained in TIMS.

A major concern with the incident component of TIMS is data quality. Since both MMS and industry are placing increased emphasis on operator performance and safety, it is even more important to have quality incident data in TIMS. The potential impact of the incident information contained in TIMS will increase as MMS and industry become more reliant on incident data and data analysis.

Contents

Foreword.....	iii
Abbreviations and Acronyms	vi
Executive Summary	viii
Introduction.....	1
I. Authority.....	1
II. Importance and Relation to Other Aspects of Safety Program.....	1
III. Accident Reporting Requirements and Policies	1
IV. General Incident Trends.....	2
Events.....	2
Causes	3
Operations	3
Activities	4
Crane Incidents	5
1999 Deepwater (>1,000 ft) Incidents	5
 Gulf of Mexico Region	
Blowouts-1999	7
Fatalities-1999.....	10
Collisions-1999.....	12
Explosions-1999	16
Fires-1999	20
Injuries-1999	49
Crane Incidents-1999	63
Significant Pollution Events (>50bbbls)-1999.....	66
Pipeline Events-1999	67
 Pacific Region	
Injuries-1999.....	71
Pipeline Events-1999	72

Appendix – Graphical Summary of OCS Incident Data – 1999

OCS Events by Category: 1995-2000	A-1
Number of OCS Events 1999	A-2
Average Depth of OCS Events 1999	A-3
Overall Causes of OCS Incidents 1999	A-4
Causes of OCS Blowouts 1999	A-5
Causes of OCS Fatalities 1999	A-6
Causes of OCS Collisions 1999	A-7
Causes of OCS Explosions 1999	A-8
Causes of OCS Fires 1999	A-9
Causes of OCS Injuries 1999	A-10
Causes of OCS Crane Incidents 1999	A-11
Causes of OCS Significant Pollution Events 1999	A-12
Causes of OCS Pipeline Events 1999	A-13
Activity During OCS Incidents 1999	A-14
Activity During OCS Blowouts 1999	A-15
Activity During OCS Fatalities 1999	A-16
Activity During OCS Collisions 1999	A-17
Activity During OCS Explosions 1999	A-18
Activity During OCS Fires 1999	A-19
Activity During OCS Injuries 1999	A-20
Activity During OCS Crane Incidents 1999	A-21
Operations During OCS Incidents 1999	A-22
Operations During OCS Blowouts 1999	A-23
Operations During OCS Fatalities 1999	A-24
Operations During OCS Collisions 1999	A-25
Operations During OCS Explosions 1999	A-26
Operations During OCS Fires 1999	A-27
Operations During OCS Injuries 1999	A-28
Operations During OCS Crane Incidents 1999	A-29
Operations During OCS Significant Pollution Events 1999	A-30
Operations During OCS Pipeline Events 1999	A-31
Percentage of Total OCS Incidents 1995-2000	A-32
Total Number of OCS Incidents 1995-2000	A-33
Number of OCS Events 1995-2000	A-34
Number of OCS Blowouts 1967-2000	A-35
Number of OCS Explosions 1967-2000	A-36
Number of OCS Collisions 1995-2000	A-37
Number of OCS Fatalities 1995-2000	A-38
Number of OCS Fires 1995-2000	A-39
Number of OCS Injuries 1995-2000	A-40
Number of OCS Significant Pollution Events 1995-2000	A-41
Number of OCS Pipeline Events 1995-2000	A-42
Number of OCS Crane Incidents 1995-2000	A-43
Operations Associated with OCS Fires 1997-1999	A-44

Abbreviations and Acronyms

AC	-Alternating Current
bbbl	-Barrel(s)
Bbbl	-Billion barrels
Bcf	-Billion cubic feet
BDV	-Blow Down Valve
BOP	-Blowout Preventer
BOPD	-Barrels of Oil Per Day
BOPE	-Barrels of Oil Per Day Equivalent
BS&W	-Basic Sediment & Water
BWPD	-Barrels of Water Per Day
CFR	-Code of Federal Regulations
CT	-Coil Tubing
CTM	-Coil Tubing Measurement
CO ₂	-Carbon Dioxide
ESD	-Emergency Shut Down
ft	-Foot (feet)
FTP	-Flowing Tubing Pressure
G/L	-Gas/Liquid
gal	-Gallon
GOM	-Gulf of Mexico
H ₂ S	-Hydrogen Sulfide
HI	-High Island
in	-Inch
LEL	-Lower Exposure Limit
LSH	-Level Safety High
LSL	-Level Safety Low
MCC	-Master Control Center
MCFD	-Thousand Cubic Feet per Day
MD	-Measured Depth
MM	-Million
MMbbl	-Million barrels
MMS	-Minerals Management Service
MOU	-Memorandum of Understanding
MUX	-Make Up Crossover (X)
M/V	-Mobile Vessel
NE	-Northeast
NRC	-National Response Center
OCS	-Outer Continental Shelf
OCSLA	-Outer Continental Shelf Lands Act
POV	-Pressure Operated Valves
PPE	-Personnel Protection Equipment
Ppg	-Pounds per gallon
PSE	-Pressure Safety Element

PSH	-Pressure Safety High
psi	-Pounds per square inch
psig	-Pounds per square inch, gauge
PSL	-Pressure Safety Low
PSV	-Pressure Safety Valve
ROV	-Remotely Operated Vehicle
RTU	-Remote Terminal Unit
SCADA	-Supervisory Control and Data Acquisition
SCSSV	-Surface Controlled Subsurface Safety Valve
SDV	-Shutdown Valve
SITP	-Shut-in Tubing Pressure
SS	-Stainless Steel
SSSV	-Subsurface Safety Valve
SSV	-Surface Safety Valve
SW	-Southwest
TD	-Total Depth
TIMS	-Technical Information Management System
TLP	-Tension Leg Platform
TSE	-Temperature Safety Element (fusible material)
TSH	-Temperature Safety High
USCG	-U.S. Coast Guard
VRS	-Vapor Recovery System
VRU	-Vapor Recovery Unit
WHRU	-Waste Heat Recovery Unit

Executive Summary

This report presents OCS incident information for 1999. Incident data are based solely on MMS's TIMS database, a nationwide OCS information gathering system. The incidents included in this report have been categorized by region and event and sorted by date.

Equipment failure, the main cause of incidents in 1999, was a cause of 65 incidents; human error was a factor in 58. The operation with the highest incident occurrence was production, which had 42 incidents. Fires were the most frequent type of incidents reported to the MMS, followed by injuries; there were 75 fires and 47 injuries.

Causes of the five fatalities include human error and equipment failure. No operation is associated with more than one fatality. Fatalities occurred during production operations, completion work, motor vessel operations, pulling anchors on a drilling rig, and diving work.

There were 35 incidents resulting in injuries and 47 people hurt. Injuries primarily occurred due to human error and most happened during production operations.

There were five blowouts, three of which resulted from lost circulation and swabbing. The other two are pending completion of an investigation. Most blowouts occurred during drilling operations, and one happened during completion and workover activities.

Five of the seven explosions occurred during production activities. Two happened during drilling operations. The explosions were caused mainly by human error and equipment failure.

There were 23 incidents in water depths greater than 1,000 feet. The average depth for deepwater incidents was 2,511 feet, as opposed to 526 feet for all incidents.

Introduction

I. Authority

The Outer Continental Shelf Lands Act (OCSLA) requires either MMS or the U.S. Coast Guard (USCG) to prepare within 30 days a public report for all deaths, serious injuries, major fires, and major oil spills (>200 barrels) resulting from OCS mineral operations. To carry out the requirements in OCSLA, the MMS and the USCG have signed a Memorandum of Understanding (MOU) that provides guidelines for identifying the agency that will normally conduct an accident investigation and prepare the report. Joint investigations can also be conducted.

II. Importance and Relation to Other Aspects of Safety Program

A primary mission of the MMS is to manage OCS resources in a safe and environmentally sound manner. Safety of operations has always been a key element of the Federal Government's offshore program. Many factors have contributed to improved safety and environmental protection over the years, including the development of operating regulations, increased regulatory oversight, improved industry safety programs, and improved technology.

Accurate incident reporting, record-keeping, and analysis of incident information is an integral component of a properly functioning regulatory program, and a safe OCS oil and gas industry. Incident data can be used to identify operational trends and fluctuations from the norm. Evaluation of this information can then be used as a benchmark to evaluate the performance of the industry. Based on this evaluation, areas of concern can be identified and addressed through a variety of measures including regulatory changes, development of technical standards, and the implementation of new inspection practices or new research initiatives.

III. Accident Reporting Requirements and Policies

The MMS regulations at 30 CFR 250.191 specify industry accident reporting requirements. They require OCS lessees to notify MMS of all serious accidents, any death or serious injury, and all fires, explosions, or blowouts connected with any activities or operations on the lease. All spills of oil or other liquid pollutants must also be reported to MMS. These regulations also address the preparation of public accident reports and procedures used in conducting accident investigations.

The MMS and the USCG are in the process of developing a joint accident reporting structure. This Subpart A revision will include a web-based initiative to allow joint reporting of MMS/USCG incidents in one location on the web. A proposed rule will be published during the first half of 2001 requesting comment on this proposal.

In 1992, MMS instituted a basic policy for collecting accident data and conducting accident investigations. Under that policy, MMS must investigate all major accidents, some minor accidents, and all blowouts. The degree of investigation is left to the discretion of the District Supervisor. Major accidents are fires and explosions that result in damage of \$1 million or more, liquid hydrocarbon spills of 200 barrels or more during a period of 30 days, or accidents involving a fatality or serious injury that causes substantial impairment of any bodily unit or function.

The regions followed this policy until August 1996, when the GOM Region began implementation of a more stringent policy. Since that date, the GOM Region investigates:

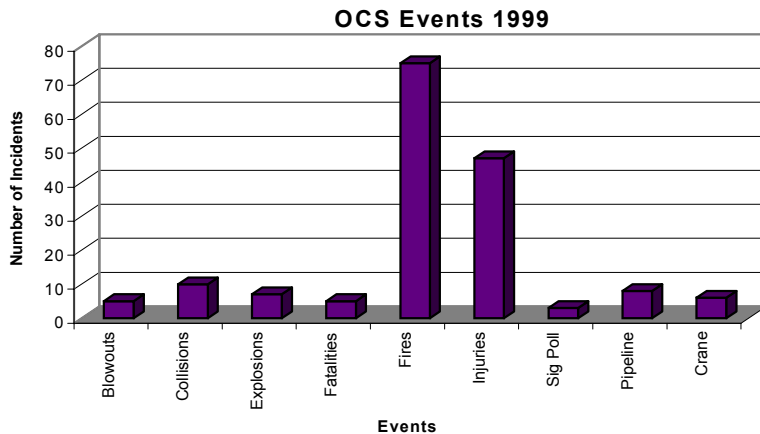
- All accident-related fatalities
- All injuries
- All explosions
- All blowouts
- All fires
- All collisions involving structural damage to OCS facilities
- Accidents requiring repairs on a case-by-case basis
- All spills greater than one barrel

The degree of investigation is still left to the discretion of the District Supervisor. The Pacific Region continues to follow the 1992 policy previously discussed. The MMS completes an Accident Investigation Report (Form 2010) for all accidents investigated and enters the information into TIMS.

IV. General Incident Trends

The following trends were found upon analyzing the data compiled for this report.

Events



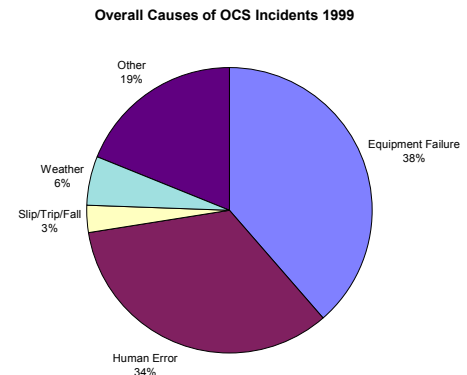
- The most common event on the OCS in 1999 was fires. Of the 75 fires reported, 49 (61%) were caused by equipment failure and 20 (25%) were caused by human error.
- The second most common event was injuries. There were 47 reported from 35 separate incidents; human error caused 23 (48%) and equipment failure caused 9 (19%) injuries.

Introduction

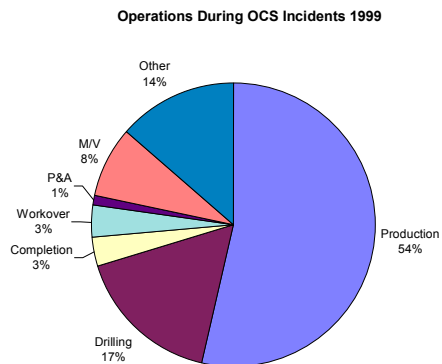
- In 1998, fires and injuries were also the leading events reported. There were 90 fires and 66 injuries. Equipment failure caused 50% of the fires; human error caused 28%. Human error was responsible for 46% of injuries and slip/trip/fall was the cause of 28%.
- The number of fatalities decreased in 1999 to the lowest level in at least 4 years. In 1999, there were 5 fatalities. There were 14 fatalities in 1998 and 11 in 1997.

Causes

- Overall, equipment failure was the main cause of incidents in 1999. It was responsible for 69 incidents (38%), followed by human error in 61 incidents (34%).
- In 1998, 72 incidents (37%) were due to equipment failure and 75 (38%) were caused by human error.
- Two of the 5 fatalities in 1999 were caused by human error and equipment failure; two are still under investigation.
- Human error was responsible for 48% of the injuries. Other causes comprised 21% of the injuries and equipment failure was a cause in 19%.
- Human error contributed to five of the seven explosions and equipment failure was a factor in four. The explosions occurred primarily during production operations.



Operations

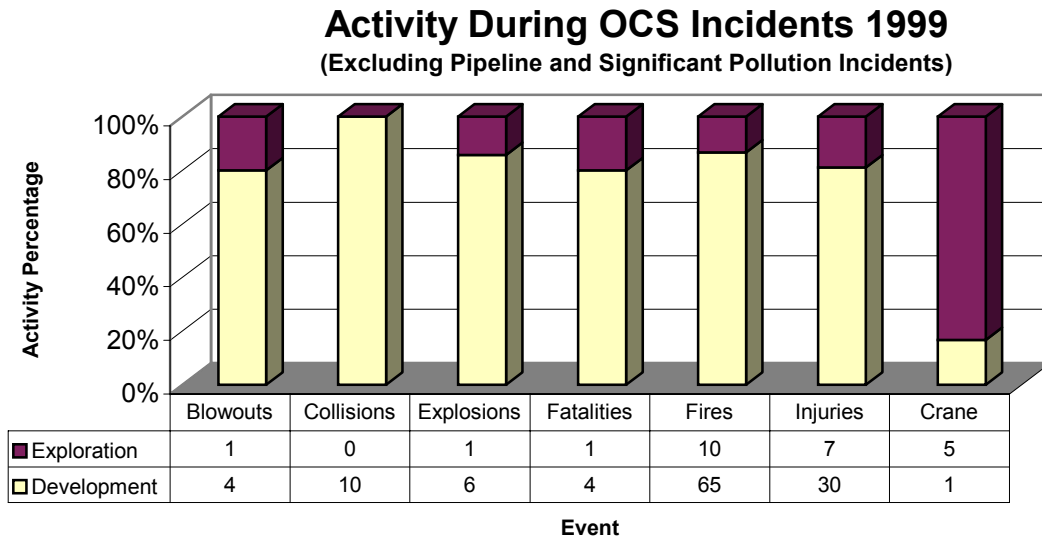


- Ninety four (54%) of incidents that occurred in 1999 happened during production operations, 29 incidents (17%) occurred during drilling operations, and 14 (8%) incidents involved motor vessel operations.

- This trend was also apparent in 1998 where 63% of incidents occurred during production-related operations and 18% happened during drilling-related operations.

Activities

- One hundred twenty incidents (72%) happened while performing development activities and 25 (15%) happened during exploration activities in 1999.
- In 1998, 133 incidents (69%) happened during development activities and 23 (12%) happened during exploration activities.



The following chart shows a comparison of offshore incidents from 1995 to 1999. To normalize the data, the number of events is compared with activity on the OCS. The activity is measured in total wells drilled and oil and gas produced on the OCS. The rate of incidents per activity is the lowest it has been since 1995. This suggests more attention is being paid to offshore safety now than has been in the past few years.

Year	1995	1996	1997	1998	1999
Incidents	94	180	258	193	166
Development Wells	520	562	601	556	614
Exploration Wells	278	327	353	437	348
Wells Drilled	798	889	954	993	962
Oil Produced (MMbbl)	429	426	466	491	534
Gas Produced (Bcf)	5,015	5,066	5,222	5,115	5,134
Incidents per Well Total Drilled	.12	.20	.27	.19	.17
Incidents per MMbbl Produced	.22	.42	.55	.39	.31
Incidents per Bcf Produced	.02	.04	.05	.04	.03

Crane Incidents

An MMS workgroup reviewed the 34 crane incidents that occurred between January 1995 and August 1998. These incidents resulted in 7 fatalities and 20 injuries. The report presents the workgroup's review and analysis of these accidents and states the group's recommendations for improving crane safety. The report can be found at <http://www.mms.gov/cranes/report.htm>.

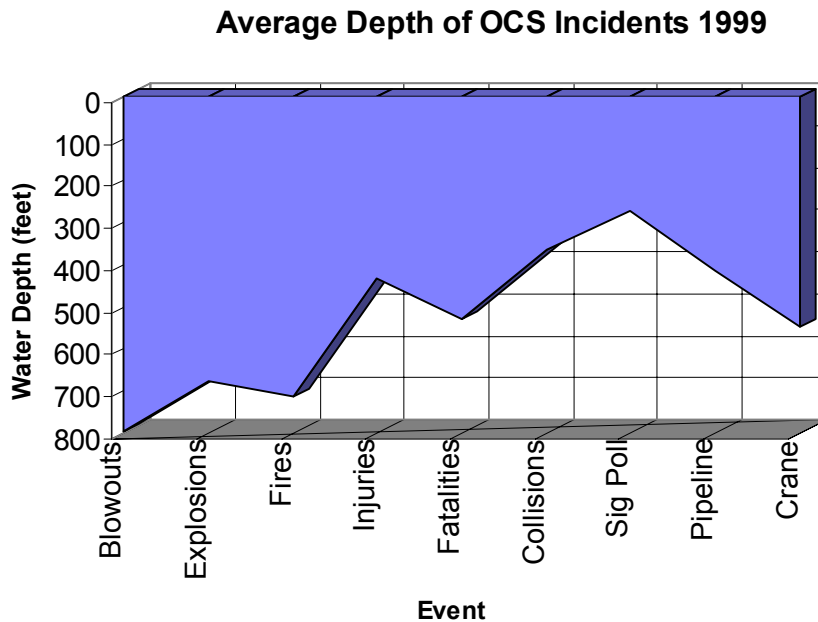
The review's most significant finding was that crane riggers appear to be at the greatest risk during crane operations. All of the seven fatalities and most of the injuries that occurred during the time period studied involved crane riggers or other personnel working around cranes.

There were 6 crane incidents in 1999, more than any previous year. As of October 22, 2000, there were 8 crane incidents in 2000. These numbers demonstrate the need for even more attention to be given to conducting safe crane operations on the OCS.

1999 Deepwater (>1,000 ft) Incidents

There were 24 deepwater incidents in 1999; 16 of these were fires. Incidents were mostly minor. There were no fatalities or significant pollution events, and most did not cause serious damage.

The chart below shows the average water depth of each of the types of incidents on the OCS in 1999. The average depth for deepwater incidents was 2,448 feet, as compared with an average depth of 526 feet for all incidents.



Further offshore information can be found on the OCS Safety Facts sheet at <http://www.mms.gov/stats/PDFs/SafetyMay2000.pdf>.

This page was intentionally left blank.

Gulf of Mexico Region

Blowouts – 1999

Date:	10-Feb-1999	Operator:	Union Pacific Resources Company
Investigation:	Complete	Activity:	Exploration
Lease:	G14016	Event(s):	Blowout, saltwater flow
Area:	Mississippi Canyon	Operation:	Drilling
Block:	711	Cause:	Lost Circulation
Rig/Platform:	Glomar Celtic Sea	Water Depth:	2,955 feet

Remarks: While drilling a 17½-inch hole, the crew encountered lost circulation. Drilling continued until losses became excessive. The crew filled the hole with sea water, ran a 16-inch liner below the lost circulation zone, and cemented with partial returns. They performed a successful shoe test after drilling out. The crew drilled ahead and, while circulating out, experienced a continual influx of salt water, so they pulled above the sand and increased the mud weight. They filled the hole with sea water on the backside. With the well static, they tripped out to the 16-inch shoe and spotted a lost circulation material pill. To cure the lost circulation problem suspected at the 16-inch shoe, they bullheaded a polymer pill across the shoe, but it was unsuccessful. They tried four cement jobs at the 16-inch shoe. The crew discovered that the well bore was in communication with the weak zone previously cased behind the 16-inch liner. The crew ran a ROV to the sea floor and observed a water flow along a trench on the sea floor approximately 250 feet from the well. They suspected that the influx of salt water on bottom was in direct communication with the sea floor water flow. Noise and temperature logs confirmed there was no flow across a cement plug set above the problem zone. They concluded the flow was going along a fault system. They plugged and abandoned the well, and observed no more water flow on the sea floor.

Gulf of Mexico Region Blowouts – 1999

Date:	11-Aug-1999	Operator:	Freeport-McMoRan Sulphur, Inc.
Investigation:	Complete	Activity:	Development/Production
Lease:	G09372	Event(s):	Blowout
Area:	Main Pass	Operation:	Drilling
Block:	299	Cause:	Lost Circulation
Rig/Platform:	Freeport #2	Water Depth:	210 feet

Remarks: After drilling, the crew made a short trip into the casing to condition the mud when the hole started to swab. They circulated bottoms up while below the casing and tripped back to the bottom, where they circulated bottoms up again. Gas was bubbling in the mud. They increased the mud weight and circulated out; the well was taking fluid. The crew stabilized the hole, made a short trip into the casing, tripped back to bottom, and resumed drilling. They circulated and stabilized the hole and pulled out to run casing. While the crew was running 10¾-inch casing, the well started taking fluid and they lost all returns. They filled the hole and casing annulus with mud, set the casing, and stabilized the hole. The crew could not establish returns. They cemented the first stage of the 10¾-inch casing without returns and allowed the cement to set for 7 hours. Gas bubbled to the surface through the mud. The well began to flow and was put on diverter. They began pumping seawater; the well flowed for 15 minutes before it stopped. They finished the cementing job with full returns and tested the casing successfully.

Date:	09-Sep-1999	Operator:	Newfield Exploration Company
Investigation:	Pending	Activity:	Development
Lease:	G15312	Event(s):	Blowout/Fire
Area:	Ship Shoal	Operation:	Workover
Block:	354	Cause:	Pending
Rig/Platform:	A	Water Depth:	463 feet

Remarks: During a workover operation, coiled tubing parted between the stripper assembly and the injector head allowing gas to escape to the atmosphere. The crew shut the pipe rams, shear rams, and blind rams but the well still flowed. The platform was shut in and all personnel were evacuated. On September 12, the well caught on fire. This incident is under investigation by MMS.

Gulf of Mexico Region Blowouts – 1999

Date:	02-Dec-1999	Operator:	Apache Corporation
Investigation:	Pending	Activity:	Development
Lease:	G01194	Event(s):	Blowout/Injuries (3)
Area:	South Marsh Island	Operation:	Completion
Block:	58	Cause:	Pending
Rig/Platform:	A	Water Depth:	130 feet

Remarks: Well A-2 kicked while a snubbing unit crew was running a gravel pack assembly into the well. The well began blowing out uncontrolled with the gravel pack assembly in the BOP stack. All personnel were evacuated and the platform was shut in. The next day the well bridged over. This incident is under investigation by MMS.

Date:	05-Dec-1999	Operator:	Freeport-McMoRan Sulphur, Inc.
Investigation:	Complete	Activity:	Development
Lease:	G09372	Event(s):	Blowout
Area:	Main Pass	Operation:	Drilling
Block:	299	Cause:	Swabbing
Rig/Platform:	Freeport No. 1	Water Depth:	210 feet

Remarks: After drilling ahead the crew circulated bottoms up and began pulling out of the hole. After pulling five stands, the well began to flow. They put the well on diverter with the bit in the hole. The well flowed for 40 minutes as seawater was pumped down the well. The crew experienced lost circulation so they spotted a lost circulation material pill. Circulation was established, but the drill pipe was stuck in the hole and could not be freed. The well was plugged back and the drill pipe was cut. A cement plug was set in order to sidetrack around the pipe left in the hole.

Gulf of Mexico Region

Fatalities – 1999

Date:	09-Apr-1999	Operator:	Vastar Resources, Inc.
Investigation:	Complete	Activity:	Development
Lease:	G05359	Event(s):	Fire/Explosion/Injury (1)/Fatality (1)/Pollution
Area:	East Cameron	Operation:	Production/Construction work
Block:	60	Cause:	Human Error
Rig/Platform:	A	Water Depth:	50 feet

Remarks: As part of deactivation of the platform's process drain line system, a section of the high-pressure separator's drain line was being cut with an electrical bandsaw. Construction contract personnel stopped severing the line because condensate flowed from the cut. After attempting to contain the spilled condensate and observing no more liquids flowing from the cut, the workers continued to cut the line. Condensate flowed from the cut and drenched saw operator. The saw ignited the condensate and the ensuing fire engulfed the worker, who died days later as a result of the burns. Another worker was injured attempting to assist the burned worker. The fire caused approximately one million dollars worth of damage to the platform and approximately 15 gallons of condensate spilled into the Gulf. See OCS Report MMS 2000-029 for more details.

Date:	16-May-1999	Operator:	Marathon Oil Company
Investigation:	Pending	Activity:	Exploration
Lease:	G12043	Event(s):	Fatality (1)
Area:	South Timbalier	Operation:	Pulling Anchors
Block:	308	Cause:	Pending
Rig/Platform:	Diamond Ocean Lexington	Water Depth:	550 feet

Remarks: The drilling rig was pulling anchors to move off location. An employee was disconnecting the hydraulic charging unit for the ROV when he received a shock from the 440-volt electrical plug. This incident is under investigation by the U.S. Coast Guard.

Gulf of Mexico Region Fatalities – 1999

Date:	29-Aug-1999	Operator:	PennzEnergy Company
Investigation:	Complete	Activity:	Development
Lease:	G13367	Event(s):	Fatality (1)
Area:	Garden Banks	Operation:	Diving
Block:	161	Cause:	Equipment Failure
Rig/Platform:	Diamond Ocean Ambassador	Water Depth:	972 feet

Remarks: As a diver was being lowered into the water, his aqua suit came in contact with a support structure from the rig and the arm of his suit was torn. The suit filled with water and the diver sank. This incident was investigated by the U.S. Coast Guard.

Date:	25-Sep-1999	Operator:	OXY U.S.A., Inc.
Investigation:	Pending	Activity:	Development
Lease:	G04065	Event(s):	Injury (3)/Fatality (1)/Pollution
Area:	Matagorda Island	Operation:	Motor Vessel
Block:	669	Cause:	Pending
Rig/Platform:	A	Water Depth:	97 feet

Remarks: A leg collapsed on a 3-leg lift boat. Three people were injured and one was missing. On October 4, the missing individual was presumed dead. This incident is under investigation by the U.S. Coast Guard.

Date:	14-Nov-1999	Operator:	PennzEnergy Exploration and Production
Investigation:	Complete	Activity:	Development
Lease:	G13367	Event(s):	Fatality (1)
Area:	Garden Banks	Operation:	Completion
Block:	161	Cause:	Moving Equipment
Rig/Platform:	Diamond Ocean Ambassador	Water Depth:	972 feet

Remarks: An employee was killed as he was spooling back a 2-inch umbilical cord that had been attached to a 7 5/8-inch production riser. He was working alone, out of view of the rig floor. He became entangled in the spokes of the reel drum and the reel unit frame. He was found with his upper body pinned between one of the spokes and a horizontal member of the frame, with his chest lying on top of the air control lever. He was found approximately 2½ hours after he commenced the spooling operation. The crew attempted to resuscitate him, but they were unsuccessful.

Gulf of Mexico Region

Collisions – 1999

Date:	23-Jan-1999	Operator:	Snyder Oil Corporation
Investigation:	None	Activity:	Development/Production
Lease:	G07827	Event(s):	Collision/Pollution
Area:	Main Pass	Operation:	Motor Vessel
Block:	259	Cause:	Weather Related
Rig/Platform:	A	Water Depth:	392 feet

Remarks: While attempting to offload pallet material to the platform, the M/V Bolling Tide was pushed into the platform by 6-8 foot waves. The boat collided with the boat landing and a diesel fuel tank on the vessel ruptured, spilling 4,420 gallons of diesel; heavy seas dispersed the spill and the spill response was initiated.

Date:	24-Jan-1999	Operator:	Kerr McGee Oil & Gas Corporation
Investigation:	Complete	Activity:	Development/Production
Lease:	G01025	Event(s):	Collision
Area:	Ship Shoal	Operation:	Production/Motor Vessel
Block:	239	Cause:	Human Error
Rig/Platform:	A	Water Depth:	133 feet

Remarks: After off-loading and back-loading supplies and equipment at Platform A, Secor Marine's M/V Avalon turned about 180 degrees to go to Platform B. The captain of the M/V said he made several turns of the wheel to port at half throttle and proceeded to make entries into the log. Ten to fifteen seconds later he glanced up and discovered the vessel did not have a sufficient turn radius to clear the structure. The captain pulled throttles neutral then hard astern, but could not avoid the structure. Initial reports stated there were minor damages to the vessel and the platform. Upon further investigation, the vessel was found to have a crease on the bow/forward quarter along with chipped paint. There were no ruptures in the vessel. Investigation by the operator revealed damage to the "Plus 10" horizontal brace. Production operations were not interrupted.

Gulf of Mexico Region Collisions – 1999

Date:	25-Jan-1999	Operator:	Newfield Exploration Company
Investigation:	Complete	Activity:	Development/Production
Lease:	G01898	Event(s):	Collision
Area:	South Timbalier	Operation:	Production/Motor Vessel
Block:	148	Cause:	Human Error
Rig/Platform:	D	Water Depth:	98 feet

Remarks: Edison Chouest Marine's M/V Fast Scout struck the platform. Visibility was good and there were no obstructions. The M/V was passing through the field and the captain of the vessel was looking through field glasses at anchor patterns 8-10 miles ahead. The wind and current took the vessel off the set course and the M/V struck the platform at full speed (approximately 20 knots). The vessel suffered major damage to the bow and starboard side. Production operations were shut in until platform damage was confirmed to be minor. Investigation by the platform operator revealed damage to the "Plus 10" horizontal brace on the east and south sides of the structure and damage to the cross braces. The diver report indicated damage to underwater sections of vertical bracing above "X" and a dent to one leg on the surface. Analysis of the dent indicated only minimal damage. Horizontal bracing above the water line was extensively damaged and will be repaired along with the upper portion of vertical "X" bracing. A mag particle inspection initiated on the joint cans revealed no cracks.

Date:	05-Mar-1999	Operator:	Union Pacific Resources, Inc.
Investigation:	None	Activity:	Development
Lease:	G15242	Event(s):	Collision
Area:	Eugene Island	Operation:	Production/Motor Vessel
Block:	118	Cause:	Human Error
Rig/Platform:	Caisson #2	Water Depth:	39 feet

Remarks: U.S. Coast Guard determined that the M/V Carnival 1, an ocean-going container ship, collided with the #2 well caisson. Divers confirmed that the caisson sustained no subsea damage; damage was limited to a minor scrape at the surface, which does not compromise the integrity of the well. Damages to the structure beams, flowline piping, and heliport were substantial.

Gulf of Mexico Region Collisions – 1999

Date:	05-Jun-1999	Operator:	Newfield Exploration Company
Investigation:	Complete	Activity:	Development/Production
Lease:	G10828	Event(s):	Collision
Area:	South Timbalier	Operation:	Production/Motor Vessel
Block:	112	Cause:	Human Error
Rig/Platform:	2	Water Depth:	56 feet

Remarks: While heading to Fourchon in Seacor Force on a heading of 45 degrees, the captain and a seaman were on the bridge. The seaman left the bridge and the captain went to send a report. The vessel hit a casing head. Neither person saw the casing head in front of the vessel; apparently the front mast blocked it. The structure had working navigational aids and was not manned at the time.

Date:	19-Jul-1999	Operator:	Hunt Oil Company
Investigation:	None	Activity:	Development
Lease:	00424	Event(s):	Collision
Area:	Eugene Island	Operation:	Production/Motor Vessel
Block:	62	Cause:	Human Error
Rig/Platform:	4	Water Depth:	25 feet

Remarks: The M/V Kimberly, a commercial fishing vessel, collided with an unmanned well structure. The structure sustained minor damage to the southwest leg and pipeline riser guard. The flowline was cracked on a weld seam located on a 2-inch by 4-inch bell reducer downstream of the choke body. The structure safety system shut in the well at the SSV and SCSSV.

Date:	26-Aug-1999	Operator:	CNG Producing Company
Investigation:	None	Activity:	Development
Lease:	G14581	Event(s):	Collision/Injury (1)
Area:	Main Pass	Operation:	Production
Block:	225	Cause:	Weather Related
Rig/Platform:	A	Water Depth:	256 feet

Remarks: A PHI helicopter was departing the platform when a gust of wind apparently blew it from the helideck to the production deck below. One person sustained serious injuries.

Gulf of Mexico Region Collisions – 1999

Date:	20-Sep-1999	Operator:	Vastar Resources, Inc.
Investigation:	Complete	Activity:	Development/Production
Lease:	G02640	Event(s):	Collision/Pipeline Damage
Area:	Mississippi Canyon	Operation:	Production/Motor Vessel
Block:	148	Cause:	Weather Related
Rig/Platform:	A	Water Depth:	651 feet

Remarks: The tugboat Ellen Bouchard was towing an empty Bouchard Transportation Company barge (Barge B #195). The first mate was at the helm of the tugboat when, due to 20-knot winds, the barge collided with the south end of a production platform. The barge rolled into the east side of the platform, damaging a barge bumper and a 3-inch condensate pipeline (MMS segment #9509). The pipeline was taken out of service and a pig was pushed through it with natural gas in order to displace the condensate.

Date:	18-Oct-1999	Operator:	Chevron U.S.A., Inc.
Investigation:	Complete	Activity:	Development
Lease:	00384	Event(s):	Collision
Area:	West Delta	Operation:	Production/Motor Vessel
Block:	28	Cause:	Boat Accident
Rig/Platform:	DA	Water Depth:	42 feet

Remarks: The sequence of the accident is not known. A boat apparently caused platform damage but no witnesses could be found. The damage to the platform was discovered when the operator sent a crew out at daybreak to investigate why the computer-monitored platform had shut-in.

Date:	30-Nov-1999	Operator:	BP Amoco Corporation
Investigation:	None	Activity:	Development
Lease:	G06894	Event(s):	Collision/Pollution
Area:	Viosca Knoll	Operation:	Production/Motor Vessel
Block:	915	Cause:	Weather Related
Rig/Platform:	A (TLP Marlin)	Water Depth:	1,930 feet

Remarks: The boat Dino Chouest was tied to the platform pumping diesel to the facility in 4-foot seas. After releasing one rope due to weather, the boat hit a leg of the platform on the northwest side creating a hole in the boat; 40 gallons of diesel went into the Gulf. The operator inspected the leg of the TLP and found no damage.

Gulf of Mexico Region

Explosions – 1999

Date:	08-Feb-1999	Operator:	British-Borneo Exploration, Inc.
Investigation:	Complete	Activity:	Development/Production
Lease:	G07049	Event(s):	Explosion
Area:	Green Canyon	Operation:	Completion/Flowing well back to clean up
Block:	254	Cause:	Equipment Failure/Human Error
Rig/Platform:	Attwood Hunter	Water Depth:	3,225 feet

Remarks: The #4 well was perforated and the first flow back of 11 barrels of oil and gas was completed without any problems. The well flowed back again for 50 barrels and was shut-in down hole with the tubing production test valve. The tubing annulus valve was opened to the annulus. Gas and oil were reversed out of the tubing at a pump rate of 2 barrels per minute with 600 psi pump pressure. After reversing about 60 barrels, taking returns to the pits, gas was detected. The returns were diverted to the 100 psi working pressure separator and the completion fluid was transferred from the separator to a 210 barrel atmospheric test tank. The test separator was operating at 40-44 psi. A total of 200 barrels were reversed from the well; about 140 barrels were in the separator and the remaining 60 barrels were in the atmospheric test tank. An explosion occurred in the atmospheric test tank causing it to rupture. The entire oil volume had been reverse-circulated into the separator and the atmospheric test tank contained only completion fluid at the time of the explosion. No fluid was spilled overboard.

Date:	18-Mar-1999	Operator:	Marathon Oil Company
Investigation:	Complete	Activity:	Development/Production
Lease:	G01874	Event(s):	Fire/Explosion
Area:	West Delta	Operation:	Production
Block:	79	Cause:	Equipment Failure/Human Error
Rig/Platform:	B	Water Depth:	115 feet

Remarks: An employee was alerted by an engine oil PSL alarm on the gas lift compressor. The alarm initiated a compressor shut-in. The compressor unloaded pressure as part of the shut-in procedure; the compressor engine slowed but failed to shut down completely, so the employee went to get a mechanic. Upon returning, an explosion occurred in the crankcase. Both men noticed a small fire in the exposed section of the compressor crankcase and extinguished it immediately with a nearby water hose. The compressor was shut down manually by closing the fuel valve.

Gulf of Mexico Region Explosions – 1999

Date:	20-Mar-1999	Operator:	Mobil Oil Exploration & Producing
Investigation:	Complete	Activity:	Development
Lease:	G04940	Event(s):	Explosion/Injury (4)
Area:	Green Canyon	Operation:	Production/Drilling
Block:	18	Cause:	Human Error
Rig/Platform:	A/Nabors 75	Water Depth:	750 feet

Remarks: Gas from the #3 flash gas compressor entered the domestic water system through a water fill-line. The compressor was taken off-line March 17 to repair broken belts on the water pump and re-started March 20. At 9:05 a.m., the scrubber LSH alarmed. The Automated Systems Technician (AST) drained the liquids between the LSH and LSL and restarted the compressor. At approximately 9:50 a.m. a galley hand noticed yellow water entering both washing machines. She closed the door to the laundry room and left the washing machines in the fill/on position. She notified the operation assistant of the problem. The AST drained clear water from the bottom drain valve on the domestic water tank. He ran yellowish brown water from the galley faucet. The AST turned on the outside sink faucet at 10:05 a.m. and found the same condition as in the galley, but he also smelled gas. At 10:08 a.m., both the AST and EHS technician were walking towards the door to the living quarters when the explosion occurred in the laundry room. They smothered the flames using a piece of the ceiling tile. The activation of a smoke detector on the 1st floor of the living quarters caused a fire detection system alarm. The suspected ignition source is either the washing machines or clothes dryers. All personnel were quickly accounted for after the incident. Producing operations were shut down and all utilities to the living quarters were shut off. All non-essential personnel were flown to Morgan City. The remaining essential crewmembers disconnected the domestic water system from the production process and flushed it to remove the gas and hydrocarbons from the piping. Mobil foremen declared the scene to be safe; utilities were restored to the living quarters and the platform was restored to production.

Gulf of Mexico Region Explosions – 1999

Date:	28-Mar-1999	Operator:	Texaco Exploration & Production
Investigation:	Complete	Activity:	Development/Production
Lease:	G04464	Event(s):	Explosion
Area:	South Timbalier	Operation:	Production
Block:	200	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	130 feet

Remarks: An explosion occurred when the end cap of the water skimmer blew off. The platform operator encountered a PSH alarm on the water skimmer. He heard a gas blow-by coming from the test separator and determined it was coming from the test separator water outlet line that dumps to the water skimmer. He blocked the water dump and the gas blow-by stopped. Within seconds, he heard a loud noise and observed water rushing in the vicinity of the skimmer; he proceeded to the skimmer area and found the end cap of the skimmer separated from the vessel. While inspecting the skimmer, he heard a low volume of gas escaping. He realized the make-up gas was still functioning and immediately shut-in the source. The ESD was activated when the end cap severed the fire loop; other alarms were activated during this time, including the LSL. All wells remained shut-in and the facility was secured until a careful walk-through of the platform by operations, operations support and managerial personnel. Damages were limited to the skimmer and associated piping. Estimated replacement costs were \$165,000. The level controller on the test separator and all pressure control devices from the water skimmer were sent away to be examined.

Date:	09-Apr-1999	Operator:	Vastar Resources, Inc.
Investigation:	Complete	Activity:	Development
Lease:	G05359	Event(s):	Fire/Explosion/Injury (1)/Fatality (1)/Pollution
Area:	East Cameron	Operation:	Production/Construction work
Block:	60	Cause:	Human Error
Rig/Platform:	A	Water Depth:	50 feet

Remarks: As part of deactivation of the platform's process drain line system, a section of the high-pressure separator's drain line was being cut with an electrical bandsaw. Construction contract personnel stopped severing the line because condensate flowed from the cut. After attempting to contain the spilled condensate and observing no more liquids flowing from the cut, the workers continued to cut the line. Condensate flowed from the cut and drenched saw operator. The saw ignited the condensate and the ensuing fire engulfed the worker, who died days later as a result of the burns. Another worker was injured attempting to assist the burned worker. The fire caused approximately one million dollars worth of damage to the platform and approximately 15 gallons of condensate spilled into the Gulf. See OCS Report MMS 2000-029 for more details.

Gulf of Mexico Region Explosions – 1999

Date:	28-Apr-1999	Operator:	Conoco, Inc.
Investigation:	Complete	Activity:	Exploration
Lease:	G07917	Event(s):	Explosion
Area:	Ewing Bank	Operation:	Drilling
Block:	306	Cause:	Equipment Failure/Human Error
Rig/Platform:	Ensco 69	Water Depth:	271 feet

Remarks: The primary transformer breaker in the SCR room failed, causing major power failure throughout the rig. The crane was booming up to load a boat when it lost power. The electrician shut down the generator and the emergency generator came on automatically. The electrician and maintenance crew found the engine room filled with smoke. The fire team found no flames and determined the primary transformer breaker was the source of smoke. They shut down the main engines to stop all power to the main breaker and ventilated the room, allowing the engine to cool.

Date:	17-Sep-1999	Operator:	Union Oil Company of California
Investigation:	None	Activity:	Development
Lease:	G01757	Event(s):	Explosion
Area:	Brazos	Operation:	Production
Block:	A 105	Cause:	Human Error
Rig/Platform:	A	Water Depth:	188 feet

Remarks: The 50-lb skimmer was over-pressured to 87-lb and exploded. The 8-foot by 15-foot high vertical vessel separated at the bottom weld. The top of vessel rocketed through the helipad, skirting on top of quarters and into the Gulf. This incident occurred while re-opening the platform after replacing an isolation valve on the LSL for the water compartment of HP production separator #2.

Gulf of Mexico Region

Fires – 1999

Date:	02-Jan-1999	Operator:	Shell Offshore, Inc.
Investigation:	None	Activity:	Development
Lease:	G11455	Event(s):	Fire
Area:	Garden Banks	Operation:	Production
Block:	128	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	705 feet

Remarks: A small fire occurred, resulting in minor damage to pipeline pump PAX-6040B. The seals failed, allowing excessive temperature to build up due to friction; this ignited the remaining lubricating oil. The seal and pump manufacturers performed a root cause analysis.

Date:	09-Jan-1999	Operator:	Ocean Energy, Inc.
Investigation:	None	Activity:	Development
Lease:	G04270	Event(s):	Fire
Area:	South Marsh Island	Operation:	Production
Block:	243	Cause:	Equipment Failure
Rig/Platform:	C	Water Depth:	23 feet

Remarks: A small fire occurred, involving one of two platform generators. The #2 generator winding was found smoking with no visible flames. The insulation (epoxy coating) started to smolder, which kept the heat in the winding and allowed the copper to burn. A CO₂ fire extinguisher was used to cool and contain the smoldering generator winding. Damage was restricted to the generator.

Gulf of Mexico Region Fires – 1999

Date:	15-Jan-1999	Operator:	Shell Offshore, Inc.
Investigation:	None	Activity:	Development
Lease:	00445	Event(s):	Fire
Area:	Eugene Island	Operation:	Production
Block:	176	Cause:	Human Error
Rig/Platform:	JC	Water Depth:	83 feet

Remarks: A minor flash fire occurred. A welding operation to repair a hand railing on the top deck was in progress at the same time as a natural gas crane was in use. Slag sparks from the welding operation came into contact with the gas being exhausted from the crane. The crane was shut down and the fire was extinguished. No damage was reported.

Date:	16-Jan-1999	Operator:	Chevron U.S.A., Inc.
Investigation:	None	Activity:	Development
Lease:	G00983	Event(s):	Fire
Area:	Eugene Island	Operation:	Production
Block:	252	Cause:	Human Error
Rig/Platform:	I	Water Depth:	150 feet

Remarks: A small fire occurred during the installation of a new compressor panel. An offshore technician cut through an energized wire, and caused a spark that ignited a small amount of oil. The oil had accumulated in the compressor skid pan as he was disconnecting old wiring from the existing compressor panel. The fire was immediately extinguished with rags. No damage was reported.

Date:	18-Jan-1999	Operator:	Shell Offshore, Inc.
Investigation:	None	Activity:	Development
Lease:	G01294	Event(s):	Fire
Area:	South Pass	Operation:	Production
Block:	62	Cause:	Human Error
Rig/Platform:	B	Water Depth:	322 feet

Remarks: A compressor backfired when it was restarted without completely purging the cylinders of fuel gas. The resulting sparks or flame from the backfire ignited gases coming from a nearby glycol still column vent. The fire was quickly extinguished using a seawater hose. There was no significant damage to equipment.

Gulf of Mexico Region Fires – 1999

Date:	23-Jan-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Exploration
Lease:	G15780	Event(s):	Fire
Area:	High Island	Operation:	Drilling
Block:	A1	Cause:	Human Error
Rig/Platform:	Cliffs Drilling 153/Cais. #2	Water Depth:	55 feet

Remarks: A welder caused a small flash fire while starting to cut the 18 5/8-inch surface casing after the cement job. The wellhead area and the 18 5/8-inch by 30-inch annulus were checked with a gas detector; there was no evidence of gas. The annular fluid was 6 feet below the wellhead when the cut began. Slag fell into the annulus and caused the flash fire. The annulus was then filled with water and bubbles were observed migrating through the fluid. The annulus was squeezed from the surface to ensure isolation prior to nipling down the diverter and further cutting of the casing. There was no damage to equipment.

Date:	23-Jan-1999	Operator:	Shell Frontier Oil & Gas, Inc.
Investigation:	None	Activity:	Development
Lease:	G01294	Event(s):	Fire
Area:	South Pass	Operation:	Production
Block:	62	Cause:	Welding
Rig/Platform:	A	Water Depth:	340 feet

Remarks: While welding, a spark fell by the sump. A flash fire occurred for approximately one second. The sump was covered by tarps.

Date:	23-Jan-1999	Operator:	Shell Deepwater Production, Inc.
Investigation:	None	Activity:	Exploration
Lease:	G06896	Event(s):	Fire
Area:	Viosca Knoll	Operation:	Drilling
Block:	956	Cause:	Exhaust Spark
Rig/Platform:	A (Ram-Powell)/H&P 202	Water Depth:	3,214 feet

Remarks: A fire occurred on the exhaust piping from an EMD engine on the rig. An exhaust spark ignited some residual oil on the exhaust piping. The emergency response alarm was initiated. The fire was extinguished with a 30-lb chemical unit in less than two minutes. No damage was reported.

Gulf of Mexico Region Fires – 1999

Date:	26-Jan-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Development
Lease:	G01608	Event(s):	Fire
Area:	South Pass	Operation:	Production
Block:	60	Cause:	Human Error
Rig/Platform:	C	Water Depth:	205 feet

Remarks: While enlarging mounting holes on a demister bundle with a cutting torch, some residual paraffin was ignited by the heated metal and resulted in a flash fire. The fire was extinguished using a 30-lb ABC dry chemical unit. No property damage occurred.

Date:	29-Jan-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Development
Lease:	G02137	Event(s):	Fire
Area:	South Pass	Operation:	Production
Block:	60	Cause:	Human Error
Rig/Platform:	B	Water Depth:	206 feet

Remarks: A light fixture was opened to verify its operating voltage; the bare wires inside ignited a fire. The fire was extinguished with handheld equipment and the appropriate electrical circuits were turned off.

Gulf of Mexico Region Fires – 1999

Date:	07-Feb-1999	Operator:	Shell Offshore, Inc.
Investigation:	Complete	Activity:	Development/Production
Lease:	G13607	Event(s):	Fire/Injury (1)
Area:	South Marsh Island	Operation:	Production
Block:	40	Cause:	Equipment Failure/Human Error/External Damage
Rig/Platform:	JA	Water Depth:	97 feet

Remarks: A platform operator working alone on the platform sustained 2nd and 3rd degree burns to 26% of his body, two fractured ribs, and a separated shoulder. He was in the living quarters when he heard something blow out and continue to blow. He exited the quarters to determine the cause and observed liquid blowing from the #121 condensate pump. He went to the pump and was reaching for the suction valve handle when the escaping liquids/gases ignited. He sustained the immediate flash of the fire and made his way to a stairwell, where he tripped and fell down the stairway approximately 15 feet. Manual activation of the boat landing ESD or automatic detection and activation of the fusible fire loop system over the condensate pump skid resulted in total platform shut down. The fire continued due to the uncontrolled release of hydrocarbons. A pilot flying in the area reported the fire to a Shell facility nearby. The M/V Cecilia C rescued the operator from the structure. The fire apparently started at the #121 condensate pump. The #2 and #3 ceramic plungers/pistons were severely cracked. Condensate and gas under approximately 500 psi released uncontrolled to the atmosphere due to an apparent failure of the #1 ceramic plunger/piston in the condensate pump. The plunger/piston failure cause is uncertain, but likely resulted from thermal or acoustic (e.g. liquid hammer) shock.

Date:	11-Feb-1999	Operator:	PennzEnergy Exploration and Producing
Investigation:	None	Activity:	Development
Lease:	G02112	Event(s):	Fire
Area:	Eugene Island	Operation:	Production
Block:	315	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	240 feet

Remarks: The platform diesel generator was started for power. While offloading supplies from the work boat, an alarm sounded and the lights went out. The operator noticed smoke coming from the cabinet of the skid mounted generator. When he opened the door, flames were coming from each end of the generator armature. The fire was put out with a dry chemical fire extinguisher.

Gulf of Mexico Region Fires – 1999

Date:	15-Feb-1999	Operator:	Newfield Exploration Company
Investigation:	None	Activity:	Development
Lease:	G01604	Event(s):	Fire
Area:	West Delta	Operation:	Production
Block:	152	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	373 feet

Remarks: A small fire occurred when a gas leak on a failed flange gasket was ignited from an undetermined source. Vibration was the suspected cause of the gasket failure because one of the bolts in the flange was missing. The flange was located on a 2-inch line from the compressor starter exhaust line to the vent system. The gas source was either a leaking valve upstream of the starter or gas migration from the vent system.

Date:	04-Mar-1999	Operator:	IP Petroleum Company, Inc.
Investigation:	None	Activity:	Development
Lease:	G16435	Event(s):	Fire
Area:	South Timbalier	Operation:	Production
Block:	211	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	150 feet

Remarks: An operator saw smoke coming from a glycol reboiler. He removed some metal shielding and saw an 8-inch by 8-inch fire, which he put out with a 30-lb handheld chemical fire extinguisher.

Date:	10-Mar-1999	Operator:	Shell Offshore, Inc.
Investigation:	None	Activity:	Development
Lease:	G01294	Event(s):	Fire
Area:	South Pass	Operation:	Production
Block:	62	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	340 feet

Remarks: The generator winding failed, causing a build-up of heat. The heat worked its way back to the starter panel in the MCC building, melting the insulation on the wires; the exposed wires came into contact with electrical prints, creating an over-heating situation. Personnel threw the smoldering items in a 5-gallon bucket of water to extinguish the fire.

Gulf of Mexico Region Fires – 1999

Date:	11-Mar-1999	Operator:	Unocal Exploration Corporation
Investigation:	None	Activity:	Exploration
Lease:	G06157	Event(s):	Fire
Area:	High Island	Operation:	Drilling
Block:	133	Cause:	Equipment Failure
Rig/Platform:	Cliff Drilling 200/Caisson A	Water Depth:	52 feet

Remarks: A fire occurred on the drilling rig's #1 generator engine, a Detroit TIB 16-149 (approximately 1200 HP) engine. Bearings caused the turbo charger to disintegrate. The automatic air intake shut down, immediately killing the engine. The hot engine ignited the turbo-charger cooling oil. The fire re-ignited a couple of times due to the previously heated engine. Nine 20-lb fire extinguishers and one dry chemical extinguisher were used to put out the fire.

Date:	15-Mar-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Development
Lease:	G11221	Event(s):	Fire
Area:	Mustang Island	Operation:	Production
Block:	787	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	151 feet

Remarks: The rod assembly and piston parted at the crankshaft and exited the engine block on cylinders 4R and 4L, causing two small flames about 2 inches high and 3/8-inch wide between the distance piece and the frame of the compressor gasket area. Both flames were extinguished with a 30-lb dry chemical extinguisher within 30-45 seconds. It is unknown at this time what caused the fire. There was no damage to the compressor from the fire.

Gulf of Mexico Region Fires – 1999

Date:	17-Mar-1999	Operator:	Shell Offshore, Inc.
Investigation:	Complete	Activity:	Development
Lease:	G05889	Event(s):	Fire
Area:	Green Canyon	Operation:	Production
Block:	65	Cause:	Equipment Failure
Rig/Platform:	A (Bullwinkle)	Water Depth:	1,350 feet

Remarks: A small electrical fire occurred when the oil shipping pump and switchgear were being commissioned. The transformer failed instantaneously as power was applied to bump the motor for the first time and the autotransformer for the oil shipping pump shorted internally. The fire detection system and electrical power disruption activated the platform's ESD system, although no continuous flames were observed. Initial observation indicated that some smoke was deposited on the surrounding switchgear. Two electrical engineers, the platform electrician, and the I&E construction inspector examined the system and determined it was safe to continue running the remainder of the 4,160-Volt equipment. This was the second time this transformer has failed. The first failure was due to a logic fault in the circuitry. The initial inspection revealed the second failure was due to an internal fault in the insulation of the transformer; the manufacturer's inspection of the failed transformer confirmed these findings.

Date:	18-Mar-1999	Operator:	Marathon Oil Company
Investigation:	Complete	Activity:	Development/Production
Lease:	G01874	Event(s):	Fire/Explosion
Area:	West Delta	Operation:	Production
Block:	79	Cause:	Equipment Failure/Human Error
Rig/Platform:	B	Water Depth:	115 feet

Remarks: An employee was alerted by an engine oil PSL alarm on the gas lift compressor. The alarm initiated a compressor shut-in. The compressor unloaded pressure as part of the shut-in procedure; the compressor engine slowed but failed to shut down completely, so the employee went to get a mechanic. Upon returning, an explosion occurred in the crankcase. Both men noticed a small fire in the exposed section of the compressor crankcase and extinguished it immediately with a nearby water hose. The compressor was shut down manually by closing the fuel valve.

Gulf of Mexico Region Fires – 1999

Date:	18-Mar-1999	Operator:	Pennzoil Exploration and Producing
Investigation:	None	Activity:	Development
Lease:	00420	Event(s):	Fire
Area:	Ship Shoal	Operation:	Production
Block:	154	Cause:	Equipment Failure
Rig/Platform:	E	Water Depth:	60 feet

Remarks: Welding slag from a construction project ignited a small fire from a fitting on a small gas supply line. The fitting did not seal tightly. The fire began sometime during the morning; however, it was not noticed until nightfall due to the small intensity and height of the flame. The fire was quickly extinguished with a 20-lb handheld dry chemical unit. No damage was reported.

Date:	21-Mar-1999	Operator:	OXY U.S.A., Inc.
Investigation:	None	Activity:	Development
Lease:	G01673	Event(s):	Fire
Area:	Main Pass	Operation:	Production
Block:	296	Cause:	Equipment Failure
Rig/Platform:	C	Water Depth:	220 feet

Remarks: The fire alarm sounded and the platform shut-in. When the platform operator exited the quarters building to investigate, he saw flames approximately 3 feet high at the #1 gas compressor. He grabbed a handheld 30-lb Ansul fire extinguisher and put out the fire on the second burst. Upon initial investigation, it appeared that gas was leaking from a crack approximately 4 inches long in the third stage discharge piping/pulsation bottle. The crack ran diagonally from the third stage discharge piping (between the compressor cylinder and pulsation bottle), across a weld, and on to the reinforcing pad of the pulsation bottle. This area was covered with insulation. No signs of external corrosion were found.

Gulf of Mexico Region Fires – 1999

Date:	21-Mar-1999	Operator:	OXY U.S.A., Inc.
Investigation:	None	Activity:	Development
Lease:	G01673	Event(s):	Fire
Area:	Main Pass	Operation:	Production
Block:	296	Cause:	Equipment Failure
Rig/Platform:	B	Water Depth:	225 feet

Remarks: While making his rounds, the platform operator noticed black smoke coming from the auxiliary generator enclosure. When he opened the enclosure door to shut down the unit, he saw flames around the turbocharger. The operator shut down the unit and put out the fire with a handheld 30-lb Ansul fire extinguisher. Upon initial investigation, it appeared that the turbocharger had an internal failure, causing high vibration. The high vibration stripped out the two bolts holding the oil supply line to the turbocharger. The leaking oil ignited on the hot engine.

Date:	24-Mar-1999	Operator:	Chevron U.S.A., Inc.
Investigation:	None	Activity:	Development
Lease:	G02177	Event(s):	Fire
Area:	South Pass	Operation:	Production
Block:	49	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	300 feet

Remarks: A turbine gas compressor oil lube line parted and oil sprayed on the exhaust insulation, igniting a small fire. The TSE over the compressor activated and shut down the compressor. The fire was put out immediately with fire pump water and a 30-lb chemical extinguisher.

Date:	06-Apr-1999	Operator:	PennzEnergy Company
Investigation:	None	Activity:	Development
Lease:	G02115	Event(s):	Fire
Area:	Eugene Island	Operation:	Production
Block:	330	Cause:	Equipment Failure
Rig/Platform:	C	Water Depth:	254 feet

Remarks: The platform operator observed a small generator fire. The source of the fire was a small rubber hose that sprayed engine coolant between the engine exhaust and insulation. The coolant residue apparently ignited after the water flashed off due to the hot surface of the exhaust system. The small fire was immediately extinguished with the use of a CO₂ unit. The fire alarm was sounded and the generator was shut down. There was no damage.

Gulf of Mexico Region Fires – 1999

Date:	09-Apr-1999	Operator:	Vastar Resources, Inc.
Investigation:	Complete	Activity:	Development
Lease:	G05359	Event(s):	Fire/Explosion/Injury (1)/Fatality (1)/Pollution
Area:	East Cameron	Operation:	Production/Construction work
Block:	60	Cause:	Human Error
Rig/Platform:	A	Water Depth:	50 feet

Remarks: As part of deactivation of the platform’s process drain line system, a section of the high-pressure separator’s drain line was being cut with an electrical bandsaw. Construction contract personnel stopped severing the line because condensate flowed from the cut. After attempting to contain the spilled condensate and observing no more liquids flowing from the cut, the workers continued to cut the line. Condensate flowed from the cut and drenched the saw operator. The saw ignited the condensate and the ensuing fire engulfed the worker, who died days later as a result of the burns. Another worker was injured attempting to assist the burned worker. The fire caused approximately one million dollars worth of damage to the platform and approximately 15 gallons of condensate spilled into the Gulf. See OCS Report MMS 2000-029 for more details.

Date:	02-May-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Development
Lease:	G01608	Event(s):	Fire
Area:	South Pass	Operation:	Production
Block:	60	Cause:	Equipment Failure
Rig/Platform:	G	Water Depth:	56 feet

Remarks: The heater plug connector on the fire pump corroded and fell into the drip pan. The electrician went to check the fire pump failure; he picked up the connector, and it arced and ignited an oily residue in the skid pan. The fire was put out immediately with a 30-lb handheld extinguisher.

Gulf of Mexico Region Fires – 1999

Date:	06-May-1999	Operator:	Chevron U.S.A., Inc.
Investigation:	None	Activity:	Development
Lease:	G01294	Event(s):	Fire
Area:	South Pass	Operation:	Production
Block:	62	Cause:	Welding
Rig/Platform:	A	Water Depth:	340 feet

Remarks: Welding slag ignited oil accumulation in the skid of a lact unit. Welding was approximately 25 feet from the skid. Oil accumulated in the skid from a dripping ½-inch ball valve that was bumped open. The fire was extinguished immediately with a 30-lb dry chemical unit.

Date:	07-May-1999	Operator:	Conoco, Inc.
Investigation:	None	Activity:	Development
Lease:	G04518	Event(s):	Fire
Area:	Green Canyon	Operation:	Production
Block:	184	Cause:	Equipment Failure
Rig/Platform:	A (Joliet)	Water Depth:	1,760 feet

Remarks: A small fire occurred in the insulation of the compressor. The only real damage was to the insulation blanket. The fire was extinguished with a 30-lb handheld dry chemical unit.

Date:	07-May-1999	Operator:	Chevron U.S.A., Inc.
Investigation:	None	Activity:	Development
Lease:	G01294	Event(s):	Fire
Area:	South Pass	Operation:	Production
Block:	62	Cause:	Welding
Rig/Platform:	A	Water Depth:	340 feet

Remarks: Welding slag ignited an accumulation of oil in the lact skid. Welding was taking place 25 feet from the skid. Oil was dripping in the skid when a ½-inch ball valve was bumped open. The fire was extinguished immediately with a 30-lb dry chemical unit. This is a repeat of a similar incident the day before.

Gulf of Mexico Region Fires – 1999

Date:	08-May-1999	Operator:	Taylor Energy Company
Investigation:	Complete	Activity:	Development/Production
Lease:	G01187	Event(s):	Fire
Area:	South Marsh Island	Operation:	Production
Block:	27	Cause:	Human Error
Rig/Platform:	A	Water Depth:	100 feet

Remarks: A welder was cutting on a spool for a new Wemco unit. It was believed that some slag fell between the boards and continued to smolder. The boards had been watered down both before and after the welding job was completed.

Date:	17-May-1999	Operator:	Exxon Corporation
Investigation:	None	Activity:	Exploration
Lease:	G01619	Event(s):	Fire
Area:	South Pass	Operation:	Drilling
Block:	93	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	450 feet

Remarks: A breaker for mud pump #2 ignited in MCC room. A 30-lb handheld unit was used to immediately extinguish the fire.

Date:	18-May-1999	Operator:	Vastar Resources, Inc.
Investigation:	Complete	Activity:	Development/Production
Lease:	G04453	Event(s):	Fire
Area:	Eugene Island	Operation:	Production
Block:	240	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	139 feet

Remarks: A fire occurred on the exhaust of the fire pump #2 engine; it was extinguished immediately. A contractor technician and the platform operator were performing the weekly route fire pump inspection. They were conducting a nozzle flow test on a reel hose on the breezeway below the heliport. The fire pump was running at full throttle (1000 - 1100 rpm), maintaining an engine oil pressure of 80 psi. A contractor operator was monitoring the water pressure at the pump's discharge. The fire pump had been running approximately 15 minutes when a ¼-inch oil line ruptured, spraying oil onto the engine's hot manifold and turbo charger causing the fire. The contractor instantly shut down the fire pump by pulling the manual shutdown switch and extinguished the fire with a 30-lb dry chemical handheld unit. Several pieces of electrical equipment and rubber hoses were damaged.

Gulf of Mexico Region Fires – 1999

Date:	29-May-1999	Operator:	Shell Offshore, Inc.
Investigation:	None	Activity:	Development
Lease:	G04240	Event(s):	Fire
Area:	South Timbalier	Operation:	Production
Block:	300	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	337 feet

Remarks: An operator found a pipeline pump electric motor on fire while responding to an alarm. He shut off the power to the motor and used fire water to put out the fire in 5 minutes. There was only damage to the motor and the pipe.

Date:	03-Jun-1999	Operator:	Exxon Corporation
Investigation:	None	Activity:	Exploration
Lease:	00026	Event(s):	Fire
Area:	West Delta	Operation:	Drilling
Block:	30	Cause:	Human Error
Rig/Platform:	Ensco 99	Water Depth:	50 feet

Remarks: An operator representative was cutting a rig diesel line when a very small flame was detected. The fire was extinguished with a 30-lb dry chemical unit. No damage was reported.

Date:	10-Jun-1999	Operator:	Kerr-McGee Corporation
Investigation:	None	Activity:	Exploration
Lease:	G13065	Event(s):	Fire
Area:	Viosca Knoll	Operation:	Drilling
Block:	869	Cause:	Equipment Failure
Rig/Platform:	Diamond Ocean Lexington	Water Depth:	1,718 feet

Remarks: An electrical wire grounded out inside a transformer, causing the wires to overheat and ignite inside the mud logging unit. A 30-lb dry chemical fire extinguisher was used to put out the fire.

Gulf of Mexico Region Fires – 1999

Date:	05-Jul-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Development
Lease:	G01106	Event(s):	Fire
Area:	West Delta	Operation:	Production
Block:	133	Cause:	Equipment Failure/Human Error
Rig/Platform:	B	Water Depth:	285 feet

Remarks: Natural gas escaped from the #1 generator fuel gas SDV. Due to faulty packing, the gas escaped through a weep hole. The ignition source was welding and cutting from overhead of the SDV. The fire was extinguished immediately. The SDV was not shielded by fire preventive tarp.

Date:	06-Jul-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Development
Lease:	G05475	Event(s):	Fire
Area:	South Marsh Island	Operation:	Production
Block:	205	Cause:	Weather Related
Rig/Platform:	A	Water Depth:	457 feet

Remarks: The platform communication system was disabled and damaged during a severe thunderstorm. A small flame on a communication motherboard was detected by the platform operator and extinguished with a handheld CO₂ unit. Inspection revealed a 2-inch charred spot on the motherboard. No other damage to equipment was reported.

Date:	09-Jul-1999	Operator:	Texaco Exploration and Production
Investigation:	None	Activity:	Development
Lease:	G02118	Event(s):	Fire
Area:	Eugene Island	Operation:	Production
Block:	338	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	253 feet

Remarks: A small fire occurred when a clamp, located between the expansion joint and the compressor engine exhaust, became dislocated allowing a 2-foot flame to escape during a compressor start-up. The compressor was shut down and allowed to cool so repairs could be performed. Insulation was removed from the area to allow the clamp to be reinstalled. The flame immediately extinguished itself. There was no damage to equipment.

Gulf of Mexico Region Fires – 1999

Date:	11-Jul-1999	Operator:	Exxon Corporation
Investigation:	None	Activity:	Development
Lease:	00031	Event(s):	Fire
Area:	Grand Isle	Operation:	Production
Block:	220	Cause:	Equipment Failure
Rig/Platform:	L-QTR	Water Depth:	55 feet

Remarks: A rental 350-kW generator caught on fire due to electrical motor winding. The fire was put out with a 30-lb handheld dry chemical unit. The generator was returned to the contractor.

Date:	25-Jul-1999	Operator:	EEX Corporation
Investigation:	None	Activity:	Development
Lease:	G07486	Event(s):	Fire
Area:	Garden Banks	Operation:	P&A Operation
Block:	338	Cause:	Human Error
Rig/Platform:	A (Cooper)	Water Depth:	2,097 feet

Remarks: A minor flash fire occurred while a welder was repairing handrails near the moon pool. Fuel for the fire originated from a small accumulation of oil or condensate inside the free standing production riser. The fire extinguished itself immediately. There was no damage reported.

Date:	01-Aug-1999	Operator:	Exxon Corporation
Investigation:	None	Activity:	Development
Lease:	G01619	Event(s):	Fire
Area:	South Pass	Operation:	Production
Block:	93	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	450 feet

Remarks: The #2 platform generator had a lubricating oil line that leaked onto the exhaust manifold. The small fire extinguished itself within 15 seconds. The oil line was replaced.

Gulf of Mexico Region Fires – 1999

Date:	03-Aug-1999	Operator:	Vastar Resources, Inc.
Investigation:	Complete	Activity:	Development/Production
Lease:	G14585	Event(s):	Fire
Area:	Main Pass	Operation:	Drilling
Block:	264	Cause:	Equipment Failure
Rig/Platform:	Ensco 51	Water Depth:	224 feet

Remarks: The Ensco rig electrician observed a fire on the #1 main rig engine. The electrician shut off the fuel supply to the engine and sounded the fire alarm. The derrickman extinguished the fire with a 30-lb carbon dioxide unit. There was minimal damage to the engine and related equipment.

Date:	08-Aug-1999	Operator:	Kerr-McGee Oil and Gas Corporation
Investigation:	None	Activity:	Development
Lease:	G04832	Event(s):	Fire
Area:	Main Pass	Operation:	Air Conditioning Unit
Block:	108	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	70 feet

Remarks: A minor fire developed in an air conditioning unit in the MCC room. The fire was extinguished and the air conditioning unit was replaced.

Date:	23-Aug-1999	Operator:	Mobil Oil Corporation
Investigation:	None	Activity:	Development
Lease:	G02947	Event(s):	Fire
Area:	Main Pass	Operation:	Production
Block:	73	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	110 feet

Remarks: A small fire ignited on the KVSR gas compressor. The fuel header gasket failed on the #11 cylinder and gas entered the coil box, which ignited. The fire was extinguished immediately.

Gulf of Mexico Region Fires – 1999

Date:	03-Sep-1999	Operator:	Vastar Resources, Inc.
Investigation:	Complete	Activity:	Development
Lease:	G14528	Event(s):	Fire
Area:	South Timbalier	Operation:	Production
Block:	145	Cause:	Human Error
Rig/Platform:	A	Water Depth:	92 feet

Remarks: The operator filled the lube oil day tank for the gas compressor and did not notice the fill valve to the generator lube oil day tank was partially open. The lube oil was inadvertently pumped to the generator lube oil day tank and over-filled, allowing the oil to pool on the roof of the generator building near the generator exhaust pipe. The operator shut down the lube oil transfer pump upon filling the compressor lube oil day tank and proceeded to the living quarters. The lube oil eventually made contact with the generator engine exhaust insulation. The insulation guided the lube oil down into the generator building and into contact with the exhaust pipe and engine; the lube oil ignited in and around the generator exhaust pipe. The evolution of the fire increased and the thermal plugs on both sides of the exhaust manifold melted. Initial attempts to extinguish the flames inside the generator building were not successful. The fire spread to the roof of the generator building where it melted a plastic tank filled with flammable engine coolant, adding fuel to the fire. Personnel evacuated the platform after all tries to extinguish the fire were exhausted.

Date:	08-Sep-1999	Operator:	Exxon Corporation
Investigation:	None	Activity:	Development
Lease:	G03818	Event(s):	Fire
Area:	Mississippi Canyon	Operation:	Production
Block:	280	Cause:	Equipment Failure
Rig/Platform:	A (Lena)	Water Depth:	1,000 feet

Remarks: A gas leak from tubing going to the dryer may have made contact with the coil to ignite. This was on the #4 compressor. The fire was put out with a 5-lb chemical extinguisher.

Gulf of Mexico Region Fires – 1999

Date:	09-Sep-1999	Operator:	Newfield Exploration Company
Investigation:	Pending	Activity:	Development
Lease:	G15312	Event(s):	Blowout/Fire
Area:	Ship Shoal	Operation:	Workover
Block:	354	Cause:	Pending
Rig/Platform:	A	Water Depth:	463 feet

Remarks: During a workover operation, coiled tubing parted between the stripper assembly and the injector head allowing gas to escape to the atmosphere. The crew shut the pipe rams, shear rams, and blind rams but the well still flowed. The platform was shut in and all personnel were evacuated. On September 12, the well caught on fire. This incident is under investigation by MMS.

Date:	10-Sep-1999	Operator:	Burlington Resources Offshore, Inc.
Investigation:	None	Activity:	Development
Lease:	00806	Event(s):	Fire
Area:	Eugene Island	Operation:	Production
Block:	206	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	100 feet

Remarks: A small fire occurred on pipeline pump #1 when oil from a bad oil tank carried over and splashed onto the pump exhaust piping. A high level in the bad oil tank occurred because a malfunctioned BS&W monitor failed to alarm when oil was inadvertently diverted to the bad oil tank. Carry over of the tank occurred due to a LSH failure. The TSE and ESD activated and initiated platform shut-in. Platform personnel extinguished the fire immediately.

Date:	13-Sep-1999	Operator:	Marathon Oil Company
Investigation:	None	Activity:	Development
Lease:	G01449	Event(s):	Fire
Area:	West Delta	Operation:	Production
Block:	79	Cause:	Unknown
Rig/Platform:	A	Water Depth:	112 feet

Remarks: A small fire occurred in the air compressor on the production deck. The ground wire for the air compressor broke and created static electricity, causing a small internal fire. It was put out with a 30-lb dry chemical extinguisher. Damage was limited to the air compressor.

Gulf of Mexico Region Fires – 1999

Date:	13-Sep-1999	Operator:	Chevron U.S.A., Inc.
Investigation:	None	Activity:	Development
Lease:	G05064	Event(s):	Fire
Area:	Mobile	Operation:	Crane
Block:	864	Cause:	Equipment Failure
Rig/Platform:	B	Water Depth:	58 feet

Remarks: There was an oil leak in an oil pressure tubing line that vibrated against a 110-volt alternator on the crane engine. This resulted in a small fire in the platform crane engine drip pan. It was extinguished immediately and there was minimal damage.

Date:	14-Sep-1999	Operator:	Shell Offshore, Inc.
Investigation:	None	Activity:	Development
Lease:	G01220	Event(s):	Fire
Area:	Eugene Island	Operation:	Production
Block:	158	Cause:	Equipment Failure
Rig/Platform:	C	Water Depth:	83 feet

Remarks: A small electrical fire occurred due to a centrifuge switch failure. The platform operator plugged in the electrical cord for the unit, turned the machine on, and left the area. He returned five minutes later to discover the switch had caught on fire. The fire was extinguished and the electrical cord was unplugged.

Date:	16-Sep-1999	Operator:	Conoco, Inc.
Investigation:	None	Activity:	Development
Lease:	G04518	Event(s):	Fire
Area:	Green Canyon	Operation:	Production
Block:	184	Cause:	Equipment Failure
Rig/Platform:	A (Jolliet)	Water Depth:	1,700 feet

Remarks: A platform operator opened a side door to a metal enclosure/sound barrier. This let oxygen into the enclosure, and the oil-coated insulation caught fire. The fire was quickly put out with a handheld extinguisher. The unit was then shut down.

Gulf of Mexico Region Fires – 1999

Date:	21-Sep-1999	Operator:	Santa Fe Snyder Corporation
Investigation:	Complete	Activity:	Development/Production
Lease:	G07759	Event(s):	Fire
Area:	Ship Shoal	Operation:	Production
Block:	299	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	258 feet

Remarks: Compressor CBA 2020 experienced a shut-in, caused by the engine stalling. The compressor went through its normal shutdown functions. At this point, the SDV was closing while the BDV was opening. During the blowdown phase of the shutdown, a 2-foot by 16-inch long stainless steel flex hose in the vent system on the compressor skid failed. The failure of the hose caused gas that should have gone to the flare scrubber to be vented locally. The lead operator responded to a production alarm caused by the compressor shutdown. On the way to the production panel, he could see the fire on the west side of the compressor skid near the engine; he activated the platform ESD. The fire was put out in one minute with two 30-lb handheld dry chemical fire extinguishers. The ignition source is undetermined.

Date:	22-Sep-1999	Operator:	Marathon Oil Company
Investigation:	None	Activity:	Development
Lease:	G12136	Event(s):	Fire
Area:	Ewing Bank	Operation:	Production
Block:	873	Cause:	Equipment Failure
Rig/Platform:	A (Lobster)	Water Depth:	780 feet

Remarks: Heat caused oil on bearings to catch fire. The flame was about 8 inches high. One 30-lb handheld dry chemical fire extinguisher was used to put out the fire. The location of the fire was the motor on the lact unit.

Gulf of Mexico Region Fires – 1999

Date:	30-Sep-1999	Operator:	Shell Deepwater Production, Inc.
Investigation:	None	Activity:	Development
Lease:	G07963	Event(s):	Fire
Area:	Mississippi Canyon	Operation:	Production/Construction
Block:	807	Cause:	Equipment Failure
Rig/Platform:	A (Mars)	Water Depth:	2,930 feet

Remarks: While filling the diesel tank on a rental air compressor, the hose from the portable tank came loose and sprayed diesel on the exhaust of the air compressor. The diesel ignited and was extinguished with a 20-lb dry chemical unit. The fire lasted less than 30 seconds and damage was limited to wiring on the air compressor.

Date:	04-Oct-1999	Operator:	Shell Offshore, Inc.
Investigation:	None	Activity:	Development
Lease:	G06896	Event(s):	Fire
Area:	Viosca Knoll	Operation:	Production
Block:	956	Cause:	Equipment Failure/Weather Related
Rig/Platform:	A (Ram-Powell)	Water Depth:	3,216 feet

Remarks: A portable fan caught on fire. The power to the fan was cut off immediately and the fire was extinguished. The fan was located on a deck outside the living quarters and was used to cool personnel on break. Weather and/or a short circuit may have been a contributing cause.

Date:	09-Oct-1999	Operator:	Chevron U.S.A., Inc.
Investigation:	None	Activity:	Exploration
Lease:	G05911	Event(s):	Fire
Area:	Green Canyon	Operation:	Drilling
Block:	205	Cause:	Equipment Failure
Rig/Platform:	A (Genesis)/Nabors 85	Water Depth:	2,690 feet

Remarks: A very small fire occurred when a natural gas fuel line parted at a connection and leaked. Some nearby rags caught fire and were extinguished with a handheld dry chemical fire unit. The actual fire was on the rig. The ignition source is unknown.

Gulf of Mexico Region Fires – 1999

Date:	13-Oct-1999	Operator:	Exxon Corporation
Investigation:	None	Activity:	Development
Lease:	G03818	Event(s):	Fire
Area:	Mississippi Canyon	Operation:	Production
Block:	280	Cause:	Equipment Failure
Rig/Platform:	A (Lena)	Water Depth:	1,000 feet

Remarks: On the booster sales compressor, the fuel line leaked and came into contact with the coil, causing a small fire. The root cause appears to be a bushing on the fuel line that was loosened due to vibration. The fire was extinguished immediately with a 30-lb handheld chemical unit. "Lock-Tite" was applied to all fittings.

Date:	18-Oct-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Development
Lease:	G01106	Event(s):	Fire
Area:	West Delta	Operation:	Production
Block:	133	Cause:	Equipment Failure
Rig/Platform:	B	Water Depth:	285 feet

Remarks: On a platform generator, the piping between the exhaust manifold and the expansion joint caught on fire. A leak of process oil from the platform fuel gas system came into contact with the exhaust, causing the fire. It was extinguished immediately.

Date:	22-Oct-1999	Operator:	Chevron U.S.A., Inc.
Investigation:	Pending	Activity:	Exploration
Lease:	G16670	Event(s):	Fire
Area:	Mississippi Canyon	Operation:	Drilling
Block:	1002	Cause:	Pending
Rig/Platform:	Falcon Deepwater Pathfinder	Water Depth:	6,950 feet

Remarks: A failure occurred in the draw works while running the BOP stack, the lower marine riser package (LMRP), and the riser assembly. The top drive struck the rig floor and the BOP, LMRP, and riser assembly fell into the gulf. A fire also occurred and was extinguished within a few minutes.

Gulf of Mexico Region Fires – 1999

Date:	28-Oct-1999	Operator:	Exxon Corporation
Investigation:	Complete	Activity:	Development/Production
Lease:	G03818	Event(s):	Fire
Area:	Mississippi Canyon	Operation:	Production
Block:	280	Cause:	Equipment Failure
Rig/Platform:	A (Lena)	Water Depth:	1,000 feet

Remarks: The Pool 10 rig crew was performing routine maintenance on rig components when a night driller noticed a flame in the compressor building. The small fire was caused by an ignition coil on the #1 left bank head of the booster compressor engine. He grabbed a 30-lb fire extinguisher and put out the fire. The engine was shut down.

Date:	30-Oct-1999	Operator:	Stone Energy Corporation
Investigation:	None	Activity:	Development
Lease:	G01152	Event(s):	Fire
Area:	Vermilion	Operation:	Production
Block:	255	Cause:	Human Error
Rig/Platform:	A	Water Depth:	158 feet

Remarks: After shutting in the wells, contract crews began welding and cutting on the platform. While cutting on the heliport, slag fell through the top deck grating and onto the panel board. Gas leaked out of regulators and ignited. The only damage was to regulators inside the panel board.

Date:	01-Nov-1999	Operator:	Exxon Corporation
Investigation:	None	Activity:	Development
Lease:	00031	Event(s):	Fire
Area:	Green Canyon	Operation:	Production
Block:	22	Cause:	Equipment Failure
Rig/Platform:	L-QTR	Water Depth:	55 feet

Remarks: A small gas leak in the exhaust system on #6 gas compressor ignited a small fire near the filter media and was extinguished immediately with a 30-lb dry chemical unit. Damage was minimal.

Gulf of Mexico Region Fires – 1999

Date:	02-Nov-1999	Operator:	Union Pacific Resources Company
Investigation:	None	Activity:	Development
Lease:	G01520	Event(s):	Fire
Area:	Ship Shoal	Operation:	Production
Block:	204	Cause:	Human Error
Rig/Platform:	B	Water Depth:	103 feet

Remarks: Cutting and welding were taking place on the top deck, which was constructed of creosote boards. Two operators on Platform A noticed a deck fire on the platform and notified the site supervisor of Platform B. The M/V Mr. Andre fought the fire for a short time. A helicopter dropped two operators on the platform; the fire was extinguished using six 30-lb handheld dry chemical units.

Date:	08-Nov-1999	Operator:	Mobil Exploration and Producing
Investigation:	None	Activity:	Development
Lease:	G05057	Event(s):	Fire
Area:	Mobile	Operation:	Battery for fire water pump
Block:	823	Cause:	Human Error
Rig/Platform:	A	Water Depth:	65 feet

Remarks: The battery cable lead wire connection was loose. A spark from the loose connection caught grease on fire and went out on its own.

Date:	09-Nov-1999	Operator:	Union Oil Company of California
Investigation:	None	Activity:	Exploration
Lease:	G01228	Event(s):	Fire
Area:	Ship Shoal	Operation:	Drilling
Block:	208	Cause:	Unforeseeable Occurrence
Rig/Platform:	H	Water Depth:	100 feet

Remarks: While cutting the 13 5/8-inch casing with a cutting torch, a flash fire occurred due to gas emanating from the oil-based mud. It quickly went out on its own. They were cutting the casing to install the wellhead.

Gulf of Mexico Region Fires – 1999

Date:	14-Nov-1999	Operator:	CXY Energy Offshore, Inc.
Investigation:	Complete	Activity:	Development/Production
Lease:	G00985	Event(s):	Fire
Area:	Eugene Island	Operation:	Production
Block:	259	Cause:	Equipment Failure
Rig/Platform:	B	Water Depth:	170 feet

Remarks: Two Halliburton wireline operators were to perform maintenance service on a Halliburton wireline unit. The wireline unit was approximately 20 feet from the compressor unit skid. The operators heard a loud uncontrolled release of natural gas blowing from the compressor unit. They observed the uncontrolled gas release for approximately 1 minute, assuming the compressor unit would shut down. The released gas accumulation apparently came into contact with the hot surface of the turbocharger assembly and engine exhaust system (estimated temperature 900°F), resulting in ignition. An operator reported the fire to CXY Energy personnel stationed on Platform A and activated the platform ESD. The operators fought the fire with a 150-lb. wheeled unit and 6 30-lb. handheld extinguishers. Three employees arrived on the platform to help extinguish the fire and isolate the compressor by closing the upstream manual block valves. The volume of natural gas remaining in the compressor 3rd stage scrubber continued to escape through a parted 1-inch nipple. The M/V Jansen G arrived and began spraying water on the compressor unit with its onboard fire monitor, cooling the hot surfaces of the gas compressor unit, allowing the platform personnel to completely extinguish the fire. The fire was extinguished and re-ignited 6 times, diminishing in magnitude each time. There was major damage to the platform compressor unit.

Date:	14-Nov-1999	Operator:	BP Exploration & Oil, Inc.
Investigation:	None	Activity:	Development
Lease:	G11081	Event(s):	Fire
Area:	Green Canyon	Operation:	Production
Block:	645	Cause:	Equipment Failure
Rig/Platform:	Ocean America	Water Depth:	4,352 feet

Remarks: Sealed bearings in the drill water pump #1 heated to the point of smoking while in service. A small fire occurred when the pump was shut down.

Gulf of Mexico Region Fires – 1999

Date:	15-Nov-1999	Operator:	BP Amoco Corporation
Investigation:	None	Activity:	Development
Lease:	G05825	Event(s):	Fire
Area:	Mississippi Canyon	Operation:	Production
Block:	109	Cause:	Equipment Failure
Rig/Platform:	A/H&P 91	Water Depth:	1,035 feet

Remarks: The insulation on the Amberbrol circulation system caught fire. The fire was put out with an extinguisher. There were minimal damages.

Date:	16-Nov-1999	Operator:	CXY Energy, Inc.
Investigation:	None	Activity:	Development
Lease:	00138	Event(s):	Fire/Injury (1)
Area:	West Delta	Operation:	Production
Block:	45	Cause:	Human Error
Rig/Platform:	A	Water Depth:	49 feet

Remarks: During the welding of a flange on the inlet piping of a production vessel, a flash fire occurred. One welder was burned.

Date:	20-Nov-1999	Operator:	Texaco Exploration and Production
Investigation:	None	Activity:	Development
Lease:	G06987	Event(s):	Fire
Area:	Green Canyon	Operation:	Production
Block:	6	Cause:	Equipment Failure
Rig/Platform:	A	Water Depth:	620 feet

Remarks: A 3/8-inch steel line filled with coolant cracked and allowed fluid to spill onto the compressor feets turbo-charger. It produced a small fire with no damage. The compressor then went down. While the operator was attempting to restart the compressor, he noticed the small fire and immediately extinguished it.

Gulf of Mexico Region Fires – 1999

Date:	22-Nov-1999	Operator:	AEDC (U.S.A.), Inc.
Investigation:	None	Activity:	Development
Lease:	G06957	Event(s):	Fire
Area:	Mississippi Canyon	Operation:	Welding
Block:	486	Cause:	Human Error
Rig/Platform:	A	Water Depth:	582 feet

Remarks: While welding on the top deck, a spark from a welding rod fell down into the drip pan for the glycol reboiler and ignited a small amount of condensate in the pan. The fire was immediately extinguished. There was no damage to the platform.

Date:	27-Nov-1999	Operator:	Mobil Oil Corporation
Investigation:	None	Activity:	Development
Lease:	G03417	Event(s):	Fire
Area:	Main Pass	Operation:	Production
Block:	72	Cause:	Equipment Failure
Rig/Platform:	B	Water Depth:	120 feet

Remarks: Steam was observed near the turbo charger exhaust. An ambient line was spraying fluid from a loose chemical line onto the exhaust, causing a small fire on the compressor turbo charger exhaust. The fire was extinguished immediately with minimal damage.

Date:	02-Dec-1999	Operator:	Amerada Hess Corporation
Investigation:	Complete	Activity:	Exploration
Lease:	G21175	Event(s):	Fire
Area:	Mississippi Canyon	Operation:	Drilling
Block:	553	Cause:	Equipment Failure/Human Error
Rig/Platform:	Diamond Ocean Valiant	Water Depth:	4,513 feet

Remarks: A welder was replacing bad grating on the catwalk leading to the master dump valves under the main deck. Cutting and welding operations were going on at the same time. The rig crew started transferring "ECO-MUL 300" from internal tanks in the hull to the active mud pits. The rig crew was having trouble priming the base oil transfer pump; when the pump did catch prime, it blew the fluid out of a loose flange on the main deck level. The fluid spilled down the side of the rig structure and onto the catwalk where the welder was working, igniting. A crane operator working in the area immediately spotted the fire. The base oil transfer pump was shut down and the oxygen and acetylene bottles were turned off. The well was shut in and fire teams extinguished the fire in approximately ten minutes.

Gulf of Mexico Region Fires – 1999

Date:	15-Dec-1999	Operator:	Vastar Resources, Inc.
Investigation:	Complete	Activity:	Development
Lease:	G03998	Event(s):	Fire
Area:	Ship Shoal	Operation:	Production
Block:	182	Cause:	Human Error
Rig/Platform:	C	Water Depth:	70 feet

Remarks: The platform was in the process of starting up after a two-day shut in for maintenance. The heat media surge tank had a high level alarm when the heat media system came back in service. They attempted to drain the Chem Therm from the heat media surge tank into a drum, but the surge tank level was still too high. Another attempt to drain the surge tank resulted in spilling the fluid onto the insulated generator muffler located on the deck below; the fluid found its way to the hot surface and ignited. At the same time, the drum bubbled Chem Therm onto the surge tank, which also ignited. The automatic shut in of the platform was initiated via a TSE. The fire was extinguished with handheld fire units.

Gulf of Mexico Region

Injuries – 1999

Date:	01-Jan-1999	Operator:	Howell Petroleum Corporation
Investigation:	None	Activity:	Development
Lease:	G04909	Event(s):	Injury (1)
Area:	Main Pass	Operation:	Production
Block:	64	Cause:	Human Error
Rig/Platform:	A	Water Depth:	35 feet

Remarks: An employee was answering a production horn when he fell on the end of the catwalk on the A side, injuring his left knee.

Date:	03-Jan-1999	Operator:	Enron Oil & Gas Company
Investigation:	None	Activity:	Development
Lease:	G07885	Event(s):	Injury (1)
Area:	Viosca Knoll	Operation:	Carrying a box
Block:	156	Cause:	Slip/Trip/Fall
Rig/Platform:	A	Water Depth:	98 feet

Remarks: A cook was moving a box of bottled water into the galley when he slipped on a cardboard box, spraining his ankle and left hip.

Date:	14-Jan-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Development
Lease:	G02137	Event(s):	Injury (1)
Area:	South Pass	Operation:	Construction
Block:	60	Cause:	Lifting
Rig/Platform:	C	Water Depth:	188 feet

Remarks: An employee suffered a back strain from lifting and moving pipe flanges.

Gulf of Mexico Region Injuries – 1999

Date:	16-Jan-1999	Operator:	Chevron U.S.A., Inc.
Investigation:	None	Activity:	Development
Lease:	00374	Event(s):	Injury (1)
Area:	Main Pass	Operation:	Production
Block:	41	Cause:	Working in tight space
Rig/Platform:	B	Water Depth:	50 feet

Remarks: An employee was working in a tight space and struck his elbow on a metal brace. He continued to work and later brushed the same elbow against the same brace, finding it very painful. He worked through his shift, which ended on January 18 and went to see his physician on January 19.

Date:	22-Jan-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Development
Lease:	G02137	Event(s):	Injury (1)
Area:	South Pass	Operation:	Workover
Block:	60	Cause:	Turned Elevators
Rig/Platform:	A	Water Depth:	188 feet

Remarks: An employee strained his lower back when he turned the elevators to position them for attaching slings. Although he felt some pain, it subsided and he finished his tour. The next day he informed his supervisor that he was unable to work his assigned tour due to back pain.

Date:	27-Jan-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Development
Lease:	G01106	Event(s):	Injury (1)
Area:	West Delta	Operation:	Welding/Burning
Block:	133	Cause:	Human Error
Rig/Platform:	E	Water Depth:	268 feet

Remarks: An employee injured his right hand while cutting holes in 30-inch and 16-inch casing. The two casings were hanging together: the 16-inch was inside the 30-inch. When the collar on 16-inch was cut, it gave way and struck his right hand, severing the middle finger below the knuckle.

Gulf of Mexico Region Injuries – 1999

Date:	07-Feb-1999	Operator:	Shell Offshore, Inc.
Investigation:	Complete	Activity:	Development/Production
Lease:	G13607	Event(s):	Fire/Injury (1)
Area:	South Marsh Island	Operation:	Production
Block:	40	Cause:	Equipment Failure/Human Error/External Damage
Rig/Platform:	JA	Water Depth:	97 feet

Remarks: A platform operator working alone on the platform sustained 2nd and 3rd degree burns to 26% of his body, two fractured ribs, and a separated shoulder. He was in the living quarters when he heard something blow out and continue to blow. He exited the quarters to determine the cause and observed liquid blowing from the #121 condensate pump. He went to the pump and was reaching for the suction valve handle when the escaping liquids/gases ignited. He sustained the immediate flash of the fire and made his way to a stairwell, where he tripped and fell down the stairway approximately 15 feet. Manual activation of the boat landing ESD or automatic detection and activation of the fusible fire loop system over the condensate pump skid resulted in total platform shut down. The fire continued due to the uncontrolled release of hydrocarbons. A pilot flying in the area reported the fire to a Shell facility nearby. The M/V Cecilia C rescued the operator from the structure. The fire apparently started at the #121 condensate pump. The #2 and #3 ceramic plungers/pistons were severely cracked. Condensate and gas under approximately 500 psi released uncontrolled to the atmosphere due to an apparent failure of the #1 ceramic plunger/piston in the condensate pump. The plunger/piston failure cause is uncertain, but likely resulted from thermal or acoustic (e.g. liquid hammer) shock.

Date:	22-Feb-1999	Operator:	Elf Exploration, Inc.
Investigation:	None	Activity:	Exploration
Lease:	G19931	Event(s):	Injury (1)
Area:	Mississippi Canyon	Operation:	Drilling
Block:	243	Cause:	Human Error
Rig/Platform:	Glomar Celtic Sea	Water Depth:	3,033 feet

Remarks: The employee was cutting and welding on the wellhead assembly when he saw a hose falling. He tried to catch the hose and caught an arm in between drilling equipment, breaking his arm badly.

Gulf of Mexico Region Injuries – 1999

Date:	09-Mar-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Development
Lease:	G01608	Event(s):	Injury (1)
Area:	South Pass	Operation:	Production
Block:	60	Cause:	Human Error
Rig/Platform:	C	Water Depth:	210 feet

Remarks: A construction contract employee was hammering a nut onto a stud on a flange. The hammer glanced off the nut and struck the employee's left knee.

Date:	20-Mar-1999	Operator:	Mobil Exploration & Producing
Investigation:	Complete	Activity:	Development
Lease:	G04940	Event(s):	Explosion/Injury (4)
Area:	Green Canyon	Operation:	Production/Drilling
Block:	18	Cause:	Human Error
Rig/Platform:	A/Nabors 75	Water Depth:	750 feet

Remarks: Gas from the #3 flash gas compressor entered the domestic water system through a water fill-line. The compressor was taken off-line March 17 to repair broken belts on the water pump and re-started March 20. At 9:05 a.m., the scrubber LSH alarmed. The Automated Systems Technician (AST) drained the liquids between the LSH and LSL and restarted the compressor. At approximately 9:50 a.m. a galley hand noticed yellow water entering both washing machines. She closed the door to the laundry room and left the washing machines in the fill/on position. She notified the operation assistant of the problem. The AST drained clear water from the bottom drain valve on the domestic water tank. He ran yellowish brown water from the galley faucet. The AST turned on the outside sink faucet at 10:05 a.m. and found the same condition as in the galley, but he also smelled gas. At 10:08 a.m., both the AST and EHS technician were walking towards the door to the living quarters when the explosion occurred in the laundry room. They smothered the flames using a piece of the ceiling tile. The activation of a smoke detector on the 1st floor of the living quarters caused a fire detection system alarm. The suspected ignition source is either the washing machines or clothes dryers. All personnel were quickly accounted for after the incident. Producing operations were shut down and all utilities to the living quarters were shut off. All non-essential personnel were flown to Morgan City. The remaining essential crewmembers disconnected the domestic water system from the production process and flushed it to remove the gas and hydrocarbons from the piping. Mobil foremen declared the scene to be safe; utilities were restored to the living quarters and the platform was restored to production.

Gulf of Mexico Region Injuries – 1999

Date:	22-Mar-1999	Operator:	W & T Offshore, Inc.
Investigation:	Complete	Activity:	Development
Lease:	G11881	Event(s):	Injury (1)
Area:	Vermilion	Operation:	Production
Block:	279	Cause:	Slip/Trip/Fall
Rig/Platform:	A	Water Depth:	180 feet

Remarks: While preparing to reinstall the platform generator that had been overhauled, an employee was moving a building to one side of the platform with the crane. After moving the building, he went to help remove the slings. When he walked around the building, he stepped on a piece of grating that had become loose and fell 24 feet to the cellar deck. The grating was probably pulled loose from the anchors and bolts while moving the building.

Date:	09-Apr-1999	Operator:	Vastar Resources, Inc.
Investigation:	Complete	Activity:	Development
Lease:	G05359	Event(s):	Fire/Explosion/Injury (1)/Fatality (1)/Pollution
Area:	East Cameron	Operation:	Production/Construction work
Block:	60	Cause:	Human Error
Rig/Platform:	A	Water Depth:	50 feet

Remarks: As part of deactivation of the platform's process drain line system, a section of the high-pressure separator's drain line was being cut with an electrical bandsaw. Construction contract personnel stopped severing the line because condensate flowed from the cut. After attempting to contain the spilled condensate and observing no more liquids flowing from the cut, the workers continued to cut the line. Condensate flowed from the cut and drenched the saw operator. The saw ignited the condensate and the ensuing fire engulfed the worker, who died days later as a result of the burns. Another worker was injured attempting to assist the burned worker. The fire caused approximately one million dollars worth of damage to the platform and approximately 15 gallons of condensate spilled into the Gulf. See OCS Report MMS 2000-029 for more details.

Gulf of Mexico Region Injuries – 1999

Date:	20-Apr-1999	Operator:	Mobil Oil Corporation
Investigation:	None	Activity:	Development
Lease:	G05057	Event(s):	Injury (1)
Area:	Mobile	Operation:	Production
Block:	823	Cause:	Human Error
Rig/Platform:	A	Water Depth:	65 feet

Remarks: A production employee got his left hand caught between a pulley and lead cable while operating a come-along. He lost his left index finger.

Date:	26-May-1999	Operator:	Chevron U.S.A., Inc.
Investigation:	None	Activity:	Exploration
Lease:	G01101	Event(s):	Injury (1)/Crane Incident
Area:	West Delta	Operation:	Drilling
Block:	117	Cause:	Human Error
Rig/Platform:	R&B George Galloway	Water Depth:	300 feet

Remarks: The crane operator was moving a bundle of drill pipes when he struck a 3-foot section of handrail. The section of handrail was knocked out of its mounting sockets and fell approximately 20 feet to the main deck below, striking one of the rig's personnel on the shoulder. The blow knocked him down and he struck a welding machine with his head.

Date:	08-Jun-1999	Operator:	Energy Resource Technology, Inc.
Investigation:	None	Activity:	Development
Lease:	G02562	Event(s):	Injury (2)
Area:	East Cameron	Operation:	Workover
Block:	38	Cause:	Equipment Failure
Rig/Platform:	Cais. #7/Cliffs Drilling 153	Water Depth:	42 feet

Remarks: The M/V Republic Tide was using a 3-inch hose to pump fluid to rig Cliffs 153, but the bow thruster failed. The boat drifted, causing the hose to pin two employees on the rig between the hose and a catwalk. One employee had both legs fractured below the knee; the other employee had a mashed toe. The employee with the broken legs was med-evaced to a Baton Rouge hospital where he lost his right leg.

Gulf of Mexico Region Injuries – 1999

Date:	14-Jun-1999	Operator:	Callon Petroleum Company
Investigation:	None	Activity:	Development
Lease:	G05071	Event(s):	Injury (1)
Area:	Mobile	Operation:	Production
Block:	908	Cause:	Human Error
Rig/Platform:	A	Water Depth:	65 feet

Remarks: The employee injured his right wrist while he was chipping paint and rust on the production deck near the separator skid.

Date:	04-Jul-1999	Operator:	Exxon Corporation
Investigation:	None	Activity:	Exploration
Lease:	G04139	Event(s):	Injury (1)
Area:	Matagorda Island	Operation:	Motor Vessel
Block:	657	Cause:	Slip/Trip/Fall
Rig/Platform:	B/Pool 908	Water Depth:	72 feet

Remarks: An employee was on the M/V San Jacinto, loading BOPs when the boat made a surge downward about 3-4 feet, lifting the drill spool from the deck. The injured attempted to move but slipped on the deck and was caught between the drill pipe and drill spool. He was transported to the hospital where doctors reported that the bone below his left knee and right ankle were fractured.

Date:	07-Jul-1999	Operator:	Coastal Oil & Gas Corporation
Investigation:	None	Activity:	Exploration
Lease:	G15102	Event(s):	Injury (1)
Area:	West Cameron	Operation:	Drilling
Block:	515	Cause:	Human Error
Rig/Platform:	Rowan Juneau	Water Depth:	172 feet

Remarks: An employee was holding an impact wrench in his left hand while attempting to dislodge a nut from a socket with his right index finger. He accidentally squeezed the trigger, causing the wrench to screw the nut onto his right index finger past the first joint. Unable to remove the nut on the rig, the employee was sent to local hospital.

Gulf of Mexico Region Injuries – 1999

Date:	13-Jul-1999	Operator:	Shell Deepwater Development, Inc.
Investigation:	Complete	Activity:	Development/Production
Lease:	G07969	Event(s):	Injury (2)
Area:	Mississippi Canyon	Operation:	Drilling
Block:	890	Cause:	Equipment Failure
Rig/Platform:	Noble Jim Thompson	Water Depth:	3,920 feet

Remarks: Two Noble employees were assigned to install the MUX lines in the clamps on the riser; to prevent damage they needed to hand guide the MUX lines when the riser was slacked off. Both employees were wearing work vests and the necessary PPE full body harness hooked to a fall-arresting device (Sala block). They were required to stand directly under the tensioner ring, which was locked to the diverter housing 15 feet above the work platform. The driller was in the process of opening the riser spider by picking up approximately 18 inches and then slacking off 2½ feet. The crew heard a loud bang and stopped operations. They tried to run out from under the falling tensioner ring. One of the employees was struck on the lower back by a tensioner wire clevis but was able to walk off the platform under his own power. The other employee was struck by a tensioner wire and/or clevis; his right elbow, head, and right hip were injured. He was removed from the platform by stretcher and air evacuated to West Jefferson Hospital.

Date:	16-Jul-1999	Operator:	Stone Energy Corporation
Investigation:	Complete	Activity:	Development
Lease:	G03135	Event(s):	Injury (2)
Area:	Vermilion	Operation:	Production
Block:	267	Cause:	Equipment Failure
Rig/Platform:	C	Water Depth:	169 feet

Remarks: On the first lift of the morning, the crane operator was lifting two workers with the fastline and the boom simultaneously. When he let off the fastline control the boom cable broke, dropping the two people into the water.

Gulf of Mexico Region Injuries – 1999

Date:	21-Jul-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Development
Lease:	G03596	Event(s):	Injury (1)
Area:	Grand Isle	Operation:	Production
Block:	20	Cause:	Human Error
Rig/Platform:	A	Water Depth:	60 feet

Remarks: A contract employee was swinging onto the platform from a crew boat. He landed off balance on the platform boat landing and twisted his left knee, possibly tearing ligaments. The boat landing and swing rope were in good condition and the seas were calm. The employee apparently used poor judgment in positioning his body while using the swing rope to board the platform.

Date:	08-Aug-1999	Operator:	Coastal Oil & Gas Corporation
Investigation:	None	Activity:	Development
Lease:	G05760	Event(s):	Injury (1)
Area:	Mobile	Operation:	Production
Block:	960	Cause:	Slip/Trip/Fall
Rig/Platform:	A	Water Depth:	60 feet

Remarks: The contract employee was climbing down a permanent ladder from the production deck to the sump deck when he slipped on the ladder and fell approximately 10 feet, injuring his right thigh, left elbow, and neck.

Date:	26-Aug-1999	Operator:	CNG Producing Company
Investigation:	None	Activity:	Development
Lease:	G14581	Event(s):	Collision/Injury (1)
Area:	Main Pass	Operation:	Production
Block:	225	Cause:	Weather Related
Rig/Platform:	A	Water Depth:	256 feet

Remarks: A PHI helicopter was departing the platform when a gust of wind apparently blew it from the helideck to the production deck below. One person sustained serious injuries.

Gulf of Mexico Region Injuries – 1999

Date:	05-Sep-1999	Operator:	Chevron U.S.A., Inc.
Investigation:	None	Activity:	Exploration
Lease:	G04481	Event(s):	Injury (1)
Area:	Main Pass	Operation:	Completion
Block:	77	Cause:	Human Error
Rig/Platform:	A/Noble Bill Jennings	Water Depth:	130 feet

Remarks: The rig was rigging up on a well and was removing a dry hole tree on the wellhead. A welder was assisting in setting the dry hole tree on the deck as it was being moved away from the wellhead. A bolt in a flange on the dry hole tree trapped the middle finger of his right hand between the deck and the flange and pinched off the end of his finger.

Date:	25-Sep-1999	Operator:	OXY U.S.A., Inc.
Investigation:	Pending	Activity:	Development
Lease:	G04065	Event(s):	Injury (3)/Fatality (1)/Pollution
Area:	Matagorda Island	Operation:	Motor Vessel
Block:	669	Cause:	Pending
Rig/Platform:	A	Water Depth:	97 feet

Remarks: A leg collapsed on a 3-leg lift boat. Three people were injured and one was missing. On October 4, the missing individual was presumed dead. This incident is under investigation by the U.S. Coast Guard.

Date:	03-Oct-1999	Operator:	BP Amoco Corporation
Investigation:	None	Activity:	Development
Lease:	G05825	Event(s):	Injury (1)
Area:	Mississippi Canyon	Operation:	Production
Block:	109	Cause:	Human Error
Rig/Platform:	A	Water Depth:	1,035 feet

Remarks: An Amoco production worker injured his back while opening a 4-inch block valve on the east diesel storage leg to equalize the diesel between the west and east diesel storage legs.

Gulf of Mexico Region Injuries – 1999

Date:	01-Nov-1999	Operator:	Freeport-McMoRan Sulphur, Inc.
Investigation:	None	Activity:	Development
Lease:	G09372	Event(s):	Injury (1)
Area:	Main Pass	Operation:	Production
Block:	299	Cause:	Equipment Failure
Rig/Platform:	PRD2RIG	Water Depth:	210 feet

Remarks: An employee was pressuring up the instrument air dryer after changing out the air filters. Once the air filter canisters were pressurized, the top of one canister blew off and struck the employee in the neck. He suffered a 7-inch laceration under his chin. The equipment failed due to a cracked wing nut.

Date:	09-Nov-1999	Operator:	Union Oil Company of California
Investigation:	None	Activity:	Exploration
Lease:	G01034	Event(s):	Injury (1)
Area:	Ship Shoal	Operation:	Drilling
Block:	266	Cause:	Human Error
Rig/Platform:	B	Water Depth:	180 feet

Remarks: While slipping a cable on the crane as preventative maintenance, an employee caught his right index finger in the "dead man wedge." It split his finger open.

Date:	16-Nov-1999	Operator:	Unocal Exploration Corporation
Investigation:	None	Activity:	Exploration
Lease:	G15778	Event(s):	Injury (1)
Area:	High Island	Operation:	Drilling
Block:	178	Cause:	Human Error
Rig/Platform:	Chiles Columbus	Water Depth:	52 feet

Remarks: Third party personnel attempted to help the rig crew guide the tongs out of the V-door. When the tongs were slightly lifted off of the rig floor, they slid toward the air hoist. The third party personnel, attempting to slow down the sliding tongs, mistakenly stepped between the angle iron and the tongs. He was pinched on the left foot between the tongs and the angle iron brace.

Gulf of Mexico Region Injuries – 1999

Date:	16-Nov-1999	Operator:	CXY Energy, Inc.
Investigation:	None	Activity:	Development
Lease:	00138	Event(s):	Fire/Injury (1)
Area:	West Delta	Operation:	Production
Block:	45	Cause:	Human Error
Rig/Platform:	A	Water Depth:	49 feet

Remarks: During the welding of a flange on the inlet piping of a production vessel, a flash fire occurred. One welder was burned.

Date:	30-Nov-1999	Operator:	Seneca Resources Corporation
Investigation:	None	Activity:	Development
Lease:	00367	Event(s):	Injury(1)
Area:	West Delta	Operation:	Production
Block:	32	Cause:	Human Error
Rig/Platform:	A	Water Depth:	63 feet

Remarks: A contract mechanic was replacing a valve cap on the third stage suction scrubber of the gas compressor. His grip on the valve cap slipped and he caught his ring in a pinch point and crushed his finger. He returned to restricted duty on December 1, 1999.

Date:	02-Dec-1999	Operator:	Apache Corporation
Investigation:	Pending	Activity:	Development
Lease:	G01194	Event(s):	Blowout/Injuries (3)
Area:	South Marsh Island	Operation:	Completion
Block:	58	Cause:	Pending
Rig/Platform:	A	Water Depth:	130 feet

Remarks: Well A-2 kicked while a snubbing unit crew was running a gravel pack assembly into the well. The well began blowing out uncontrolled with the gravel pack assembly in the BOP stack. All personnel were evacuated and the platform was shut in. The next day the well bridged over. This incident is under investigation by MMS.

Gulf of Mexico Region Injuries – 1999

Date:	05-Dec-1999	Operator:	Energy Resource Technology, Inc.
Investigation:	None	Activity:	Development
Lease:	G01984	Event(s):	Injury (1)/Helicopter Crash
Area:	Ship Shoal	Operation:	Production
Block:	225	Cause:	Equipment Failure
Rig/Platform:	N/A	Water Depth:	45 feet

Remarks: A helicopter stopped to drop off parts. Shortly after takeoff, the helicopter crashed into the Gulf. There were no passengers on board and only one pilot, who was picked up and sent to Terrebonne General Hospital in Houma. The pilot had two broken ribs.

Date:	09-Dec-1999	Operator:	BP Amoco Corporation
Investigation:	Complete	Activity:	Development/Production
Lease:	G00987	Event(s):	Injury (1)
Area:	Eugene Island	Operation:	Drilling
Block:	273	Cause:	Human Error
Rig/Platform:	C/Diamond Ocean King	Water Depth:	183 feet

Remarks: A drilling rig roustabout was helping a crane operator and a roustabout with a routine operation; the rig crane was being used to offload several changeover subs onto a drill pipe rack in order to obtain sub measurements. The second sub was lifted clear of the basket and raised to a height of approximately 11 feet to clear the rig's steel storage rack of assorted piping and angle iron. The height caused the roustabout to have trouble controlling the load with a limited length of tag line; this, along with the crane operator swinging the boom, created a pendulum effect with the load. The roustabout released the changeover sub tagline. The swinging change over sub struck a portion of the cantilever pinning platform, disengaging the sling hook out of one end of the sub. The employee was struck by the 400-lb, 3½-foot long sub on his left leg just behind the knee as he was attempting to move and stand clear of the uncontrolled released sub. First aid was rendered onsite immediately and he was air evacuated to Lake Charles, Memorial Hospital. He suffered a multiple fracture to his lower left leg, which was amputated due to medical complications.

Gulf of Mexico Region Injuries – 1999

Date:	31-Dec-1999	Operator:	Coastal Oil & Gas Corporation
Investigation:	None	Activity:	Development
Lease:	G13342	Event(s):	Injury (1)
Area:	High Island	Operation:	Production
Block:	A 263	Cause:	Human Error/Slip/Trip/Fall
Rig/Platform:	B	Water Depth:	158 feet

Remarks: The employee was preparing to offload a grocery box from a boat. While walking across the upper deck, he stepped on a piece of loose grating left from previous construction. The grating flipped and the employee fell approximately 25 feet to the next level beside the gas compressor. The employee sustained no broken bones or teeth but required stitches before being released on the same day.

Gulf of Mexico Region

Crane Incidents – 1999

Date:	22-Feb-1999	Operator:	Panaco, Inc.
Investigation:	None	Activity:	Development
Lease:	G06280	Event(s):	Crane Incident
Area:	Ewing Bank	Operation:	Completion
Block:	165	Cause:	Equipment Failure
Rig/Platform:	A/Pride 1004E	Water Depth:	863 feet

Remarks: The splerter socket on the end of the pendent line broke where it pins to the top of the boom. Damaged property includes: braces inside the supply boat engine room, coil tubing reel, various crane parts including the boom, and hand rails on two of the platform decks. A possibly defective splerter socket mold on the boom cable caused the incident.

Date:	02-Mar-1999	Operator:	Vastar Resources, Inc.
Investigation:	None	Activity:	Exploration
Lease:	G01608	Event(s):	Crane Incident
Area:	South Pass	Operation:	Drilling
Block:	60	Cause:	Equipment Failure
Rig/Platform:	D	Water Depth:	210 feet

Remarks: A "bull frog" temporary crane was being used to offload the H&P 108 rig crane from the platform onto the M/V Roe River. The crane pedestal was being lowered onto the M/V; when the lift was 2½ feet from the boat deck, the boom of crane broke and bent severely.

Gulf of Mexico Region Crane Incidents – 1999

Date:	29-Apr-1999	Operator:	Shell Offshore, Inc.
Investigation:	Complete	Activity:	Exploration
Lease:	G11455	Event(s):	Crane Incident
Area:	Grand Banks	Operation:	Drilling
Block:	128	Cause:	Human Error/Weather Related
Rig/Platform:	A/H&P 203	Water Depth:	705 feet

Remarks: Crane operations were suspended due to severe weather and resumed after the conditions improved significantly. The personnel basket was attached to the auxiliary line when wind gusts rapidly increased. The crane operator immediately instructed the personnel to get out of the basket and disconnect the auxiliary line from the basket to secure the crane boom in the boom cradle. The boom was at an extremely high angle and was facing directly into the wind when the personnel basket was disconnected. As the boom hoist was activated to lower the boom, strong winds apparently held the boom in a static position, allowing slack to develop on the boom hoist drum. Unaware of the movement of the boom, the crane operator continued to boom down. An excess of boom cable unspooled and began to reverse spool on the boom hoist drum, causing the boom to be pulled back and bent over the gantry located above the crane cab.

Date:	26-May-1999	Operator:	Chevron U.S.A., Inc.
Investigation:	None	Activity:	Exploration
Lease:	G01101	Event(s):	Injury (1)/Crane Incident
Area:	West Delta	Operation:	Drilling
Block:	117	Cause:	Human Error
Rig/Platform:	R&B George Galloway	Water Depth:	300 feet

Remarks: The crane operator was moving a bundle of drill pipes when he struck a 3-foot section of handrail. The section of handrail was knocked out of its mounting sockets and fell approximately 20 feet to the main deck below, striking one of the rig's personnel on the shoulder. The blow knocked him down and he struck a welding machine with his head.

Gulf of Mexico Region Crane Incidents – 1999

Date:	15-Nov-1999	Operator:	Elf Exploration, Inc.
Investigation:	Complete	Activity:	Exploration
Lease:	G10942	Event(s):	Crane Incident
Area:	Viosca Knoll	Operation:	Drilling
Block:	823	Cause:	Equipment Failure/Human Error
Rig/Platform:	H&P 106	Water Depth:	1,130 feet

Remarks: The night crane operator came on duty for shift change. The day shift informed him they had just offloaded a nitrogen tank weighing 22,000 pounds. They said there were two lifts left, a nitrogen tank weighing 22,000 pounds and a pump skid weighing 15,000 pounds. He slacked off the nitrogen tank and a roustabout disconnected the slings. He lowered the big block to the deck of the M/V Midnight Fox and the deckhands hooked up the pump skid. The crane operator started to take the slack out of the lift when he felt the crane shift and move forward. He came out of the crane and saw the crane had become partially disconnected from the base. The crane was inspected and secured to prevent further damage.

Date:	16-Dec-1999	Operator:	Newfield Exploration Company
Investigation:	None	Activity:	Exploration
Lease:	G05372	Event(s):	Crane Incident
Area:	East Cameron	Operation:	Drilling
Block:	151	Cause:	Equipment Failure
Rig/Platform:	Pride Louisiana	Water Depth:	80 feet

Remarks: Personnel were offloading 5½-inch casing; while booming down, the operator engaged the brake. The boom continued down and then fell. Pipe dropped on the boat deck. This incident is under investigation by the U.S. Coast Guard.

Gulf of Mexico Region

Significant Pollution Events (>50bbls) – 1999

Date:	23-Jan-1999	Operator:	Snyder Oil Corporation
Investigation:	None	Event(s):	Collision/Pollution
Lease:	G07827	Amount:	105 bbl Diesel
Area:	Main Pass	Operation:	Motor Vessel
Block:	259	Cause:	Weather
Rig/Platform:	A	Water Depth:	392 feet

Remarks: While attempting to offload pallet material to the platform, the M/V Bolling Tide was pushed into the platform by 6-8 foot waves. The boat collided with the boat landing and a diesel fuel tank on the vessel ruptured, spilling 4420 gallons of diesel; heavy seas dispersed the spill and the spill response was initiated.

Date:	23-Jul-1999	Operator:	Equilon Pipeline Company LLC (on Seashell Pipeline right-of-way)
Investigation:	Pending	Event(s):	Pipeline Damage/Pollution
Lease:	G08515 right-of-way	Amount:	3,189 bbl Crude Oil (preliminary estimate pending investigation completion)
Area:	Ship Shoal	Operation:	Pipeline
Block:	241	Cause:	Human Error/External Damage to Pipeline
Segment:	6462	Water Depth:	133 feet

Remarks: A jack-up barge was hired to set a quarters building on Platform A. While setting its legs on the seafloor, it is believed the barge set its legs on the Cougar pipeline and damaged it.

Date:	10-Nov-1999	Operator:	Apache Oil Corporation
Investigation:	None	Event(s):	Pollution
Lease:	G05646	Amount:	360 bbl Completion Fluid
Area:	South Timbalier	Operation:	Workover
Block:	295	Cause:	Human Error
Rig/Platform:	A	Water Depth:	284 feet

Remarks: A deckhand on a M/V failed to close a valve on a 1,000 bbl storage tank prior to lowering the transfer line, causing the release.

Gulf of Mexico Region

Pipeline Events – 1999

Date:	23-Feb-1999	Operator:	Mariner Energy, Inc.
Investigation:	None	Event(s):	Pipeline Damage
Lease:	G13376	Amount:	None
Area:	Garden Banks	Operation:	Pipeline
Block:	323	Cause:	Human Error
Segment(s):	11939, 11940	Water Depth:	700 feet

Remarks: Amerada Hess bottom towed across Garden Banks 323 on December 30, 1998. Mariner attempted to commission the pipelines on February 23. The pipelines section received a fax on March 4 about problems attempting to de-water the pipelines. They did not hold pressure. Damage was also done to the umbilical (control) lines.

Date:	06-May-1999	Operator:	PennzEnergy Exploration and Production, LLC
Investigation:	None	Event(s):	Pipeline Leak/Pollution
Lease:	G12355	Amount:	3.6 bbl Oil
Area:	Ship Shoal	Operation:	Pipeline
Block:	178	Cause:	Leak
Segment:	1268	Water Depth:	80 feet

Remarks: A 6" Sleeping Turtle pipeline developed a leak near a side tap, which was close to a tie-in. A diver discovered a shrimp trawl over the side tap valve. Approximate pollution was 3.6 bbls.

Gulf of Mexico Region Pipeline Events – 1999

Date:	31-May-1999	Operator:	Chevron U.S.A., Inc.
Investigation:	None	Event(s):	Pipeline Leak/Pollution
Lease:	00392	Amount:	5 bbl Oil
Area:	Grand Isle	Operation:	Pipeline
Block:	37	Cause:	Leak
Segment:	3584	Water Depth:	10 feet

Remarks: A leak developed in a 10" low pressure line from GI 37 "Romero" to shore. Approximately 5 bbls of oil spilled from the pipeline in state waters. A clamp was installed over the leak area. A stand-up test was done at 240 psig for one hour and no leaks were detected. The line was put back in service the same day.

Date:	23-Jul-1999	Operator:	Equilon Pipeline Company LLC (on Seashell Pipeline right-of-way)
Investigation:	Pending	Event(s):	Pipeline Damage/Pollution
Lease:	G08515 right-of-way	Amount:	3189 bbl Crude Oil (preliminary estimate pending investigation completion)
Area:	Ship Shoal	Operation:	Pipeline
Block:	241	Cause:	Human Error/External Damage to Pipeline
Segment:	6462	Water Depth:	133 feet

Remarks: A jack-up barge was hired to set a quarters building on Platform A. While setting its legs on the seafloor, it is believed the barge set its legs on the Cougar pipeline and damaged it.

Date:	04-Aug-1999	Operator:	British Borneo Offshore, Inc.
Investigation:	None	Event(s):	Pipeline Leak/Pollution
Lease:	G08005	Amount:	5.95 bbl Hydraulic
Area:	Green Canyon	Operation:	Pipeline
Block:	253	Cause:	Equipment Failure
Segment:		Water Depth:	1,000 feet

Remarks: A hydraulic hose on an underwater pipeline system leaked.

Gulf of Mexico Region Pipeline Events – 1999

Date:	12-Aug-1999	Operator:	Vastar Offshore, Inc.
Investigation:	None	Event(s):	Pipeline Leak/Pollution
Lease:	00244	Amount:	None
Area:	West Cameron	Operation:	Pipeline
Block:	71	Cause:	Equipment Failure
Segment:	2714	Water Depth:	38 feet

Remarks: A departing pipeline developed a small leak south of Platform D.

Date:	20-Sep-1999	Operator:	Vastar Resources, Inc.
Investigation:	Complete	Event(s):	Collision/Pipeline Damage
Lease:	G02640	Amount:	None
Area:	Mississippi Canyon	Operation:	Production/Motor Vessel
Block:	148	Cause:	Weather Related
Rig/Platform:	A	Water Depth:	651 feet

Remarks: The tugboat Ellen Bouchard was towing an empty Bouchard Transportaion Company barge (Barge B #195). The first mate was at the helm of the tugboat when, due to 20-knot winds, the barge collided with the south end of a production platform. The barge rolled into the east side of the platform, damaging a barge bumper and a 3-inch condensate pipeline (MMS segment #9509). The pipeline was taken out of service and a pig was pushed through it with natural gas in order to displace the condensate.

This page was intentionally left blank.

Pacific Region

Injuries – 1999

Date:	02-Jan-1999	Operator:	Chevron U.S.A. Inc.
Investigation:	None	Activity:	Development
Lease:	P00315	Event(s):	Injury (1)
Area:	6A	Operation:	Preparing for plug and abandonment
Block:	5585	Cause:	Human Error
Rig/Platform:	Harvest	Water Depth:	675 feet

Remarks: An employee was moving stands to brace catwalk and strained his lower back on Pool Rig 411.

Date:	25-Sep-1999	Operator:	Nuevo Energy Company
Investigation:	None	Activity:	Development
Lease:	P00241	Event(s):	Gas Kick
Area:	6B	Operation:	Workover
Block:	5165	Cause:	Human Error
Rig/Platform:	B	Water Depth:	200 feet

Remarks: A gas kick was caused by a swabbing effect while coming out of the hole with a cupped packer tool. A floor hand inhaled a gas/water/oil mixture and was sent in for treatment; he was released for full time duty the same day.

Pacific Region

Pipeline Events – 1999

Date:	05-Jun-1999	Operator:	Aera Energy LLC
Investigation:	None	Event(s):	Pipeline Leak/Pollution
Lease:	P00301	Amount:	10 bbl Oil
Area:	6C	Operation:	Production/Pipeline
Block:	3336	Cause:	Leak
Rig/Platform:	Eureka	Water Depth:	700 feet

Remarks: The 12" bulk production line from Platform Eureka to Platform Ellen/Elly developed a leak and was shut-in. The leak was verified by a pressure test the next day. Plans are to run an ROV to locate the leak and determine a course of remedial action. The spill volume was estimated to have occurred over a period of several months. After consulting the U.S. Coast Guard on August 18, the preliminary spill volume was revised to 10 bbls.

Appendix

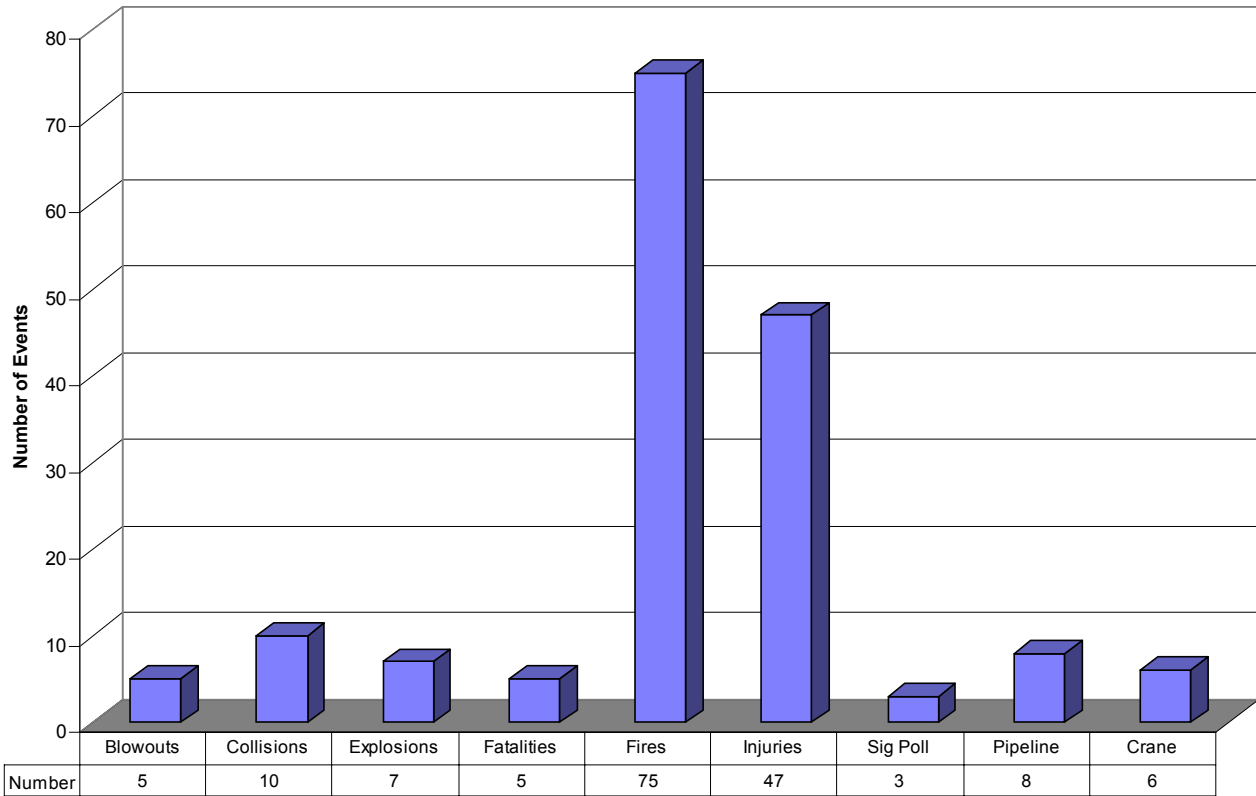
Graphical Summary Of OCS Incident Data 1999

OCS Events by Category: 1995-2000*

	1995	1996	1997	1998	1999	2000*	Average
Blowouts	1	4	5	7	5	5	4.5
Collisions	6	5	10	5	10	5	6.8
Explosions	0	8	10	4	7	1	5.0
Fatalities	8	10	11	14	5	1	8.2
Fires	42	87	125	90	75	45	77.3
Injuries	31	62	83	66	47	33	53.7
Sig Poll	4	4	4	5	2	7	4.3
Pipeline	4	7	13	2	9	5	6.7
Crane	1	3	4	3	6	8	4.2
Total	97	190	265	196	166	110	170.7

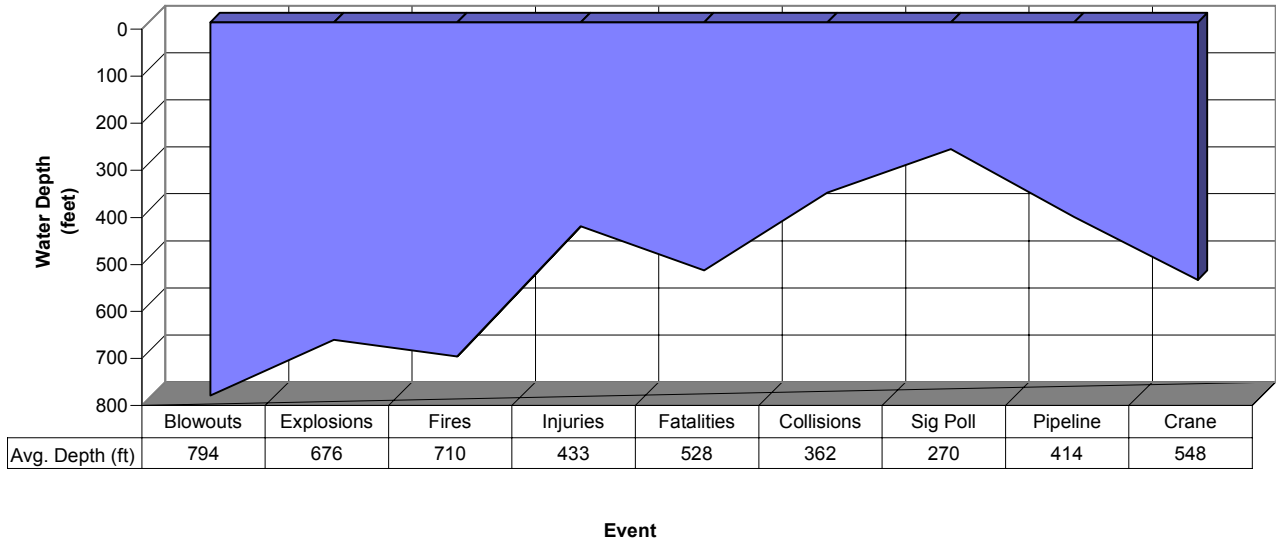
*As of October 22, 2000

Number of OCS Events 1999

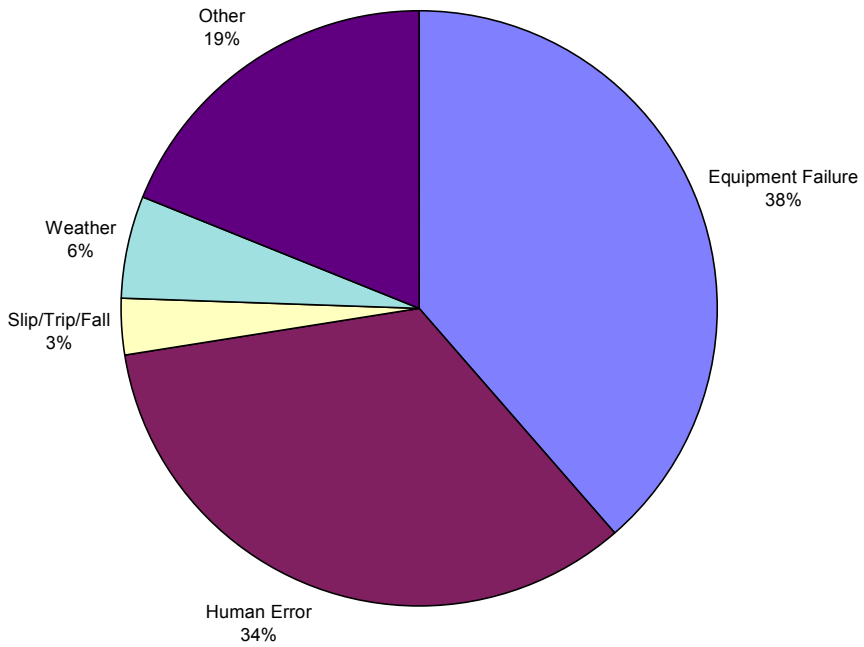


Note: For the injuries data, 47 refers to the total number of those injured, not the number of injury-causing incidents.

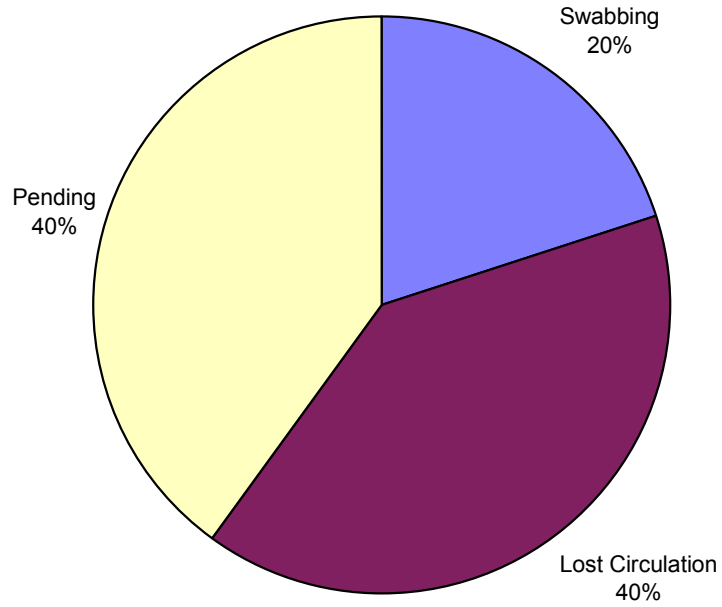
Average Depth of OCS Events 1999



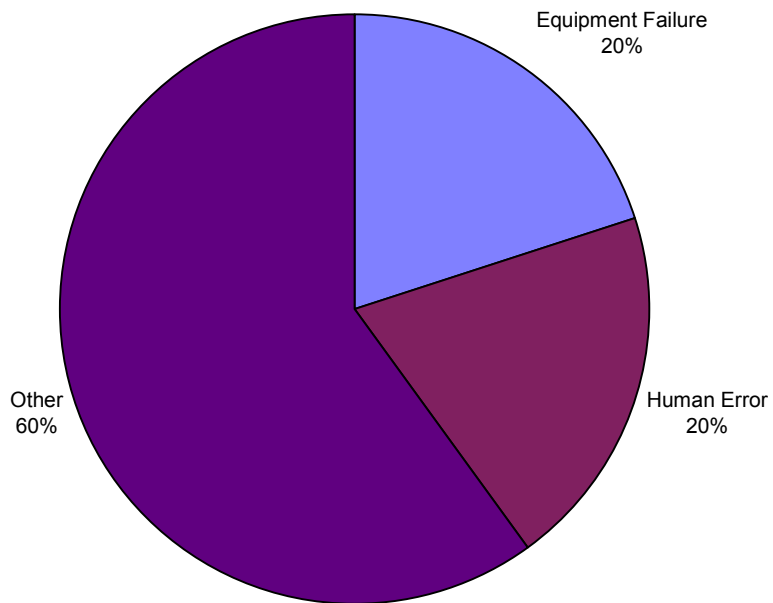
Overall Causes of OCS Incidents 1999



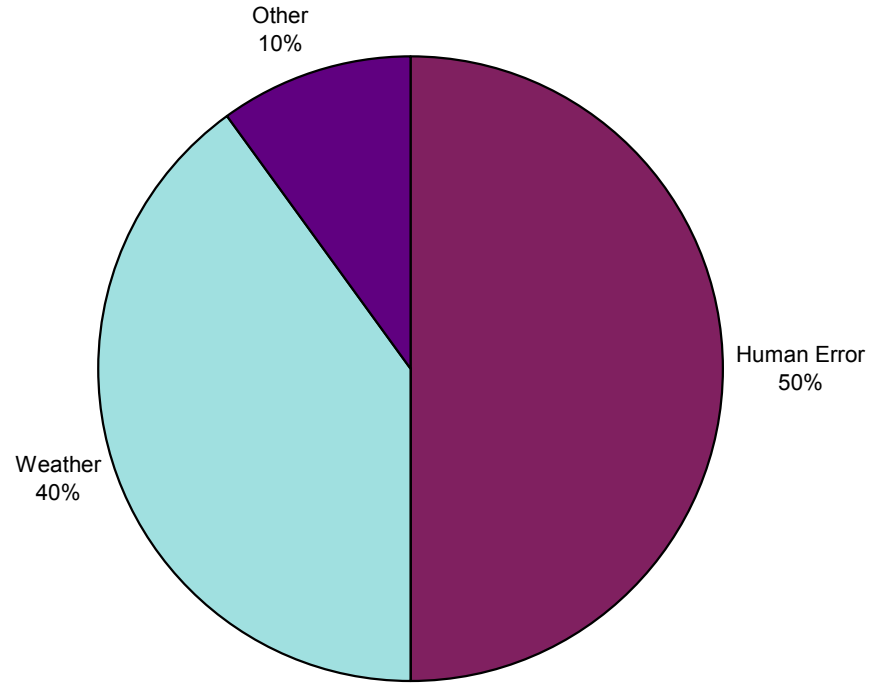
Causes of OCS Blowouts 1999



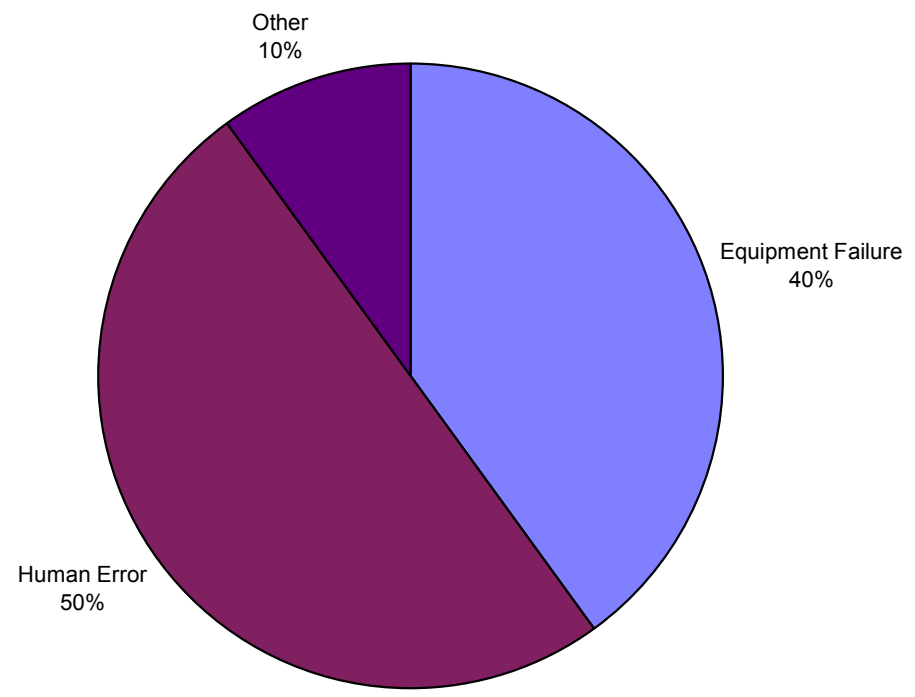
Causes of OCS Fatalities 1999



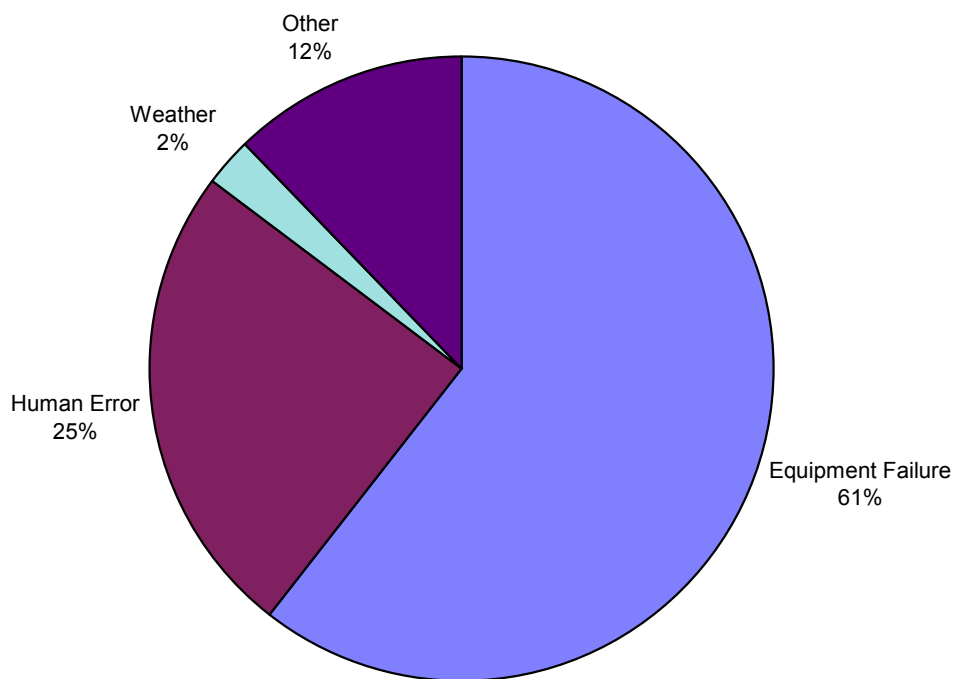
Causes of OCS Collisions 1999



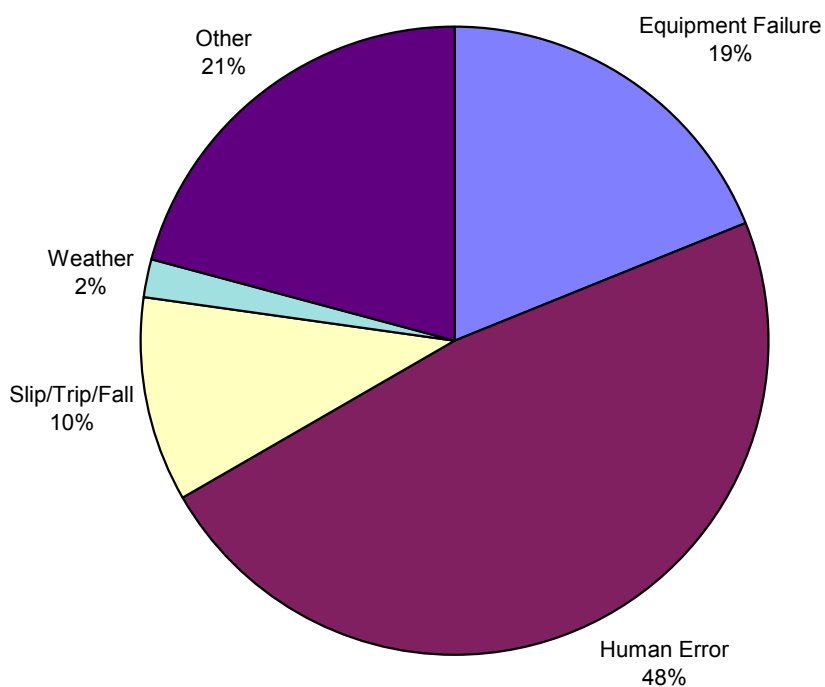
Causes of OCS Explosions 1999



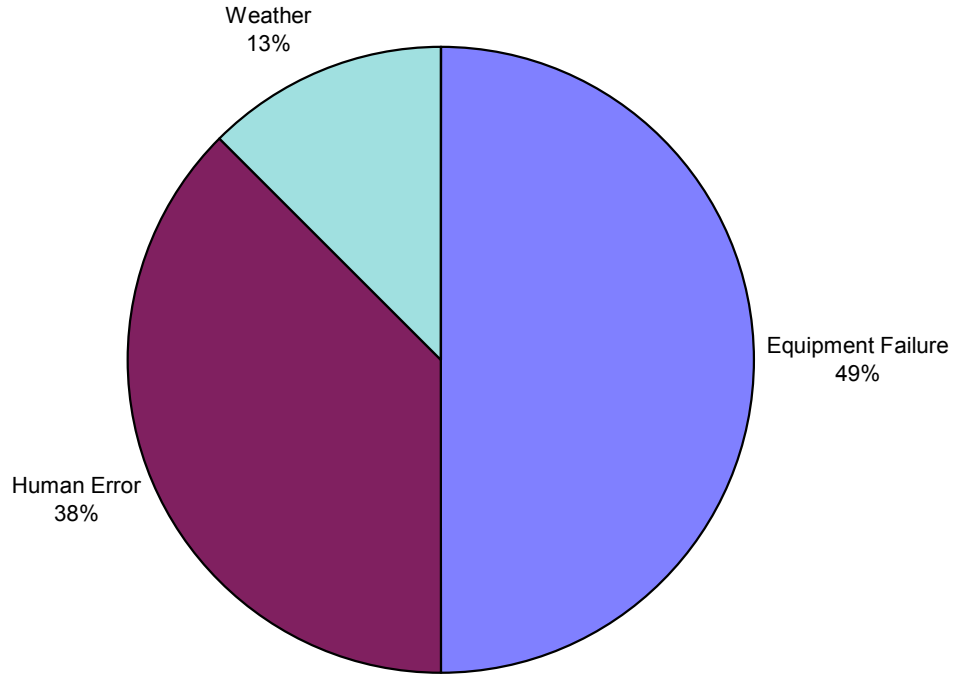
Causes of OCS Fires 1999



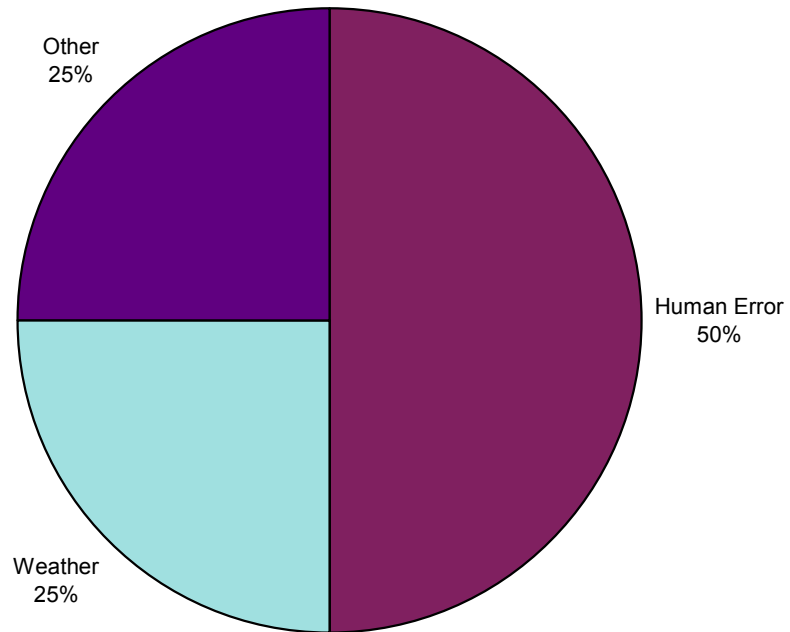
Causes of OCS Injuries 1999



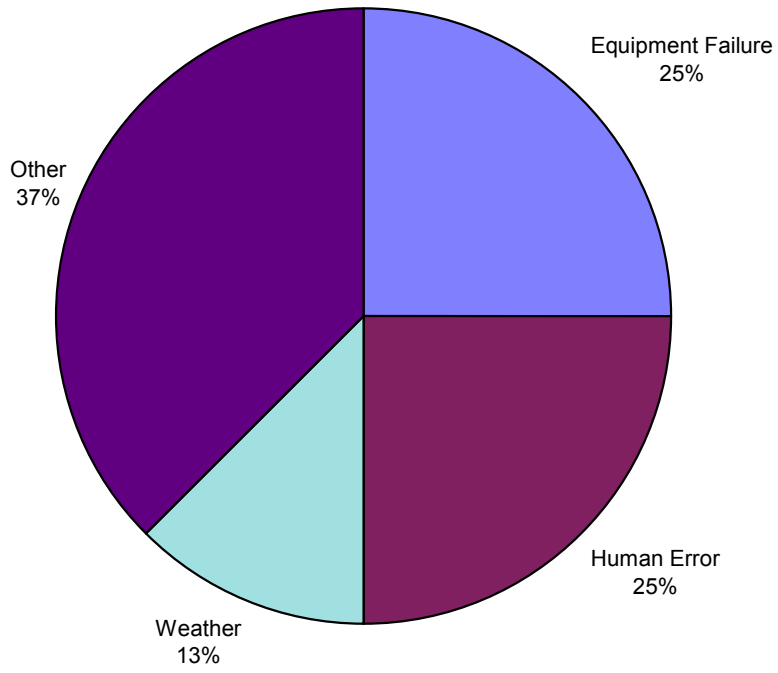
Causes of OCS Crane Incidents 1999



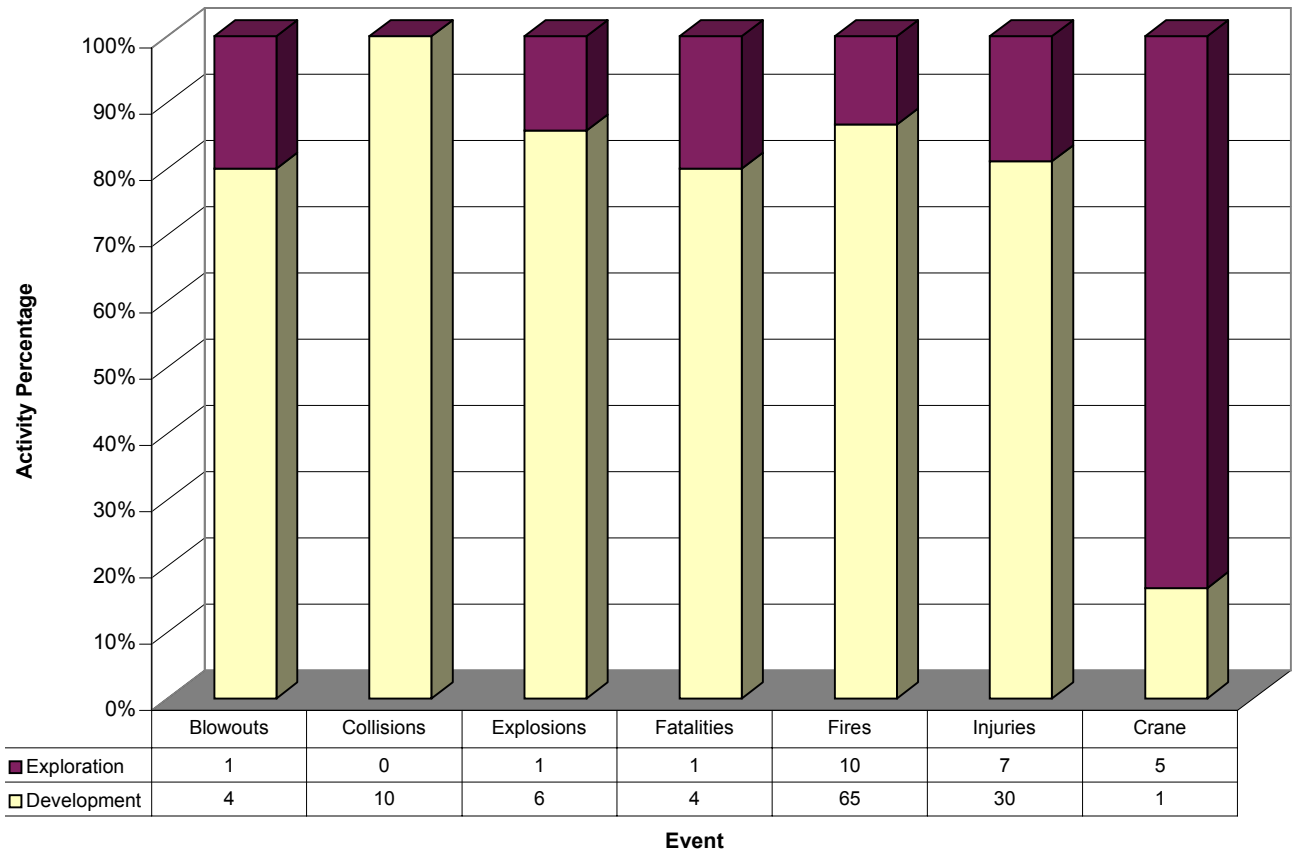
Causes of OCS Significant Pollution Events 1999



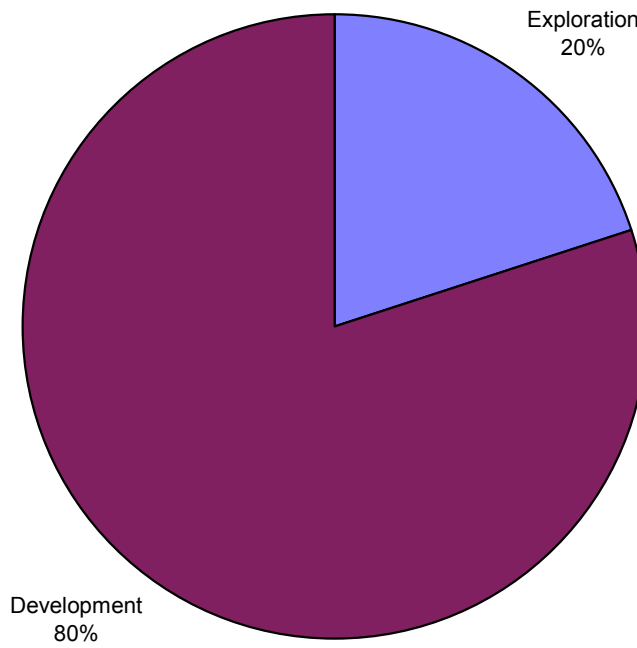
Causes of OCS Pipeline Events 1999



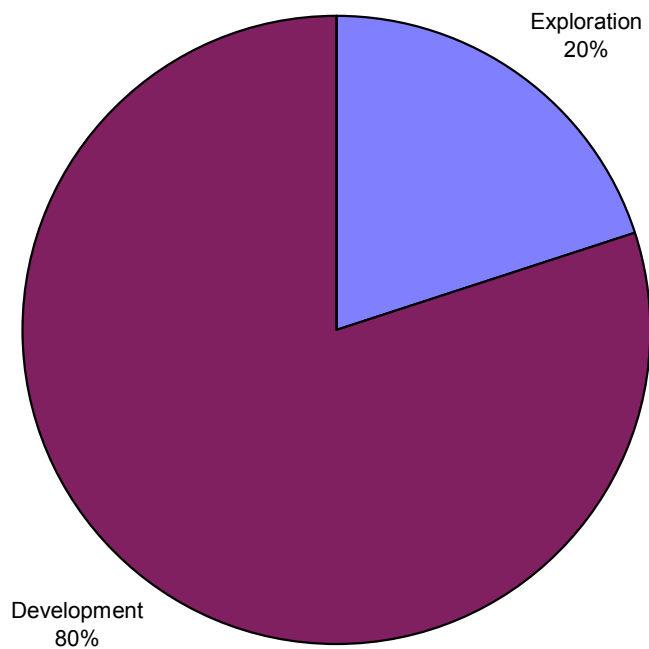
Activity During OCS Incidents 1999 (Excluding Pipeline and Significant Pollution Incidents)



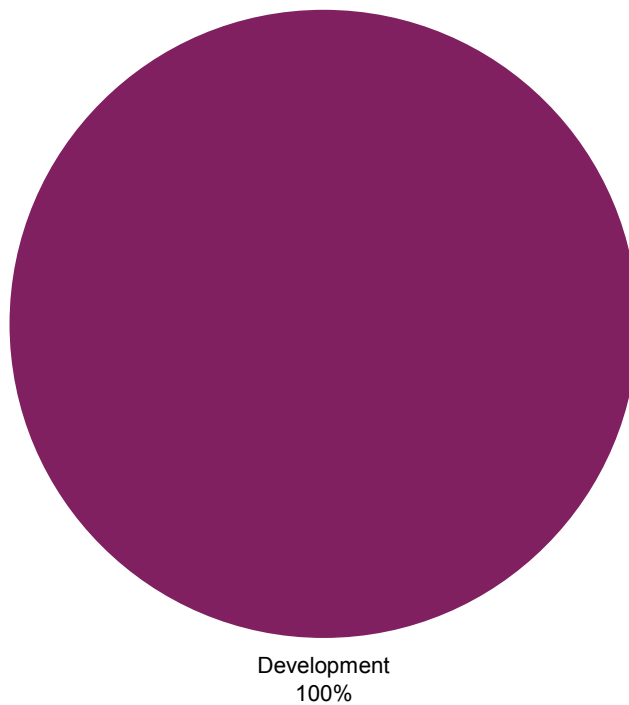
Activity During OCS Blowouts 1999



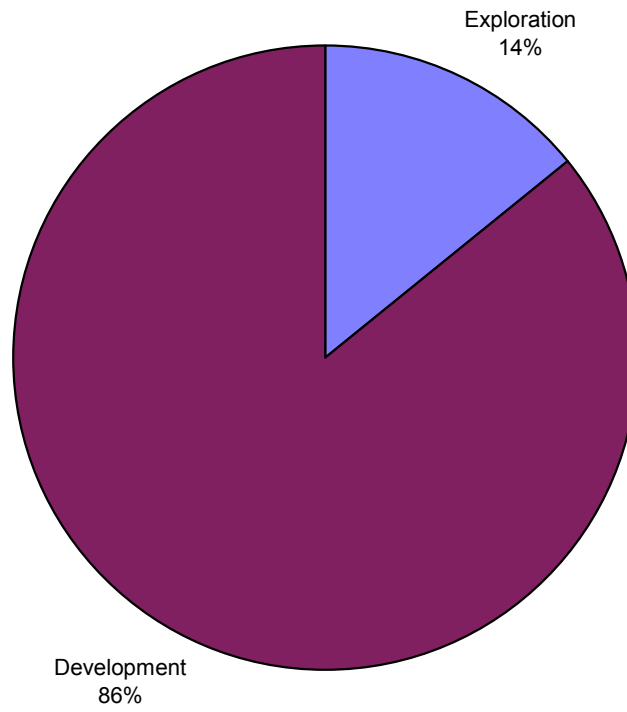
Activity During OCS Fatalities 1999



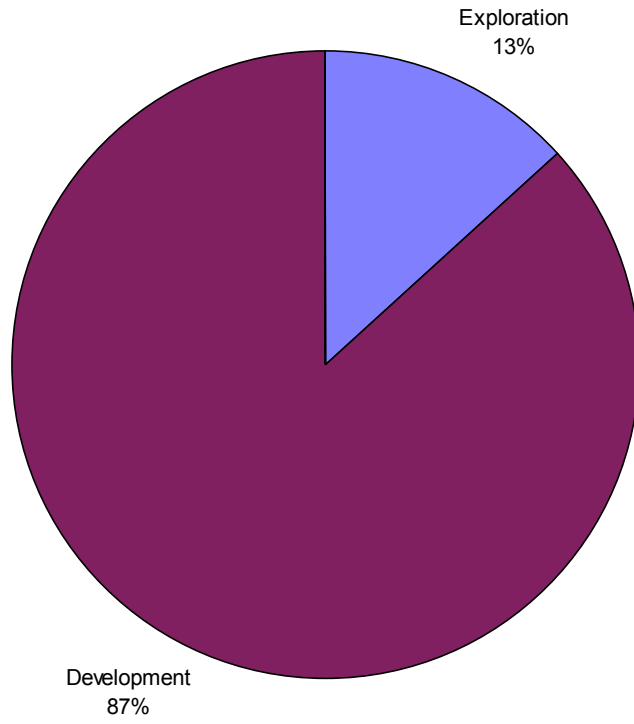
Activity During OCS Collisions 1999



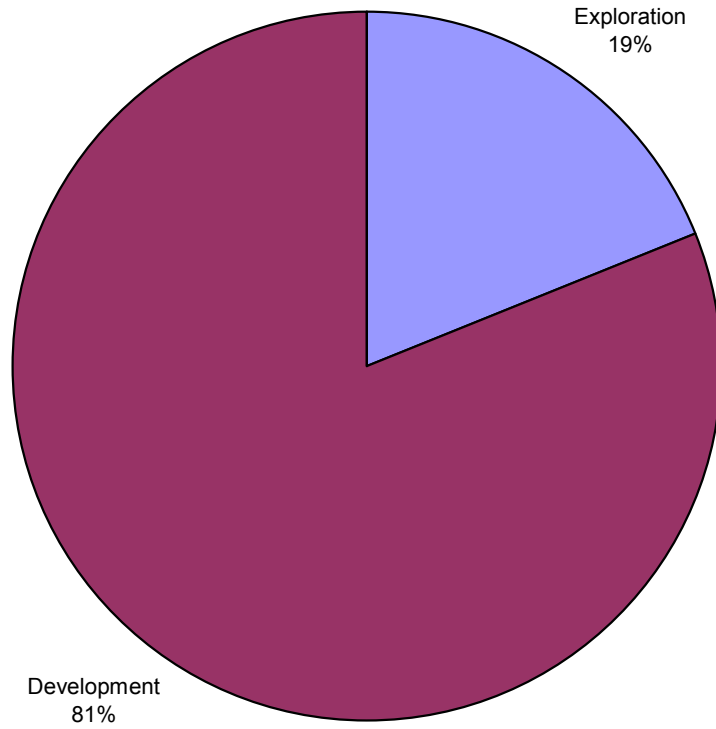
Activity During OCS Explosions 1999



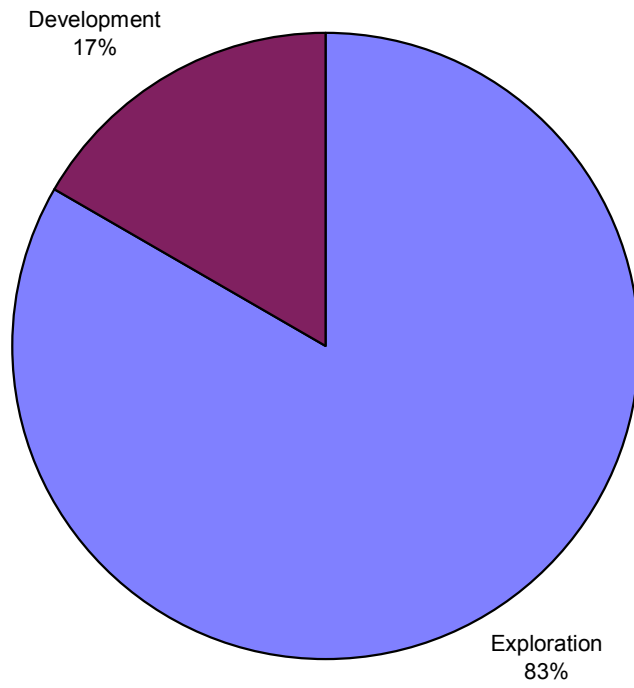
Activity During OCS Fires 1999



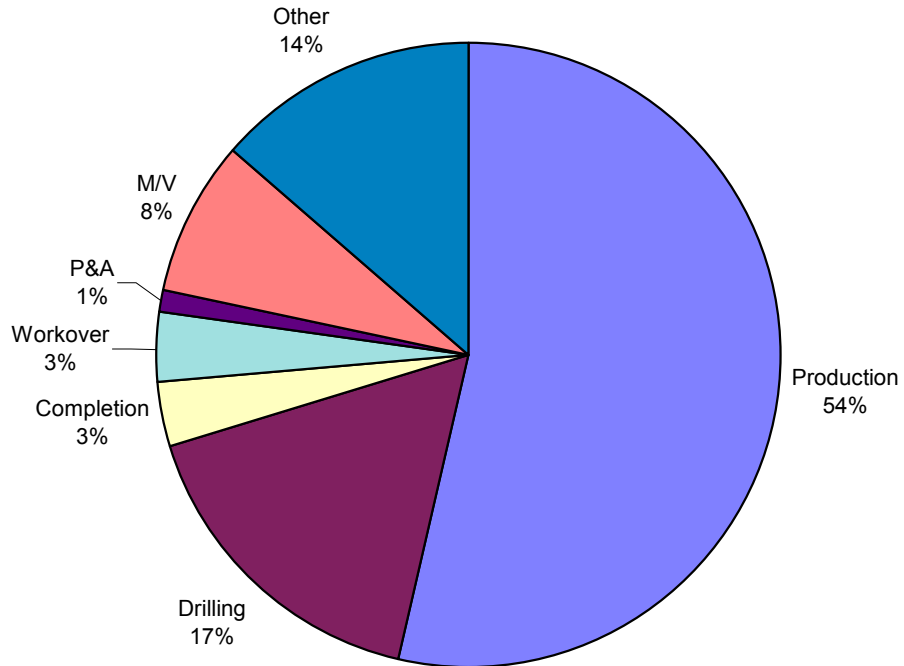
Activity During OCS Injuries 1999



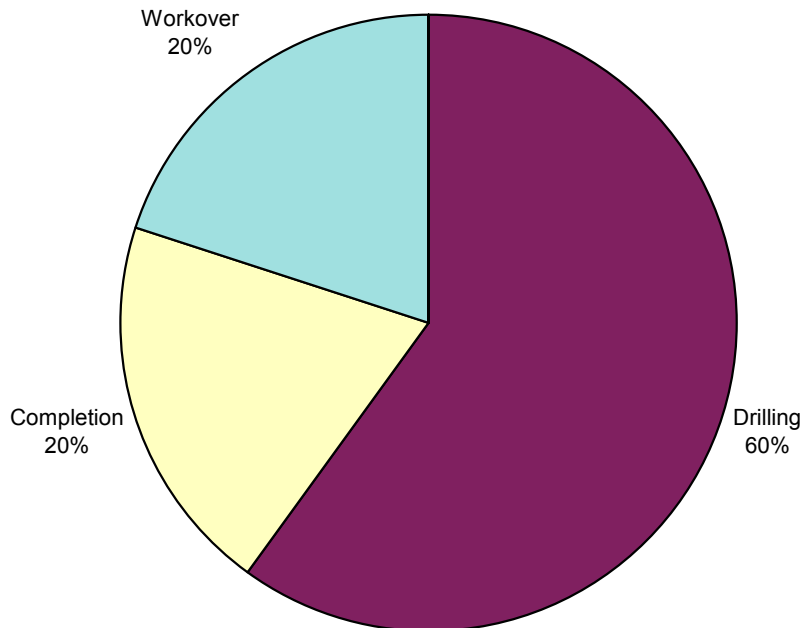
Activity During OCS Crane Incidents 1999



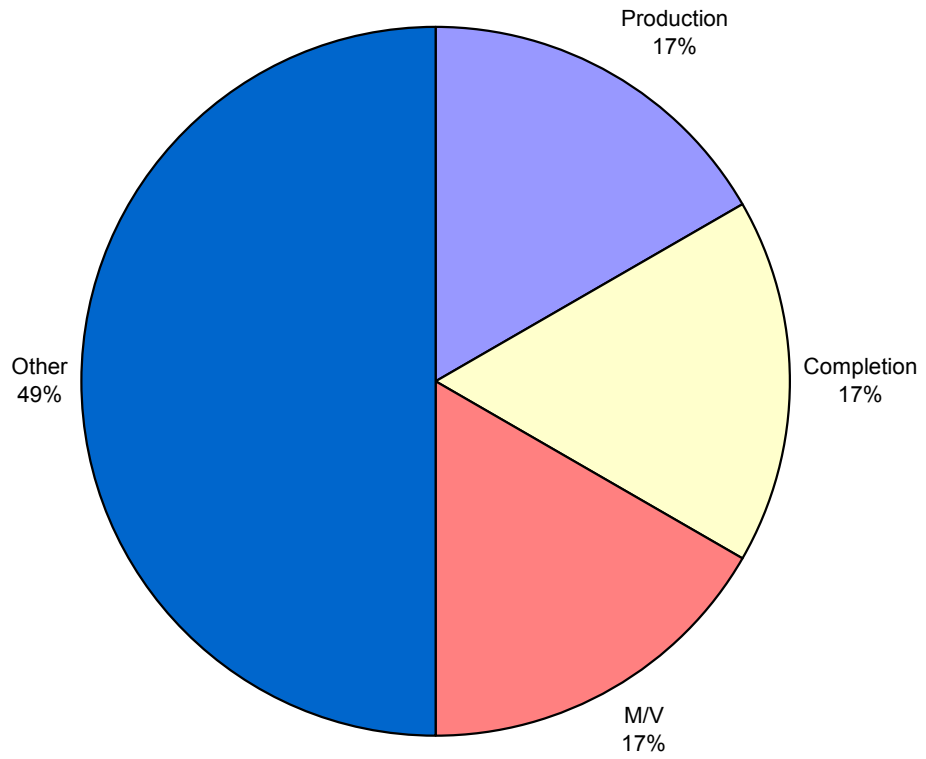
Operations During OCS Incidents 1999



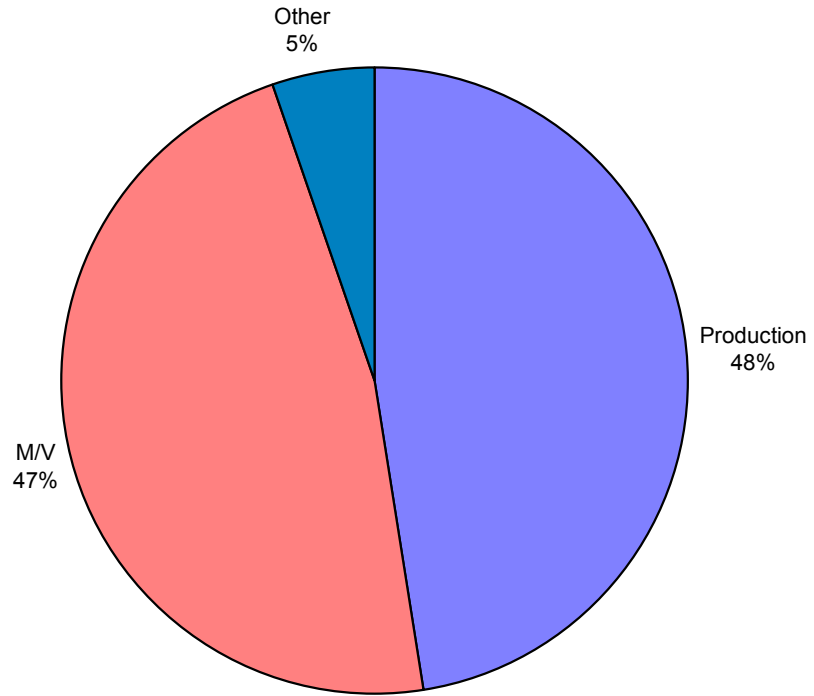
Operations During OCS Blowouts 1999



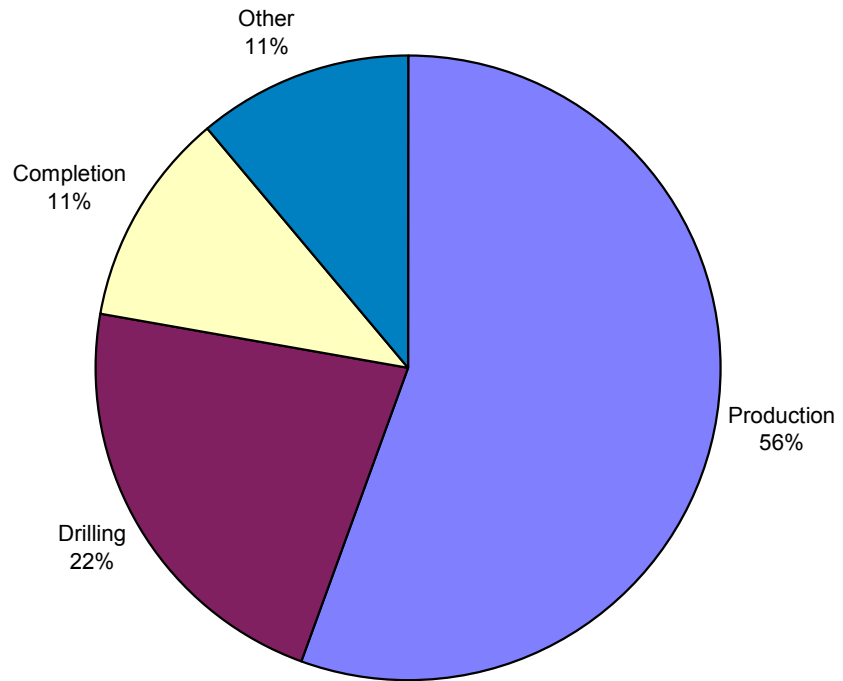
Operations During OCS Fatalities 1999



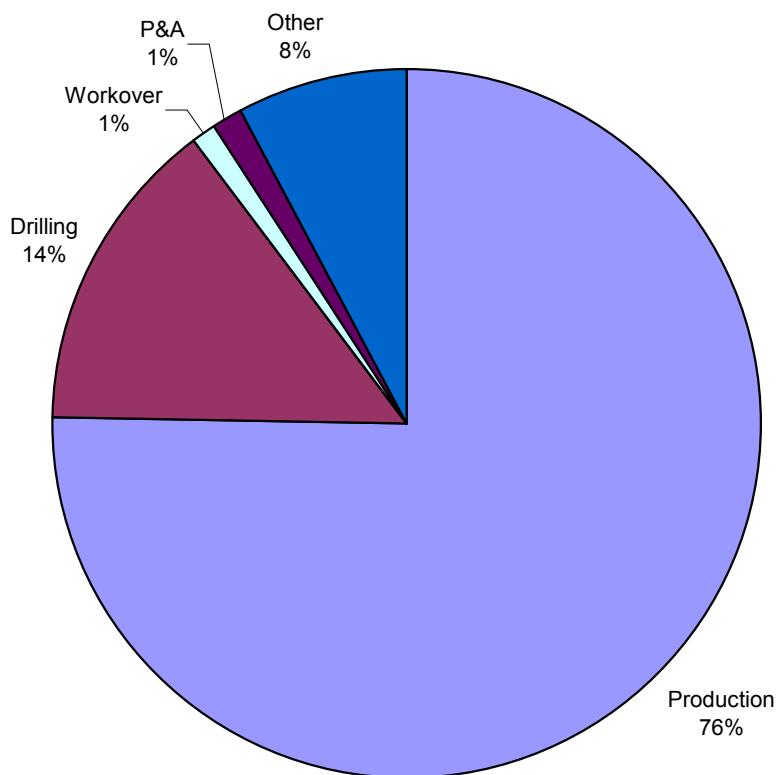
Operations During OCS Collisions 1999



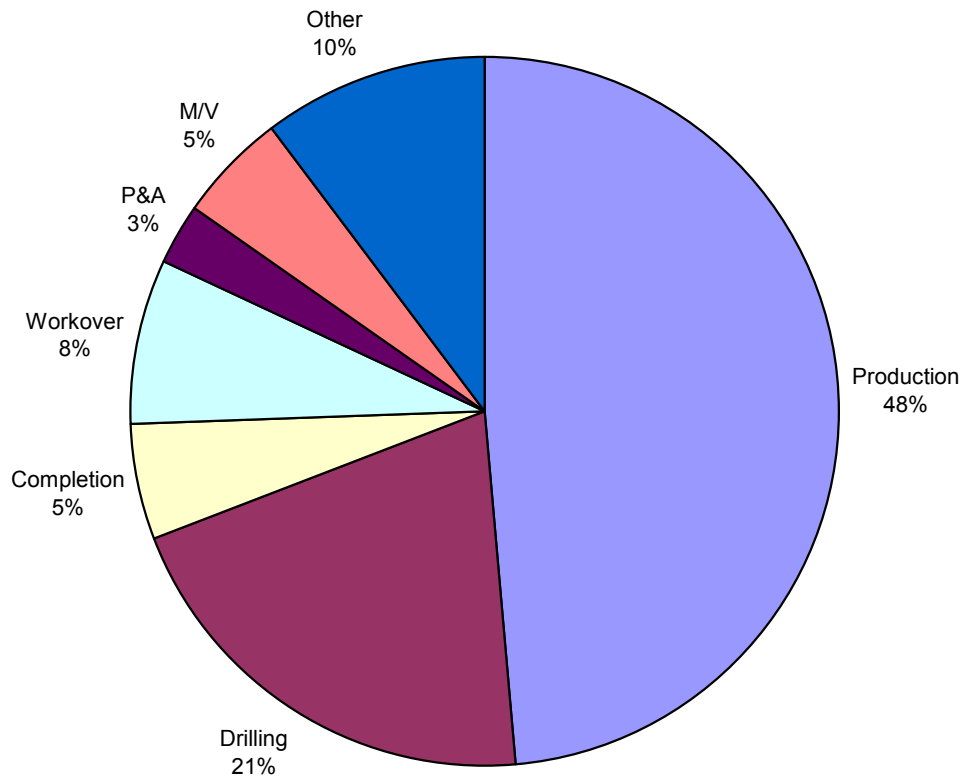
Operations During OCS Explosions 1999



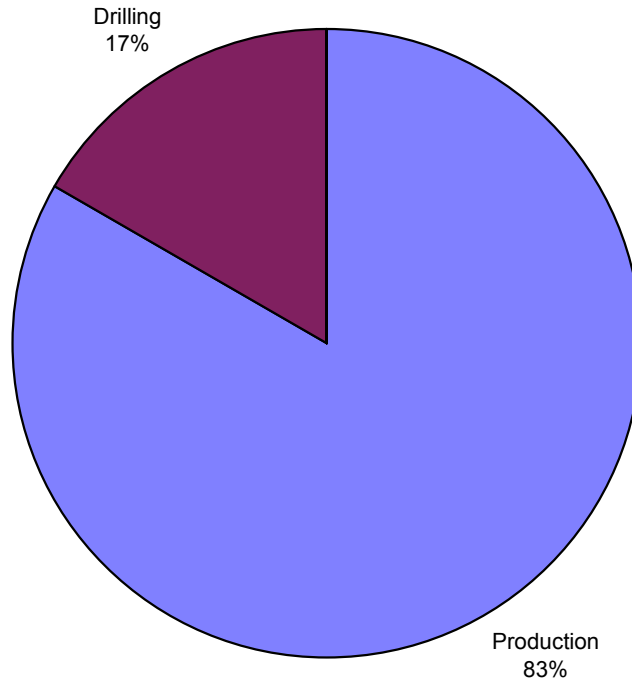
Operations During OCS Fires 1999



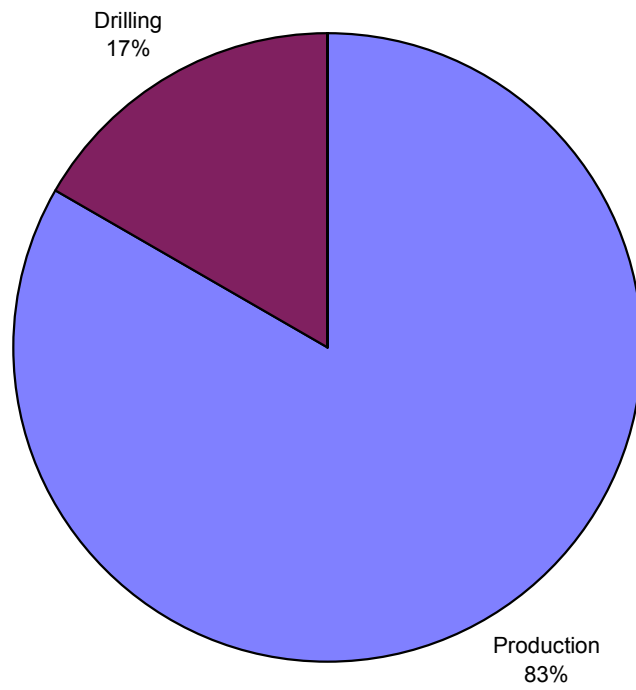
Operations During OCS Injuries 1999



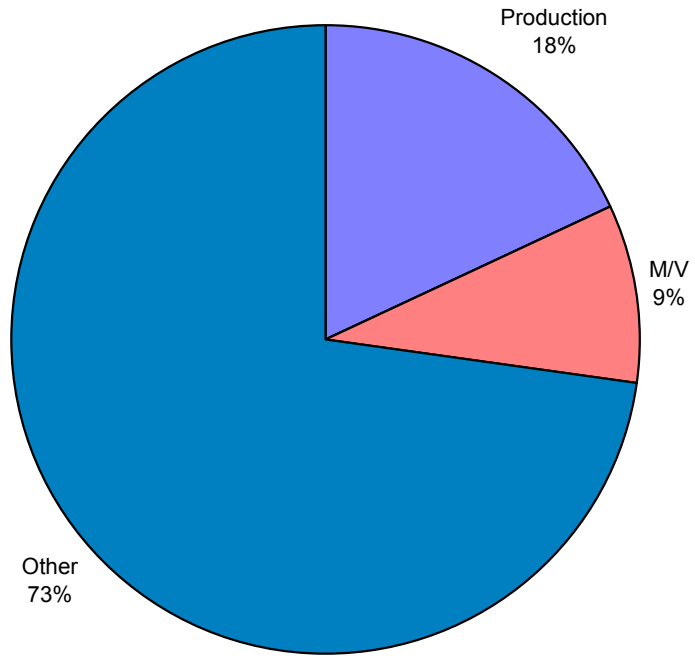
Operations During OCS Crane Incidents 1999



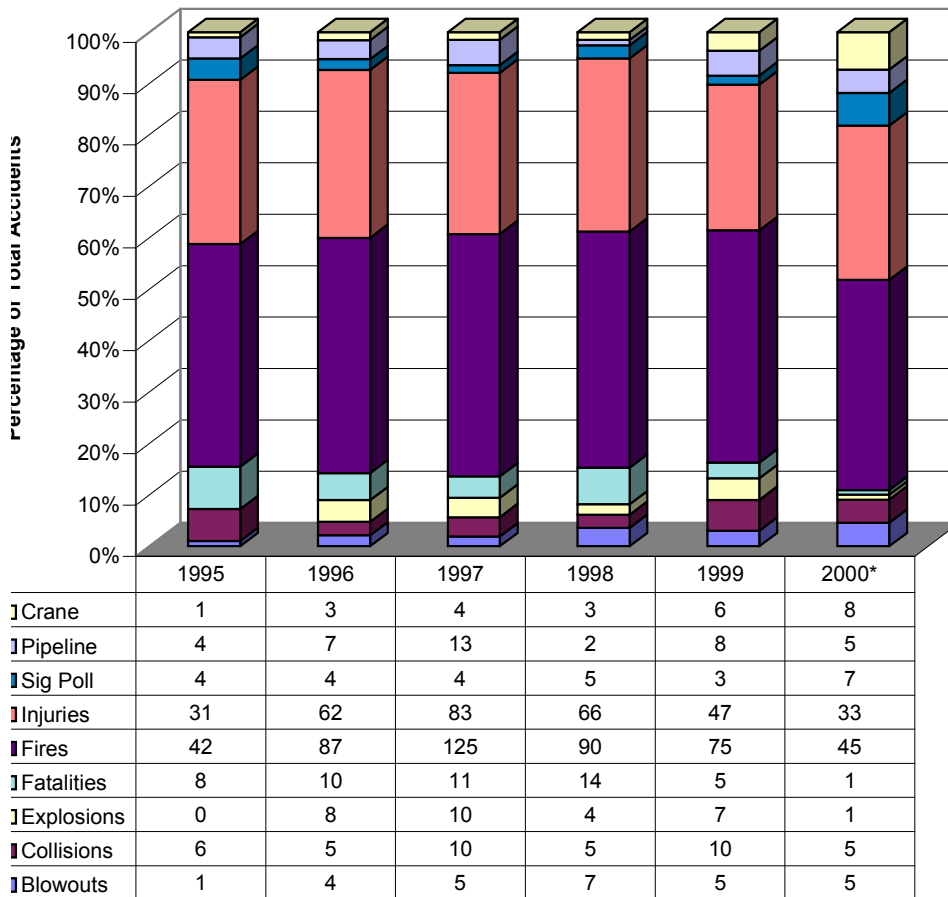
Operations During OCS Significant Pollution Events 1999



Operations During OCS Pipeline Events 1999



Percentage of Total OCS Incidents 1995-2000

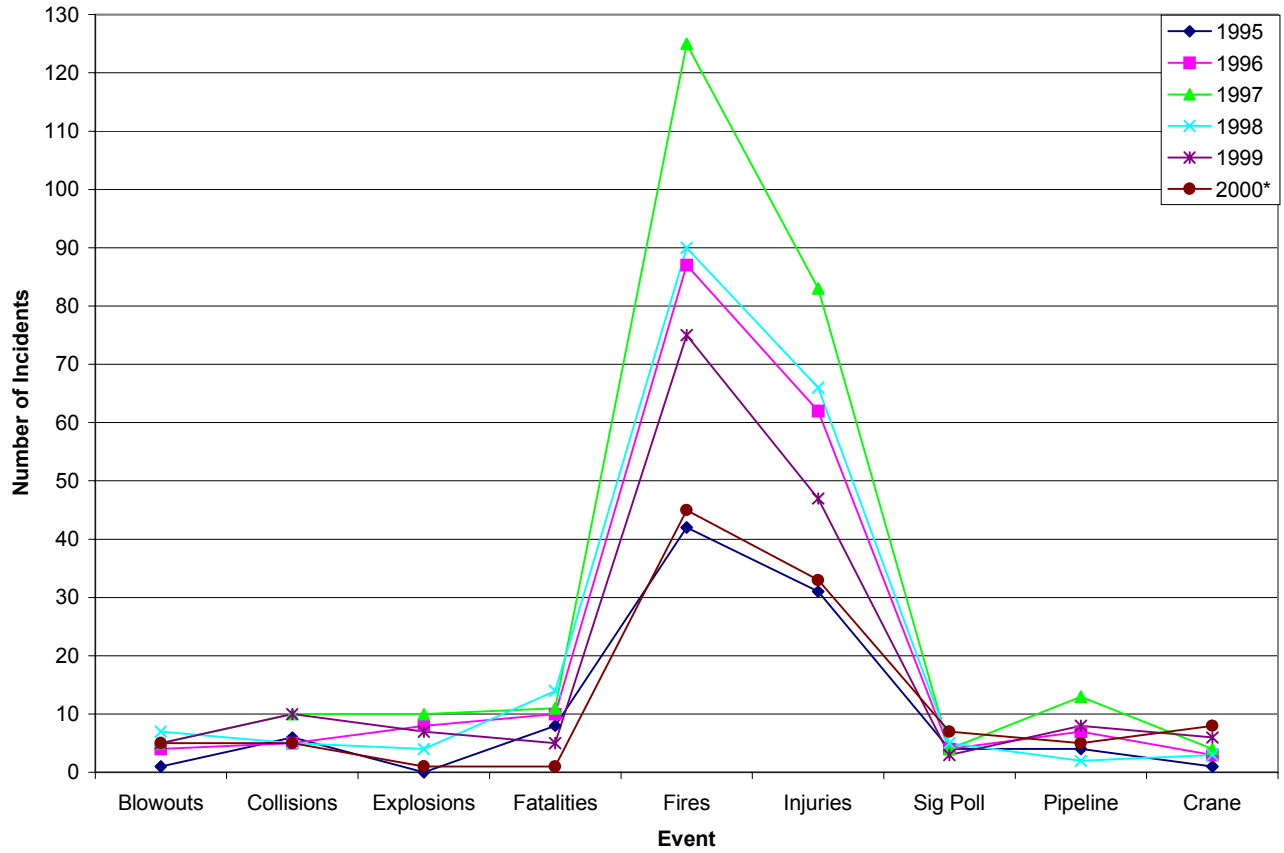


Total Number of OCS Incidents 1995-2000*



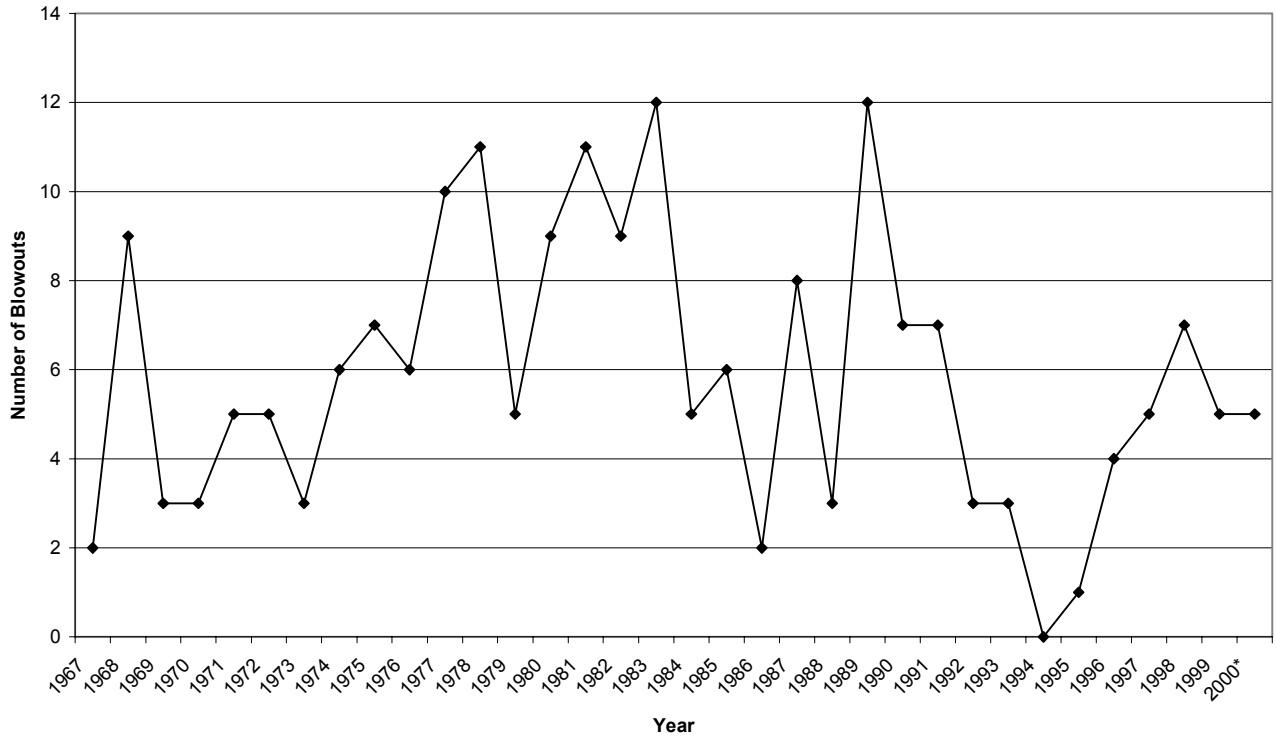
*As of October 22, 2000

Number of OCS Events 1995-2000*



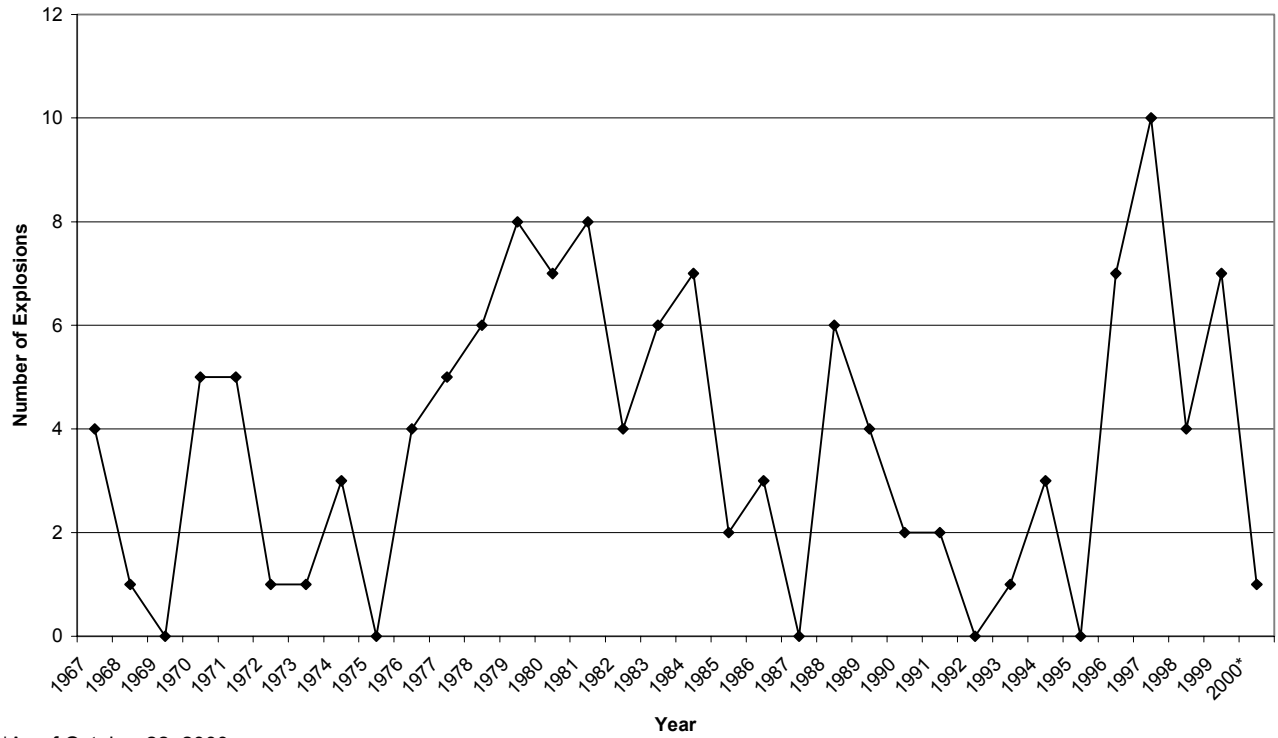
*As of October 22, 2000

Number of OCS Blowouts 1967-2000*



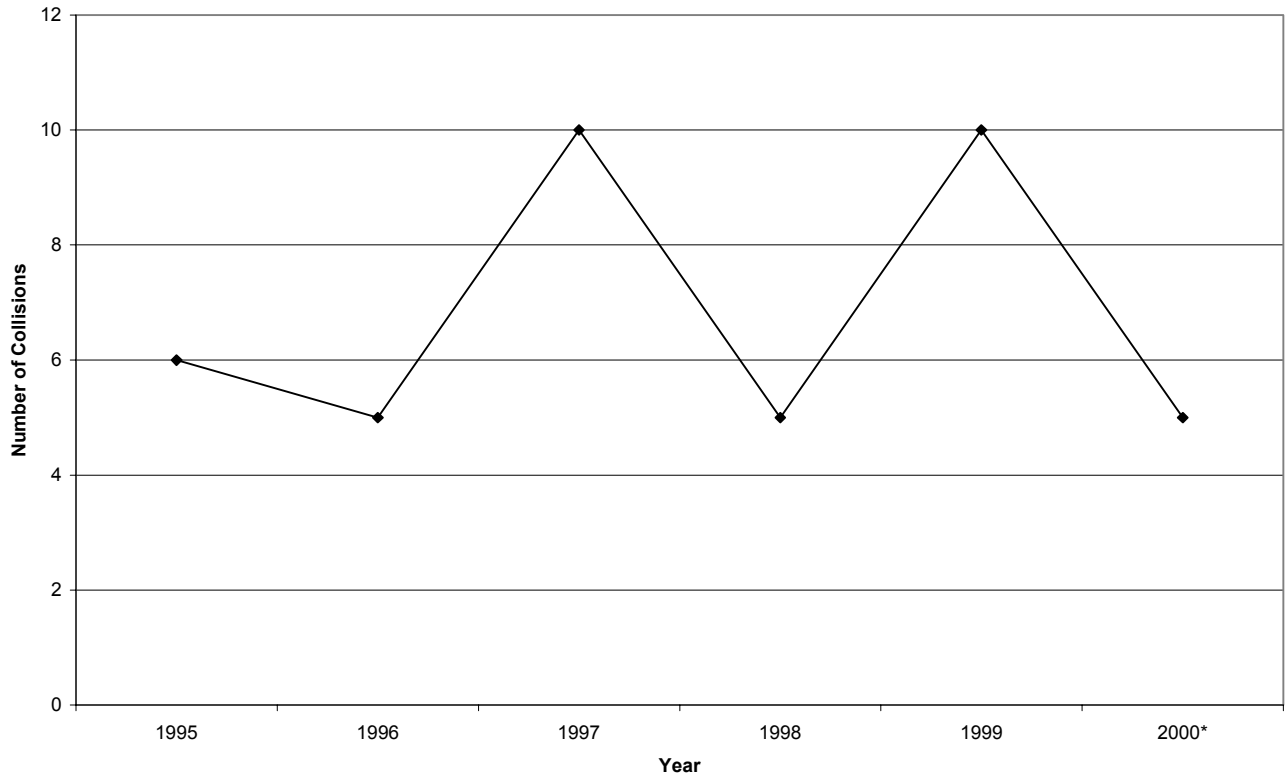
*As of October 22, 2000

Number of OCS Explosions 1967-2000*



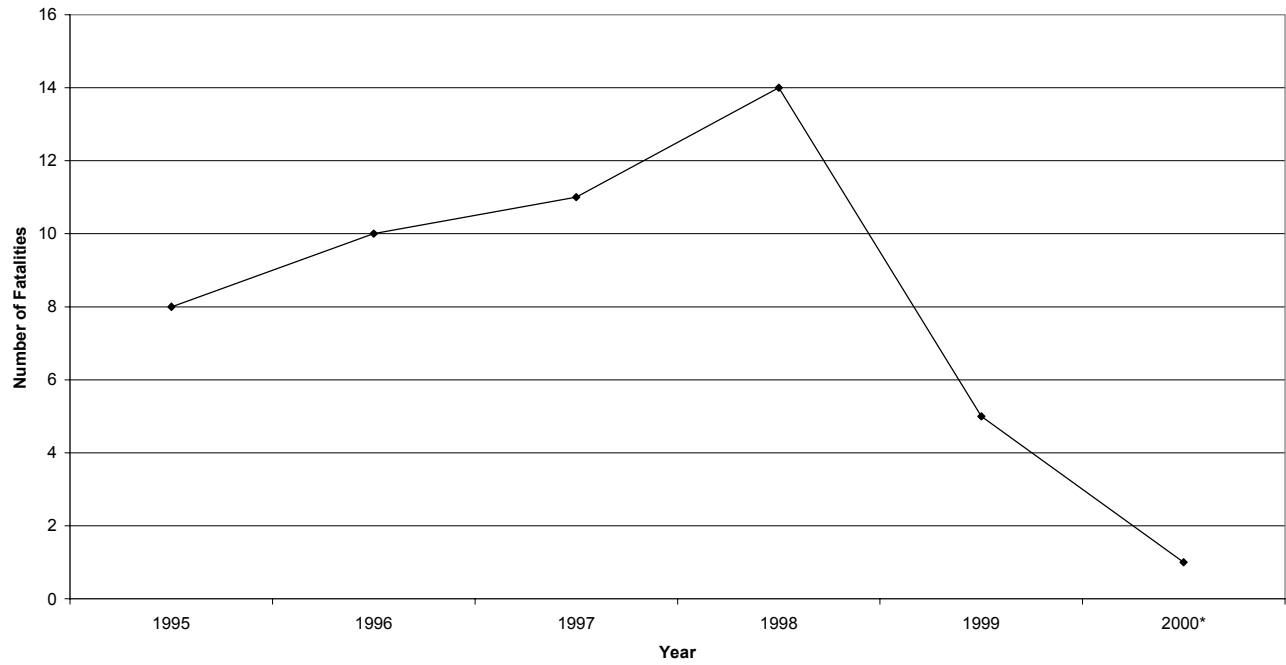
*As of October 22, 2000

Number of OCS Collisions 1995-2000*



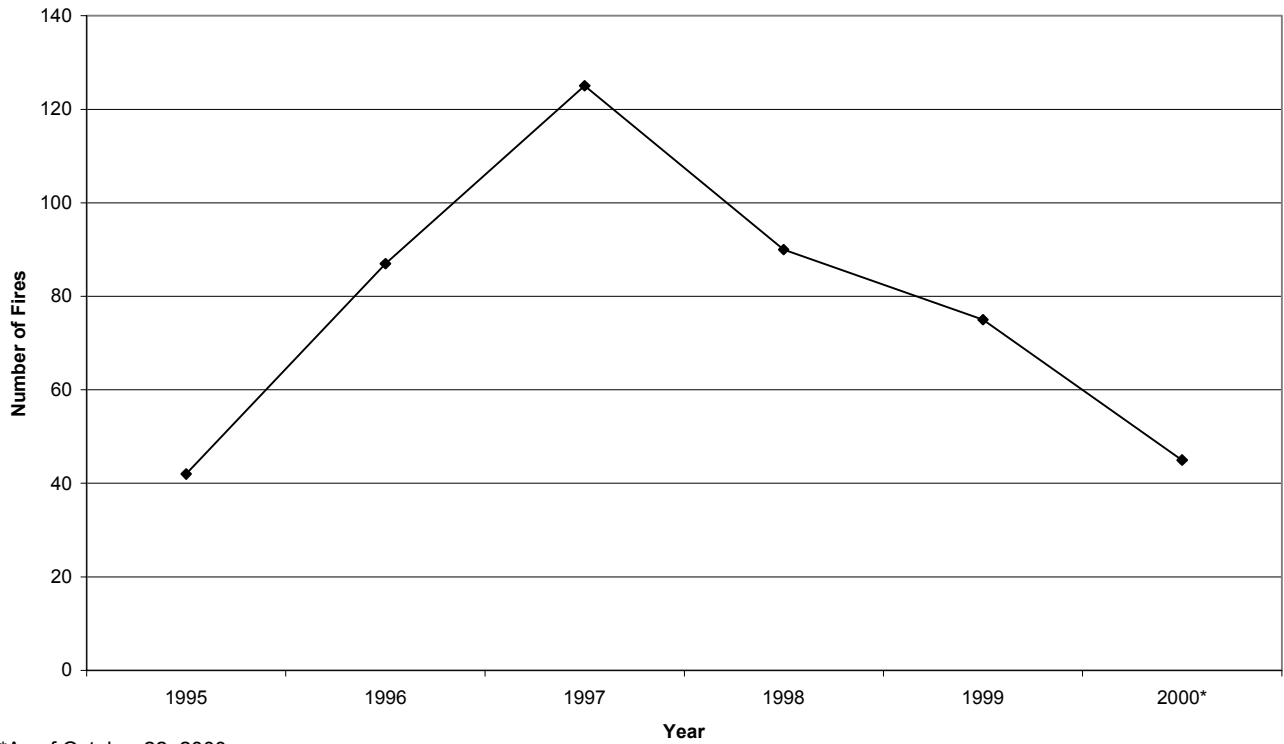
*As of October 22, 2000

Number of OCS Fatalities 1995-2000*



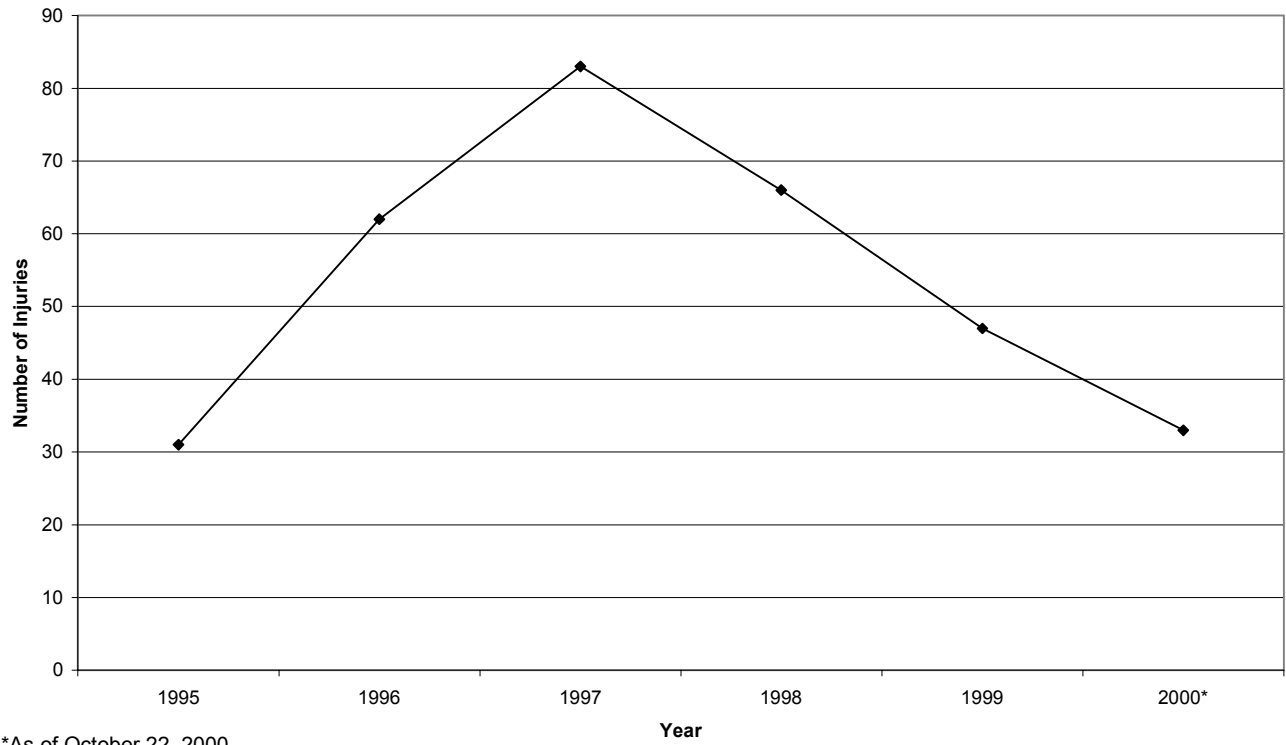
*As of October 22, 2000

Number of OCS Fires 1995-2000*

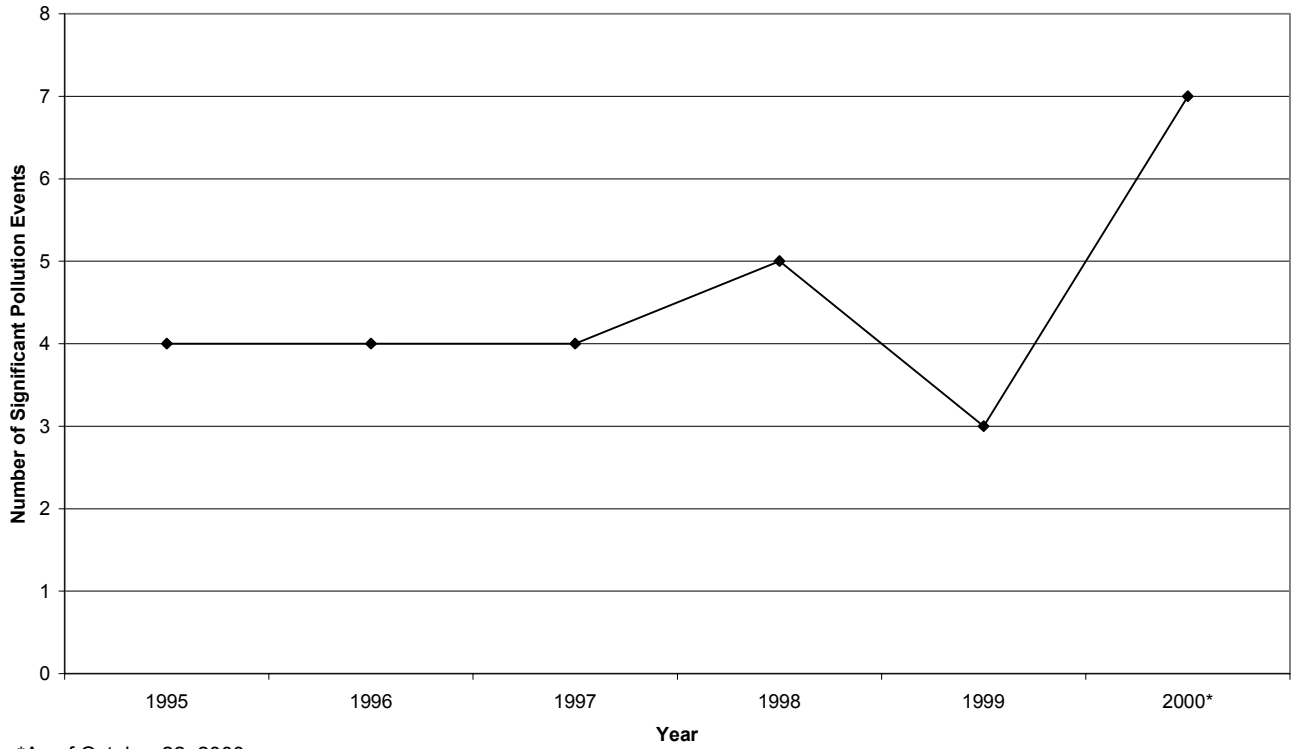


*As of October 22, 2000

Number of OCS Injuries 1995-2000*

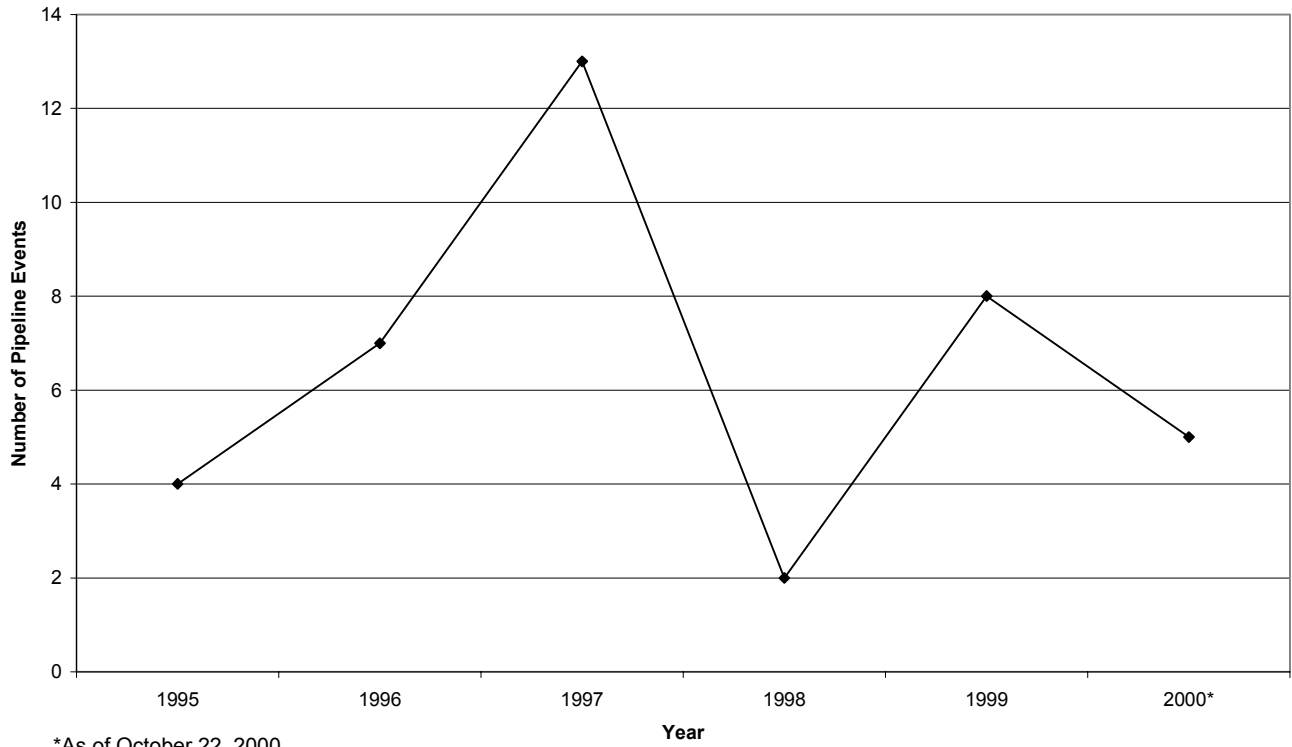


Number of OCS Significant Pollution Events 1995-2000*

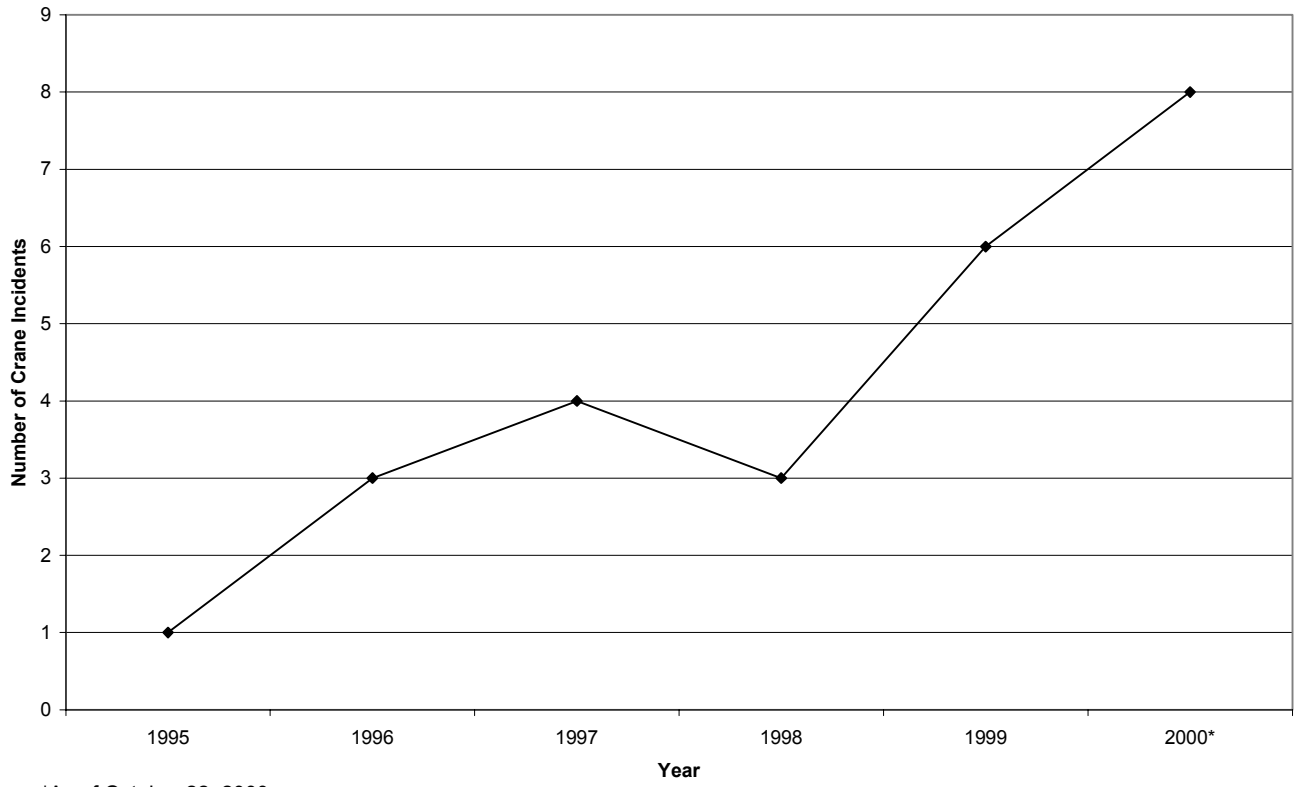


*As of October 22, 2000

Number of OCS Pipeline Events 1995-2000*

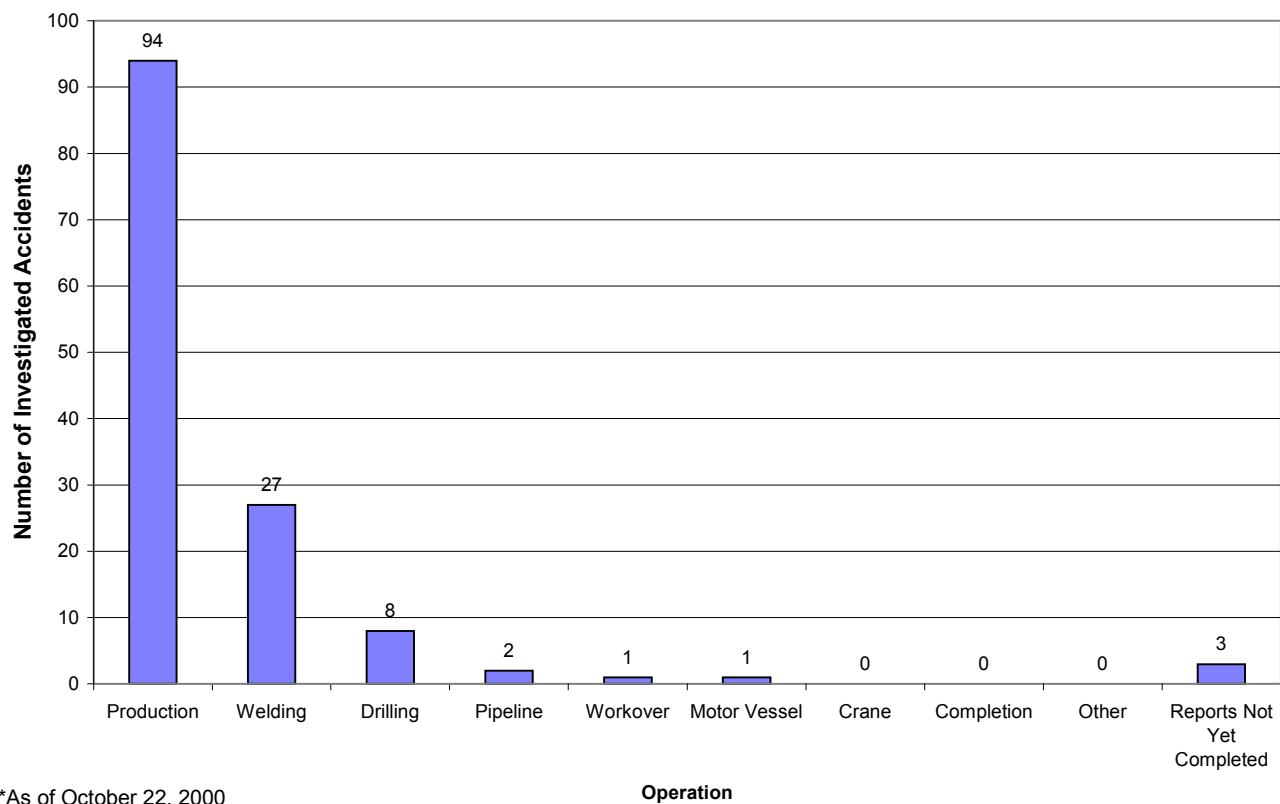


Number of OCS Crane Incidents 1995-2000*



*As of October 22, 2000

Operations Associated with OCS Fires 1997-1999



*As of October 22, 2000



The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.



Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Minerals Revenue Management** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.