Aeration Lagoons Contingency Plan

Western Refining Southwest LLC
Bloomfield Products Terminal
50 County Road 4990
Bloomfield, NM 87413

Table Of Contents

Purpose and Scope
Background
Leak Detection System
Monitoring and Discovery
Response Action
Attachment – Site Plan - Site Map
Attachment – Cross-Sectional View Diagram
Attachment – As-Built Leak Detection System Diagrams
Attachment – Bloomfield Products Terminal - Oil Spill Response Plan

Purpose and Scope

This Contingency Plan describes procedures and actions that are implemented during normal operations as well as response actions that will be implemented in the event of a discovered leak to the environment from one of the aeration lagoons.

Background

The Bloomfield Products Terminal (Terminal) is located in northwestern New Mexico, approximately 1 mile south of the City of Bloomfield in San Juan County. It is more specifically located approximately 1/2 mile east of US HWY 550/SR 44 on County Road 4990 (a.k.a. Sullivan Road).

The Terminal is situated on an elevated terrace south of the San Juan River and the Hammond Irrigation Ditch. This terrace rises approximately 100 feet above the river level and 20 feet above the irrigation ditch. An underground 2700-foot-long North Boundary Barrier Wall (Slurry Wall) with Tank #37 groundwater collection system is situated north of the Hammond Irrigation Ditch (see attached site plan). This collection system serves as a total fluids collection system for the western portion of the Terminal which includes the area surrounding the aeration lagoons.

The function of the aeration lagoons is aggressive biological treatment (ABT) of used process water. The water is generated at various groundwater recovery systems, storage tanks, utility systems, and maintenance activities. This water is collected in a segregated sewer system located throughout the Terminal and tankage areas. Used process water flows to the API Separator where solids, sludge, and floating scum are removed. API Separator effluent is then pumped through the Benzene Strippers and then flows onward through a series of three lined aeration lagoons. Water is then either evaporated at the evaporation ponds or injected underground at the Class I injection well.

In 1974, the aeration lagoons were constructed with bentonite-treated bottoms for fresh water holding. After the initiation of the Clean Water Act (40CFR Part 419), the ponds were converted to manage API Separator water as a secondary biological treatment of the water. In 1982 and 1983 the first clean out of these biological treatment oily water ponds occurred and a liner and leachate system was installed that consisted of a 33% bentonite composite liner equipped with a French Drain System, with a 100-ml high density polyethylene (HDPE) liner on top. Around 1990, the lagoons were upgraded and retrofitted with two additional liners and a leak detection/leachate collection system over and above the cleaned 1982/1983 system. In 2007, a benzene stripper/tank system was constructed and put into service to treat all water prior to entering the first aeration lagoon. After the installation of the benzene strippers and throughout the fourth quarter of 2008 and the first quarter of 2009, the lagoons were cleaned out and each lagoon’s primary liner was inspected and repaired at that time.

The aeration lagoons from top to bottom, include a 100-mil HDPE top liner, a geonet for collecting leaks to a sump equipped with a 6-inch observation pipe, a 60-ml HDPE secondary liner, a composite geotextile/geonet with a 4-inch observation pipe, a cement amended sand that was compacted into a 1.5% slope, a 100-ml HDPE liner, a French Drain System which directs any collected fluids to a central sump, and a 6-inch layer of soil with 33% bentonite mixed into it.

The aeration Lagoon #1 (South Aeration lagoon) averages 4.4 feet in depth and has a surface area of about 6,652 square feet. The total volume is approximately 216,000 gallons. At an approximate potential flow rate of 80 gpm, the holding time in the pond is 1.9 days. This lagoon is equipped with two aspirating aerators.

The aeration lagoon #2 (Northwest Lagoon) averages 5.5 feet in depth with a surface area of 10,000 square feet. This lagoon is equipped with two aspirating aerators and water retention time (at 80 gpm) is 3.6 days. The aeration lagoon #3 (Northeast Lagoon) averages 5.7 feet in depth, with a surface area of 8,440 square feet and a volume of approximately 360,000 gallons. This lagoon is equipped with two aspirating aerators and has a wastewater retention time (at 80 gpm) of 3.1 days.

Leak Detection System

Each of the three aeration lagoons is constructed with four impermeable liners that are equipped with a three-tier leak detection system that allows for fluids monitoring between each of the lagoon liners and can provide confirmation of a leak before a discharge to groundwater. Each lagoon has a 6-inch diameter detection tube placed between the primary liner and secondary liner as well as a 4-inch diameter detection tube placed between the second liner and third liner. Below the third liner of each pond is a French Drain System that empties to a single leak detection culvert located just east of the South aeration lagoon. Below the French drain System is a layer of composite soil consisting of 33% bentonite (see attached As-Built Leak Detection System Diagrams). Fluids observed in the leak detection culvert are an indication that there is a leak that needs to be addressed.

Monitoring and Discovery

The leak detection tube system is measured with an inter-face probe on a weekly basis. Visual inspection of the east leak detection culvert, which houses the outlet of the French Drain System located beneath the bottom liner, also occurs on a weekly basis. Visual inspection of the freeboard and operation of the aeration lagoons occurs at least 3 times a week. The Terminal is staffed 24 hours per day, 365 days per year. Operations Personnel are always on duty at the Terminal.

Baseline detection levels in the leak detection tubes were established after the 2009 aeration lagoon cleanout and liner repair. Depth-to-fluid levels of less than 9 feet in either the 6-inch or the 4-inch detection tubes of any of the Lagoons indicate a potential leak in the liners. If fluid is detected at a level less than 9 feet below the top of any leak detection tube, the Terminal Manager and Environmental Personnel is

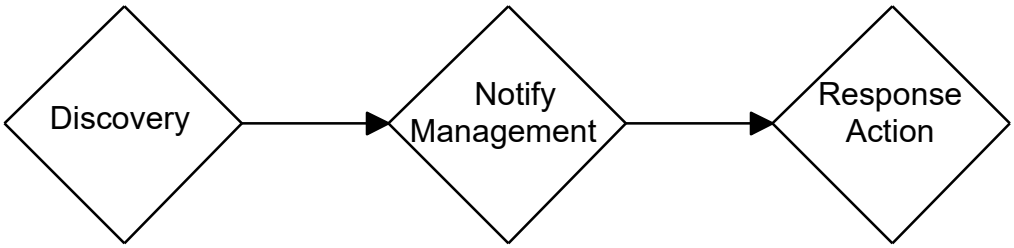
notified. To ensure the potential leak does not extend below the third protective liner (i.e. French Drain System via the leak detection culvert), fluids may be removed from the 6-inch and/or 4-inch leak detection tube using a vacuum truck and/or diaphragm pump.

The discovery of fluids past the secondary containment liner and into the French Drain System via the leak detection culvert (and supporting data of depth-to-fluid levels in the detection tubes) will result in notification to the Environmental Personnel to determine appropriate response action and implement notification to the New Mexico Oil Conservation Division (OCD).

***Important Note**: Evidence of fluid in the culvert could be the result of condensation collecting on the walls during seasonal temperature changes. The source of any fluid evidence in the culvert should first be verified that it is not from condensation.*

If a leak or discharge from any one of the aeration lagoons is discovered, the employee shall immediately perform the following actions.

1. Note the nature and location of the discharge/leak.
2. Notify the Terminal Manager and the Environmental Personnel
3. Response action will then be determined.



The Terminal Manager is the central point of contact in the discovery of a discharge/leak.

Response Action

In the event that there is an indication of a release to the environment from the aeration lagoons via a surface overflow or measurable fluid detection below the third liner of any lagoon via the leak detection culvert, OCD will be notified, and this Contingency Plan will be implemented via the appropriate response action(s).

In the event of an aeration lagoon surface overflow, guidelines from the Bloomfield Products Terminal Oil Field Response Plan will be followed. A copy of this plan is maintained electronically and/or on-site and is attached to this plan for reference. The Oil Field Response Plan includes actions to be performed to minimize and contain surface impacts. Used process water from the API will be diverted to Tank 5

for temporary storage, thereby ceasing further discharge to the aeration lagoons. The fluid level in the over-filled lagoon will be lowered using a pump and/or vacuum truck. The lagoon will not be placed back into service until the fluid level is lowered below the minimum 3-foot freeboard level. Once the Aeration lagoons can be returned to normal operating service, fluid diverted to Tank 5 will be pumped back to the API for treatment.

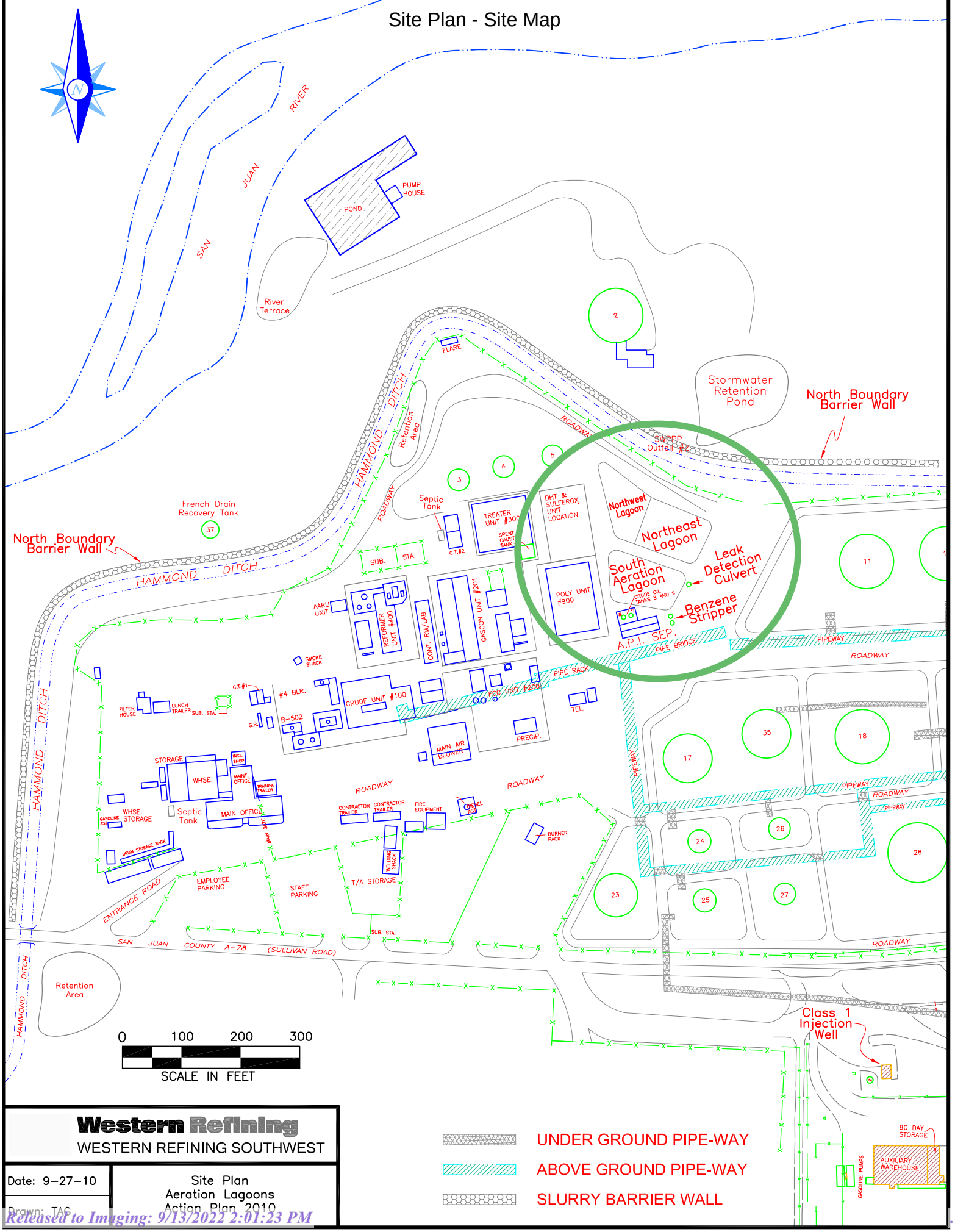
In the event fluid is detected below the secondary containment liner (i.e. via the French Drain System and leak detection culvert), the affected aeration lagoon will be bypassed and the water process will discharge sequentially into the other two aeration lagoons. A sample of the fluids collected within the culvert will be collected for laboratory analysis to help determine if the fluid as a result of a leak from the above pond. All fluids from the leaking aeration lagoon will be pumped out so the liner can be inspected and repaired. The lagoon will not be returned to service until the repairs are completed.

Any fluid release from the aeration lagoons via a leak from the bottom most liner to groundwater is ultimately captured by the Slurry Wall. All fluid below the former refinery process units, which includes the area surrounding the aeration lagoons, is hydraulically contained on-site via the 2,700-foot-long Slurry Wall. Hydraulic relief along the barrier wall is controlled via a French Drain System located below the Hammond Ditch which discharges into the Tank #37 groundwater collection system. All fluids from Tank #37 are pumped to the API Separator for treatment.

If a lagoon aerator is discovered to be malfunctioning, the issue will be noted on the weekly inspection. Appropriate Operations and Environmental Personnel will be notified immediately to determine the nature of the issue and to schedule maintenance and or repair of the aerator. Aerator repairs generally require that heavy lifting equipment is needed to remove the aerator from the lagoon to properly assess the issue and specialty parts may need to be ordered. Repairs will be completed, and the aerator placed back into service as soon as possible but not to exceed 120 days from the discovery date of the malfunction.

ATTACHMENTS

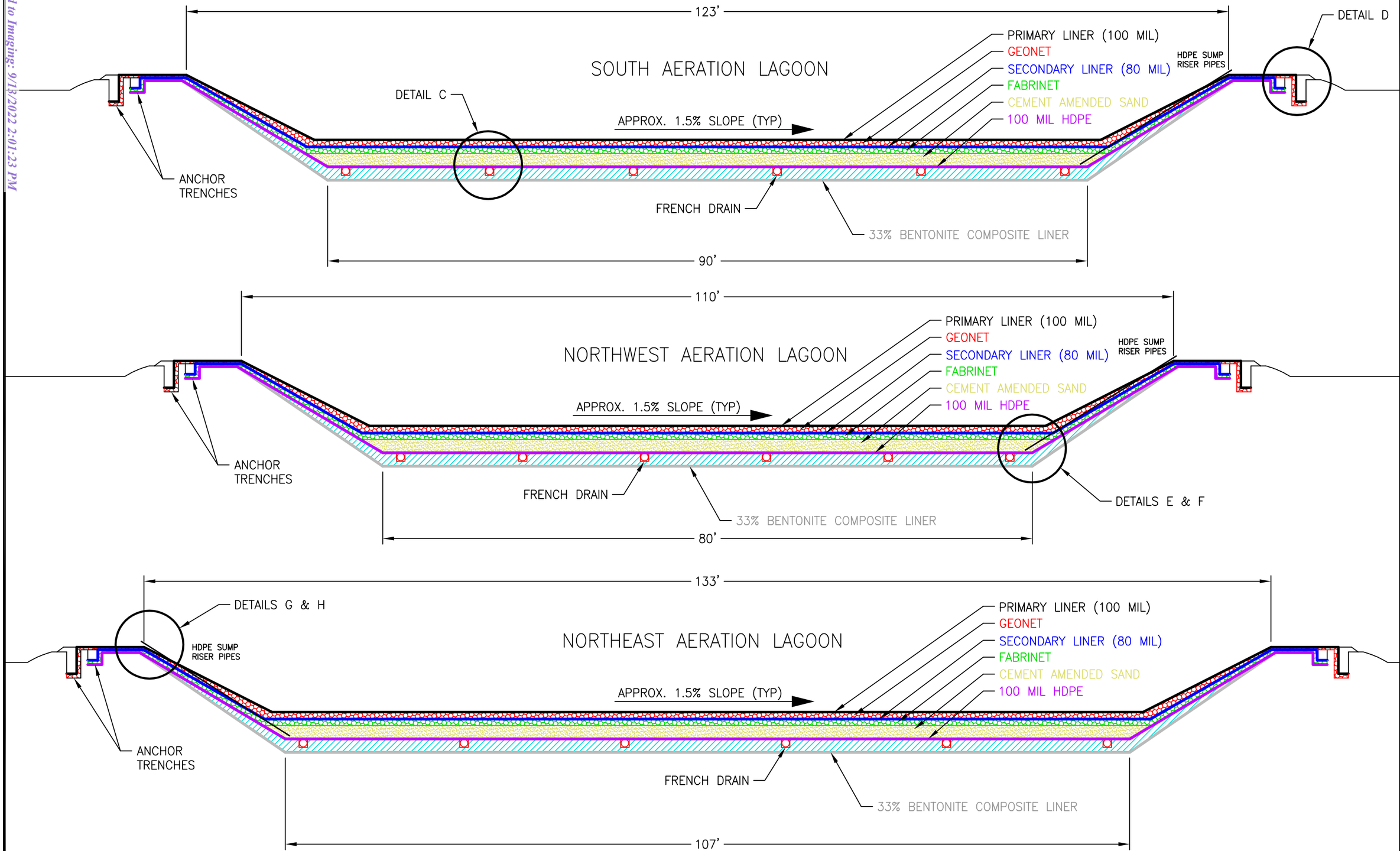
Site Plan - Site Map



Western Refining
WESTERN REFINING SOUTHWEST

Date: 9-27-10	Site Plan Aeration Lagoons Action Plan 2010
Drawn: TAS	

Cross-Sectional View Diagram



ERM-Rocky Mountain, Inc.
5950 South Willow Drive
Suite 200
Greenwood Villiage, Colorado 80111-8144
(303)-741-8050
ERM

BLOOMFIELD REFINING COMPANY
BLOOMFIELD, NEW MEXICO 87413

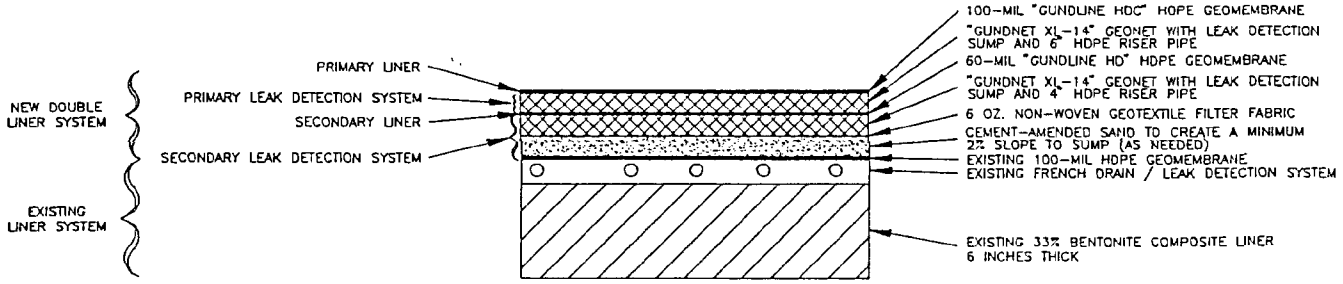
CROSS-SECTIONAL VIEW

RECORD DRAWING FOR COMPLETED SURFACE IMPOUNDMENT RETROFIT

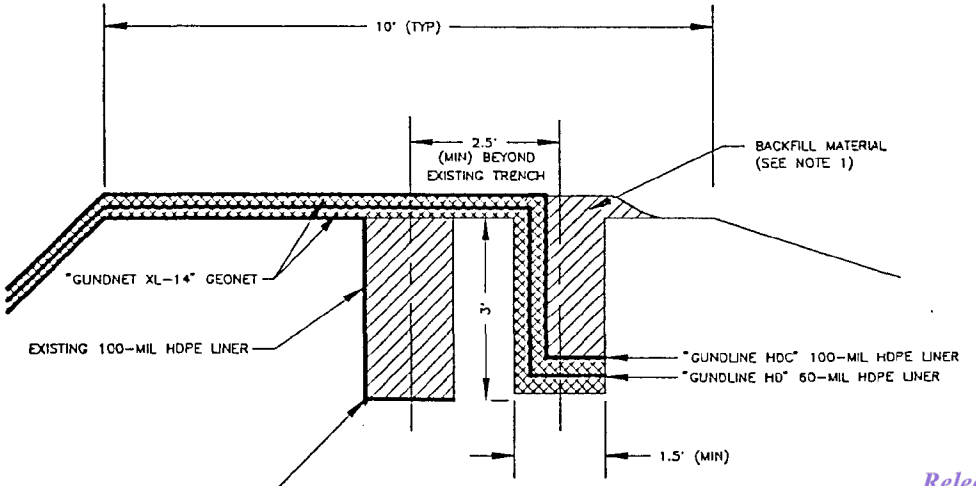
DESIGNED	BLOOMFIELD
DRAWN	SRL
CHECKED	
DATE	09/23/94
JOB NO.	931044.0
FILENAME	FIG-2

As Built Leak Detection System Diagram

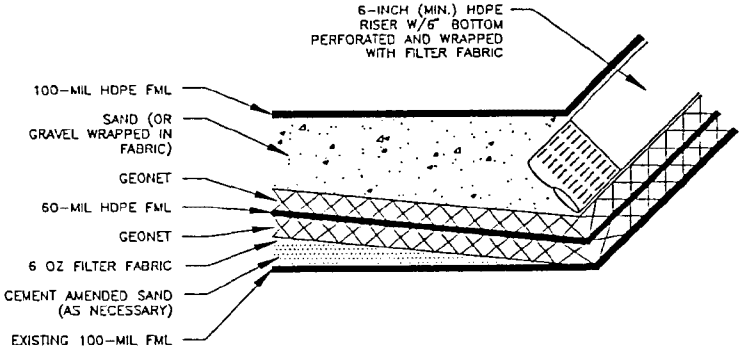
NOTES
1) USE SUITABLE GRANULAR BACKFILL MATERIAL COMPACT BACKFILL TO MINIMUM 90% STANDARD PROCTOR DENSITY AT ± 3% OF OPTIMUM MOISTURE CONTENT.



LINER DETAIL
DETAIL A (TYP)
(N.T.S.)



ANCHOR TRENCH DETAIL
DETAIL B (TYP)
(N.T.S.)



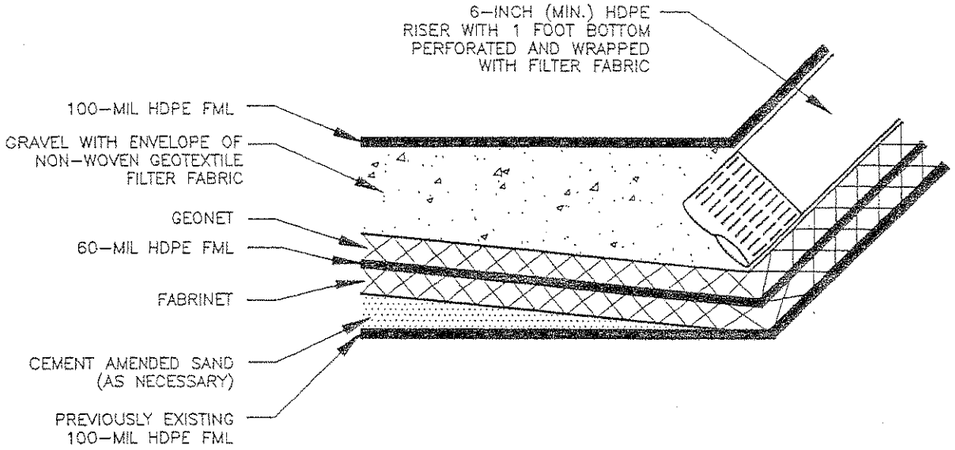
PRIMARY LEAK DETECTION SUMP DETAIL
DETAIL C (TYP)
(N.T.S.)

ERM-Rocky Mountain, Inc.
5950 South Willow Drive
Suite 200
Greenwood Village, Colorado 80111
(303) 741-5050

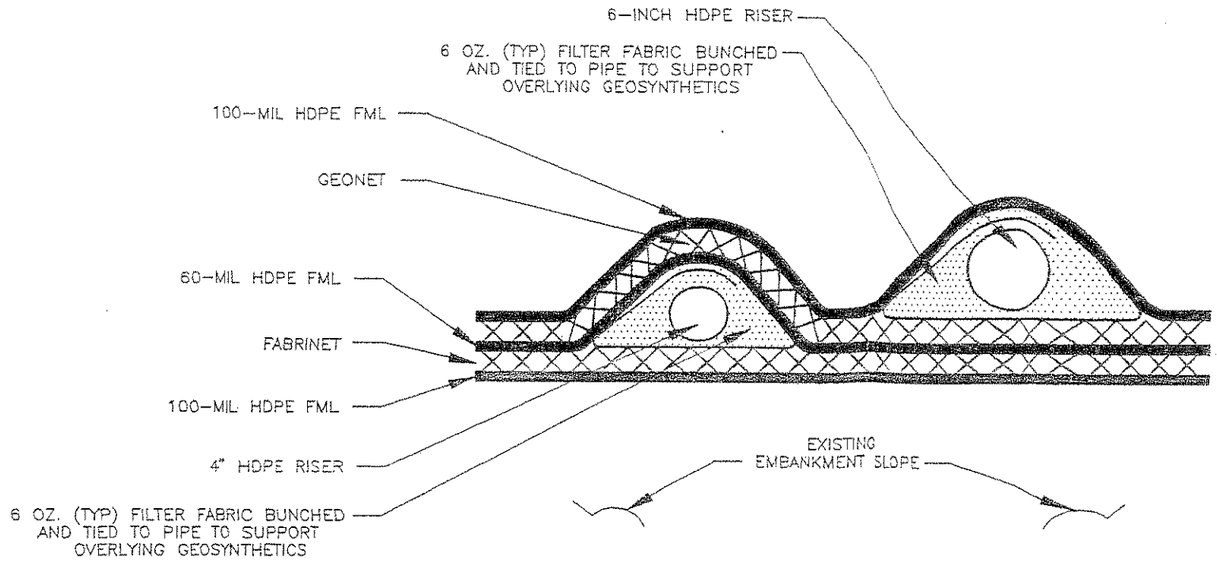
BLOOMFIELD REFINING COMPANY
BLOOMFIELD, NEW MEXICO 87413

SURFACE IMPOUNDMENT RETROFIT
SYSTEM DETAILS

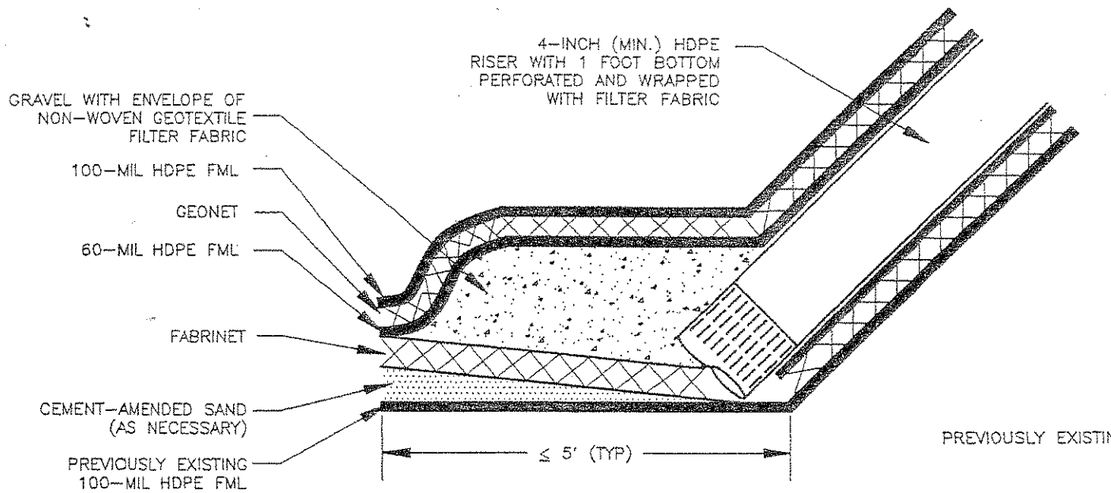
DESIGNED	EAG
DRAWN	SRL
CHECKED	
DATE	02/10/94
JOB NO	931044.0
FILENAME	FIG-3



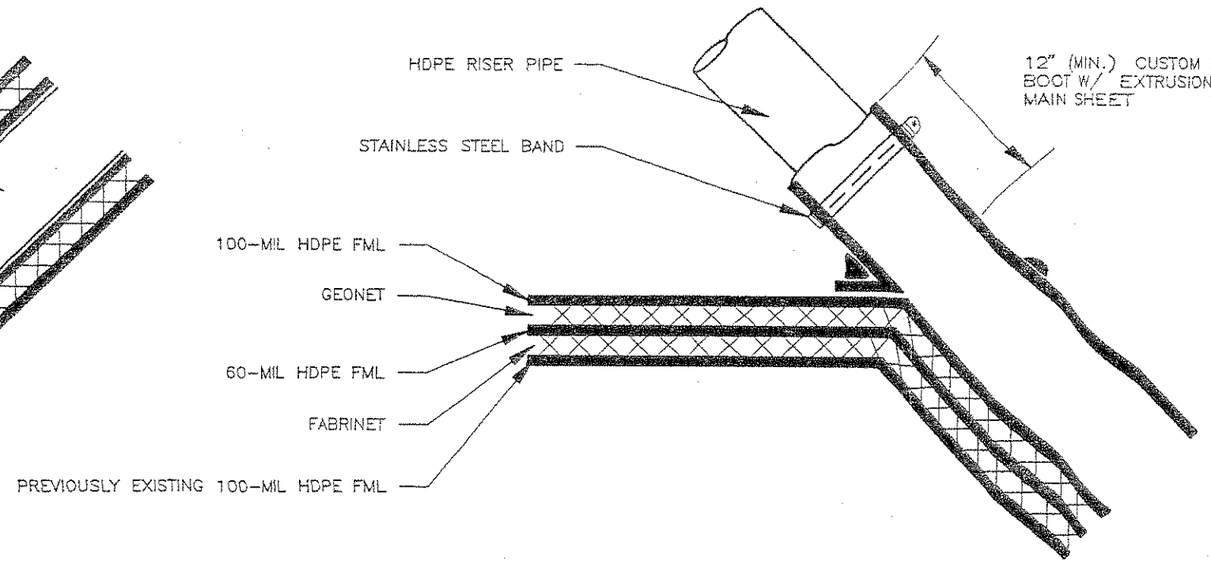
PRIMARY LEAK DETECTION SUMP DETAIL
DETAIL E (TYP)
(N.T.S.)



RISER PIPE CONFIGURATION
DETAIL G (TYP)
(N.T.S.)



SECONDARY LEAK DETECTION SUMP DETAIL
DETAIL F (TYP)
(N.T.S.)



RISER PIPE LINER BOOT
DETAIL H (TYP)
(N.T.S.)

REV | REVISION DESCRIPTION | DATE

ERM-Rocky Mountains, Inc.
8950 South Willow Drive
Suite 200
Greenwood Village, Colorado 80111-6144
(303) 741-3050

ERM

BLOOMFIELD REFINING COMPANY
BLOOMFIELD, NEW MEXICO 87413

SYSTEM DETAILS

RECORD DRAWING FOR COMPLETED SURFACE IMPOUNDMENT RETROFIT

DESIGNED	BLOOMFIELD SRL	
DRAWN		09/23/94
CHECKED		931044.0
DATE		FIG-4
JOB NO.		
FILENAME		

Evaporation Ponds Contingency Plan

Western Refining Southwest LLC
Bloomfield Products Terminal
50 County Road 4990
Bloomfield, NM 87413

Table Of Contents

Purpose and Scope
Background
Leak Detection System
Monitoring and Discovery
Response Action
Attachment – Site Plan – Site Map
Attachment – As-Built Diagrams
Attachment – Liner Schematic
Attachment – Elevation Diagram

Purpose and Scope

This Contingency Plan describes procedures and actions that are implemented during normal operations as well as response actions that will be implemented in the event of a discovered leak to the environment from either the North or South Evaporation Pond.

Background

The Terminal is located in northwestern New Mexico, approximately 1 mile south of the City of Bloomfield in San Juan County. It is more specifically located approximately 1/2 mile east of State Route 44 on County Road 4990 (a.k.a. Sullivan Road).

The Terminal is situated on an elevated terrace south of the San Juan River and the Hammond Irrigation Ditch. This terrace is approximately 100 feet above the river level and 20 feet above the irrigation ditch. The North and South Evaporation Ponds are located in the southeastern most corner of the active portion of the Terminal (see attached Site Map).

The essential function of the North and South Evaporation Ponds is temporary storage and evaporation of treated wastewater. The treated wastewaters are rendered non-hazardous as it flows through the API Separator (solids, sludge, and floating scum are removed), the Benzene Strippers (volatile organics are removed), and the three lined aeration lagoons (active biological treatment) before reaching either the evaporation ponds or the Class I injection well. Typically, the water is routinely pumped directly from the Terminal aeration lagoons to the Class I injection well, thereby bypassing the evaporation ponds. Water levels in the ponds are directly proportional to the operation of the Terminal and scheduled maintenance of the injection well.

The original ponds were constructed in the 1950s. The current pond liners were installed in 2011 consisting of two liners (60-millimeter high density polyethylene (HDPE) primary and 30-millimeter HDPE underliner) with each pond covering approximately 4.5 acres.

Leak Detection System

The leak detection system in each pond consists of an arrangement of 4” perforated PVC pipe extending laterally between the first and second liners, collecting and directing fluids in this area to two separate 8” leak detection wells (see attached As-Built Diagrams).

The design and construction of the ponds allow for confirmed determination of a leak through visual inspections of the dikes and surrounding area. Water appearing on the face of the dikes could indicate that the second liner is leaking. As shown on the attached Evaporation Pond Elevation Diagram, the dike surface extends

approximately 11 feet below the bottom of the South Evaporation Pond liner. It is anticipated that any leak to groundwater from the South Evaporation Pond would appear on the face of the South Pond dike surface. Similarly, the North Pond dike surface extends below the bottom of the North Pond liner and any leak to groundwater from that pond would be visually apparent along the face of the dike.

Monitoring and Discovery

Using an inter-face probe, depth-to-fluid measurements are collected and recorded at each of the leak detection wells on a weekly basis, unless otherwise directed by the New Mexico Oil Conservation Division (OCD).

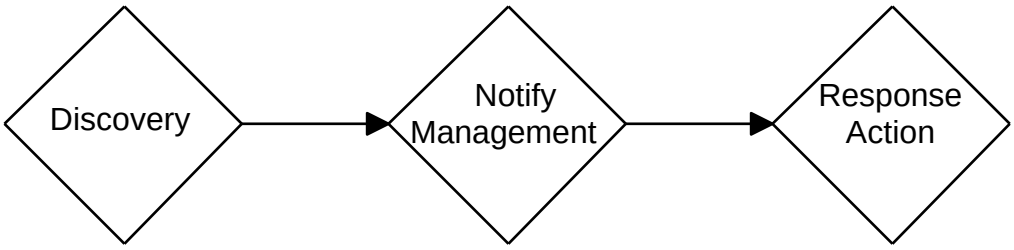
The Terminal is staffed 24 hours per day, 365 days per year. Visual inspection of the freeboard, dikes, and operation of the evaporation ponds occurs at least 3 days a week. Visual inspection of the area surrounding the evaporation ponds, including the face of each pond dike, is conducted at least 3 days a week.

As described in the Leak Detection System section, the design and construction of the ponds allow for confirmed determination of a leak through visual inspections of the dikes and surrounding area. Water appearing on the face of the dikes could indicate that the second liner is leaking. As shown on the attached Evaporation Pond Elevation Diagram, the dike surface extends approximately 11 feet below the bottom of each Evaporation Pond liner. It is anticipated that any leak to groundwater from either pond would appear on the face of the South Pond dike surface. Similarly, the North Pond dike surface extends below the bottom of the North Pond liner and any leak to groundwater from that pond would be visually apparent along the face of the dike.

The discovery of fluids along the face of either dike will result in notification to the Terminal Manager and Environmental Personnel to determine an appropriate response action.

If a visual leak from any one of the Evaporation Ponds is discovered, the following actions shall be taken:

1. Note the nature and location of the discharge/leak.
2. Notify the Terminal Manager and Environmental Personnel.
3. Response action will then be determined.



The Terminal Manager is the central point of contact in the discovery of a discharge/leak.

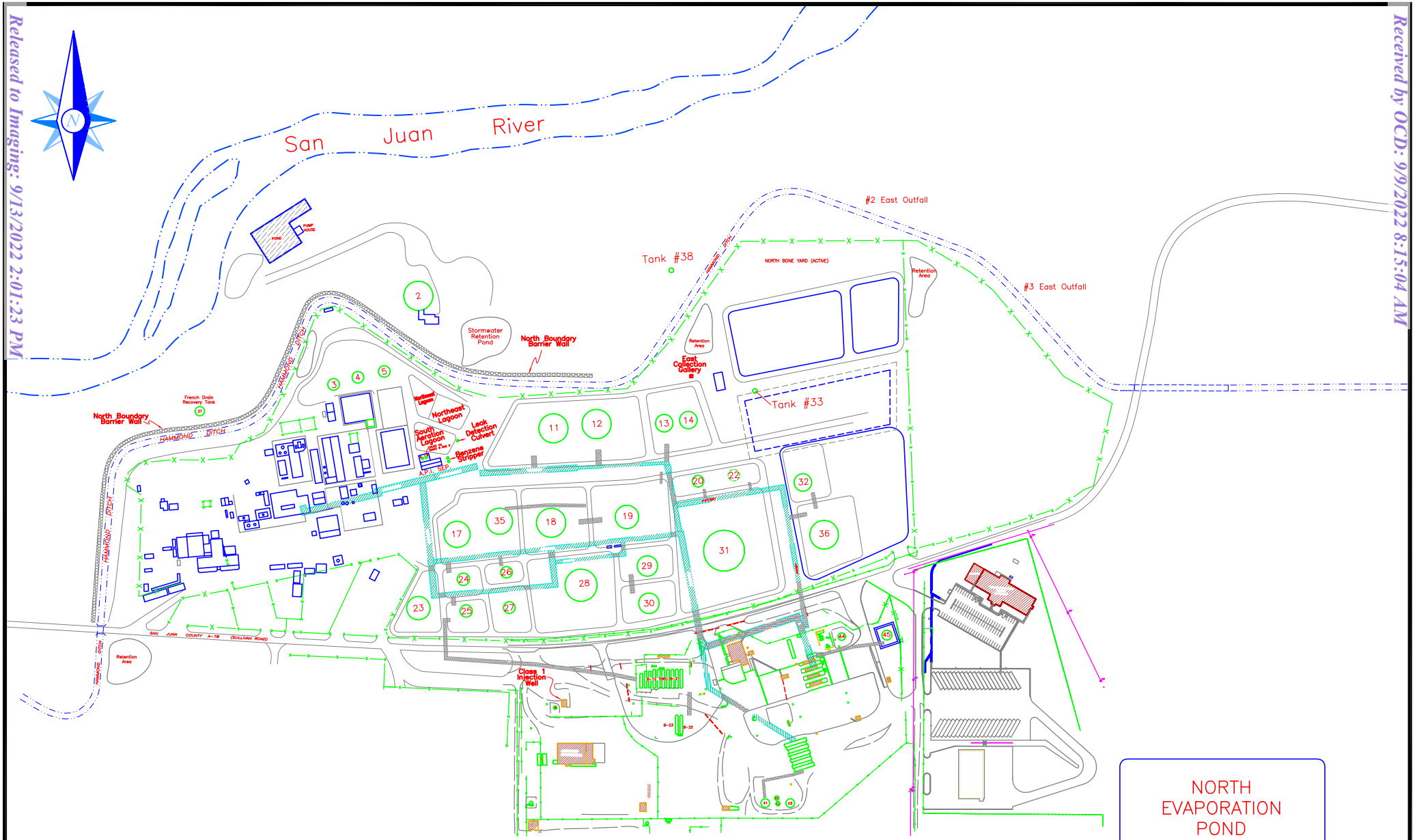
Response Action

In the event that there is an indication of a release to the environment from either of the Evaporation Ponds via a surface overflow or the discovery of fluids along the face of either dike, OCD will be notified as required and this Contingency Plan will be implemented via the appropriate response action(s).

In the event of an evaporation pond surface overflow, guidelines from Spill Prevention Control and Countermeasures (SPCC) Plan and the Oil Spill Response Plan will be followed. A copy of each of these referenced plans are maintained electronically and or on-site. These plans include actions to be performed to minimize and contain surface impacts. Water will be diverted from the affected pond and the fluid level in the over-filled pond will be lowered using a pump and/or vacuum truck. The pond will not be placed back into service until the fluid level is lowered below the minimum 3-foot freeboard level.

In the event fluid appears on the face of the dike and is confirmed to be used process water, the affected evaporation pond will be bypassed, and the water process stream will be diverted. OCD will be notified within 24 hours of a confirmed discovery. All fluids from the leaking evaporation pond will be pumped out so the liner can be inspected and repaired. The pond will not be returned to service until repairs are completed.

ATTACHMENTS



0 200 400 800

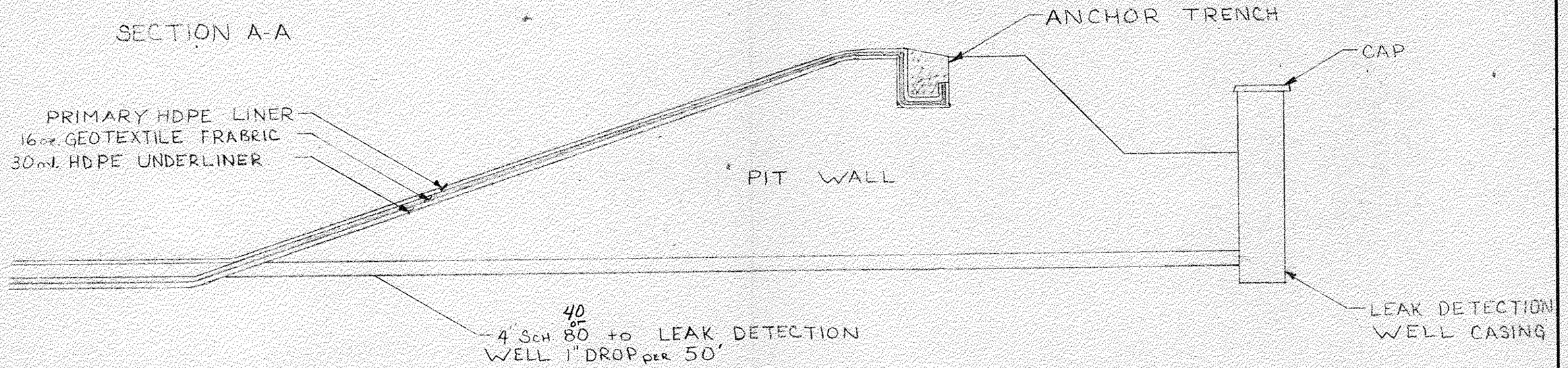
SCALE IN FEET

Western Refining

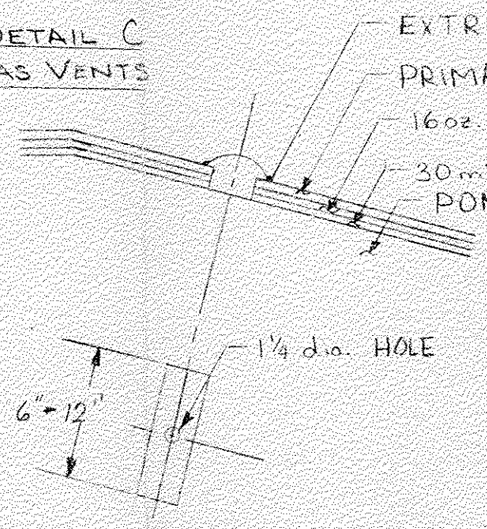
WESTERN REFINING SOUTHWEST

Date: 9–29–10	Site Plan Evaporation Pond Location
Scale: As Shown	
Drawn: TAG	

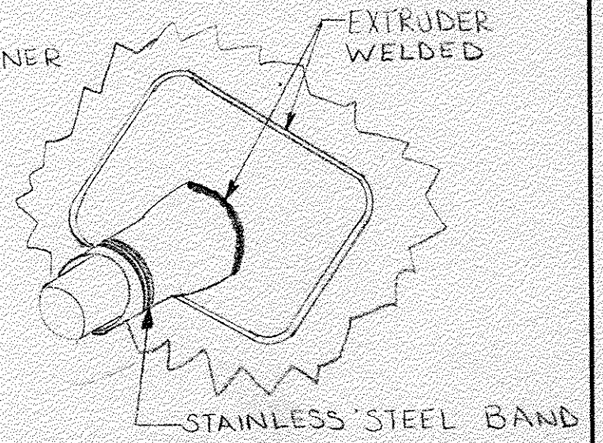
SECTION A-A

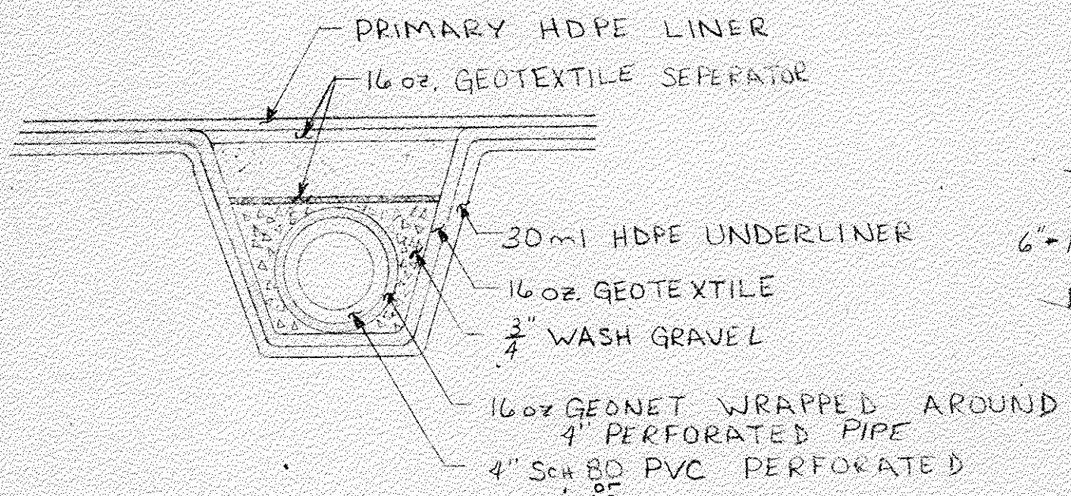


DETAIL C
GAS VENTS



DETAIL D. TYPICAL BOOT





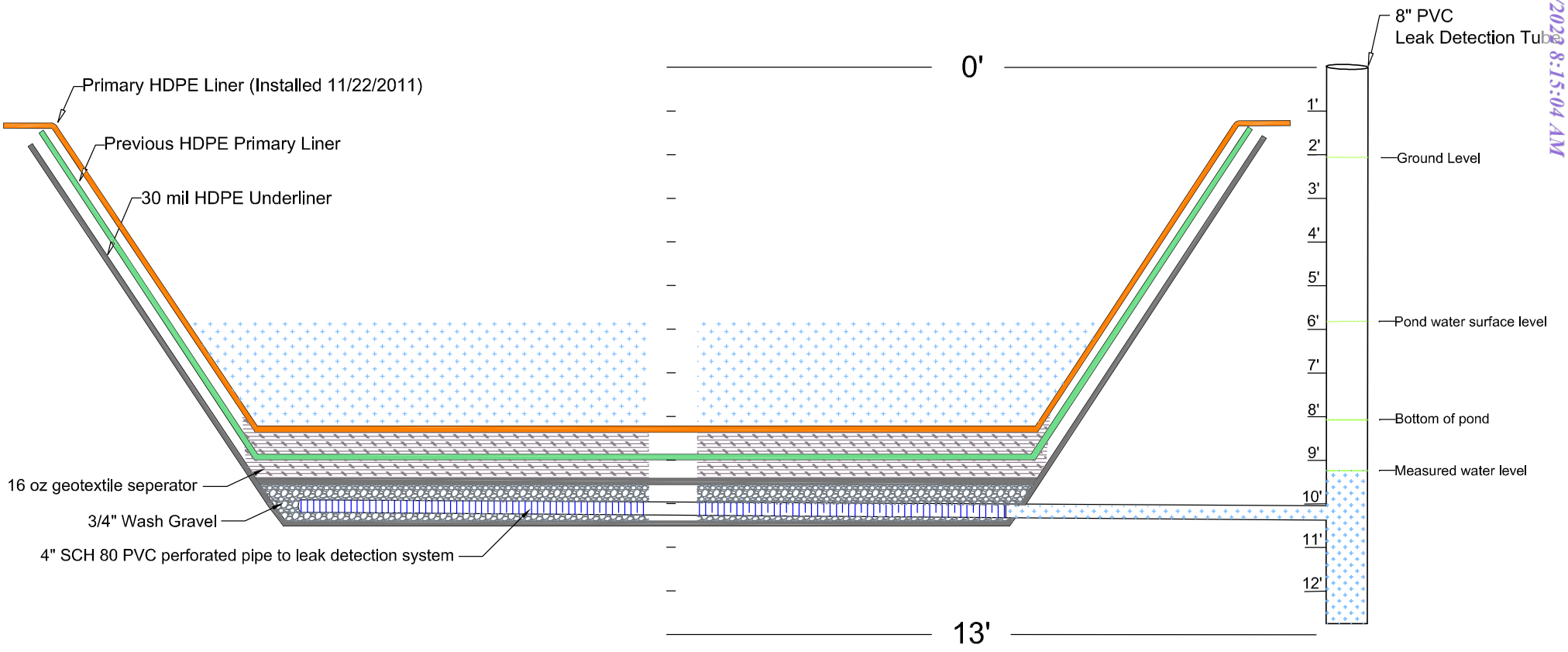
SECTION B-B
END VIEW OF LEAK DETECTION SYSTEM

FALCON SALES & SERVICE CO., INC.

SCALE: NONE	APPROVED BY	DRAWN BY KP
DATE: JAN 19, 1989		

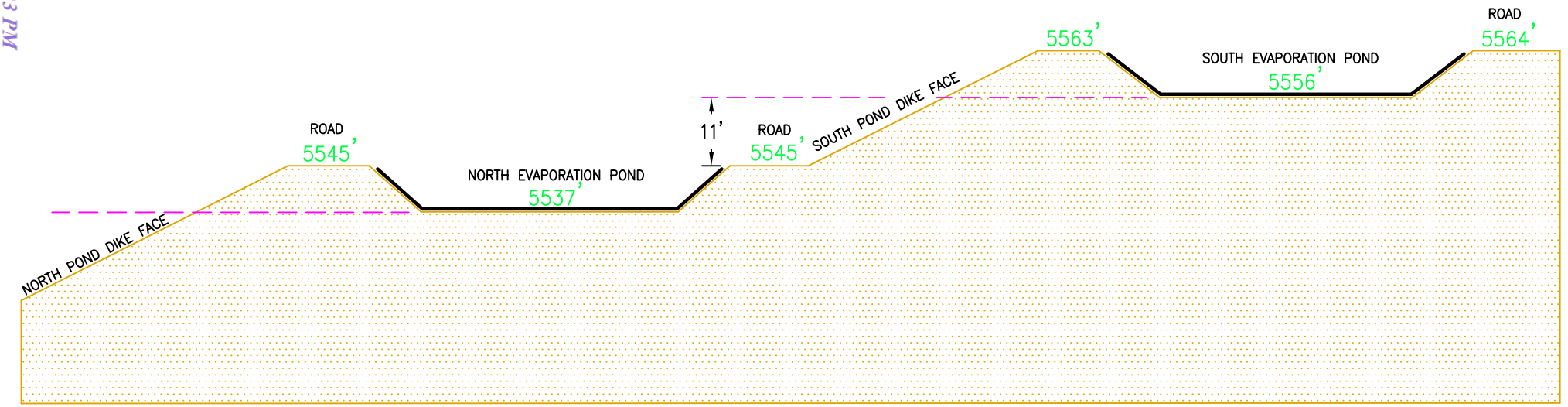
TYPICAL DOUBLELINED HIGH DENSITY POLYETHYLENE LINER

DRAWING NUMBER FSA000701M



Western Refining

Drawing not to scale



NOTE:
ELEVATIONS GIVEN ARE IN FEET ABOVE SEA LEVEL ROUNDED TO THE NEAREST FOOT.

Western Refining
WESTERN REFINING SOUTHWEST

Date: 9-29-10	Evaporation Pond Elevation Diagram
Scale: NTS	
Drawn: TAG	

State of New Mexico
Energy, Minerals and Natural Resources Department

BY ELECTRONIC MAIL

September 12, 2022

Gary Russell, CHMM
Marathon Petroleum
112 TownPark Dr, Suite 125
Kennesaw, GA 30144
gfrussell@marathonpetroleum.com

RE: Discharge Permit GW-001 Contingency Plans for Evaporation Ponds and Aeration Lagoons, Western Refining Southwest LLC, Bloomfield Products Terminal

Dear Mr. Russell:

The New Mexico Energy, Minerals and Natural Resource Department's Oil Conservation Division (OCD) has reviewed the Evaporation Ponds Contingency Plan and the Aeration Lagoons Contingency Plan submitted to the OCD on September 9, 2022 for Western Refining Southwest LLC, Bloomfield Products Terminal. OCD has determined that the Contingency Plans meet the requirements specified in permit condition 2.N of Discharge Permit GW-001; therefore, the Contingency Plans are approved.

If modifications are made to the Contingency Plans, Western Refining Southwest LLC must submit the amended Contingency Plan(s) to the OCD within 15 days after plan modification for OCD approval.

Respectfully,

Shelly Wells

Shelly Wells
Environmental Specialist-Advanced

Bloomfield Products Terminal

OIL SPILL RESPONSE PLAN

Contents

Contents **1**
PREFACE ..... **i**
Statement of Corporate Commitment i
Response Plan Cover Sheet – Bloomfield Terminal ii
Plan Distribution iii
Record of Revisions iv
EMERGENCY RESPONSE ACTION PLAN **1**
1. Initial Calls and Qualified Individual Information 1
2. Emergency Notification Phone List 2
Table 2.1 Federal and State 2
Table 2.2 Company 3
Table 2.3 OSRO 3
Table 2.4 Facility Operators for Initial Response 3
Table 2.5 Regional Response Team 4
3. Spill Response Notification Form 5
4. Response Equipment List and Location (From Section 7) 6
4.1.1 Oil Spill Recovery Equipment 6
Figure 4-1 Oil Spill Recovery Equipment 6
4.1.2 Containment Boom 6
Figure4-2 Containment Boom 6
4.1.3 Temporary Storage Capacity 6
Figure 4-3 Temporary Storage Capacity 6
4.1.4 Company Owned Equipment Inspection and Maintenance 6
Figure 4-4 River Response Trailer #1 7
Figure 4-5 River Response Trailer #2 8
Figure 4-6 River Response Trailer #3 10
5. Response Equipment Testing and Deployment 12
5.1 Equipment Deployment Exercises 12
5.2 Response Equipment Inspections 12
6. Facility Response Team 12
6.1 Personnel 12
6.2 Spill Response Team 12
7. Evacuation Plan 13
7.1 Bloomfield Products Terminal (BPT) 13
8. Immediate Actions 14
9. Facility Diagrams and Evacuation Plans 24
SECTION 1 INTRODUCTION **1**
1.1 Purpose/Scope of Plan 1
1.2 Plan Contents 1
1.2.1 Policy and Management 1
1.3 Plan Review and Update Procedures 2
1.3.1 Immediate Plan Updates 2
Figure 1-1 Facility Information Summary 3
Figure 1-2 Facility Overview – Bloomfield Terminal 4
SECTION 2 INITIAL RESPONSE **1**
2.1 Emergency Action Checklists 1
2.2 Evacuation Plans 10

2.3 Climatic And Hydrographic Conditions 12
2.4 Initial Response Guide – First Responders 12
SECTION 3 NOTIFICATION PROCEDURES 1
3.1 Notification Requirements 1
Figure 3-1 Notification Flow Chart 2
Figure 3-2 Oil Spill Discharge Information Required for NRC 4
3.2 Procedures for Notifying Qualified Individuals 5
3.3 Additional Notifications 5
3.3.1 Personnel Notifications 5
3.3.2 Primary and Secondary Notification Methods 6
Figure 3-3 Notification Summary 6
Figure 3-4 Additional Contractors Contact List 8
SECTION 4 RESPONSE TEAM ORGANIZATION 1
4.1 Oil Spill Activation Procedures 1
4.2 Incident Management Team 1
4.2.1 Unified Command 1
4.2.2 Incident Management Team Duties and Responsibilities 2
Figure 4-1 Incident Management Team Organization 5
4.3 Qualified Individual 6
4.4 Incident Command Post 6
4.5 Government Agencies 6
4.6 Spill Response Team 6
SECTION 5 DOCUMENTATION 1
5.1 Documentation 1
5.1.1 Spill Response Status 1
5.1.2 Spill Scenario Information 2
5.1.3 Meteorological Reports 2
5.1.4 Correspondence with Government Agencies 2
5.1.5 Cost Tracking 2
5.1.6 Photographs 2
5.1.7 Activity Logs 3
5.2 Site Safety Health Plan 3
SECTION 6 SENSITIVE AREAS 1
6.1 Introduction 1
6.2 Types of Sensitive Resources 1
6.2.1 Key Sensitive Areas 1
Wildlife 1
Finfish 2
Sand Shinneries 2
6.3 Wildlife Protection and Rehabilitation 2
6.4 Vulnerability Analysis 3
SECTION 7 SUSTAINED RESPONSE ACTIONS 1
7.1 Response Resources 1
7.1.1 Oil Spill Recovery Equipment 1
Figure 7-1 Oil Spill Recovery Equipment 1
7.1.2 Containment Boom 1
Figure7-2 Containment Boom 1
7.1.3 Temporary Storage Capacity 1

Figure 7-3 Temporary Storage Capacity 1
7.1.4 Company Owned Equipment Inspection and Maintenance 2
Figure 7-4 River Response Trailer #1 2
Figure 7-5 River Response Trailer #2 3
Figure 7-6 River Response Trailer #3 5
7.1.5 Contractor Equipment and Manpower 6
7.1.6 Command Post 6
7.1.7 Communications Equipment 6
Figure 7-7 Communications Equipment 6
Leasing Additional Equipment 6
Figure 7-8 Communications Checklist 7
7.2 Site Security Measures 7
7.2.1 Spill Security 7
Figure 7-9 Site Security Checklist 8
7.2.2 Site Specific Security 8
7.3 Oil Handling and Disposal 9
7.3.1 Waste Management 9
7.3.2 Recovery of Spilled Oil 9
7.3.3 Interim Waste Storage 9
7.3.4 Waste Characterization 10
Liquid Wastes 10
Solid/Semi-Solid Wastes 11
Hazardous Wastes 11
Segregation of Waste Types 11
7.3.5 Transportation 11
7.3.6 Handling 12
Figure 7-10 Oily Waste Segregation 12
7.3.7 Waste Disposal 12
Recycling 13
Treatment 13
Disposal 13
7.4 Public Relations 13
Guidelines for Dealing with the Media 14
Do Provide: 14
Don't Provide: 14
Other considerations 14
Holding Statements 14
SECTION 8 DEMOBILIZATION, DECONTAMINATION AND DEBRIEF 1
8.1 Demobilization 1
8.2 Equipment/Personnel Decontamination 1
8.3 Post-Incident Review 1
APPENDIX A TRAINING AND EXERCISES 1
A.1 Exercises 1
Figure A-1 Type and Frequency of Spill Response Exercises 1
A.1.1 QI Notification Exercises 1
A.1.2 Equipment Deployment Exercises 1
A.1.3 Incident Management Team Tabletop Exercises 2
Table A-1 Drill Program 2
A.1.4 Unannounced Exercises 2
A.1.5 Area Exercises 3

A.1.6 Drill Program Evaluation Procedures 3
A.1.7 Safety Training 3
A.1.8 Response Equipment Inspections 3
Figure A-2 Exercise Descriptions 3
Figure A-3 PREP Response Plan Core Components 4
A.2 Training 4
A.2.1 Oil Spill Response Training 5
A.2.2 HAZWOPER Training Program 5
A.2.3 IMT Training Program 5
Figure A-4 Training Courses 6
A.2.4 Training in the use of the Oil Spill Plan 6
A.2.5 Training for Qualified Individuals (QIs) 7
A.2.6 Training for Spill Response Team 7
A.2.7 Training for Incident Management Team Personnel 7
A.2.8 Training for Casual Laborers or Volunteers 7
A.2.9 Training Documentation and Record Maintenance 7
A.2.10 Discharge Prevention Meeting 8
Figure A-5 Training Elements 8
Figure A-6 Training Program Matrix 9
Figure A-7 Personnel Response Activities Training Log (Example) 11
Figure A-8 Discharge Prevention Meeting Log (Example) 12
Figure A-9 Qualified Individual Notification Exercise Report Form (Example) 13
Figure A-10 Equipment Deployment Exercise Report Form (Example) 14
Figure A-11 Incident Management Team Tabletop Exercise Report Form (Example) 15
APPENDIX B CONTRACTOR AND MUTUAL AID RESPONSE EQUIPMENT 1
B.1 Contractor and Mutual Aid Equipment and Manpower 1
B.1.1 MSRC 1
Figure B-1 Response Contractor Responsibilities 2
Figure B-2 MPA Membership 3
Figure B-3 MSRC Service Agreement 5
Figure B4 MSRC Equipment 6
APPENDIX C PLAN IMPLEMENTATION AND DRAINAGE 1
C.1 Plan Implementation 1
Figure C-1 Response Planning Volume Calculations 1
C.2 Containment and Drainage Planning 2
C.2.1 Facility Drainage 2
C.2.2 Secondary Containment 2
C.2.3 Drainage of Diked Areas 3
C.2.4 Overfill Prevention Systems 3
C.2.5 Effluent Treatment Facilities 3
APPENDIX D HAZARD EVALUATION/RISK ANALYSIS 1
D.1 Hazard Evaluation 1
Figure D-1 Hazard Identification – Aboveground Storage Tanks 2
Figure D-2 Hazard Identification – Surface Impoundments 3
D.2 Hazard Identification 3
D.2.1 Analysis of the Potential for an Oil Discharge 3
D.2.2 Facility Reportable Oil Spill History 5
D.3 DISCHARGE SCENARIOS 7
D.3.1 Small/Medium Discharge Scenarios 7

D.3.2 Factors Affecting Small & Medium Spill Response Efforts 9
D.3.3 Worst-Case Discharge Scenarios 11
D.3.3.1 Factors Affecting Worst Case Response Efforts 11
APPENDIX E RESPONSE TECHNIQUES AND GUIDELINES 1
E.1 General Guidance 1
E.1.1 Personnel Safety 1
E.1.2 Protection Priorities 1
Figure E-1 Response Decision Diagram 2
E.1.3 Environmental Controls For Cleanup Activities 3
E.1.4 Description And Location Of Emergency Shutdown System 3
E.2 Incident Categorization 4
E.2.1 Minor Spills Response Actions 4
Figure E-2(a) Minor Incident Classification 5
Figure E-2(b) Serious Incident Classification 6
E.2.2 Major Spills Response Actions 6
Figure E-2(c) Major Incident Classification 7
E.2.3 Climatic and Hydrographic Conditions 8
E.3 Predicting Slick Movements 10
E.3.1 Factors Affecting Slick Movement 10
E.3.2 Surveillance Guidelines 10
E.4 Establishing A Command/Communications Post And Staging Areas 11
E.4.1 Command/Communications Post 11
E.4.2 Field Command Post 11
E.4.3 Staging Areas 11
E.5 Containment And Recovery 12
E.5.1 Terrestrial Spills 12
E.5.2 Aquatic Spills 12
Figure E-3 Summary of Containment and Recovery Techniques 15
E.6 Sensitive Area Protection 17
E.6.1 Oiled Wildlife Rehabilitation 17
E.6.2 In Situ Burning And Dispersant Application 17
Figure E-4 Summary of Aquatic Protection Techniques 18
E.7 Protective Action Procedures 19
E.7.1 Protection Priorities 19
E.7.2 Protection Method Selection 19
E.8 Berms, Dams And Barriers 20
E.8.1 Blocking Dams 20
Figure E-5 Sandbag Blocking Dam 20
E.8.2 Flowing Water Dams 20
Figure E-6 Flowing Water Dams 21
E.8.3 Sorbent Booms/Barriers 22
Figure E-7 Sorbent Barrier (Water) 22
E.8.4 Earth Containment Berms 23
Figure E-8 Earth Containment Berm (Lined) 23
E.8.5 Street/Pavement Containment 24
Figure E-9 Dam on a Large Paved Area 24
E.8.6 Culvert Blocking 25
Figure E-10 Culvert Blocking 26
Figure E-11 Damming Flow at Borrow Ditch 27

E.8.7 Storm Drain Blocking 28
Figure E-12 Storm Drain Blocking Techniques 28
E.8.8 Sorbent Barrier 29
Figure E-13 Sorbent Barrier (Land) 29
E.8.9 Diversion Trench 30
Figure E-14 Diversion Trench 30
E.8.10 Earth Diversion Berm 31
Figure E-15 Earth Diversion Berm 31
E.9 Protective Booming 32
E.9.1 Flowing Water Containment Booms 32
Figure E-16 Flowing Water Containment Boom 33
Figure E-17 Use of Skimmers along a Shoreline 33
E.9.2 Diversion Booming 34
Figure E-18 Diversion Booming Techniques for Protection of Sensitive Areas 35
E.9.3 Exclusion Booming 36
Figure E-19 Shoreline Containment: Exclusion Booming 36
Figure E-20 Shoreline Containment: Exclusion Booming at Inlet with High Channel Currents 37
Figure E-21 Shoreline Containment: Exclusion Booming 37
E.9.4 Cascading Booms 38
Figure E-22 Placement Configuration of 3 Lengths of Boom (Cascading Deflection Booms) 38
Figure E-23 Cascading Diversion Booms 39
Figure E-24 Cascading Berms 39
E.10 On Water Recovery 40
E.10.1 Vacuum Trucks 40
Figure E-25 Vacuum Truck Oil Recovery 40
Figure E-26 Logistical Requirements for Use of Vacuum Truck 41
E.10.2 Portable Skimmers/Pumps 42
Figure E-27 Oil Recovery Using Portable Pump, Skimmer Head, and Tank Truck 42
Figure E-28 Logistical Requirements for Portable Skimmer/Pumps 43
E.10.3 Sorbent Recovery 43
E.11 Shoreline Cleanup 44
E.11.1 Manual Recovery 44
Figure E-29 Logistical Requirements for Manual Removal of Oiled Material 44
E.11.2 Flushing 45
Figure E-30 Low Pressure Flushing Tactics 45
Figure E-31 Logistical Requirements for Flushing Inert Substrates 46
E.12 Booming Locations 47
E.12.1 Hammond Ditch 47
Figure E-32 Sullivan Road 47
Figure E-33 Sullivan Road Overview 48
Figure E-34 Highway 550 49
E.12.2 San Juan River 49
Figure E-35 San Juan River 1st Location 49
Figure E-36 San Juan River 2nd Location 50
APPENDIX F INSPECTION/PREVENTION AND MAINTENANCE 1
F.1 Discharge Detection 1
F.1.1 Discharge Detection by Personnel 1
F.1.2 Automated Discharge Detection 1
F.2 Facility Self-Inspection 1
F.2.1 Tank Inspection 1

Compatibility 1
Tank Integrity 1
Tank Inspection Records 2
F.2.2 Response Equipment Inspection 2
F.2.3 Secondary Containment Inspection 2
F.3 Prevention Measures Necessary to Reduce an Oil Spill Occurring Due to Facility Operations 2
F.3.1 Description of Type and Frequency of Personnel Training 2
F.3.2 Alcohol and Drug Testing Programs for Key Personnel 2
F.3.3 Implementation of Mitigation and Control Measures to Control Hazards Identified in the Risk and Hazard Analysis 2
APPENDIX G ACRONYMS AND DEFINITIONS 1
G.1 Acronyms 1
G.2 Definitions 4
APPENDIX H CROSS REFERENCE 1
H.1 EPA Cross Reference 1
APPENDIX I DRUG AND ALCOHOL POLICY 1
I.1 General Information 1
I.2 Policy 2

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PREFACE

Statement of Corporate Commitment

OIL SPILL RESPONSE PLAN
Bloomfield Products Terminal

The Oil Spill Response Plan has been prepared for operation of the Bloomfield Products Terminal.

MANAGEMENT APPROVAL AND MANPOWER AUTHORIZATION

The necessary resources to implement this Response Plan are hereby committed. In the event of an oil spill for which the Company is responsible, best efforts will be initiated to expeditiously control and remove any harmful quantity of oil discharged. **Andeavor Logistics LP** and the applicable subsidiaries will adopt and use the National Contingency Plan (NCP) and local Area Contingency Plans (ACP's) in conjunction with this Response Plan. Copies of the Response Plan are kept on-site and ready for use by Company personnel. These documents will be evaluated annually to be sure they are current and updated as necessary.

FEASIBILITY AND EXECUTABILITY

The undersigned executive is authorized to fully implement the oil spill contingency plan and has reviewed the plan for accuracy, feasibility, and executability for the Bloomfield Products Terminal, located in New Mexico, USA, and finds that the plan is feasible and executable.

"I certify, to the best of my knowledge and belief, the consistency of this response plan with the National Contingency Plan (NCP) as specifically identified in 49 CFR 194.107(b)."

Jeff Westra
Area Manager

11/10/20
Date

Response Plan Cover Sheet – Bloomfield Terminal

Facility Operator: Andeavor Logistics LP/Western Refining Terminals, LLC
Facility Name: Bloomfield Terminal
Facility Address: 50 County Road 4990, Bloomfield, NM 87413
Facility Mailing Address: 50 County Road 4990, Bloomfield, NM 87413
Facility Phone #: 505-632-8013
Facility Owner: Andeavor Logistics
Facility Owner Address/Phone: 200 East Hardin St, Findlay, OH 45840 / 419-422-2121
Dun & Bradstreet Number: 08-195-9975 **NAICS Code:** 424710
Latitude/Longitude: 36° 41' 50" N /107° 58' 20" W
Facility Startup Date: 1960 **Facility Acres:** 263
Largest Aboveground Oil Storage Tank Capacity (gallons): 4,620,000 **Number of ASTs:** 31
Maximum Oil Storage Capacity (gallons): 32,422,866 **Total Storage Drums/Transformers (gal):** 30,647
Worst Case Oil Discharge Amount (gallons) 4,620,000
Name of Protected Waterway or Environmentally Sensitive Area: San Juan River
Facility Distance to Navigable Water: ☒ **0 - ¼ mile** ☐ ¼ - ½ mile ☐ ½ - 1 mile ☐ > 1 mile

APPLICABILITY OF SUBSTANTIAL HARM CRITERIA

Does the facility transfer oil over-water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons

YES _____ NO X

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and, within any storage area, does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation?

YES _____ NO X

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculate using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

YES X NO _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculate using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility would shut down a drinking water intake?

YES X NO _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?

YES _____ NO X

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate, and complete.

Signature _____ Date 11/10/20

Name Jeff Westra Title Area Manager

(Please type or print.)

Plan Distribution

Plan #	To	Address
1	Robert Kestenbaum EPG - West	Marathon Petroleum Company 1300 Pier B St Long Beach, CA 90813
2e	Josh Williams EPG - West	Marathon Petroleum Company 474 West 900 North Salt Lake City, UT 84103
3	Servil Hoff EMG - West	Marathon Petroleum Company 41 Patriot Court Evanston, WY 82930
4	Bloomfield Terminal Manager	Marathon Petroleum Company 50 County Rd 4990 Bloomfield, NM 87413
5	Bloomfield Control Room	Marathon Petroleum Company 50 County Rd 4990 Bloomfield, NM 87413
6	Jeff Westra Area Manager	Marathon Petroleum Company 6 Centerpointe Dr La Palma, CA 90621
7, 8	San Juan Regional Office EOC	Marathon Petroleum Company 111 County Rd 4990 Bloomfield, NM 87413
9	Albuquerque Office EOC	Marathon Petroleum Company 6700 Jefferson St NE, Suite A Albuquerque, NM 87109
10e	Margaret Garza Environmental Specialist	Marathon Petroleum Company 1250 W. Washington St. Tempe, AZ 85281
11e	Matt Krakow Environmental Coordinator	Marathon Petroleum Company 111 County Rd 4990 Bloomfield, NM 87413
12e	Reserved	Marathon Petroleum Company 1801 California St, Suite 1200 Denver, CO 80202
13	Craig Hyder Supervisor, EMG-West	Marathon Petroleum Company 19100 Ridgewood Parkway San Antonio, TX 78259
14e	Emergency Ops Center San Antonio	Marathon Petroleum Company 19100 Ridgewood Parkway San Antonio, TX 78259
15e, 16	Joe Godwin New Mexico Environmental Department PSTB, Prevention and Inspection Program	2905 Rodeo Park Drive East, Bldg 1 Santa Fe, NM 87505
17	Rita Whitehorse Larson Navajo Nation EPA	Navajo Nation EPA PO Box 339 Window Rock, AZ 86515
18e	**Chris Perry** **U.S. EPA Region VI**	**US EPA** **Attn: FRP Coordinator (mail code:SEDER)** **1201 Elm Street; Suite 500** **Dallas, TX 75270**
20e	Pipeline Control Center	Marathon Petroleum Company 19100 Ridgewood Parkway San Antonio, TX 78259

Record of Revisions

REVISION NUMBER	REVISION DATE	Description of Changes	Updated By
ORIGINAL	May 2018	Original Submittal	Kestenbaum, Williams
Revision 1	September 2019	Update Notifications, Statement of Corporate Commitment, Response Plan Cover Sheet	Kestenbaum, Sheffield
Revision 2	September 2020	Annual Review: Updated notifications, training and drills, response contractor information, spill history, RPCS	Kestenbaum, Sheffield
Revision 3	November 2020	Updated QI's, personnel	Kestenbaum, Sheffield
Revision 4	December 2020	Updated QI's, personnel	Kestenbaum, Sheffield
Revision 5	September 2021	Annual Review: updated facility responders, names, numbers, minor revisions	Kestenbaum, Saucedo, Garza, Sheffield
Revision 6	December 2021	Updated QIs, personnel	Kestenbaum, Westra, Sheffield
Revision 7	April 2022	Updated QIs, personnel	Kestenbaum, Capehart, Sheffield

EMERGENCY RESPONSE ACTION PLAN

1. Initial Calls and Qualified Individual Information

OBSERVER REPORTS EMERGENCY TO QUALIFIED INDIVIDUAL THEN MAPLINE

Call 911 as appropriate

QUALIFIED INDIVIDUALS		
Contact	**Phone Numbers**	**Time Notified**
Jeff Westra, (Primary) Area Manager, Asphalt Operations	**(O)** 714-880-1696 **(C)** 562-824-2063	
Marc Brunet (Alternate) Terminal Manager	**(C)** 385-233-8258 **(O)** 505-632-4193	

CORPORATE NOTIFICATION

1-877-MAPLINE (1-877-627-5463)

IMMEDIATE CALLS		
Contact	**Phone Numbers**	**Time and Person Notified**
Josh Williams (EPG)	**(C)** 385-260-4648	

OIL SPILL RESPONSE ORGANIZATIONS (OSRO)		
Contact	**Phone Numbers**	**Time and Person Notified**
Marine Spill Response Corp. (MSRC)	(800) 645-7745	

FEDERAL/STATE/LOCAL REGULATORY AGENCIES		
Contact	**Phone Numbers**	**Time and Person Notified**
National Response Center *(immediately)*	(800) 424-8802 (24 hr)	
Environmental Protection Agency- Region VI *(spill on land or water)*	(866) 372-7745	
CSB *(if release results in fatality, hospitalization or damage to property >$1 million.)*	Within 8 hours (202) 261-7600	
New Mexico Environment Department	(505) 827-9329	
New Mexico Oil Conservation Division	(505) 476-3441	

TRIBAL CONTACTS		
Contact	**Phone Numbers**	**Time and Person Notified**
Navajo EPA Superfund	(928) 871-6859	
Navajo Department of Emergency Management	(928) 871-6892/6893	

2. Emergency Notification Phone List

Table 2.1 Federal and State

FEDERAL REGULATORY AGENCIES (within 1 hour of incident)			
AGENCY	**SPILL SIZE**	**VERBAL REPORT**	**WRITTEN REPORT**
National Response Center (USCG, EPA, and DOT notified)	• Immediately for all spills that impact or threaten navigable water or adjoining shoreline • Any size on land if threatening surface waters • Fire/explosion/injury from regulated pipeline	**Immediately** **(800) 424-8802** **Note: A Safety Data Sheet MUST be provided to federal, state and local responders on site within 6 hours of notification to NRC**	None
EPA Region VI (NM, TX)	• If spill is 1000 gal or more (on land), or >42 gallons in each of 2 discharges within 12-month period	(866) 372-7745	Yes (within 60 days)
Chemical Safety Board	• An unanticipated release of an extremely hazardous substance that results in a serious injury or substantial property damage where: • "serious injury" is an injury or illness which results in death or an inpatient hospitalization; • "substantial property damage" is damage to on-site and off-site property, including "loss of use" that exceeds $1 million in combined property damage.	**Within 8 hours** **(202) 261-7600**	Yes (within 90 days)

US DOT	• Release of 5 gallons or more of hazardous liquid or carbon dioxide, except that no report is required for a release of less than 5 barrels resulting from a pipeline maintenance activity if the release is:
	  ○ Confined to company property or pipeline right-of-way; and
	  ○ Cleaned up promptly;
	• If a spill causes estimated property damage, including cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both, >$50,000
	• If spill results in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shoreline
		Written Report Only
		
		Immediately,
		via NRC
		(800) 424-8802
		
		With follow up to
		(202) 366-4595
			Within 30 days on DOT Form 7000-1
			http://phmsa.dot.gov

Table 2.2 Company

COMPANY RESPONDERS			
Name:	**Phone # to Call:**	**Estimated Response Time**	**Time Called:**
Primary QI Jeff Westra, Area Manager	(562) 824-2063 Cell	10 - 12 hours	
Incident Commander Marc Brunet	(385) 233-8258 – Cell (505) 632-4193 – Office	30 minutes to 1 hour	
Safety Josh Capehart	(505) 486-9559 Cell (505) 632-8006 Office	30 minutes to 1 hour	
Operations Section Duane Howe	(505) 444-0084 Cell (505) 632-4025 Office	30 minutes to 1 hour	
Maintenance (Logistics Section) Corey Pruit	(505) 947-6569 Cell (505) 632-4029 Office	30 minutes to 1 hour	
Environmental Gary Russell	(210) 970-1970 Cell (678) 594-6377 Office	12 – 14 hours	
Regional EPG Joshua Williams	(385) 260-4648 Cell	6 - 7 hours	

Table 2.3 OSRO

OSRO	MSRC
Contact Information	(800) 645-7745
Time to respond	6 to 8 hours

Table 2.4 Facility Operators for Initial Response

The following table provides a list of operators that may respond to a spill at the facility. ***The times given are for those that are on shift. It is not expected that off-shift operators will be called in to respond to a spill unless they are a trained member of the Spill Response Team.*** Operators will be notified to respond via radio or identified emergency notification system. Phone numbers provided are for the desk or work area. Cell phone numbers are not provided for operators.

Facility Operators

Names	Area	Day Position	Phone	Notes	Response Times
Marc Brunet	Bloomfield	Manager	385-233-8258		15 – 30 minutes
Mike Charley	Bloomfield	Terminal Operator	505-632-4173		15 – 30 minutes
Frank Dooling	Bloomfield	Pump Mechanic	505-632-4142		15 – 30 minutes
Damian Hamilton	Bloomfield	ICE Tech	505-632-4136		15 – 30 minutes
Bob Heath	Bloomfield	Terminal Operator	505-632-4183		15 – 30 minutes
Saul Noriega	Bloomfield	Terminal Operator			15 – 30 minutes
Lloyd Mahaffey	Bloomfield	Terminal Operator			15 – 30 minutes
Patrick Gonzales	Bloomfield	Terminal Operator			15 – 30 minutes

Table 2.5 Regional Response Team

Note: The team roster is current as of the update of this plan and is subject to change due to turnover of personnel. The response times are based on the team member responding from the field to the spill location.

North Response Team

Names	Area	Day Position	Response Times
Corey Pruitt	Bloomfield	Operations Specialist	1-3 Hours
AJ Horner	Bloomfield	Maint. Supervisor	1-3 Hours
Scott Butler	Bloomfield	Sr. Maint. Manager	1-3 Hours
Gene Lorge	Albuquerque	Terminal Operator	1-3 Hours
Eric Nielson	Albuquerque	SR. Corrosion Tech	1-3 Hours
Dave Aguilar	Bloomfield	Pipeline Operator	1-3 Hours
Mike Bradshaw	Bloomfield	Pump Mechanic	1-3 Hours
Indian Jack	Bloomfield	Pipeline Operator	1-3 Hours
Cameron Lanier	Bloomfield	Pump Mechanic	1-3 Hours
Shandie Pioche	Bloomfield	Pipeline Operator	1-3 Hours
Romie (Beau) Rousseau	Bloomfield	Pump Mechanic	1-3 Hours
Hebert Willie	Bloomfield	Pipeline Operator	1-3 Hours
Wesley Yazzie	Bloomfield	Welder II	1-3 Hours
Julian Velasquez	Bloomfield	Pipeline Operator	1-3 Hours
Daymon Luna	Bloomfield	Pipeline Operator	1-3 Hours
Thomas G. Sabo	Bloomfield	Pipeline Operator	1-3 Hours
Manuel Camacho	Bloomfield	Pipeline Operator	1-3 Hours
Everett Tsosie	Bloomfield	Pipeline Operator	1-3 Hours
Patrick Martinez	Gallup	Pipeline Operator	1-3 Hours
Jeremy Willie	Albuquerque	Pipeline Operator	1-3 Hours
Lloyd Sandoval	Albuquerque	Pipeline Operator	1-3 Hours
Jonas Armenta	Albuquerque	Fleet Manager	1-3 Hours
Josh Capehart	Bloomfield	Safety	1-3 Hours
Janet Coburn	Albuquerque	Documentation	1-3 Hours
Brandon Milton	Bloomfield	Operations Supervisor	1-3 Hours
Duane Howe	Bloomfield	Operations Supervisor	1-3 Hours
James Saunders	Bloomfield	Pipeline Operator	1-3 Hours
Patrick Shannon	Bloomfield	Pipeline Operator	1-3 Hours
David Ramsey	Bloomfield	Pipeline Operator	1-3 Hours
Charles Schmitt	Bloomfield	Pipeline Operator	1-3 Hours
Chad Lance	Bloomfield	Pipeline Operator	1-3 Hours
Patrick Madrid	Gallup	Pipeline Operator	1-3 Hours
Dennis Greigo	Albuquerque	Pipeline Operator	1-3 Hours

3. Spill Response Notification Form

DO NOT DELAY NOTIFICATION IN ORDER TO COLLECT ALL INFORMATION ON THIS SHEET

NATIONAL RESPONSE CENTER (NRC) (800) 424-8802 (within 1 hour)

REPORTING PARTY INFORMATION					
Name:		Position:		Company:	
Day Telephone:		Evening Telephone:			
Address:					
City:		State:		Zip:	
Were Materials Discharged?	YES/NO		Confidential?	YES/NO	
Meeting Federal Obligations to Report?	YES/NO		Date Called:		
Are you calling for the responsible party?	YES/NO		Time Called:		

INCIDENT DESCRIPTION					
Source and/or Cause of incident:					
Date of Incident:		Time of Incident:			
Incident Address/Location:					
Nearest City:		State:		County	Zip
Distance From City:		Direction from City:			
Section	Township		Range		Borough
Container Type		Tank Oil Storage Capacity			
Facility Oil Storage Capacity:					
Facility Latitude:		Facility Longitude:			

MATERIAL DISCHARGE					
CHRIS CODE	Discharged Quantity	Unit of Measure	Material Discharged in Water	Quantity	Unit of Measure

RESPONSE ACTION
Actions Taken to Correct, Control, or Mitigate Incident?

IMPACT			
Number of Injuries:		Number of Fatalities:	
Were there Evacuations?	YES//NO	Number Evacuated:	
Was there any Damage?	YES/NO	Damage in Dollars (approximate):	
Medium Affected:			
Description:			
More Information about Medium:			

ADDITIONAL INFORMATION
Any Information about the incident not recorded elsewhere in the report:

CALLER NOTIFICATIONS									
EPA	YES/NO	USCG	YES/NO	STATE	YES/NO	OTHER	YES/NO	Describe:	

4. Response Equipment List and Location (From Section 7)

4.1.1 Oil Spill Recovery Equipment

The Company has 4,800 barrels per day (bpd) of recovery equipment available through direct ownership. Additional recovery equipment is available from MSRC. A breakdown of specific types, quantities, and de-rated recovery rates is presented in *Figure 4-1*.

Figure 4-1 Oil Spill Recovery Equipment

Owner	Type	Qty	Total De-rated* Recovery (bpd)	Location & Response Time
Marathon	Drum Skimmer	2	2,400	Bloomfield, NM
Marathon	Drum Skimmer	1	1,200	Albuquerque, NM
Marathon	Drum Skimmer	1	1,200	Loving County, TX
Total De-rated Recovery Capacity: 4,800 bpd				

* De-rated recovery rates are based on 20% of standard rates

4.1.2 Containment Boom

The Company has 4,500 feet of containment boom available through direct ownership. Additional boom is available from MSRC. A breakdown of specific types and quantities is presented in *Figure 4-2*.

Figure4-2 Containment Boom

Owner	Type	Quantity	Length (Feet)	Location
Marathon	Fast water boom	15 x 100'	1,500	Loving County, TX
Marathon	Fast water boom	15 x 100'	1,500	Albuquerque, NM
Marathon	Fast water boom	15 x 100'	1,500	Bloomfield, NM
Total Containment Boom: 4,500 Feet				

4.1.3 Temporary Storage Capacity

The Company has between 58,513 to 98,513 bbls of temporary storage capacity available through contracts or direct ownership. A breakdown of specific types, and quantities is presented in *Figure 4-3*.

Figure 4-3 Temporary Storage Capacity

Owner	Type	Capacity (bbls)	Location
Rain for Rent	Frac Tanks w/secondary (5)	2,000	Los Cruses, NM
BakerCorp	Frac Tanks w/Secondary (5)	2,000	Midland, TX
Marathon	Storage Tanks onsite (F)	40,000 – 80,000	Bloomfield Products Terminal
Marathon	Storage Tanks onsite (F)	14,000	Albuquerque Products Terminal
Marathon	2,400-gallon Fast Tank	171	Albuquerque, NM
Marathon	2,400-gallon Fast Tank	171	Bloomfield, NM
Marathon	2,400-gallon Fast Tank	171	Loving County, TX
Total Temporary Storage Capacity: 58,513 – 98,513 bbls			

4.1.4 Company Owned Equipment Inspection and Maintenance

Company owned spill response equipment is housed in separate spill trailers and can be accessed by the pipeline response personnel. To ensure operational readiness, the equipment is thoroughly inspected during the semi-annual deployment exercises with a final year-end inspection. Inspection and

maintenance activities are conducted in accordance with the National Preparedness for Response Exercise Program (NPREP) guidelines and applicable regulations. A copy of the spill response equipment inspection checklists is presented in *Figures 4-4 through 4-6*.

Figure 4-4 River Response Trailer #1

Location: Loving County, TX (Conan Station)
Includes 14' aluminum boat for river booming.

Item	Quantity	Condition	Notes
Fast Water Boom	1500'	New	
Tow Bridals for Boom	40	New	
Oil Skimmer	1	New	
Air Hoses for Skimmer	2	New	
2" Hose for Skimmer	4	New	
Pump for Skimmer 2"	1	New	
T-Posts	50	New	
T-Post Driver	3	New	
T-Post Chain Tie Downs	30	New	
T-Post Chain Tie Down Caps	30	New	
Helmets	5	New	
Poly Rope 3/8"	7800'	New	
Personal Flotation Devices	24	New	
Throw Bags	2	New	
Mega-Secure 28"x25'	1	New	
Fastank 2,400 gal.	1	New	
Diesel Spate pump w/hoses	1	New	
Danforth Anchor System	4	New	
Air Compressor with Hose	1	New	
Hooded Tyvek Suits	36	New	
Rubber Gloves	48	New	
Rubber Boots	12	New	
Folding Chairs	11	New	
Folding Table	1	New	
Extension Cord	5	New	
Barricade Sign	2	New	
36" Step Stool	1	New	
Square Point Shovel	3	New	
Round Point Shovel	2	New	
Push Brooms	2	New	
First Aid Kit	2	New	
Handheld GPS	1	New	
Personal Safety Horn	2	New	
Extension Ladder 20'	1	New	
Construction Film Roll	2	New	
Polyethylene Tarp	3	New	
Fire Extinguisher 20 lb.	2	New	
Instant Canopy	1	New	
Traffic Cones	20	New	
Tool Box	1	New	
Portable Lights	3	New	
Cooler	1	New	
Buoys	10	New	
Honda Portable Generator	1	New	
2 Gallon Gas Can	1	New	
Mop	2	New	
Grounding Kit	5	New	
Handheld Radios	8	New	
D-rings	45	New	
Fender Buoys	8	Used	

Item	Quantity	Condition	Notes
Absorbent Pads (package)	3	New	
Double Loop Cables	10	New	
Kayaks	2	New	
Kayak Paddles	2	New	
Waders	2 pairs	New	
Step Stand	1	New	
Trauma Bag	1	New	
LEO Bag Inventory (Bag #1 and #2)			
Item	**Quantity**	**Condition**	**Notes**
Prussic Loops	**6**	**New**	
Anchor Plate / Carabiner	1	New	
Tandem Pulley / 3 Carabiners	1	New	
Ascenders Right Hand	4	New	
Ascenders Left Hand	2	New	
Croll Ascender	1	New	
Butterfly Pulley	3	New	
Static Rope	100’	New	
Aluminum Carabiners	6	New	
Bag (Backpack)	1	New	

Inspected by: _____ Date: _____

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Figure 4-5 River Response Trailer #2

Location: Albuquerque, NM (Located at the Albuquerque Products Terminal)
Includes 14’ aluminum boat for river booming.

Item	Quantity	Condition	Notes
Fast Water Boom	1500'	New	
Tow Bridals for Boom	40	New	
Oil Skimmer	1	New	
Air Hoses for Skimmer	2	New	
2" Hose for Skimmer	4	New	
Fastank 2,400 gal.	1	New	
Mega Secure 28”x25’	1	New	
Danforth Anchor System	1	New	Chain, 9-12” buoys
Diesel Spate Pump w/Hoses	1	New	
Pump for Skimmer 2"	1	New	
T-Posts	50	New	
T-Post Driver	3	New	
T-Post Chain Tie Downs	30	New	
T-Post Chain Tie Down Caps	30	New	
Helmets	5	New	
Poly Rope 3/8"	8400'	New	
Personal Flotation Devices	24	New	
Throw Bags	2	New	
Trash Pump	1	New	
Air Compressor with Hose	1	New	
Hooded Tyvek Suits	36	New	
Rubber Gloves	48	New	
Rubber Boots	12	New	
Folding Chairs	12	New	
Folding Table	1	New	
Extension Cord	5	New	
Barricade Sign	2	New	
36" Step Stool	1	New	
Square Point Shovel	3	New	
Round Point Shovel	2	New	
Push Brooms	2	New	

Item	Quantity	Condition	Notes
First Aid Kit	2	New	
Handheld GPS	1	New	
Personal Safety Horn	2	New	
Extension Ladder 20'	1	New	
Construction Film Roll	2	New	
Polyethylene Tarp	3	New	
Fire Extinguisher 20 lb.	2	New	
Instant Canopy	1	New	
Traffic Cones	20	New	
Tool Box	1	New	
Portable Lights	3	New	
Cooler	1	New	
Buoys	10	New	
Honda Portable Generator	1	New	
2 Gallon gas can	1	New	
Mop	2	New	
Grounding Kit	5	New	
Handheld Radio	8	New	
D-Rings	45	New	
Absorbent Pads (packages)	3	New	
Fender Buoys	9	Used	
Double Loop Cables	10	New	
Kayaks	2	New	
Kayak Paddles	2	New	
Waders	3 pair	New	
Step Stand	1	New	
Trauma Bag	1	New	
LEO Bag Inventory (Bag #1 and #2)			
Item	**Quantity**	**Condition**	**Notes**
Prussic Loops	6	New	
Anchor Plate / Carabiner	1	New	
Tandem Pulley / 3 Carabiners	1	New	
Ascenders Right Hand	4	New	
Ascenders Left Hand	2	New	
Croll Ascender	1	New	
Butterfly Pulley	3	New	
Static Rope	100’	New	
Aluminum Carabiners	6	New	
Bag (Backpack)	1	New	

Inspected by: _____ Date: _____

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Figure 4-6 River Response Trailer #3

Location: Bloomfield, NM (Located at the trucking yard next to main office)
Includes 14' aluminum boat for river booming.

Item	Quantity	Condition	Notes
Fast Water Boom	1200'	New	
Tow Bridals for Boom	40	New	
Oil Skimmer (Air)	1	New	
Air Hoses for Skimmer	2	New	
Hydraulic Power Pack	1	New	
Hydraulic Skimmer	1	New	
Hydraulic Pump	1	New	
FASTANK (2,400 gal.)	1	New	
Mega Secure (28"x25')	1	New	
Danforth Anchor System	4	New	
2" Hose for Skimmer	4	New	
Pump for Skimmer 2"	1	New	
T-Posts	50	New	
T-Post Driver	3	New	
T-Post Chain Tie Downs	30	New	
T-Post Chain Tie Down Caps	30	New	
Helmets	5	New	
Poly Rope 3/8"	7800'	New	
Personal Flotation Devices	24	New	
Throw Bags	2	New	
Air Compressor with Hose	1	New	
Hooded Tyvek Suits	36	New	
Rubber Gloves	48	New	
Rubber Boots	12	New	
Folding Chairs	4	New	
Folding Table	1	New	
Extension Cord	5	New	
Barricade Sign	2	New	
36" Step Stool	1	New	
Square Point Shovel	2	New	
Round Point Shovel	3	New	
Push Brooms	1	New	
First Aid Kit	2	New	
Handheld GPS	1	New	
Personal Safety Horn	2	New	
Extension Ladder 20'	1	New	
Construction Film Roll	2	New	
Polyethylene Tarp	3	New	
Fire Extinguisher 20 lb.	2	New	
Instant Canopy	1	New	
Traffic Cones	20	New	
Tool Box	2	New	
Portable Lights	3	New	
Cooler	1	New	
Buoys	10	New	
Honda Portable Generator	1	New	
2 Gallon Gas Can	1	New	
Grounding Kit	5	New	
Handheld Radios	8	New	
D-rings	45	New	
Fender Buoys	8	Used	
Absorbent Pads (package)	3	New	
Double Loop Cables	10	New	
Kayaks	2	New	

Item	Quantity	Condition	Notes
Kayak Paddles	2	New	
Waders	2 pairs	New	
Step Stand	1	New	
Trauma Bag	1	New	
LEO Bag Inventory (Bag #1 and # 2)			
Item	**Quantity**	**Condition**	**Notes**
Prussic Loops	6	New	
Anchor Plate / Carabiner	1	New	
Tandem Pulley / 3 Carabiners	1	New	
Ascenders Right Hand	4	New	
Ascenders Left Hand	2	New	
Croll Ascender	1	New	
Butterfly Pulley	3	New	
Static Rope	100’	New	
Aluminum Carabiners	6	New	
Bag (Backpack)	1	New	

Inspected by: _____ Date: _____

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5. Response Equipment Testing and Deployment

5.1 Equipment Deployment Exercises

The company maintains and trains its employees in the use of the oil spill response and cleanup equipment located within the plan response zones. Contracted OSROs conduct maintenance and training activities for their equipment and personnel that would be employed in oil spill response clean-up. The Company will conduct semi-annual equipment deployment exercises as per PREP guidelines. The Company will also verify that the response contractors identified in this Plan participate in annual equipment deployment exercises.

5.2 Response Equipment Inspections

Equipment inspections are conducted semi-annually. Equipment inspection logs are maintained on file within response trailers and local offices.

6. Facility Response Team

6.1 Personnel

Facility/emergency response personnel are listed in the table provided in *Table 2.2* and the initial operators for response are shown in *Table 2.4*. The company has a regional Incident Management Team that would draw personnel from different terminals and offices within New Mexico and Texas. In addition, the company has a National Response Team that would draw personnel from other states that would cascade in to support the response. Names and information on the personnel is available upon request. Personnel would be notified of the need to respond through an Emergency Notification System (ENS).

6.2 Spill Response Team

The company maintains a Spill Response Team in the northern and southern response zones. These teams draw personnel from different terminals and stations in each zone. The Northern Response Zone SRT would be responsible for responding to incidents north of Albuquerque, with an average response time of 2 to 3 hours. *Table 2.5* shows the spill response team for the Northern Zone.

7. Evacuation Plan

7.1 Bloomfield Products Terminal (BPT)

- **Evacuation Route** - Terminal Manager will act as the Initial Incident Commander and utilize available automobiles to evacuate all personnel to the designated Evacuation Assembly Area which is the Main Office Building to be accounted for and then, if necessary, out the main entrance and across County Road 4990 off the property. Supervisory personnel will assist in the safe and orderly evacuation of all personnel. Prior to evacuating, supervisors will check the immediate area they are located in to ensure that all personnel are properly evacuated. An evacuation map is provided in at the end of the ERAP and in *Figure 2-1*.
  - After an evacuation, no personnel are to re-enter the Facility until the All Clear / Re-entry signal is given verbally by the Terminal Manager. Company personnel may be authorized by the responding agency to re-enter prior to the All Clear to provide site-specific information to the responders.
  - Under no circumstances are Company personnel to enter hazardous areas unless they have the proper personal protective equipment and have been trained in the proper use of the equipment.
  - The **All Clear** signal will be issued by the Terminal Manager after consultation with the appropriate emergency response agencies and Company management and after determining that re-entry is safe.
- **Alternative Route of Evacuation** - Personnel at the east side of the Terminal and at the Loading and Unloading Area may evacuate to the east along County Road 4990. Should the primary Evacuation route be unavailable, personnel use this eastern route to evacuate.
- **Transportation of Injured Personnel to Nearest Emergency Medical Facility** - Injured personnel will be transported to the San Juan Regional Medical Center in Farmington via County Road 4990, State Route 44, and US Highway 64.
- **Location of Alarm/Notification Systems** - Personnel radios are used to provide warning to all personnel and their locations.
- **Centralized Check-in/Assembly Area for Evacuation Validation** - The centralized check-in location for evacuating personnel will be the Main Office located near the entrance to the Terminal at 50 County Road 4990. If personnel cannot get to this location, they may proceed to the parking lot south of the Regional Office Building. Once personnel are all accounted for, they will be evacuated from the area.
- Additional Evacuation Plan information for BPT is located in *Section 2*.

8. Immediate Actions

This section provides a prioritized list of actions that should be taken by key members of the Immediate Response Team (IRT) in the event of an oil spill. These are the actions that occur during the first minutes of an incident and determine the extent of emergency response required.

Each action item has been carefully planned but may not completely address all situations and circumstances that might be encountered in an emergency situation. Careful evaluation, common sense, and experienced judgment should be applied at all times during an emergency response.

The Emergency Action Checklists in this section are presented as a guide. The lists are not intended to preclude logical actions and decisions based on the observed circumstances.

Emergency Action Checklist Format

The format of the Emergency Action Checklist is presented in three levels of detail. The action item is printed in **bold** type. A further explanation and detail of the action item follows the bold type. References to detailed material located in this OSRP and applicable to the specific task are also noted.

After all IRT duties have been accomplished, or are in progress, the team members will continue the duties assigned to his/her position. The team members will be responsible for those duties until relieved. The team members should confirm the level of response required with the Incident Commander (IC) before proceeding with those duties.

In smaller incidents, an employee may be assigned the responsibilities of more than one position. If so, he/she should approach the combined duties in parallel with the most important duties (usually listed first) of both tasks receiving priority.

OIL SPILL

PERSON DETECTING A SPILL OR THREAT OF A SPILL

❑ ___ 1. **Discontinue Operations**
- Activate the emergency shutdown.

❑ ___ 2. **Warn People in the Area of Hazards**
- Direct employees and contract workers to move well clear of the release in a crosswind or upwind direction.
- Warn personnel to avoid breathing fumes.
- Warn personnel to avoid igniting fumes.
- Attend to injured personnel.

❑ ___ 3. **Prevent Ignition**
- Exclude ignition sources from the area.
- Do not start electrical equipment or other engines in the area.

❑ ___ 4. **Report the Situation**
- Notify the Terminal Manager (see Section 3) as soon as possible and provide the following information:
  - The time of the incident.
  - The location of the incident.
  - Whether the incident caused any injury to personnel.
  - The type of oil spilled.
  - The amount of oil spilled.
  - The status of the source.

❑ ___ 5. **Keep Clear of the Hazardous Area**
- Do not try to remedy the situation alone.
- Keep the spill area under surveillance until danger of fire or explosion has been eliminated.
- Close the discharge valve from the oil/water separator if it can be done safely.

OIL SPILL

TERMINAL OPERATOR

❑ ___ 1. **Verify Safety of Personnel**

❑ ___ 2. **Assess the Situation**
- Source of release.
- General extent of release.
- Status of shutdown.
- Number of injured and their condition.
- Initial site monitoring: benzene and LEL.
- Probable direction of vapors.
- Estimate quantity of release.
- Wind and weather conditions.
- Direction of movement.
- Status of ignition sources.

❑ ___ 3. **Notify Terminal Manager of the Incident** (see Section 3, *Notification*)

❑ ___ 4. **Stop Release**
- Stop the source of the release or verify that source is stopped.
- Shut off transfer pumps, close all header and tank valves, and drain/pump remaining contents of hoses/pipelines back into tanks if feasible.

❑ ___ 5. **Implement Site-Specific Response Strategy**

❑ ___ 6. **Document All Actions**

OIL SPILL

TERMINAL MANAGER / INCIDENT COMMANDER

- ❑ ___ 1. **Receive Report of Spill**
  - Ascertain nature and severity of spill.
  - Ensure safety of onsite personnel.
  - Assume role of incident commander
- ❑ ___ 2. **Notify Fire Department and Contractors**
  - Initiate Notifications as necessary (see Section 3, Notification)
- ❑ ___ 3. **Activate Immediate Response Team**
  - Brief members of the Immediate Response Team on the status of the incident.
- ❑ ___ 4. **Notify Spill Management Team** (see Section 3, *Notification*)
- ❑ ___ 5. **Initiate Required Government Agency Notifications** (see Section 3, *Notification*)
- ❑ ___ 6. **If Necessary, Direct Rescue of Injured and Evacuate Area**
  - Direct response personnel to don protective clothing, as appropriate, and remove injured to upwind area.
  - Direct evacuation of employees and contract personnel to safe areas upwind from spill.
  - Control ignition sources.
- ❑ ___ 7. **Establish Command Center and Staging Areas**
- ❑ ___ 8. **Document All Actions**
  - Submit reports as required

OIL SPILL

SAFETY OFFICER

- ❑ ___ 1. Evaluate Immediate Public Health and Safety Risks
- ❑ ___ 2. Recommend Site Control Measures to Isolate Public from Possible Exposure
- ❑ ___ 3. Assess Environmental Conditions
  - Air and water monitoring.
- ❑ ___ 4. Recommend Immediate Actions to be Taken by Onsite Response Team to Protect Health and Safety
- ❑ ___ 5. Conduct Site Safety Evaluation
- ❑ ___ 6. Develop Site Safety & Health Plan (see Section 5)
- ❑ ___ 7. Document All Actions

TANK OVERFILL/FAILURE

TERMINAL OPERATOR

❑ ___ 1. **Verify Safety of Personnel**
- Eliminate ignition sources

❑ _____ 2. **Stop Release**
- Stop the source of the release or verify that source is stopped.
- Notify driver or pipeline operator as appropriate
- Tank Overfill - Shut off transfer pumps, close all header and tank valves, transfer product to available tankage to reduce level in overfilled tank.
- Truck Tank/Valve Leak - Shut down transfer and attempt to close valve or repair leak. Pump out any leaking tank compartments. Flush spilled oil into strip drains with water.
- Tank Leak - Attempt to plug leak and begin transferring tank contents to available tankage; repair tank.
- Verify that dike drain valve is closed.

❑ ___ 3. **Assess the Situation**
- Source of release.
- General extent of release.
- Status of shutdown.
- Number of injured and their condition.
- Initial site monitoring: benzene and LEL.
- Probable direction of vapors.
- Estimated quantity of release.
- Wind and weather conditions.
- Direction of movement.

❑ ___ 4. **Notify Terminal Manager of the Incident**

❑ ___ 5. **Implement Site-Specific Response Strategy**
- Keep spill area under surveillance until danger or fire or explosion has been eliminated.

❑ ___ 6. **Document All Actions**

TANK OVERFILL/FAILURE

INCIDENT COMMANDER

1. **Report to Incident Site and Assess the Situation**
   - The first person at the scene of the incident or assigned will assess the incident and report the nature and significance of the incident.
2. **Collect Information Required for Initial Assessment**
   - Location of the tank.
   - Impact and/or hazards to other facilities.
   - Extent of visible damage.
   - Magnitude and direction of release.
   - Material involved in release.
   - Potential of ignition sources.
   - Impact to drain systems, etc.
3. **Notify Fire Department and Contractors** (see Section 3)
   - Initiate notifications as necessary
4. **Activate Immediate Response Team**
   - Brief members of the Immediate Response Team on the status of the incident.
5. **Report Information Gathered to Spill Management Team** (see Section 3)
6. **Initiate Required Government Agency Notifications** (see Section 3)
7. **If Necessary, Direct Rescue of Injured and Evacuate Area**
   - Direct response personnel to don protective clothing, as appropriate, and remove injured to upwind area.
   - Direct evacuation of employees and contract personnel to safe areas upwind from spill.
   - Control ignition sources.
8. **Formulate Incident Action Plan**
   - Consider need to block drains, deploy boom, shutdown ignition sources, diking, containment, equipment and personnel availability, etc.
9. **Coordinate Contractors Involved in Response**
10. **Verify Safety of Response Personnel**
11. **Document All Actions and Observations**
    - Submit reports as required

TANK OVERFILL/FAILURE

SAFETY OFFICER

1. **Evaluate Immediate Public Health and Safety Risks**
   - Attend to injured personnel
2. **Recommend Site Control Measures to Isolate Public from Possible Exposure**
3. **Assess Environmental Conditions**
   - Air and water monitoring.
4. **Recommend Immediate Actions to be Taken by Immediate Response Team to Protect Health and Safety**
5. **Conduct Site Safety Evaluation**
6. **Develop Site Safety Plan** (see Section 5)
7. **Document All Actions**

PIPE RUPTURE/LEAK

TERMINAL OPERATOR

❑ ___ 1. **Verify Safety of Personnel**
- Eliminate Ignition source

2. **Stop Release**
- Stop the source of the release or verify that source is stopped.
- Shut off transfer pumps, close all header and tank valves, and drain remaining contents of hoses/pipelines back into tanks.
- Notify driver or pipeline operator as appropriate
- Tank Truck/Hose Leak/Rupture - Shut off transfer pumps using the emergency shutdown switch at the loading racks and drain the remaining contents of the hose into the tank truck. Flush spilled oil into strip drains with water.
- Pipeline Leak/Rupture - Stop transfer and isolate leaking section of pipeline. Evacuate contents of line with suction pump or flush with water to remove remaining product.
- Storage Tank Flange/Valve Leak – Stop transfer and tighten valve/ flange. If release continues, transfer tank contents to available tankage and repair and replace valve/flange.
- Verify that dike drain is closed

❑ ___ 3. **Assess the Situation**
- Source of release.
- General extent of release.
- Status of shutdown.
- Number of injured and their condition.
- Initial site monitoring, benzene and LEL.
- Probable direction of vapors.
- Estimated quantity of release.
- Wind and weather conditions.
- Direction of movement.

❑ ___ 4. **Notify Terminal Manager of the Incident**

❑ ___ 5. **Implement Site-Specific Response Strategy**
- Keep spill area under surveillance until danger of fire or explosion has been eliminated.

❑ ___ 6. **Document All Actions**

PIPE RUPTURE/LEAK

INCIDENT COMMANDER

- ☐ ___ 1. **Report to Incident Site and Assess the Situation**
  - The first person at the scene of the incident or assigned will assess the incident and report the nature and significance of the incident.
- ☐ ___ 2. **Collect Information Required for Initial Assessment**
  - Location of the tank.
  - Impact and/or hazards to other facilities.
  - Extent of visible damage.
  - Magnitude and direction of release.
  - Material involved in release.
  - Potential of ignition sources.
  - Impact to drain systems, etc.
- ☐ ___ 3. **Notify Fire Department and Contractors** (see Section 3)
  - Initiate notifications as necessary
- ☐ ___ 4. **Activate Immediate Response Team**
  - Brief members of the Immediate Response Team on the status of the incident.
- ☐ ___ 5. **Report Information Gathered to Spill Management Team** (see Section 3)
- ☐ ___ 6. **Initiate Required Government Agency Notifications** (see Section 3)
- ☐ ___ 7. **If Necessary, Direct Rescue of Injured and Evacuate Area**
  - Direct response personnel to don protective clothing, as appropriate, and remove injured to upwind area.
  - Direct evacuation of employees and contract personnel to safe areas upwind from spill.
  - Control ignition sources.
- ☐ ___ 8. **Formulate Incident Action Plan**
  - Consider need to block drains, deploy boom, shutdown ignition sources, diking, containment, equipment and personnel availability, etc.
- ☐ ___ 9. **Coordinate Contractors Involved in Response**
- ☐ ___ 10. **Verify Safety of Response Personnel**
- ☐ ___ 11. **Document All Actions and Observations**
  - Submit reports as required

PIPE RUPTURE/LEAK

SAFETY OFFICER

- ☐ ___ 1. **Evaluate Immediate Public Health and Safety Risks**
  - Attend to injured personnel
- ☐ ___ 2. **Recommend Site Control Measures to Isolate Public from Possible Exposure**
- ☐ ___ 3. **Assess Environmental Conditions**
  - Air and water monitoring.
- ☐ ___ 4. **Recommend Immediate Actions to be Taken by Immediate Response Team to Protect Health and Safety**
- ☐ ___ 5. **Conduct Site Safety Evaluation**
- ☐ ___ 6. **Develop Site Safety Plan** (see Section 5)
- ☐ ___ 7. **Document All Actions**

OTHER EQUIPMENT FAILURE

TERMINAL OPERATOR

❑ ___ 1. **Verify Safety of Personnel**
- Eliminate ignition source

❑ ___ 2. **Stop Release**
- Stop the source of the release or verify that source is stopped.
- Notify driver or pipeline operator as appropriate.
- Shut off transfer pumps, close all header and tank valves, and drain remaining contents of hoses/pipelines back into tanks.
- Truck Tank/Valve Leak – Shut down transfer and attempt to close valve or repair leak. Pump out any leaking tank compartments. Flush spilled oil into strip drains with water.
- Storage Tank Flange/Valve Leak – Stop transfer and tighten valve/ flange. If release continues, transfer tank contents to available tankage and repair and replace valve/flange
- Verify that dike drain valve is closed

❑ ___ 3. **Assess the Situation**
- Source of release.
- General extent of release.
- Status of shutdown.
- Number of injured and their condition.
- Initial site monitoring: benzene and LEL.
- Probable direction of vapors.
- Estimated quantity of release.
- Wind and weather conditions.
- Direction of movement.

❑ ___ 4. **Notify Terminal Manager of the Incident**

❑ ___ 5. **Implement Site-Specific Response Strategy**
- Keep spill area under surveillance until danger of fire or explosion has been eliminated.

❑ ___ 6. **Document All Actions**

OTHER EQUIPMENT FAILURE

INCIDENT COMMANDER

- ❑ ___ 1. **Report to Incident Site and Assess the Situation**
  - The first person at the scene of the incident or assigned will assess the incident and report the nature and significance of the incident.
- ❑ ___ 2. **Collect Information Required for Initial Assessment**
  - Location of the tank.
  - Impact and/or hazards to other facilities.
  - Extent of visible damage.
  - Magnitude and direction of release.
  - Material involved in release.
  - Potential of ignition sources.
  - Impact to drain systems, etc.
- ❑ ___ 3. **Notify Fire Department and Contractors** (see Section 3)
  - Initiate notifications as necessary
- ❑ ___ 4. **Activate Immediate Response Team**
  - Brief members of the Immediate Response Team on the status of the incident.
- ❑ ___ 5. **Report Information Gathered to Spill Management Team** (see Section 3)
- ❑ ___ 6. **Initiate Required Government Agency Notifications** (see Section 3)
- ❑ ___ 7. **If Necessary, Direct Rescue of Injured and Evacuate Area**
  - Direct response personnel to don protective clothing, as appropriate, and remove injured to upwind area.
  - Direct evacuation of employees and contract personnel to safe areas upwind from spill.
  - Control ignition sources.
- ❑ ___ 8. **Formulate Incident Action Plan**
  - Consider need to block drains, deploy boom, shutdown ignition sources, diking, containment, equipment and personnel availability, etc.
- ❑ ___ 9. **Coordinate Contractors Involved in Response**
- ❑ ___ 10. **Verify Safety of Response Personnel**
- ❑ ___ 11. **Document All Actions and Observations**
  - Submit reports as required

OTHER EQUIPMENT FAILURE

SAFETY OFFICER

- ❑ ___ 1. **Evaluate Immediate Public Health and Safety Risks**
  - Attend to injured personnel
- ❑ ___ 2. **Recommend Site Control Measures to Isolate Public from Possible Exposure**
- ❑ ___ 3. **Assess Environmental Conditions**
  - Air and water monitoring.
- ❑ ___ 4. **Recommend Immediate Actions to be Taken by Immediate Response Team to Protect Health and Safety**
- ❑ ___ 5. **Conduct Site Safety Evaluation**
- ❑ ___ 6. **Develop Site Safety Plan** (see Section 5)
- ❑ ___ 7. **Document All Actions**

Initial Response Guide First Responder

Oil Spill

Safety (1)

- Your safety first and then the safety of others
- Start a Site Safety Health Plan (SSHP) as soon as possible. This is found on page 5 of the ICS 201 Site Safety and Control Analysis.
- Stay out of the hazard area.
- If performing Recon, approach up-wind, up-stream with 4 gas meter or equivalent.

Shut down, Isolate and Deny Entry

- Eliminate all ignition sources
- Shut down pipeline operations as appropriate
- Evacuate the immediate area and establish an initial Hot Zone
- Deny entry to the immediate area
- If necessary, other Hazwoper trained employees may help deny entry into the area
- If on the scene, ask police and fire resources to help deny entry into immediate area

Notifications (Section 3)

- Contact the control center
- Dial 911 if ambulance, police or fire department assistance is needed
- Follow the Notifications Flowchart (internal and external)

Command Management (2)

- Assume the role of Incident Commander
- Make an announcement to all on the scene that you have assumed Command
- Establish a Unified Command Post and Staging Area up-wind and up-stream of the incident in the cold zone
- Begin by assigning initial ICS positions as necessary, such as Deputy IC, Operations and Safety.
- Meet, greet and brief responding Agencies as they arrive at the Unified Command Post
- Turn over the SSHP (ICS 201-5) to the Safety Officer for continuation and completion.

Identification and Assessment

- Continue to evaluate the hot zone and adjust accordingly
- Continue to monitor evacuation activities with the fire department
- Ensure safe Recon to determine extent of impact to the community

Action Planning

- Create an ICS 201 to serve as the de facto Incident Action Plan for the initial period
- Create Unified "Next" period Incident Action Plan (only if required)

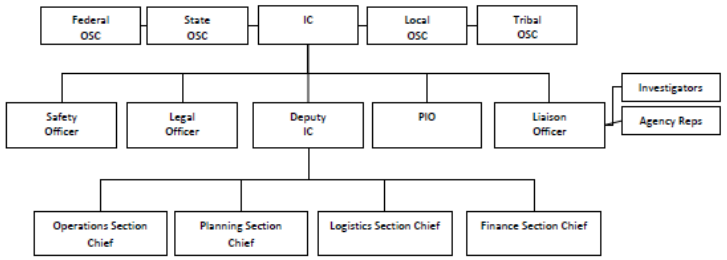
Initial ICS Forms that May Be Utilized

- ICS Form 201 (Incident Briefing)
- ICS Form 211p (Check-In List, Personnel)
- Additional forms can be found at: http://gotso/departments/contingency-planning/Pages/default.aspx

General Protection Strategies

- Shut down and isolate flow
- Eliminate sources of ignition
- Contain ahead of spill by safely booming or damming
- Protect bodies of water ahead of spill
- All equipment used when handling product must be grounded
- Four gas detectors are essential for site recon.

Incident Command System Organization Chart



Protective Equipment (3)

- Ensure proper levels of PPE
- Ensure PPE is in line with SSHP (ICS 201 page 5)

Containment & Control

- Immediately, valve isolation and control strategies should be developed within the Unified Command Process
- Operations Section Chief oversee containment and control tactical deployment

Protective Actions

- Ensure safe Recon to assess impact for potential fire or explosion
- Protective action tactical deployment should be part of the Unified process
- Follow emergency confined space entry procedures for upstream vault entry.

Decontamination / Clean-up (only in case of a fire) (4)

- Decon activities take place under the ICS Ops Section
- Decon capabilities in place before entering Hot Zone
- Ensure proper PPE for Decon Team
- Clean-up strategies should be part of the Unified IAP
- Decon run-off needs to be contained and properly disposed of

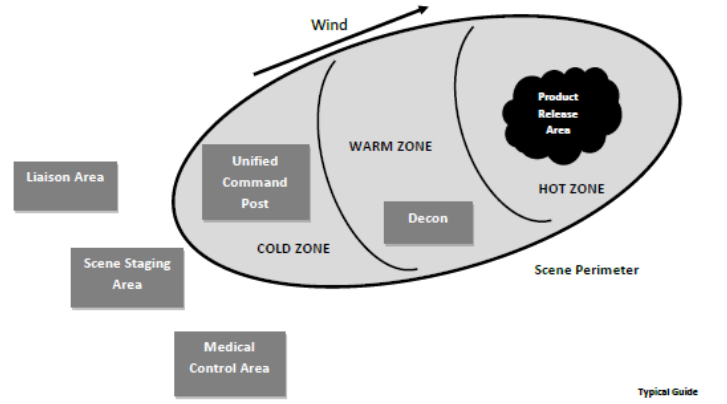
Disposal (only in case of a fire)

- Ensure early notification of Waste SMEs

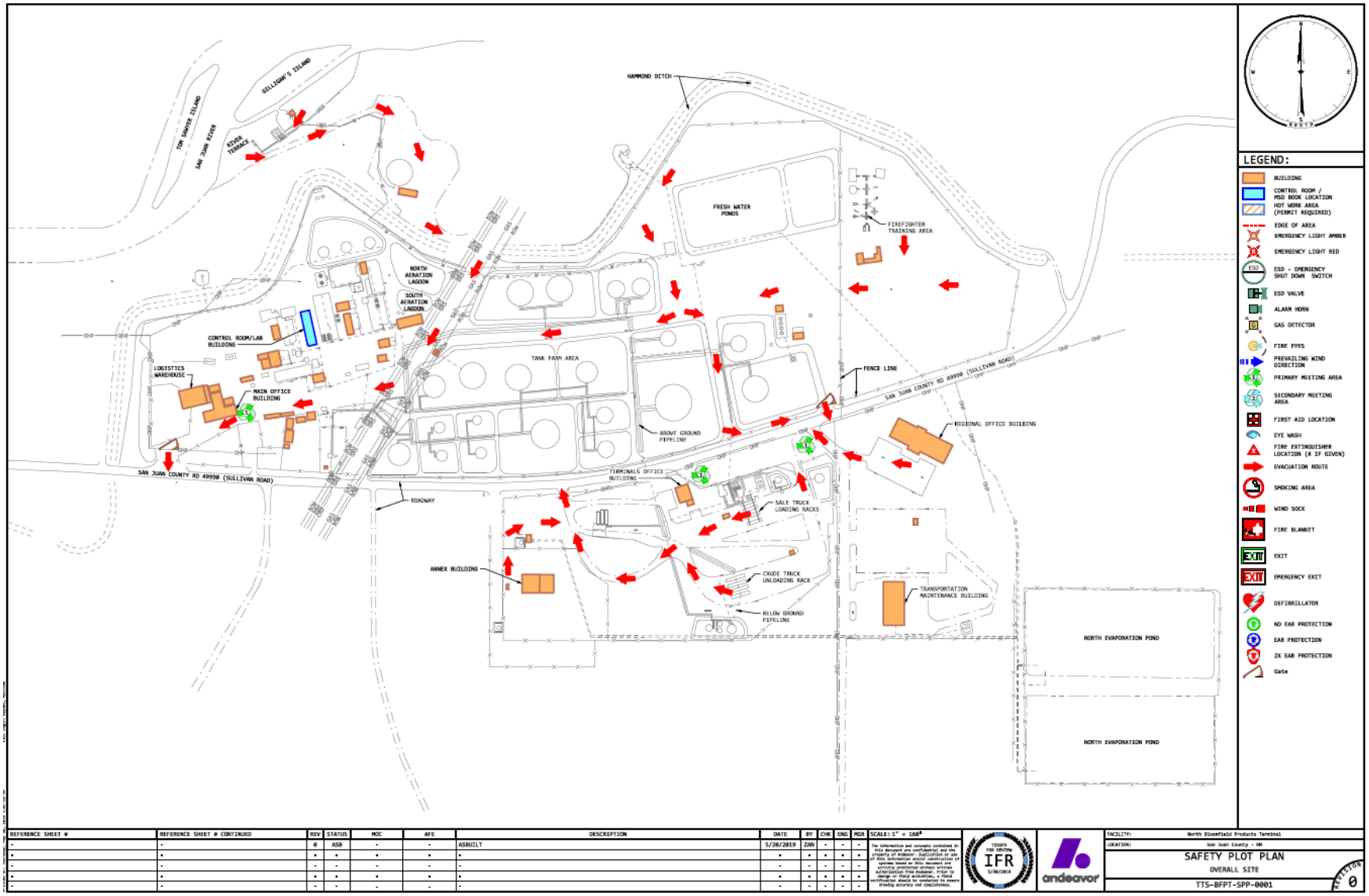
Documentation

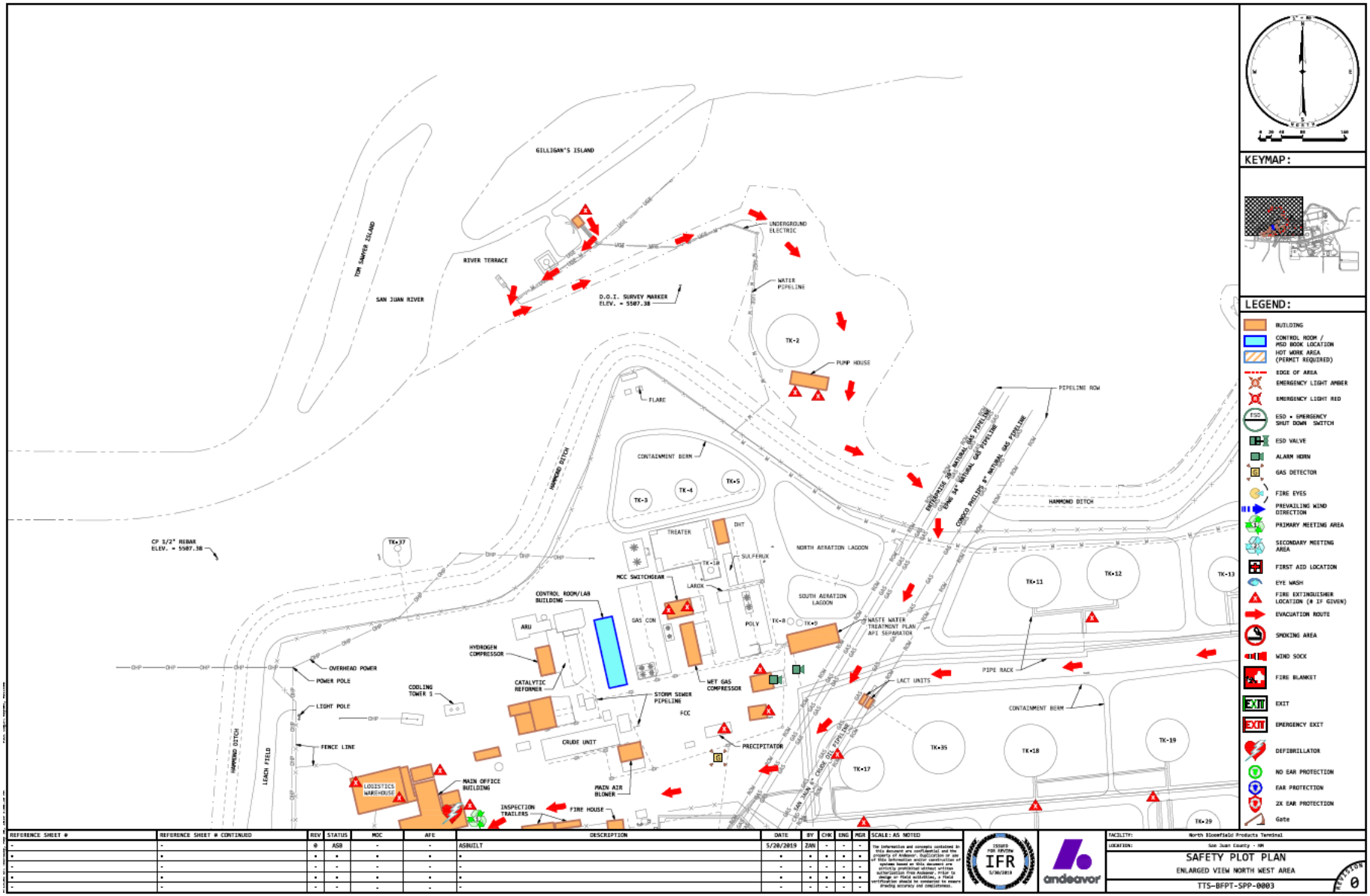
- Ensure initial response actions are documented on ICS 201
- Ensure proper retention of all incident related documents
- Ensure timely incident critique and record lessons learned
- Date and initial all field note pages

Typical Emergency Scene Control Zone Diagram



9. Facility Diagrams and Evacuation Plans





REFERENCE SHEET #	REFERENCE SHEET # CONTINUED	REV	STATUS	MOC	AFE	DESCRIPTION	DATE	BY	CHK	ENG	MGR
-	-	0	ASB	-	-	ASBUILT	5/20/2019	ZAN	-	-	-
•	•	•	•	•	•	•	•	•	•	•	•
-	-	-	-	-	-	-	-	-	-	-	-
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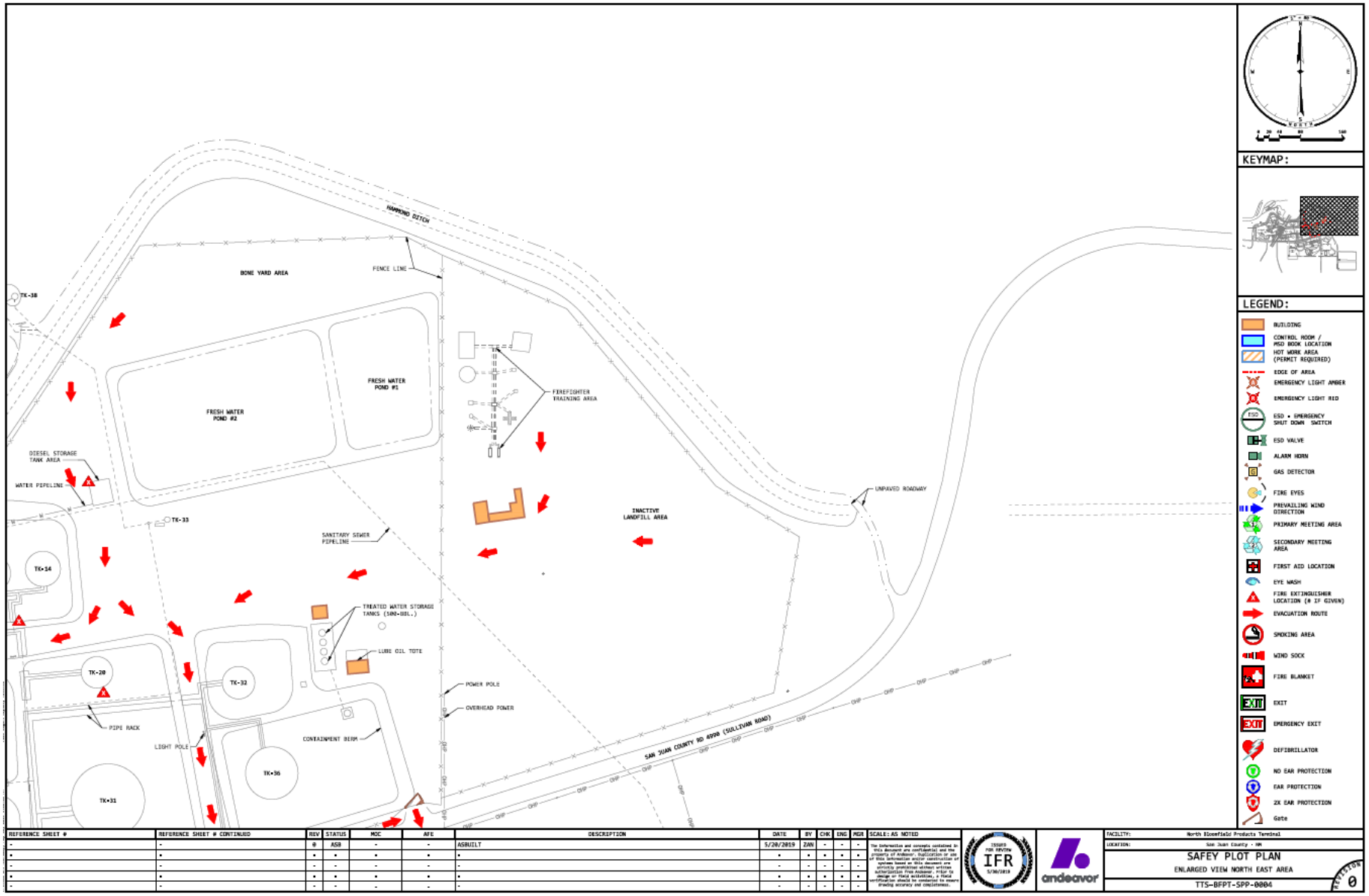
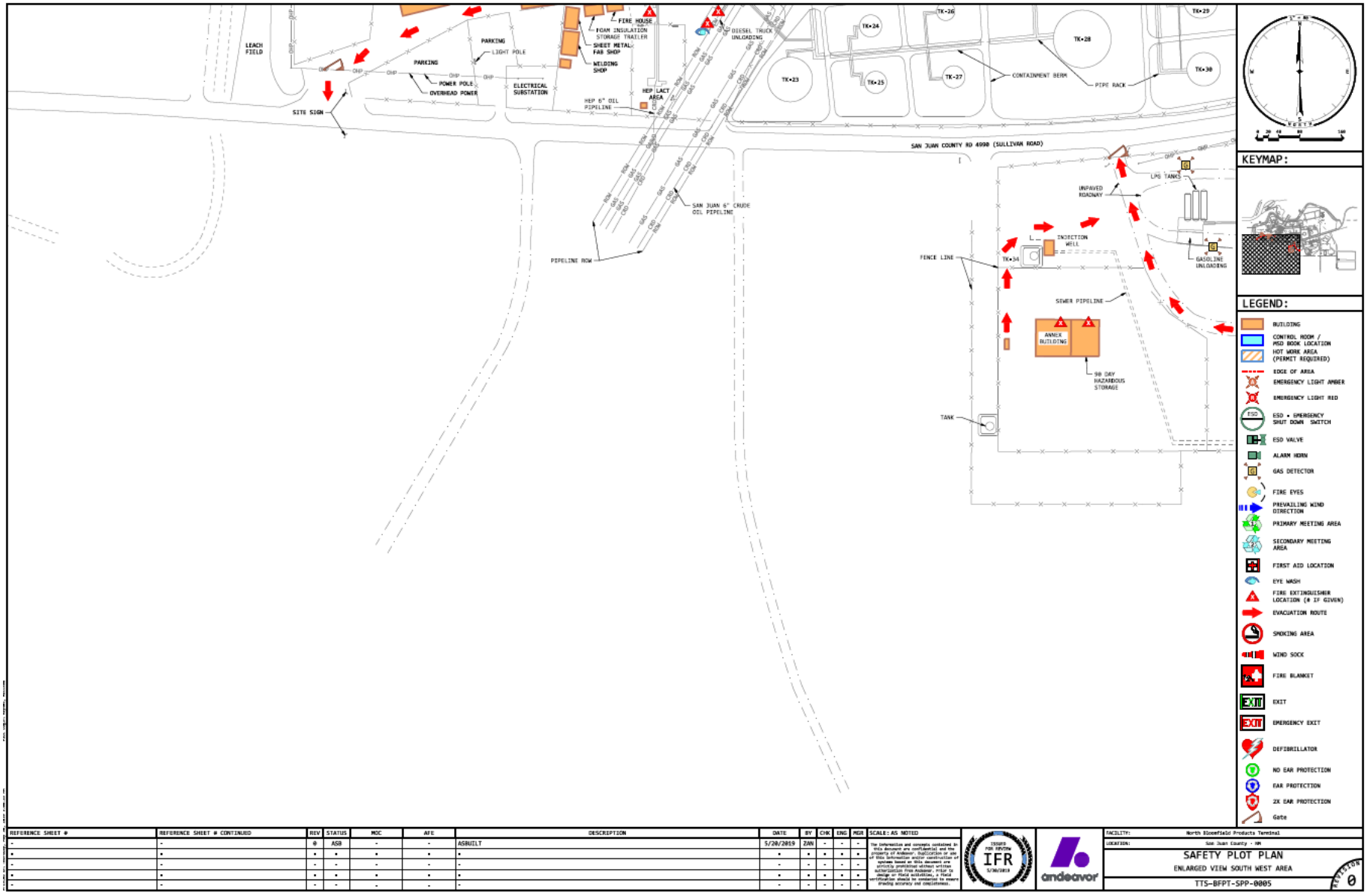
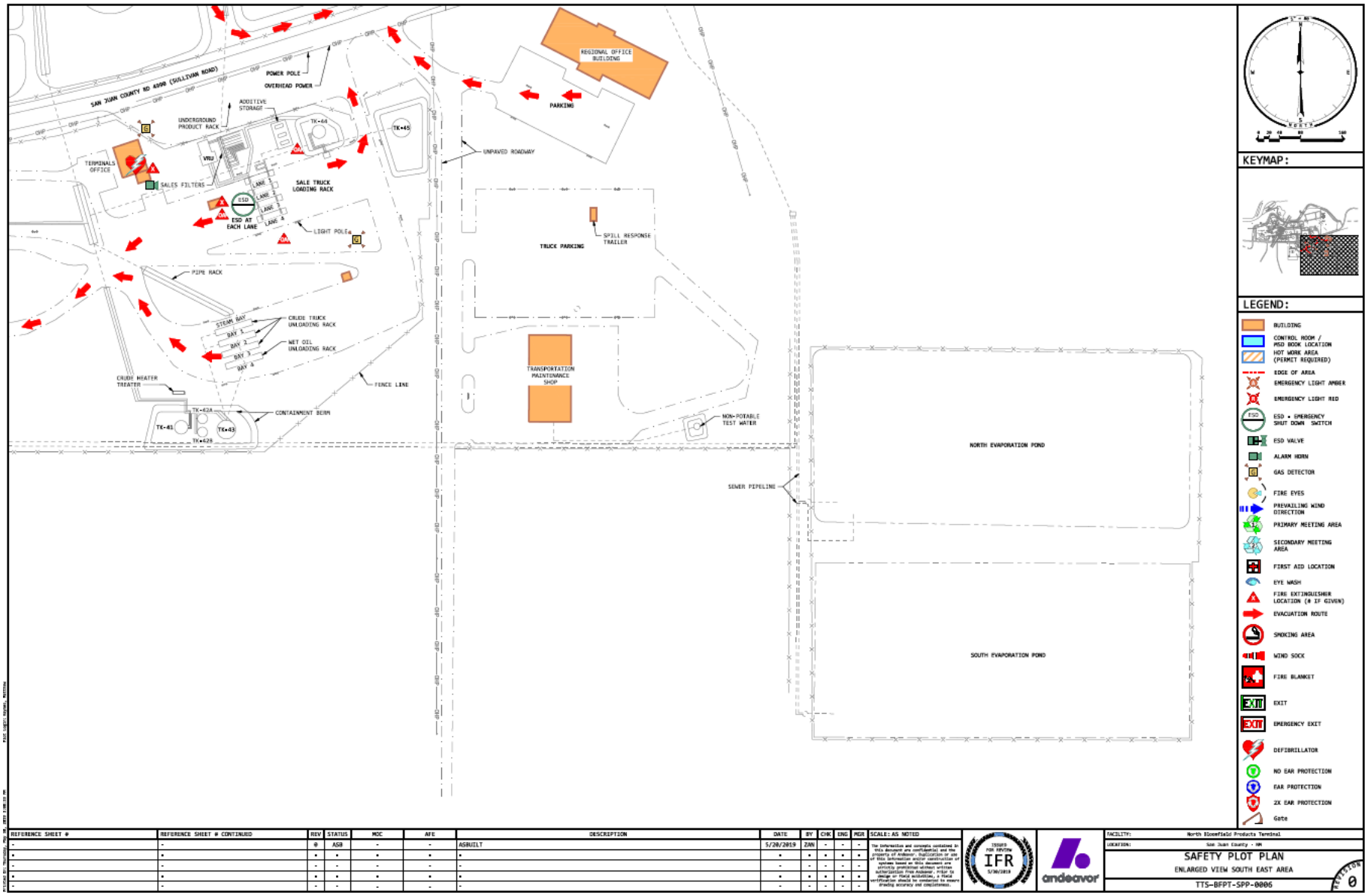
SCALE: AS NOTED







SECTION 1 INTRODUCTION

1.1 Purpose/Scope of Plan

The purpose of this Response Plan (hereinafter referred to as "Plan") is to assist Western Refining Terminals, LLC, a subsidiary of Marathon Petroleum Corporation (hereafter referred to as "Company") prepare for and respond quickly and safely to a discharge originating from the Bloomfield Products Terminal (hereinafter referred to as "Facility"). This Plan provides techniques and guidelines for achieving an efficient, coordinated, and effective response to a discharge incident which may occur at the Facility to satisfy New Mexico state statutes and federal oil spill planning requirements of the Environmental Protection Agency (EPA) established by the Oil Pollution Act of 1990 (OPA 90). A cross-reference to EPA regulations is included at the end of this Plan.

This Plan, when implemented can protect natural resources of the United States. The Plan is designed to illustrate the Company's capability to ensure prompt and proper removal of oil and to minimize environmental damages.

The Plan has been prepared so that procedures are in compliance with the National Contingency Plan (NCP) and the applicable Regional Contingency Plans (RCP's) and/or Area Contingency Plans (ACP's) which establish criteria and guidelines for the response to an oil spill.

1.2 Plan Contents

This Plan is intended to satisfy the requirements of the Oil Pollution Act of 1990 (OPA 90) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and applicable Regional Contingency Plans and/or Area Continency Plans. Specifically, this Plan is intended to satisfy the oil spill contingency plan requirements of:

- Environmental Protection Agency's (EPA) Requirements for an OPA 90 Plan (40 CFR Part 112.20), Non-Transportation Related Onshore Facilities, Final Rule July 1, 1994
- United States Department of Transportation (DOT), Pipeline and Hazardous Materials Safety Administration (PHMSA), Onshore Oil Pipelines (49 CFR 194.101), Final Rule

Response to an oil spill may require the immediate coordination of company departments and outside agencies, and possible mobilization of various contractors. Coordination of these efforts will be facilitated by the response procedures set forth in this Plan.

This Plan also contains detailed information on equipment, manpower, and resources available in the region, and oil spill response considerations, which will provide support to response and planning efforts.

1.2.1 Policy and Management

The Company's goal for operations is zero spillage of oil. However, should a spill occur, response actions described in this Plan will be implemented. The Company will comply with applicable federal, state, and local laws and regulations concerning oil spill response operations.

1.3 Plan Review and Update Procedures

Operations management, with support from the Emergency Preparedness Group representative and site safety will support the plan development, maintenance and distribution. Plan review and updating will be done on an annual basis or more frequently if significant changes occur at the facility that may affect the facility's spill response capability. Key items that influence response capability and that should be reviewed and updated as necessary include:

- Inventories of spill response equipment;
- Names and/or telephone numbers of the Oil Spill Response Organizations listed in *Section 3*;
- Names and/or telephone numbers of the Facility's Incident Management Team personnel, including Qualified Individuals;
- Oil storage, transfer, or handling procedures at the facility;
- Response procedures as necessitated by potential deficiencies identified during training or exercises;
- Revised spill response procedures;
- Pertinent regulations; and
- Any change of information relating to circumstances likely to affect full implementation of the Plan.

5-year regulated updates from the date of the last year's approval.

- Under 40 CFR 112.20(c)(4):
    - Review each response plan periodically thereafter on a schedule established by the Regional Administrator provided that the period between plan reviews does not exceed five years

1.3.1 Immediate Plan Updates

The Company will immediately modify its response plan to address a new or different operating condition or information that would substantially affect the implementation of a response plan and, within 30 days of making such a change, submit the change to EPA, PHMSA, the NMED, TCEQ and all plan holders. Examples of changes in operating conditions that would cause a significant change to an operator's response plan are:

- Under 40 CFR 112.20(d)1:
    (1) A change in the facility's configuration that materially alters the information included in the response plan;
    (2) A change in the type of oil handled, stored, or transferred that materially alters the required response resources;
    (3) A material change in capabilities of the oil spill removal organization(s) that provide equipment and personnel to respond to discharges of oil described in paragraph (h)(5) of this section;
    (4) A material change in the facility's spill prevention and response equipment or emergency response procedures; and
    (5) Any other changes that materially affect the implementation of the response plan.

Figure 1-1 Facility Information Summary

Owner/Operator:	**Western Refining Terminals, LLC**	
Facility Name:	Bloomfield Terminal	
Facility Address:	50 County Road 4990, Bloomfield, NM 87413, San Juan County	
Facility Telephone:	(505) 632-8013	
Location:	Latitude: 36° 41' 50" N Longitude: 107° 58' 20" W	
NAICS Code:	424710	
Dunn & Bradstreet Number	08-195-9975	
EPA FRP#	FRP-06-NM-00015	
Wellhead Protection Area:	Not Applicable	
Qualified Individuals (Note: training for QI's is covered in Appendix A)	Jeff Westra (Primary) 562-824-2063 - Cell	Marc Brunet (385) 233-8258 – Cell (505) 632-4193 – Office
Description of Facility:	Inland gasoline and diesel storage and distribution terminal.	
Description of Operations:	• Crude oil and refined products are stored in various storage tanks located on-site. Most of these tanks are located within a central Tank Farm in the main part of the Terminal. A few tanks are located near the Terminal Process Area and others are located at the Terminal Area south of County Road 4990. • Some crude oil is received via tank truck and unloaded into Terminal tanks for subsequent processing. Some products are unloaded from Terminal storage tanks into tank trucks and then shipped out to customers. The maximum transfer rate for loading and unloading operations is approximately 204,400 gallons per hour; however, a typical transfer rate is closer to 186,900 gallons per hour. • A thorough description of the facility design, operations, containment systems, drainage system, and other spill prevention measures are contained in the facility's Spill Prevention, Control, and Countermeasure Plan (SPCC) prepared in accordance with 40 CFR 112.	
Date of Storage Startup:	1960	
Hours of Operation	24/7/365	
Dates and Types for Substantial Expansions	• 1959 Original plant constructed. • 1960 Installed Tanks 1, 24, & 25 and Bullets B-1, B-2, B-12, B-13 & B-14. • 1961 Installed Tank 17. • 1962 Installed Tank 23. • 1966 Expanded crude unit. Installed reformer, hydro-treater, and Tanks 3, 4, & 5. • 1967 Installed Tanks 26 & 27. • 1969 Installed Tank 28. • 1974 Installed Tanks 18, 29, & 30. • 1975 Expanded crude unit. • 1976 Installed Tanks 20 & 21. • 1977 Installed Tank 31. • 1978 Installed Tank 2 and Bullets B-15 through B-20. • 1979 Expanded crude unit, reformer, and hydro-treater. Installed catalytic cracker, and gas processing unit. Installed Tanks 41, 42, & 43. • 1980 Installed Tank 22. • 1982 Installed Tanks 11 & 12. • 1983 Installed Bullet B-21. • 1986 Installed Tank 10. • 1987 Expanded reformer. Installed Tanks 8, 9, 13, & 14. • 1988 Installed polymerization unit. Installed Tanks 32 & 33 and Bullets B-22 & B-23. Installed cathodic protection system on tanks and underground • piping. Installed concrete paving and curbing in Process Area. • 1989 Expanded reformer. Installed Tank 44 and evaporation ponds. • 1993 Installed hydrodesulfurization and sulfur recovery unit. • 1994 Installed liners in WWTU ponds and new wastewater injection well. • 1995 Installed Tanks 35 & 36. • 1998 Installed Tanks 37 & 45. • 2002 Installed concrete liner in the Hammond Ditch. • 2011 Installed line to Holly Corporation.	
Date of Last Update	April 2022	

Figure 1-2 Facility Overview – Bloomfield Terminal

SECTION 2 INITIAL RESPONSE

2.1 Emergency Action Checklists

This section provides a prioritized list of actions that should be taken by key members of the Immediate Response Team (IRT) in the event of an oil spill. These are the actions that occur during the first minutes of an incident and determine the extent of emergency response required.

Each action item has been carefully planned but may not completely address all situations and circumstances that might be encountered in an emergency situation. Careful evaluation, common sense, and experienced judgment should be applied at all times during an emergency response.

The Emergency Action Checklists in this section are presented as a guide. The lists are not intended to preclude logical actions and decisions based on the observed circumstances.

Emergency Action Checklist Format

The format of the Emergency Action Checklist is presented in three levels of detail. The action item is printed in **bold** type. A further explanation and detail of the action item follows the bold type. References to detailed material located in this OSRP and applicable to the specific task are also noted.

After all IRT duties have been accomplished, or are in progress, the team members will continue the duties assigned to his/her position. The team members will be responsible for those duties until relieved. The team members should confirm the level of response required with the Incident Commander (IC) before proceeding with those duties.

In smaller incidents, an employee may be assigned the responsibilities of more than one position. If so, he/she should approach the combined duties in parallel with the most important duties (usually listed first) of both tasks receiving priority.

OIL SPILL

PERSON DETECTING A SPILL OR THREAT OF A SPILL

❑ ___ 1. **Discontinue Operations**
- Activate the emergency shutdown.

❑ ___ 2. **Warn People in the Area of Hazards**
- Direct employees and contract workers to move well clear of the release in a crosswind or upwind direction.
- Warn personnel to avoid breathing fumes.
- Warn personnel to avoid igniting fumes.
- Attend to injured personnel.

❑ ___ 3. **Prevent Ignition**
- Exclude ignition sources from the area.
- Do not start electrical equipment or other engines in the area.

❑ ___ 4. **Report the Situation**
- Notify the Terminal Manager (see Section 3) as soon as possible and provide the following information:
  - The time of the incident.
  - The location of the incident.
  - Whether the incident caused any injury to personnel.
  - The type of oil spilled.
  - The amount of oil spilled.
  - The status of the source.

❑ ___ 5. **Keep Clear of the Hazardous Area**
- Do not try to remedy the situation alone.
- Keep the spill area under surveillance until danger of fire or explosion has been eliminated.
- Close the discharge valve from the oil/water separator if it can be done safely.

OIL SPILL

TERMINAL OPERATOR

❑ ___ 1. **Verify Safety of Personnel**

❑ ___ 2. **Assess the Situation**
- Source of release.
- General extent of release.
- Status of shutdown.
- Number of injured and their condition.
- Initial site monitoring: benzene and LEL.
- Probable direction of vapors.
- Estimate quantity of release.
- Wind and weather conditions.
- Direction of movement.
- Status of ignition sources.

❑ ___ 3. **Notify Terminal Manager of the Incident** (see Section 3, *Notification*)

❑ ___ 4. **Stop Release**
- Stop the source of the release or verify that source is stopped.
- Shut off transfer pumps, close all header and tank valves, and drain/pump remaining contents of hoses/pipelines back into tanks if feasible.

❑ ___ 5. **Implement Site-Specific Response Strategy**

❑ ___ 6. **Document All Actions**

OIL SPILL

TERMINAL MANAGER / INCIDENT COMMANDER

1. **Receive Report of Spill**
   - Ascertain nature and severity of spill.
   - Ensure safety of onsite personnel.
   - Assume role of incident commander
2. **Notify Fire Department and Contractors**
   - Initiate Notifications as necessary (see Section 3, Notification)
3. **Activate Immediate Response Team**
   - Brief members of the Immediate Response Team on the status of the incident.
4. **Notify Spill Management Team and Qualified Individual** (see Section 3, *Notification*)
5. **Initiate Required Government Agency Notifications** (see Section 3, *Notification*)
6. **If Necessary, Direct Rescue of Injured and Evacuate Area**
   - Direct response personnel to don protective clothing, as appropriate, and remove injured to upwind area.
   - Direct evacuation of employees and contract personnel to safe areas upwind from spill.
   - Control ignition sources.
7. **Establish Command Center and Staging Areas**
8. **Document All Actions**
   - Submit reports as required

OIL SPILL

SAFETY OFFICER

1. Evaluate Immediate Public Health and Safety Risks
2. Recommend Site Control Measures to Isolate Public from Possible Exposure
3. Assess Environmental Conditions
   - Air and water monitoring.
4. Recommend Immediate Actions to be Taken by Onsite Response Team to Protect Health and Safety
5. Conduct Site Safety Evaluation
6. Develop Site Safety & Health Plan (see Section 5)
7. Document All Actions

TANK OVERFILL/FAILURE

TERMINAL OPERATOR

❑ ___ 1. **Verify Safety of Personnel**
- Eliminate ignition sources

❑ _____ 2. **Stop Release**
- Stop the source of the release or verify that source is stopped.
- Notify driver or pipeline operator as appropriate
- Tank Overfill - Shut off transfer pumps, close all header and tank valves, transfer product to available tankage to reduce level in overfilled tank.
- Truck Tank/Valve Leak - Shut down transfer and attempt to close valve or repair leak. Pump out any leaking tank compartments. Flush spilled oil into strip drains with water.
- Tank Leak - Attempt to plug leak and begin transferring tank contents to available tankage; repair tank.
- Verify that dike drain valve is closed.

❑ ___ 3. **Assess the Situation**
- Source of release.
- General extent of release.
- Status of shutdown.
- Number of injured and their condition.
- Initial site monitoring: benzene and LEL.
- Probable direction of vapors.
- Estimated quantity of release.
- Wind and weather conditions.
- Direction of movement.

❑ ___ 4. **Notify Terminal Manager of the Incident**

❑ ___ 5. **Implement Site-Specific Response Strategy**
- Keep spill area under surveillance until danger or fire or explosion has been eliminated.

❑ ___ 6. **Document All Actions**

TANK OVERFILL/FAILURE

INCIDENT COMMANDER

- ❑ ___ 1. **Report to Incident Site and Assess the Situation**
  - The first person at the scene of the incident or assigned will assess the incident and report the nature and significance of the incident.
- ❑ ___ 2. **Collect Information Required for Initial Assessment**
  - Location of the tank.
  - Impact and/or hazards to other facilities.
  - Extent of visible damage.
  - Magnitude and direction of release.
  - Material involved in release.
  - Potential of ignition sources.
  - Impact to drain systems, etc.
- ❑ ___ 3. **Notify Fire Department and Contractors** (see Section 3)
  - Initiate notifications as necessary
- ❑ ___ 4. **Activate Immediate Response Team**
  - Brief members of the Immediate Response Team on the status of the incident.
- ❑ ___ 5. **Report Information Gathered to Spill Management Team** (see Section 3)
- ❑ ___ 6. **Initiate Required Government Agency Notifications** (see Section 3)
- ❑ ___ 7. **If Necessary, Direct Rescue of Injured and Evacuate Area**
  - Direct response personnel to don protective clothing, as appropriate, and remove injured to upwind area.
  - Direct evacuation of employees and contract personnel to safe areas upwind from spill.
  - Control ignition sources.
- ❑ ___ 8. **Formulate Incident Action Plan**
  - Consider need to block drains, deploy boom, shutdown ignition sources, diking, containment, equipment and personnel availability, etc.
- ❑ ___ 9. **Coordinate Contractors Involved in Response**
- ❑ ___ 10. **Verify Safety of Response Personnel**
- ❑ ___ 11. **Document All Actions and Observations**
  - Submit reports as required

TANK OVERFILL/FAILURE

SAFETY OFFICER

- ❑ ___ 1. **Evaluate Immediate Public Health and Safety Risks**
  - Attend to injured personnel
- ❑ ___ 2. **Recommend Site Control Measures to Isolate Public from Possible Exposure**
- ❑ ___ 3. **Assess Environmental Conditions**
  - Air and water monitoring.
- ❑ ___ 4. **Recommend Immediate Actions to be Taken by Immediate Response Team to Protect Health and Safety**
- ❑ ___ 5. **Conduct Site Safety Evaluation**
- ❑ ___ 6. **Develop Site Safety Plan** (see Section 5)
- ❑ ___ 7. **Document All Actions**

PIPE RUPTURE/LEAK

TERMINAL OPERATOR

❑ ___ 1. **Verify Safety of Personnel**
- Eliminate Ignition source

2. **Stop Release**
- Stop the source of the release or verify that source is stopped.
- Shut off transfer pumps, close all header and tank valves, and drain remaining contents of hoses/pipelines back into tanks.
- Notify driver or pipeline operator as appropriate
- Tank Truck/Hose Leak/Rupture - Shut off transfer pumps using the emergency shutdown switch at the loading racks and drain the remaining contents of the hose into the tank truck. Flush spilled oil into strip drains with water.
- Pipeline Leak/Rupture - Stop transfer and isolate leaking section of pipeline. Evacuate contents of line with suction pump or flush with water to remove remaining product.
- Storage Tank Flange/Valve Leak – Stop transfer and tighten valve/ flange. If release continues, transfer tank contents to available tankage and repair and replace valve/flange.
- Verify that dike drain is closed

❑ ___ 3. **Assess the Situation**
- Source of release.
- General extent of release.
- Status of shutdown.
- Number of injured and their condition.
- Initial site monitoring, benzene and LEL.
- Probable direction of vapors.
- Estimated quantity of release.
- Wind and weather conditions.
- Direction of movement.

❑ ___ 4. **Notify Terminal Manager of the Incident**

❑ ___ 5. **Implement Site-Specific Response Strategy**
- Keep spill area under surveillance until danger of fire or explosion has been eliminated.

❑ ___ 6. **Document All Actions**

PIPE RUPTURE/LEAK

INCIDENT COMMANDER

- ❑ ___ 1. **Report to Incident Site and Assess the Situation**
  - The first person at the scene of the incident or assigned will assess the incident and report the nature and significance of the incident.
- ❑ ___ 2. **Collect Information Required for Initial Assessment**
  - Location of the tank.
  - Impact and/or hazards to other facilities.
  - Extent of visible damage.
  - Magnitude and direction of release.
  - Material involved in release.
  - Potential of ignition sources.
  - Impact to drain systems, etc.
- ❑ ___ 3. **Notify Fire Department and Contractors** (see Section 3)
  - Initiate notifications as necessary
- ❑ ___ 4. **Activate Immediate Response Team**
  - Brief members of the Immediate Response Team on the status of the incident.
- ❑ ___ 5. **Report Information Gathered to Spill Management Team** (see Section 3)
- ❑ ___ 6. **Initiate Required Government Agency Notifications** (see Section 3)
- ❑ ___ 7. **If Necessary, Direct Rescue of Injured and Evacuate Area**
  - Direct response personnel to don protective clothing, as appropriate, and remove injured to upwind area.
  - Direct evacuation of employees and contract personnel to safe areas upwind from spill.
  - Control ignition sources.
- ❑ ___ 8. **Formulate Incident Action Plan**
  - Consider need to block drains, deploy boom, shutdown ignition sources, diking, containment, equipment and personnel availability, etc.
- ❑ ___ 9. **Coordinate Contractors Involved in Response**
- ❑ ___ 10. **Verify Safety of Response Personnel**
- ❑ ___ 11. **Document All Actions and Observations**
  - Submit reports as required

PIPE RUPTURE/LEAK

SAFETY OFFICER

- ❑ ___ 1. **Evaluate Immediate Public Health and Safety Risks**
  - Attend to injured personnel
- ❑ ___ 2. **Recommend Site Control Measures to Isolate Public from Possible Exposure**
- ❑ ___ 3. **Assess Environmental Conditions**
  - Air and water monitoring.
- ❑ ___ 4. **Recommend Immediate Actions to be Taken by Immediate Response Team to Protect Health and Safety**
- ❑ ___ 5. **Conduct Site Safety Evaluation**
- ❑ ___ 6. **Develop Site Safety Plan** (see Section 5)
- ❑ ___ 7. **Document All Actions**

OTHER EQUIPMENT FAILURE

TERMINAL OPERATOR

❑ ___ 1. **Verify Safety of Personnel**
- Eliminate ignition source

❑ ___ 2. **Stop Release**
- Stop the source of the release or verify that source is stopped.
- Notify driver or pipeline operator as appropriate.
- Shut off transfer pumps, close all header and tank valves, and drain remaining contents of hoses/pipelines back into tanks.
- Truck Tank/Valve Leak – Shut down transfer and attempt to close valve or repair leak. Pump out any leaking tank compartments. Flush spilled oil into strip drains with water.
- Storage Tank Flange/Valve Leak – Stop transfer and tighten valve/ flange. If release continues, transfer tank contents to available tankage and repair and replace valve/flange
- Verify that dike drain valve is closed

❑ ___ 3. **Assess the Situation**
- Source of release.
- General extent of release.
- Status of shutdown.
- Number of injured and their condition.
- Initial site monitoring: benzene and LEL.
- Probable direction of vapors.
- Estimated quantity of release.
- Wind and weather conditions.
- Direction of movement.

❑ ___ 4. **Notify Terminal Manager of the Incident**

❑ ___ 5. **Implement Site-Specific Response Strategy**
- Keep spill area under surveillance until danger of fire or explosion has been eliminated.

❑ ___ 6. **Document All Actions**

OTHER EQUIPMENT FAILURE

INCIDENT COMMANDER

- ☐ ___ 1. **Report to Incident Site and Assess the Situation**
  - The first person at the scene of the incident or assigned will assess the incident and report the nature and significance of the incident.
- ☐ ___ 2. **Collect Information Required for Initial Assessment**
  - Location of the tank.
  - Impact and/or hazards to other facilities.
  - Extent of visible damage.
  - Magnitude and direction of release.
  - Material involved in release.
  - Potential of ignition sources.
  - Impact to drain systems, etc.
- ☐ ___ 3. **Notify Fire Department and Contractors** (see Section 3)
  - Initiate notifications as necessary
- ☐ ___ 4. **Activate Immediate Response Team**
  - Brief members of the Immediate Response Team on the status of the incident.
- ☐ ___ 5. **Report Information Gathered to Spill Management Team** (see Section 3)
- ☐ ___ 6. **Initiate Required Government Agency Notifications** (see Section 3)
- ☐ ___ 7. **If Necessary, Direct Rescue of Injured and Evacuate Area**
  - Direct response personnel to don protective clothing, as appropriate, and remove injured to upwind area.
  - Direct evacuation of employees and contract personnel to safe areas upwind from spill.
  - Control ignition sources.
- ☐ ___ 8. **Formulate Incident Action Plan**
  - Consider need to block drains, deploy boom, shutdown ignition sources, diking, containment, equipment and personnel availability, etc.
- ☐ ___ 9. **Coordinate Contractors Involved in Response**
- ☐ ___ 10. **Verify Safety of Response Personnel**
- ☐ ___ 11. **Document All Actions and Observations**
  - Submit reports as required

OTHER EQUIPMENT FAILURE

SAFETY OFFICER

- ☐ ___ 1. **Evaluate Immediate Public Health and Safety Risks**
  - Attend to injured personnel
- ☐ ___ 2. **Recommend Site Control Measures to Isolate Public from Possible Exposure**
- ☐ ___ 3. **Assess Environmental Conditions**
  - Air and water monitoring.
- ☐ ___ 4. **Recommend Immediate Actions to be Taken by Immediate Response Team to Protect Health and Safety**
- ☐ ___ 5. **Conduct Site Safety Evaluation**
- ☐ ___ 6. **Develop Site Safety Plan** (see Section 5)
- ☐ ___ 7. **Document All Actions**

2.2 Evacuation Plans

Evacuation may be required for several reasons, e.g., fire, explosion, spills, flooding, etc. The problem could originate either on or off the Facility site.

- **Location of Stored Materials** - Petroleum feedstocks and products are stored in various tanks in the facility. A map indicating the tank locations is provided in *Figure 2-1.* The largest concentration of storage is in the Tank Farm. Several tanks are also located in the Process Area and the Loading and Unloading Area. Drums and totes containing various lubricants, chemicals, additives and used oils are located in the Storage Yard at the west end of the terminal. A typical inventory may include thirty 55-gallon drums and ten 350-gallon totes.
- **Hazard Imposed by Spilled Material** - Possible additional hazards imposed by spilled petroleum feedstocks and products into and on the San Juan River and the Bloomfield area include the following:
    - Fire
    - Contamination of Water Resources could potentially affect irrigation, agricultural and drinking water resources.
    - Infiltrate and affect the surrounding ground water in the Bloomfield area.
    - Vapor Cloud Explosion cause by pressurized hydrocarbons.
    - Personnel exposure hazards including contact burns and toxic vapor inhalation.
- **Discharge Flow Direction** – The Flow Path provides for the initial Spill Flow direction to be North or Northwest over land into the Hammond Ditch and the San Juan River. The distance from the Bloomfield Terminal to the San Juan River is approximately 300 - 1000 feet and the time for the product to travel this far is 12 - 40 seconds worst case.
- **Prevailing Wind Direction and Speed** - The prevailing wind direction in the vicinity of the Terminal is west to east, however east to west winds are common as well. Average wind speed is approximately 9 mph.
- **Water Currents, Tides or Wave Conditions** - Primary locations where discharges may occur have No Viable Water Currents, Tides and No Wave Action since the facility is not located close to an ocean or lake. Both the San Juan River and the Hammond Irrigation Ditch flow from east to west. The San Juan River flows year-round. The Hammond Irrigation Ditch flows only during irrigation season from mid-April through mid-October and is otherwise empty and dry.
- **Arrival Route of Emergency Response Personnel and Response Equipment** - Emergency Response Personnel and Equipment will arrive via the following routes:
    - From the South, travel North on US Highway 550 (State Route 44) to County Road 4990 (Sullivan Road) and turn East. Continue to the Main Entrance of the Bloomfield Terminal.
    - From the East, travel West on US Highway 64 to US Highway 550 South (State Route 44) and turn south. Travel to County Road 4990 and turn east. Proceed on County Road 4990 to the Bloomfield Terminal entrance on the North side of the road.
    - From the North, travel South on US Highway 550 (State Road 44) to US Highway 64 and turn west. Continue for approximately ¼ mile and turn South on US Highway 550 (State Route 44). Travel to County Road 4990 (Sullivan Road) and turn East. Proceed to the Bloomfield Terminal entrance on the North side of the road.

  - From the West, travel East on US Highway 64 to travel on US Highway 64 to US Highway 550 South (State Route 44) and turn South. Travel to County Road 4990 and turn east. Proceed on County Road 4990 to the Bloomfield Terminal entrance on the North side of the road.
- **Evacuation Route** - Terminal Manager will act as the Initial Incident Commander and utilize available automobiles to evacuate all personnel to the designated Evacuation Assembly Area which is the Main Office Building to be accounted for and then, if necessary, out the main entrance and across County Road 4990 off the property. Supervisory personnel will assist in the safe and orderly evacuation of all personnel. Prior to evacuating, supervisors will check the immediate area they are located in to ensure that all personnel are properly evacuated. An evacuation map is provided in *Figure 2-1*.
  - After an evacuation, no personnel are to re-enter the Facility until the All Clear / Re-entry signal is given verbally by the Terminal Manager. Company personnel may be authorized by the responding agency to re-enter prior to the All Clear to provide site-specific information to the responders.
  - Under no circumstances are Company personnel to enter hazardous areas unless they have the proper personal protective equipment and have been trained in the proper use of the equipment.
  - The **All Clear** signal will be issued by the Terminal Manager after consultation with the appropriate emergency response agencies and Company management and after determining that re-entry is safe.
- **Alternative Route of Evacuation** - Personnel at the east side of the Terminal and at the Loading and Unloading Area may evacuate to the east along County Road 4990. Should the primary Evacuation route be unavailable, personnel use this eastern route to evacuate.
- **Transportation of Injured Personnel to Nearest Emergency Medical Facility** - Injured personnel will be transported to the San Juan Regional Medical Center in Farmington via County Road 4990, State Route 44, and US Highway 64.
- **Location of Alarm/Notification Systems** - Personnel radios are used to provide warning to all personnel and their locations.
- **Centralized Check-in/Assembly Area for Evacuation Validation** - The centralized check-in location for evacuating personnel will be the Main Office located near the entrance to the Terminal at 50 County Road 4990. If personnel cannot get to this location, they may proceed to the parking lot south of the Regional Office Building. Once personnel are all accounted for, they will be evacuated from the area.
- **Selection of Incident Command Post** - The Incident Command Post will be set up in the Conference Room in the Bloomfield Terminal Main Office located at 50 County Road 4990. An Operations Center will be set as close to the site of the spill as is deemed safe by the Safety Officer.
- **Optional Evacuation Shelter** - As an alternative to evacuation off-site, the Incident Commander in charge of the response may use the Terminal Firehouse Building as an Assembly Area for the duration of the response, provided that it is safe to do so.
- Reference to Existing Community Evacuation Plans – all evacuation efforts undertaken at the terminal will be coordinated with the Local Emergency Planning Committee.

2.3 Climatic And Hydrographic Conditions

The prevailing climatic and hydrographic conditions at the time of a spill can influence a variety of response factors and should be quantified to the extent practical and as soon as possible following the discovery of a spill. Key climatic and hydrographic conditions and affected response factors are:

- Wind speed and direction – Aquatic spill trajectories, vapor plume dispersions, boom deployment, technique effectiveness, vessel and aircraft safety, and others.
- Current speed and direction – Aquatic spill trajectories, boom deployment, technique effectiveness, shoreline access restrictions, and others.
- Visibility – Spill movement tracking and surveillance and aircraft and vessel safety.
- Temperature – Spill volatility, worker productivity and safety, equipment effectiveness, and others.

Wind speed and direction may need to be approximated using best judgment. If an accurate estimate is required, contact the National Weather Service (see Section 3).

Current speeds and directions may need to be estimated at the time of the spill by pacing off a 100-foot section of shoreline, throwing a stick or orange into the water upstream, and timing how long it takes the stick/orange to traverse the 100-foot area. The direction of stick/orange movement will also approximate the surface current direction combined with the effects from local winds, if present. The time required (in seconds) for the stick/orange to move 100 feet is divided into 100 to estimate current speed in feet per seconds (fps). The resulting fps is then multiplied by 0.5921 to convert the speed into knots. Selected conversions are provided below.

- 0.25 knots = 240 seconds/100 feet (0.42 fps)
- 0.5 knots = 120 seconds/100 feet (0.83 fps)
- 1 knot = 60 seconds/100 feet (1.67 fps)
- 1.5 knots = 40 seconds/100 feet (2.5 fps)

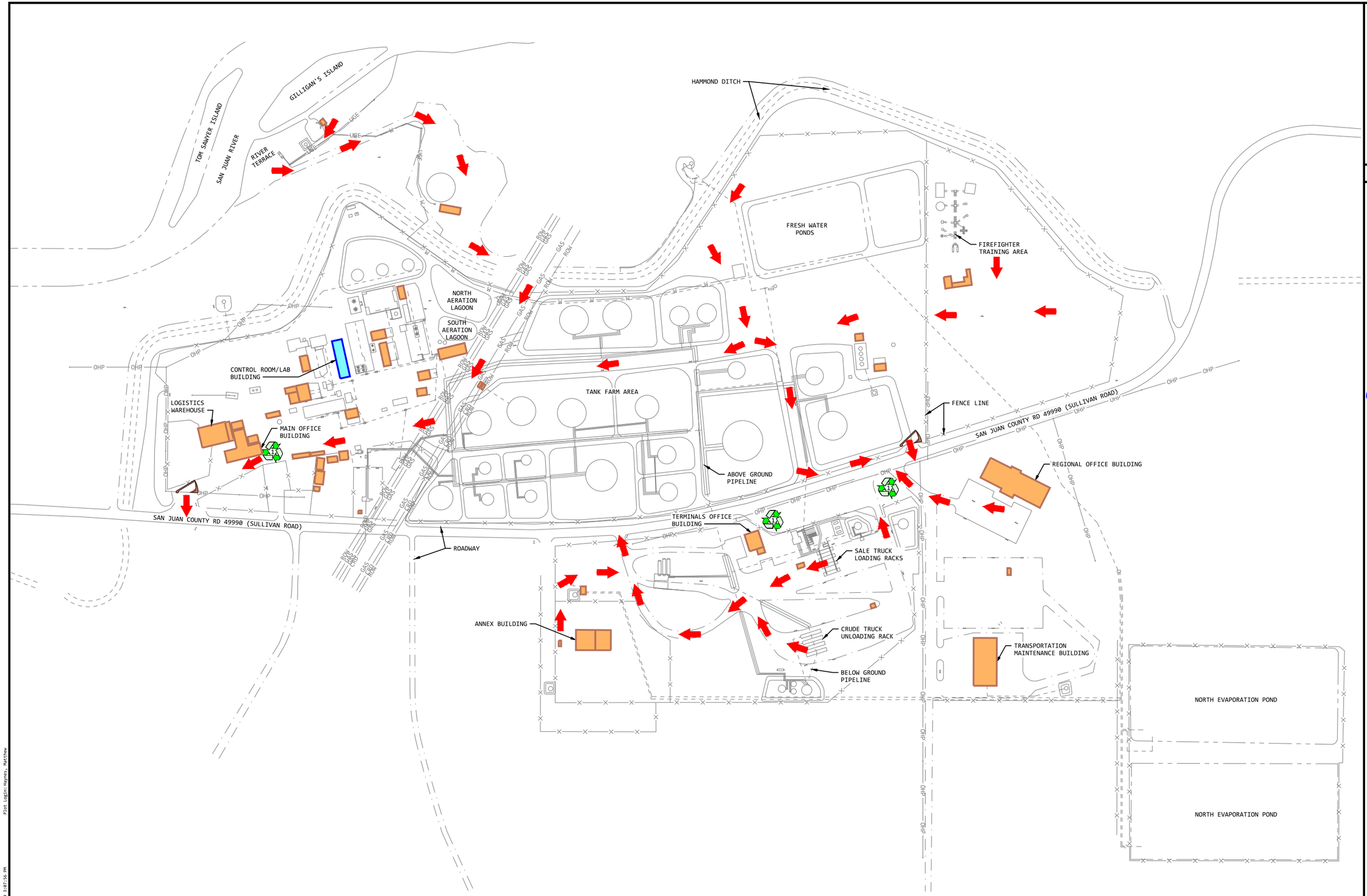
Visibility is determined by visual estimates concerning both the horizontal and vertical distances within which objects are clearly visible. The vertical visibility (or ceiling) is typically limited by low cloud cover or overcast conditions but can also be dramatically reduced by heavy fog. Lateral visibility is influenced by fog or heavy rain or snow. In general, normal aircraft operations are restricted to ceilings greater than 500 feet and horizontal visibility in excess of 0.5 miles. Vessel operations are not affected by ceilings but should be discontinued when horizontal visibility is less than a few hundred feet.

Temperature can be determined using an outdoor thermometer or by calling the local weather service or airport. Only temperatures below freezing or above 80 to 90° are of concern to oil spill response operations. Temperatures above or below this range can adversely affect productivity and the health and safety of response personnel.

In the event of a spill, Spill Management Team will assess the potential impact of weather using NOAA forecasts for regional information, local forecasts from the National Weather Service (208-342-6569), and/or actual field weather conditions.

2.4 Initial Response Guide – First Responders

A pullout sheet providing general initial response information is provided as a guideline as *Figure 2-2* at the end of this section. This is in addition to the checklists and requirements provided previously in this section.



LEGEND:

- BUILDING
- CONTROL ROOM / MSD BOOK LOCATION
- HOT WORK AREA (PERMIT REQUIRED)
- EDGE OF AREA
- EMERGENCY LIGHT AMBER
- EMERGENCY LIGHT RED
- ESD - EMERGENCY SHUT DOWN SWITCH
- ESD VALVE
- ALARM HORN
- GAS DETECTOR
- FIRE EYES
- PREVAILING WIND DIRECTION
- PRIMARY MEETING AREA
- SECONDARY MEETING AREA
- FIRST AID LOCATION
- EYE WASH
- FIRE EXTINGUISHER LOCATION (# IF GIVEN)
- EVACUATION ROUTE
- SMOKING AREA
- WIND SOCK
- FIRE BLANKET
- EXIT
- EMERGENCY EXIT
- DEFIBRILLATOR
- NO EAR PROTECTION
- EAR PROTECTION
- 2X EAR PROTECTION
- Gate

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SCALE: 1" = 160'

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IFR
5/30/2019

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FACILITY:	North Bloomfield Products Terminal
LOCATION:	San Juan County - NM

SAFETY PLOT PLAN

OVERALL SITE

TTS-BFPT-SPP-0001

REVISION 0

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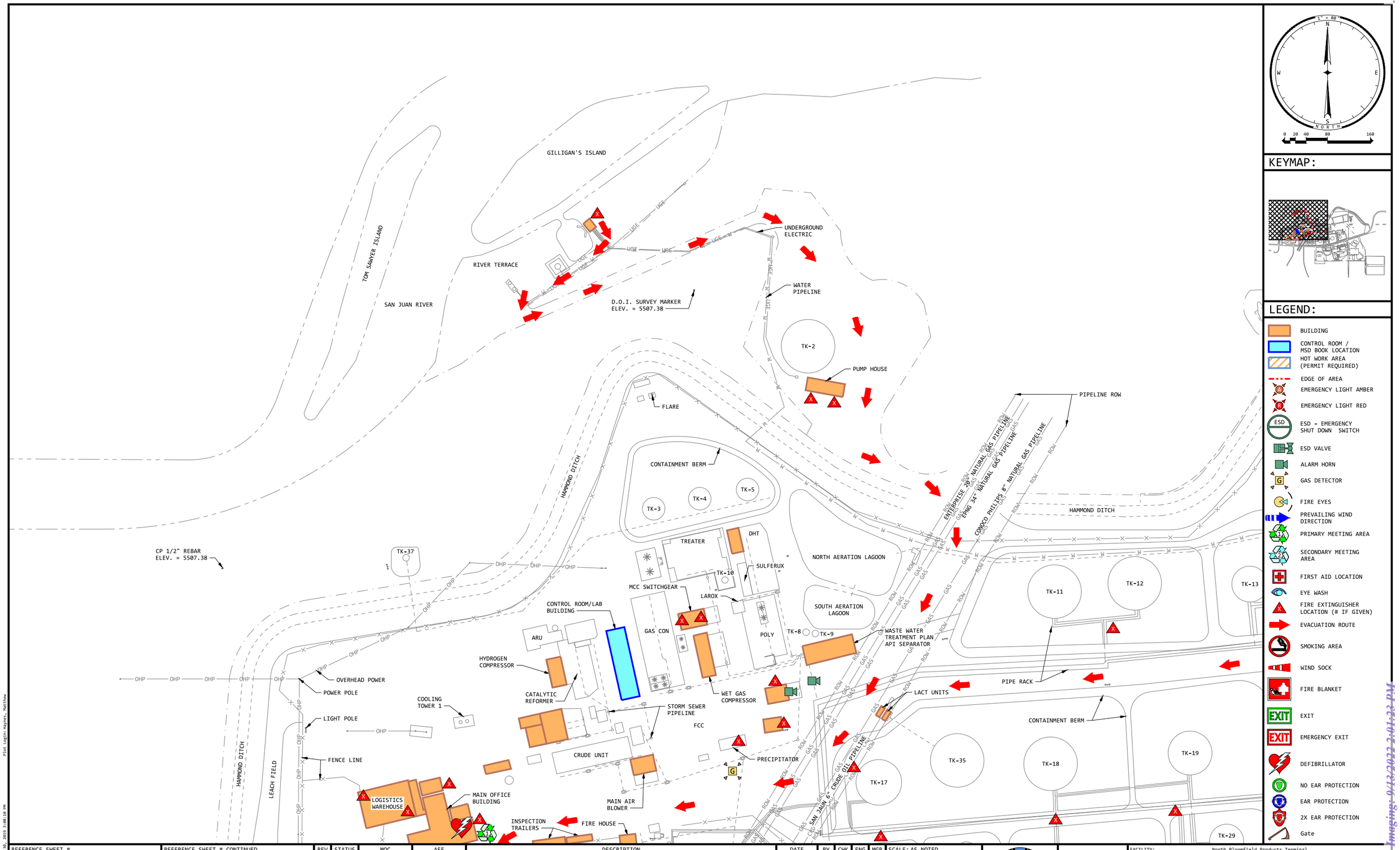

KEYMAP:

LEGEND:

- BUILDING
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- HOT WORK AREA (PERMIT REQUIRED)
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SCALE: AS NOTED

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FACILITY: North Bloomfield Products Terminal
LOCATION: San Juan County - NM

SAFETY PLOT PLAN
ENLARGED VIEW NORTH WEST AREA

TTS-BFPT-SPP-0003

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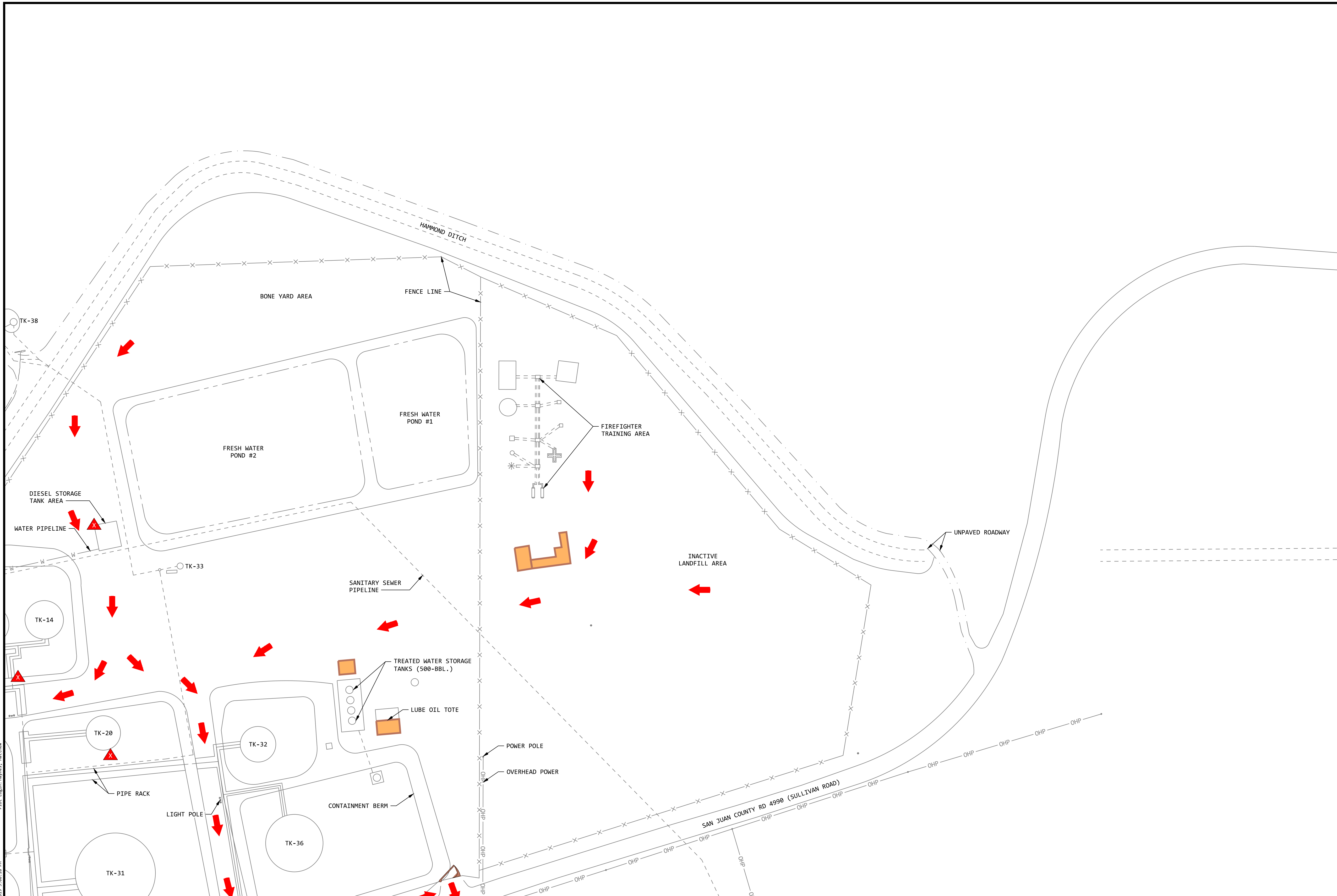

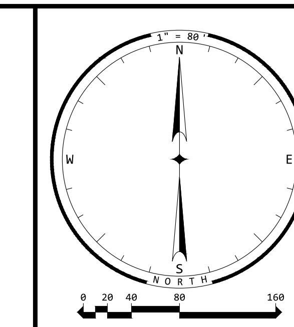

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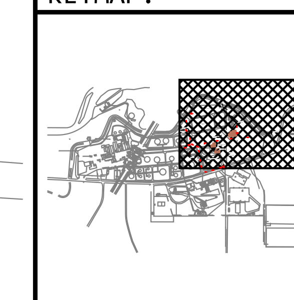

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SCALE: AS NOTED

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FACILITY: North Bloomfield Products Terminal
LOCATION: San Juan County - NM

SAFEY PLOT PLAN

ENLARGED VIEW NORTH EAST AREA

TTS-BFPT-SPP-0004

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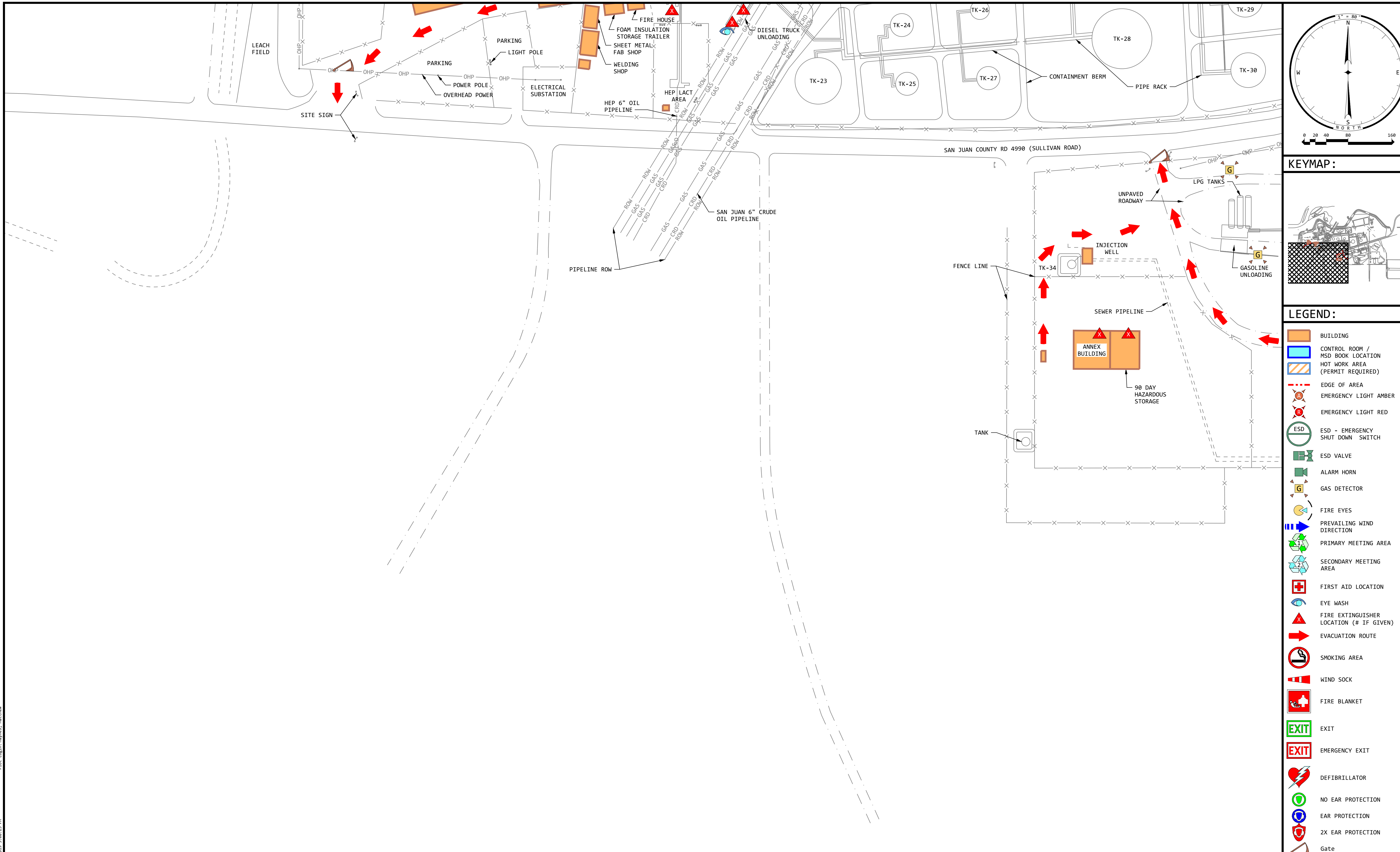
LEACH FIELD
PARKING
LIGHT POLE
PARKING
POWER POLE
OVERHEAD POWER
ELECTRICAL SUBSTATION
SITE SIGN
FIRE HOUSE
FOAM INSULATION STORAGE TRAILER
SHEET METAL FAB SHOP
WELDING SHOP
HEP LACT AREA
HEP 6" OIL PIPELINE
DIESEL TRUCK UNLOADING
SAN JUAN 6" CRUDE OIL PIPELINE
PIPELINE ROW
TK-23
TK-24
TK-25
TK-26
TK-27
TK-28
TK-29
TK-30
CONTAINMENT BERM
PIPE RACK
SAN JUAN COUNTY RD 4990 (SULLIVAN ROAD)
LPG TANKS
UNPAVED ROADWAY
INJECTION WELL
FENCE LINE
TK-34
GASOLINE UNLOADING
SEWER PIPELINE
ANNEX BUILDING
90 DAY HAZARDOUS STORAGE
TANK
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S
E
W
NORTH
1" = 80'
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KEYMAP:
LEGEND:
BUILDING
CONTROL ROOM / MSD BOOK LOCATION
HOT WORK AREA (PERMIT REQUIRED)
EDGE OF AREA
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EMERGENCY LIGHT RED
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SCALE: AS NOTED

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FACILITY: North Bloomfield Products Terminal

LOCATION: San Juan County - NM

SAFETY PLOT PLAN

ENLARGED VIEW SOUTH WEST AREA

TTS-BFPT-SPP-0005

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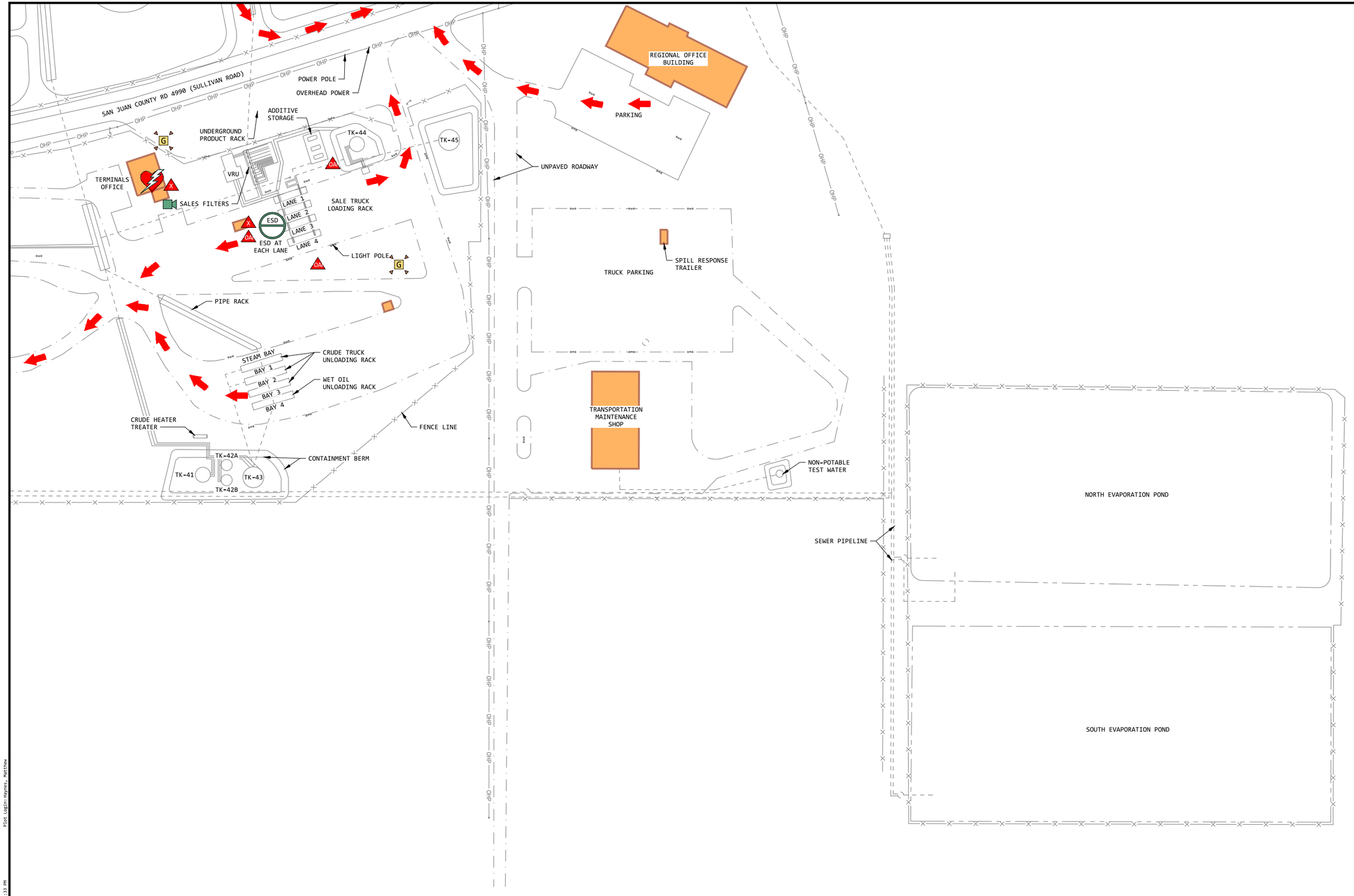


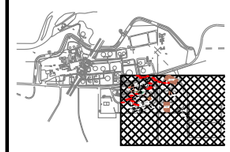
1" = 80'

N E S W

NORTH

0 20 40 80 160

KEYMAP:



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SCALE: AS NOTED

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5/30/2019

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FACILITY: North Bloomfield Products Terminal

LOCATION: San Juan County - NM

SAFETY PLOT PLAN

ENLARGED VIEW SOUTH EAST AREA

TTS-BFPT-SPP-0006

REVISION 0

Initial Response Guide First Responder

Oil Spill

Safety

1

- Your safety first and then the safety of others
- Start a Site Safety Health Plan (SSHP) as soon as possible. This is found on page 5 of the ICS 201 Site Safety and Control Analysis.
- Stay out of the hazard area
- If performing Recon, approach up-wind, up-stream with 4 gas meter or equivalent.

Shut down, Isolate and Deny Entry

- Eliminate all ignition sources
- Shut down pipeline operations as appropriate
- Evacuate the immediate area and establish an initial Hot Zone
- Deny entry to the immediate area
- If necessary, other Hazwoper trained employees may help deny entry into the area
- If on the scene, ask police and fire resources to help deny entry into immediate area

Notifications (Section 3)

- Dial 911 if ambulance, police or fire department assistance is needed
- Contact Control Center to shut down pipeline (if required)
- Call MAPLINE for assistance
- Follow the Notifications Flowchart (internal and external)

Command Management

2

- Assume the role of Incident Commander
- Make an announcement to all on the scene that you have assumed Command
- Establish a Unified Command Post and Staging Area up-wind and up-stream of the incident in the cold zone
- Begin by assigning initial ICS positions as necessary, such as Deputy IC, Operations and Safety.
- Meet, greet and brief responding Agencies as they arrive at the Unified Command Post
- Ensure Safety Officer begins and completes a Job Site Safety Plan

Identification and Assessment

- Continue to evaluate the hot zone and adjust accordingly
- Continue to monitor evacuation activities with the fire department
- Ensure safe Recon to determine extent of impact to the community

Action Planning

- Create an ICS 201 to serve as the de facto Incident Action Plan for the initial period
- Create Unified "Next" period Incident Action Plan only if needed if there is a fire

Initial ICS Forms that May Be Utilized

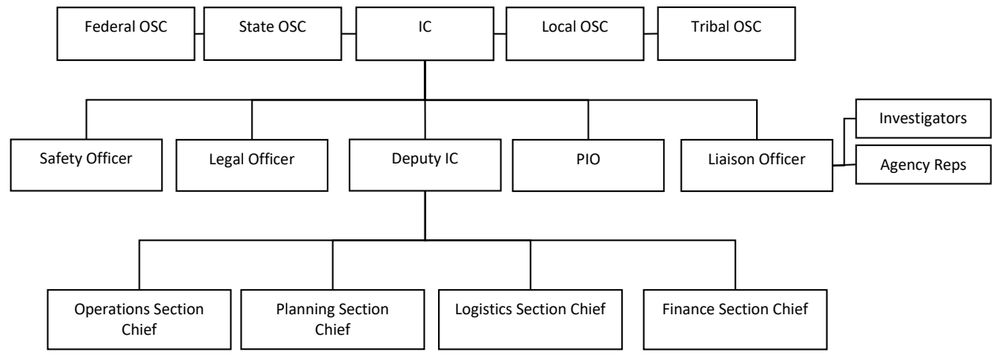
- ICS Form 201 (Incident Briefing)
- ICS Form 211p (Check-In List, Personnel)

Additional forms are available from the regional Emergency Preparedness Group Representative.

General Protection Strategies

- Shut down and isolate flow
- Eliminate sources of ignition
- All equipment used when handling product must be grounded
- Four gas detectors are required for site recon.

Incident Command System Organization Chart



Protective Equipment

3

- Ensure proper levels of PPE
- Ensure PPE is in line with SSHP (ICS 201 page 5)

Containment & Control

- Immediately, valve isolation and control strategies should be developed within the Unified Command Process
- Operations Section Chief oversee containment and control tactical deployment

Protective Actions

- Ensure safe Recon to assess impact for potential fire or explosion
- Protective action tactical deployment should be part of the Unified process

Decontamination / Clean-up

4

- Decon activities take place under the ICS Ops Section
- Decon capabilities in place before entering Hot Zone
- Ensure proper PPE for Decon Team
- Clean-up strategies should be part of the Unified IAP
- Decon run-off needs to be contained and properly disposed of

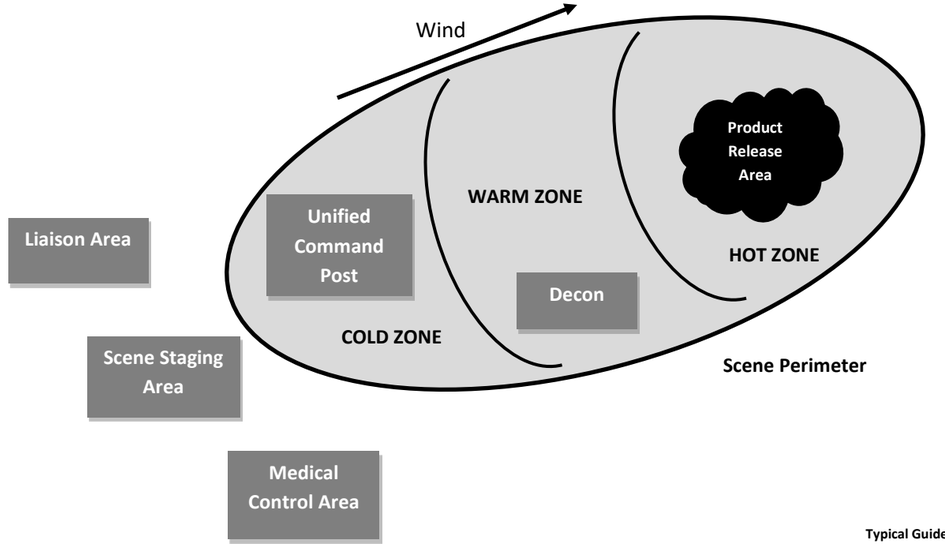
Disposal

- Ensure early notification of Waste SMEs

Documentation

- Ensure initial response actions are documented on ICS Form 201
- Ensure proper retention of all incident related documents
- Ensure timely incident critique and record lessons learned
- Date and initial all field note pages

Typical Emergency Scene Control Zone Diagram



Typical Guide

SECTION 3 NOTIFICATION PROCEDURES

3.1 Notification Requirements

This section describes required notifications and information summaries to be provided in the event of a spill. The priority of actions and response procedures will depend upon actual circumstances and will be determined by the Incident Commander.

SPILLAGE OF ANY PETROLEUM HYDROCARBON or OTHER HAZARDOUS SUBSTANCE ONTO LAND OR WATER MUST BE IMMEDIATELY REPORTED.
THERE ARE NO EXCEPTIONS!

If a spill is detected the following information must be provided to the Qualified Individual, Incident Commander or his designee for initial and follow-up notifications as available. Notifications will not be delayed to complete gathering information. Other specific Notification Information may be required by other local, state and federal reporting requirements.

1. Name of pipeline or terminal	7. Actions taken.
2. Was anyone hurt?	8. Weather conditions.
3. Location of spill.	9. Projected spill movement.
4. Time of spill	10. Equipment needed.
5. Product/volume spilled.	11. Environmental concerns.
6. Cause of spill.	

Figure 3-1 Notification Flow Chart

OBSERVER REPORTS EMERGENCY TO QUALIFIED INDIVIDUAL THEN MAPLINE

Call 911 as appropriate

QUALIFIED INDIVIDUALS

Contact	Phone Numbers	Time Notified
Jeff Westra, (Primary) Area Manager, Asphalt Operations	**(O)** 714-880-1696 **(C)** 562-824-2063	
Marc Brunet (Alternate) Terminal Manager	**(C)** 385-233-8258 **(O)** 505-632-4193	

CORPORATE NOTIFICATION

1-877-MAPLINE (1-877-627-5463)

IMMEDIATE CALLS

Contact	Phone Numbers	Time and Person Notified
Josh Williams (EPG)	**(C)** 385-260-4648	

OIL SPILL RESPONSE ORGANIZATIONS (OSRO)

Contact	Phone Numbers	Time and Person Notified
Marine Spill Response Corp. (MSRC)	(800) 645-7745	

FEDERAL/STATE/LOCAL REGULATORY AGENCIES

Contact	Phone Numbers	Time and Person Notified
National Response Center *(immediately)*	(800) 424-8802 (24 hr)	
Environmental Protection Agency- Region VI *(spill on land or water)*	(866) 372-7745	
CSB *(if release results in fatality, hospitalization or damage to property >$1 million.)*	Within 8 hours (202) 261-7600	
New Mexico Environment Department	(505) 827-9329	
New Mexico Oil Conservation Division	(505) 476-3441	

TRIBAL CONTACTS

Contact	Phone Numbers	Time and Person Notified
Navajo EPA Superfund	(928) 871-6859	
Navajo Department of Emergency Management	(928) 871-6892/6893	

1 of 2

FEDERAL REGULATORY AGENCIES (within 1 hour of incident)			
AGENCY	**SPILL SIZE**	**VERBAL REPORT**	**WRITTEN REPORT**
National Response Center (USCG, EPA, and DOT notified)	• Immediately for all spills that impact or threaten navigable water or adjoining shoreline • Any size on land if threatening surface waters • Fire/explosion/injury from regulated pipeline	**Immediately** **(800) 424-8802** **Note: A Safety Data Sheet MUST be provided to federal, state and local responders on site within 6 hours of notification to NRC**	None
EPA Region VI (NM, TX)	• If spill is 1000 gal or more (on land), or >42 gallons in each of 2 discharges within 12-month period	(866) 372-7745	Yes (within 60 days)
Chemical Safety Board	• An unanticipated release of an extremely hazardous substance that results in a serious injury or substantial property damage where: • "serious injury" is an injury or illness which results in death or an inpatient hospitalization; • "substantial property damage" is damage to on-site and off-site property, including "loss of use" that exceeds $1 million in combined property damage.	**Within 8 hours** **(202) 261-7600**	Yes (within 90 days)

US DOT	• Release of 5 gallons or more of hazardous liquid or carbon dioxide, except that no report is required for a release of less than 5 barrels resulting from a pipeline maintenance activity if the release is:
	  ○ Confined to company property or pipeline right-of-way; and
	  ○ Cleaned up promptly;
	• If a spill causes estimated property damage, including cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both, >$50,000
	• If spill results in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shoreline
		Written Report Only
		
		Immediately,
		via NRC
		(800) 424-8802
		
		With follow up to
		(202) 366-4595
			Within 30 days on DOT Form 7000-1
			http://phmsa.dot.gov

2 of 2

Figure 3-2 Oil Spill Discharge Information Required for NRC

DO NOT DELAY NOTIFICATION IN ORDER TO COLLECT ALL INFORMATION ON THIS SHEET

NATIONAL RESPONSE CENTER (NRC) (800) 424-8802 (within 1 hour)

REPORTING PARTY INFORMATION					
Name:		Position:		Company:	
Day Telephone:		Evening Telephone:			
Address:					
City:		State:		Zip:	
Were Materials Discharged?	YES/NO		Confidential?	YES/NO	
Meeting Federal Obligations to Report?	YES/NO		Date Called:		
Are you calling for the responsible party?	YES/NO		Time Called:		

INCIDENT DESCRIPTION					
Source and/or Cause of incident:					
Date of Incident:		Time of Incident:			
Incident Address/Location:					
Nearest City:	State:	County	Zip		
Distance From City:		Direction from City:			
Section	Township	Range	Borough		
Container Type		Tank Oil Storage Capacity			
Facility Oil Storage Capacity:					
Facility Latitude:		Facility Longitude:			

MATERIAL DISCHARGE					
CHRIS CODE	Discharged Quantity	Unit of Measure	Material Discharged in Water	Quantity	Unit of Measure

RESPONSE ACTION
Actions Taken to Correct, Control, or Mitigate Incident?

IMPACT			
Number of Injuries:		Number of Fatalities:	
Were there Evacuations?	YES//NO	Number Evacuated:	
Was there any Damage?	YES/NO	Damage in Dollars (approximate):	
Medium Affected:			
Description:			
More Information about Medium:			

ADDITIONAL INFORMATION
Any Information about the incident not recorded elsewhere in the report:

CALLER NOTIFICATIONS									
EPA	YES/NO	USCG	YES/NO	STATE	YES/NO	OTHER	YES/NO	Describe:	

* Incident reports involving fatalities may contain confidential information

3.2 Procedures for Notifying Qualified Individuals

Qualified Individuals will be notified via telephone. Qualified Individual responsibilities and authorities are described below. Qualified Individual notification exercises will be conducted quarterly as described in *Appendix A*. Duties of the qualified individual as identified are covered in *Section 4*.

3.3 Additional Notifications

3.3.1 Personnel Notifications

Incident Management Team (IMT) members will be notified and/or activated as needed by the Team Lead, Qualified Individual or other appropriate responder.

COMPANY RESPONDERS			
Name:	**Phone # to Call:**	**Estimated Response Time**	**Time Called:**
Primary QI Jeff Westra, Area Manager	(562) 824-2063 Cell	10 - 12 hours	
Incident Commander Marc Brunet	(385) 233-8258 – Cell (505) 632-4193 – Office	30 minutes to 1 hour	
Safety Josh Capehart	(505) 486-9559 Cell (505) 632-8006 Office	30 minutes to 1 hour	
Operations Section Duane Howe	(505) 444-0084 Cell (505) 632-4025 Office	30 minutes to 1 hour	
Maintenance (Logistics Section) Corey Pruit	(505) 947-6569 Cell (505) 632-4029 Office	30 minutes to 1 hour	
Environmental Gary Russell	(210) 970-1970 Cell (678) 594-6377 Office	12 – 14 hours	
Regional EPG Joshua Williams	(385) 260-4648 Cell	6 - 7 hours	

3.3.2 Primary and Secondary Notification Methods

Primary notification methods will be via telephone. Secondary notification methods vary according to entity to be notified. On-line notifications are available for some agencies and departments.

Figure 3-3 Notification Summary

FEDERAL AGENCIES			
AFFILIATION	**PHONE NUMBER**	**NAME OF PERSON CONTACTED**	**TIME CONTACTED**
National Response Center	(800) 424-8802		
EPA – Region 6	(866) 372-7745		
DOT – PHMSA	(202) 366-4595		
U.S. Fish and Wildlife Services Ecological Services Region 2 Resident Agent in Charge	 (505) 346-2525 (505) 346-7828		
Army Corp. of Engineers	(505) 342-3171		
National Weather Service (Recorded Weather)	(505) 243-0702		

STATE AGENCIES			
AFFILIATION	**PHONE NUMBER**	**NAME OF PERSON CONTACTED**	**TIME CONTACTED**
New Mexico Department of Public Safety – State Emergency Response Commission (SERC)	(505) 476-0617		
New Mexico Energy, Minerals and Natural Resources Department – Oil Conservation Division • District 4 – Santa Fe Oil Conservation Division Director	 (505) 476-3493 (505) 476-3460		
New Mexico Public Regulation Commission – Pipeline Safety Bureau **- Office** **Emergency** **One Call**	 (505) 476-0298 (505) 490-2375 811 or (800) 321-2537		
New Mexico Environmental Department • Emergencies (24 hours/day) • Non-emergencies NMED Petroleum Storage Tank Bureau • Normal Business hours (8-5) • 24-hour alternate, emergencies NMED Surface Water Quality Bureau • Main Office • Nonemergency reporting, Business hours • Nonemergency reporting, 24-hour	(505) 827-9329 (866) 428-6535 (505) 476-4397 (505) 827-9329 (505) 827-0187 (505) 476-6000 (866) 428-6535		
New Mexico Bureau of Land Management • Farmington	 (505) 564-7600		

LOCAL AGENCIES			
AFFILIATION	**PHONE NUMBER**	**NAME OF PERSON CONTACTED**	**TIME CONTACTED**
San Juan County Emergency Management	(505) 334-1180		
San Juan County Sheriff	(505) 334-6107 (505) 476-3460		
San Juan County Fire Department (Non-ER)	(505) 326-3505		
State Police – Farmington	(505) 325-7547		

TRIBAL CONTACTS			
AFFILIATION	**PHONE NUMBER**	**NAME OF PERSON CONTACTED**	**TIME CONTACTED**
Navajo Nation (Bloomfield/Gallup area) • Navajo Nation EPA – Window Rock • Navajo Nation EPA – Shiprock	 (928) 871-6859 (505) 368-1037		

RESPONSE CONTRACTORS/COOPERATIVES			
AFFILIATION	**PHONE NUMBER**	**NAME OF PERSON CONTACTED**	**TIME CONTACTED**
MSRC	(800) 645-7745		
CTEH (when impacting community for air monitoring)	(866) 869-2834		

MEDICAL			
AFFILIATION	**PHONE NUMBER**	**NAME OF PERSON CONTACTED**	**TIME CONTACTED**
San Juan Regional Medical Center 801 W. Maple Farmington, NM	(505) 325-5011 (505) 609-2000		
Northern Navajo Medical Center Hwy 491 North, Shiprock, NM	(505) 368-6001		
Espanola Hospital 1010 Spruce St Espanola, NM	(505) 753-7111		

MEDIA			
Name:	**Phone # to Call:**	**Person Contacted**	**Time Called**
Radio Station KENN	(505) 325-3541		
Radio Station KTRA	(505) 326-6553		
Television Station KOBF	(505) 326-1141		

Figure 3-4 Additional Contractors Contact List

Response Phone Number	Vendor Name	Type
505-330-9554	Badger Daylighting Corp	Services-Stand Alone
970-884-4869	Crossfire LLC	Construction
505-632-0615	Envirotech Inc.	Environmental Clean Up
775-856-220	EnvTech, Inc.	Services-Stand Alone
866-812-9565	GHD Services Inc.	Environmental
866-426-6770	H2O OSRO Inc.	Environmental Spill Response
505-632-7007	Halo Services Inc.	Service-Repair
505-632-2368	Inland Corporation	Services-Stand Alone
575-236-6215	Jade Construction LLC	Construction
800-805-6302	JD King	Inspection
713-987-9841	Landshark Hydroexcavation Services Inc.	Hydro Excavation
505-334-5541	M & R Trucking Inc.	Frac Tank Rentals/Hauling Services
575-408-2606	Sundance Services	Waste Disposal
505-334-4822	TRC Construction Inc.	Construction
860-298-9692	TRC Environmental Corporation	Environmental /Consulting
505-334-6194	Triple S Trucking Company Inc.	Hydro testing/Hauling

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SECTION 4 RESPONSE TEAM ORGANIZATION

The key to an effective emergency response is a rapid, coordinated, tiered response by the affected locality, and the Incident Management Team (IMT), consistent with the magnitude of an incident. For clarification, Spill Management Team (SMT) is synonymous with IMT for meeting regulatory requirements. The IMT responding to an incident for this facility will be made of company personnel from local, regional and national IMT members that are trained and experienced as stated in **Appendix A**.

First response to an incident will be provided by Operations. The Incident Management Team (IMT) will respond, to the degree necessary, to incidents exceeding local capability. If a response exceeds Operations capabilities, the Incident Commander will activate the Incident Management Team (IMT). These response teams will use the NIMS Incident Command System (ICS) to manage the emergency response activities. Because ICS is a management tool that is readily adaptable to incidents of varying magnitude, it will typically be used for all emergency incidents. Staffing levels will be adjusted to meet specific response team needs based on incident size, severity, and type of emergency.

The Company has also provided an Oil Spill Incident Management Handbook (IMH), which provides additional guidelines and resources for managing an incident. The Incident Management Team positions and responsibilities at the Company are designed to correspond to those in the IMH. This provides the ability for Company Incident Management Team position holders to report to other Company assets and assist in their incident management in the same position, with minimal learning curve.

4.1 Oil Spill Activation Procedures

Activation of the IMT may be accomplished in stages. Initially, the First Company Responder reports the incident, and assumes the role of Incident Commander. During a very minor spill incident, the Incident Commander (IC) may be able to respond without assistance from the IMT. If the situation requires more resources, he or she will request activation of the IMT.

4.2 Incident Management Team

4.2.1 Unified Command

A Unified Command (UC) will be utilized as a method of integrating federal, state and local agencies within IMT. The purpose of this system is to organize the variety of agencies that may be involved in a response into a consistent team that performs their duties in a concerted, unified effort.

The UC structure consists of three key On-Scene Coordinators: Federal On-Scene Coordinator (FOSC), State On-Scene Coordinator (SOSC), and the Responsible Party Incident Commander. These three entities will share decision-making authority as Incident Commander in the Command Center and will consult with each other regarding spill response management issues.

Depending upon the size and complexity of the incident, additional federal and state agency personnel will be integrated into the other functions of the IMT.

4.2.2 Incident Management Team Duties and Responsibilities

Positions and roles described below are intended to be representative of the positions and roles described in the Company Incident Management Handbook (IMH). For the purpose of training and/or role clarification, the company will refer to the ACP roles that apply to company ICS positions. Abbreviated role descriptions in the OSRP are intended to help reduce the bulk of the plan. The

Company may, from time to time, elect to fill certain ICS support positions with approved response contractor or contract personnel; **at no time will these individuals be cast in the role of IC or Section Chief.** The Company will follow a Planning Cycle consistent with the ACP. Refer to the Company's Incident Management Handbook and position Job Aids for more information on organization and duties for each specific position.

INCIDENT COMMAND

Incident Commander (IC)

Responsible for managing the crisis including the development and implementation of strategic decisions. The Incident Commander (IC) may designate a Deputy to delegate the duties and responsibilities found on the checklist of positions identified in the IMH.

Deputy Incident Commander (DIC):

Assists the IC by carrying out assignments and duties as given by the IC. In the event the IC could no longer perform required duties the DIC would assume those duties. The DIC is trained to perform the role of the IC.

COMMAND STAFF

Legal Officer:

Provides advice on all aspects of an oil spill incident. Ensures that information which may be relevant to the defense and/or settlement of future claims is gathered and preserved. Assists members of the IMT upon request in making legal judgments and decisions related to safe and expedient resolution of the response.

Liaison Officer:

Responsible for communicating with local, state, and federal government agencies not involved in the unified command structure. Also advises interested groups, corporations, and organizations of the actions that the Incident Management Team (IMT) and/or Unified Command is taking to address concerns.

Public Information Officer (PIO):

Responsible for the formulation and release of information about the crisis to the news media. Is expected to work in concert with other members of the Joint Information Center (JIC) when the magnitude of an event warrants formation of a JIC. Provides Company based information to be used in dissemination of facts and information regarding a crisis event.

Safety Officer:

Responsible for monitoring and assessing hazardous and unsafe situations and developing measures for ensuring personnel safety. Follows prescribed guidelines detailed in the IMT and ACP to anticipate potentially hazardous working conditions and prevent exposures to the public and response personnel.

Intelligence Officer:

Responsible for addressing intelligence issues that arise during an incident.

OPERATIONS SECTION

Operations Section Chief:

Responsible for the management of all operations directly applicable to control, containment, recovery, clean up, and rehabilitation. Activates and supervises organizational elements in accordance with the response objectives set forth in the IAP. Follows the guidance of the ACP by drafting primary and alternative response strategies, work assignments, and identifiable resources necessary to sustain a long-term response activity.

Branch/Division Supervisors:

Responsible for the implementation of an assigned portion of the Incident Action Plan, assignment of resources within the progress of control operations and the status of resources.

Air Ops Branch:

Primarily responsible for preparing the air operations portions of the Incident Action Plan. The plan reflects Company or Agency restrictions that have an impact on the operations capability of utilization of resources.

PLANNING SECTION

Planning Section Chief:

Responsible for the collection, evaluation, dissemination, and use of information about the development of the spill and status of resources. The information as needed to understand the current situation, predict the probable course of incident events and prepare alternate strategies and control operations for the incident.

Resources Unit:

Responsible for the establishing all check-in activities; preparation and maintenance of displays, charges, and lists that reflect current status; the preparation and processing of resources status change information and the location of incident resources.

Situation Unit:

Collects and organizes spill status and situation information. Responsible for the evaluation, analysis, and display of that information.

Documentation Unit:

Maintains accurate and complete historical files and provides duplicating services and stores incident files for legal, analytical, and historic purposes.

Environmental Unit:

The EU determines extent of environmental damage and evaluates the effects of clean-up methods on the environment; obtains necessary permits, coordinates with government agencies to arrange for disposal of recovered oil and waste and implements wildlife protection and treatment plans.

Demobilization Unit:

Assists sections/units in ensuring that orderly, safe and cost-effective demobilization of personnel and equipment is accomplished.

Technical Specialist:

Technical specialists are advisors with special skills needed to support incident options. They may report to the Planning Section Chief; function within an existing unit such as the situation unit, form a separate unit if required, or be reassigned to other parts of the organization. Filled by contract services personnel.

LOGISTICS SECTION

Logistics Section Chief:

Responsible for providing facilities, services and materials in support all phases of the incident response.

Supply Unit:

Orders personnel, equipment, and supplies; receives and stores supplies; maintains inventories and distributes supplies as requested.

Facilities Unit:

Provides for office work areas, living quarters and storage buildings; provides sanitation facilities, manages remote camps and general maintenance to facilities.

Ground Support Unit:

Provides for transportation of personnel, supplies, food and equipment; performs fueling, service and repair work to vehicles and other ground support equipment; implements traffic plan for the incident.

Medical Unit:
Develops a Medical Plan (ICS 206) and renders medical aid for injured and ill personnel assigned to the spill.

Food Unit:
Determines feeding requirements at all spill locations and facilities; provides drinking water and oversight.

Communications Unit:
Develop plans for the effective use of spill communications equipment and facilities; installs and tests equipment and operates an Incident Communications Center.

Security Unit:
Responsible for providing safeguards needed to protect personnel and property from loss and damage.

FINANCE SECTION

Finance Section Chief:
Responsible for all financial and cost analysis aspects of the spill.

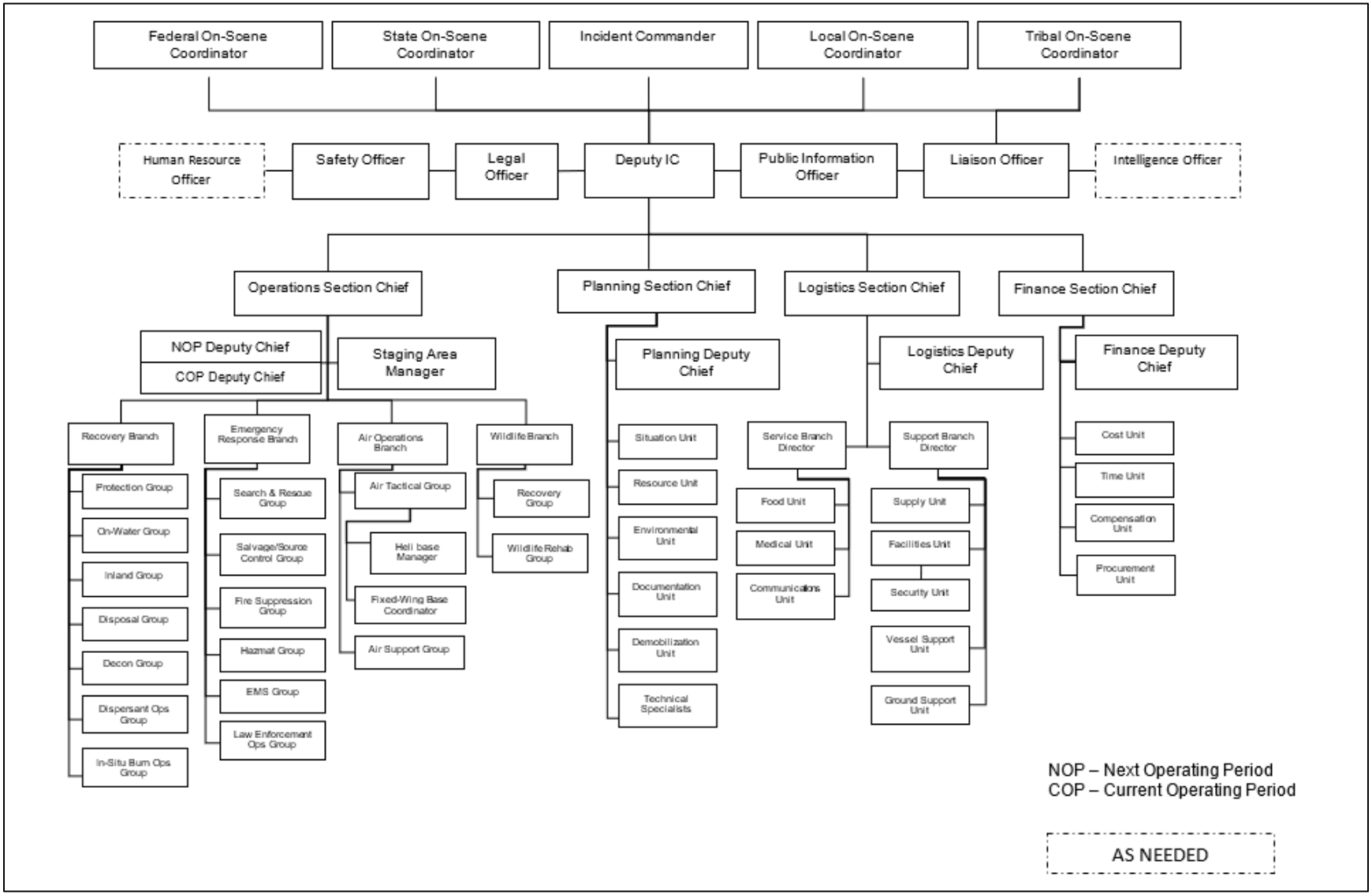
Time/Cost Unit:
Provides time/cost reporting of labor, materials and supplies used during spill containment and repair.

Claims Unit:
Initiates investigation and documentation on all claims other than personal injury and arranges for damage surveyors and adjusters.

Procurement Unit:
Administers and establishes, as necessary, vendor contracts for operations support-related supplies, services, and technical consultants.

Figure 4-1 provides an example of the Incident Management Team Organization.

Figure 4-1 Incident Management Team Organization



4.3 Qualified Individual

The persons designated for this plan, with written authority to utilize Company resources as necessary for oil spill response, are referred to as Qualified Individuals (QIs). Letters of Designation provide authority to:

- Activate and engage in contracting with oil spill removal organization(s).
- Act as liaison with the pre-designated state and Federal On-Scene Coordinator(s).
- Obligate funds required to carry out response activities.

Individuals named as QIs also have the authority to act as Incident Commanders if necessary. The QIs designated for this Plan are identified in *Sections 1 and 3*, which also includes contact numbers.

4.4 Incident Command Post

In the event of a major response, a Field Command Post will be activated. This will be done by the IC or his/her designate. When a Field Command Post is established at the scene of the incident as the response effort escalates, it will be located in a Safe Zone near the incident. The Field Command Post will provide a location to coordinate response and control efforts. A Deputy IC may be delegated to operate the Field Command Post.

The Company has also contracted for hotel conference rooms for both spills and spill exercises. If necessary, this is an option that is available for a location of a Field Command Post. Hotel contracts are available from the corporate office. The hotel option also provides contract accommodations for command post staff and their field staff.

4.5 Government Agencies

The primary government agencies concerned with oil spills will include New Mexico Environmental Department (NMED) and the Federal Environmental Protection Agency.
NMED is pre-designated as the State On-Scene Coordinator (SOSC) and has jurisdictional responsibility for all spills that impact state lands and waters. The SOSC will monitor, supervise, and determine "adequacy" of cleanup of spills which impact state lands or waters.

In the event of a major spill, a Federal On-Scene Coordinator (FOSC) will be designated. The FOSC is usually an EPA representative. The FOSC will facilitate communications with the Federal, state, and local government agencies that will be involved in response operations. The primary responsibility of the FOSC, as defined in 40 CFR, Part 300 (The National Oil and Hazardous Substance Contingency Plan), is to direct the efforts of government agencies during a spill emergency.

4.6 Spill Response Team

The following table provides a list of operators that may respond to a spill at the facility. ***The times given are for those that are on shift. It is not expected that off-shift operators will be called in to respond to a spill unless they are a trained member of the Spill Response Team.*** Operators will be notified to respond via radio or identified emergency notification system. Phone numbers provided are for the desk or work area. Cell phone numbers are not provided for operators.

Facility operators at the facility are responsible for conducting source control. The training for response personnel is covered in *Appendix A*. Training records for the responders is maintained by the training department. Description of responsibilities under the ICS system are found in this section. The company has a regional Incident Management Team that would draw personnel from different terminals and offices within New Mexico and Texas. In addition, the company has a National Response Team that

would draw personnel from other states that would cascade in to support the response. Names and information on the personnel is available upon request. Personnel would be notified of the need to respond through an Emergency Notification System (ENS).

Facility Operators

Names	Area	Day Position	Phone	Notes	Response Times
Marc Brunet	Bloomfield	Manager	385-233-8258		15 – 30 minutes
Mike Charley	Bloomfield	Terminal Operator	505-632-4173		15 – 30 minutes
Frank Dooling	Bloomfield	Pump Mechanic	505-632-4142		15 – 30 minutes
Damian Hamilton	Bloomfield	ICE Tech	505-632-4136		15 – 30 minutes
Bob Heath	Bloomfield	Terminal Operator	505-632-4183		15 – 30 minutes
Saul Noriega	Bloomfield	Terminal Operator			15 – 30 minutes
Lloyd Mahaffey	Bloomfield	Terminal Operator			15 – 30 minutes
Patrick Gonzales	Bloomfield	Terminal Operator			15 – 30 minutes

The company maintains a Spill Response Team in the northern and southern response zones. These teams draw personnel from different terminals and stations in each zone. The Northern Response Zone SRT would be responsible for responding to incidents at Bloomfield, with an average response time of 1 to 3 hours.

Note: The team roster is current as of the update of this plan and is subject to change due to turnover of personnel. An updated roster is available from the EPG Representative. The response times are based on the team member responding from the field to the spill location.

North Response Team

Names	Area	Day Position	Response Times
Corey Pruitt	Bloomfield	Operations Specialist	1-3 Hours
AJ Horner	Bloomfield	Maint. Supervisor	1-3 Hours
Scott Butler	Bloomfield	Sr. Maint. Manager	1-3 Hours
Gene Lorge	Albuquerque	Terminal Operator	1-3 Hours
Eric Nielson	Albuquerque	SR. Corrosion Tech	1-3 Hours
Dave Aguilar	Bloomfield	Pipeline Operator	1-3 Hours
Mike Bradshaw	Bloomfield	Pump Mechanic	1-3 Hours
Indian Jack	Bloomfield	Pipeline Operator	1-3 Hours
Cameron Lanier	Bloomfield	Pump Mechanic	1-3 Hours
Shandie Pioche	Bloomfield	Pipeline Operator	1-3 Hours
Romie (Beau) Rousseau	Bloomfield	Pump Mechanic	1-3 Hours
Hebert Willie	Bloomfield	Pipeline Operator	1-3 Hours
Wesley Yazzie	Bloomfield	Welder II	1-3 Hours
Julian Velasquez	Bloomfield	Pipeline Operator	1-3 Hours
Daymon Luna	Bloomfield	Pipeline Operator	1-3 Hours
Thomas G. Sabo	Bloomfield	Pipeline Operator	1-3 Hours
Manuel Camacho	Bloomfield	Pipeline Operator	1-3 Hours
Everett Tsosie	Bloomfield	Pipeline Operator	1-3 Hours
Patrick Martinez	Gallup	Pipeline Operator	1-3 Hours
Jeremy Willie	Albuquerque	Pipeline Operator	1-3 Hours
Lloyd Sandoval	Albuquerque	Pipeline Operator	1-3 Hours
Jonas Armenta	Albuquerque	Fleet Manager	1-3 Hours
Josh Capehart	Bloomfield	Safety	1-3 Hours
Janet Coburn	Albuquerque	Documentation	1-3 Hours
Brandon Milton	Bloomfield	Operations Supervisor	1-3 Hours
Duane Howe	Bloomfield	Operations Supervisor	1-3 Hours
James Saunders	Bloomfield	Pipeline Operator	1-3 Hours
Patrick Shannon	Bloomfield	Pipeline Operator	1-3 Hours
David Ramsey	Bloomfield	Pipeline Operator	1-3 Hours
Charles Schmitt	Bloomfield	Pipeline Operator	1-3 Hours
Chad Lance	Bloomfield	Pipeline Operator	1-3 Hours
Patrick Madrid	Gallup	Pipeline Operator	1-3 Hours
Dennis Greigo	Albuquerque	Pipeline Operator	1-3 Hours

SECTION 5 DOCUMENTATION

5.1 Documentation

Detailed documentation must be kept for all aspects of an oil spill response. It ensures that corresponding company records are correct, and that accurate reports can be provided to government agencies and the media. The following considerations will ensure that effective documentation practices are followed.

Documentation of an oil spill will provide a record of the events as they occur. It will provide the necessary data to determine the accuracy of trajectory analysis, spill size predictions, success of containment, and clean-up operations. Thorough documentation of all events will aid in determining the adequacy of the spill response plan, if any modifications are needed, and what potential improvements could be made for future response operations.

Documentation should begin immediately upon notification of an oil spill and continue until post spill assessments have been made. A member of the IMT will be assigned the duty of documentation during each operational period, which will rotate throughout the spill event. This will include compiling notes and other documentation from other members of the IMT.

The type of information to be documented includes, but is not limited to, the following:

- Section, Unit, and Personnel Activity Logs.
- Spill response status/Incident Action Plans.
- Spill scenario.
- Correspondence with government agencies and other entities.
- Weather information.
- Costs incurred.
- Photographs.

The Company IMT uses ICS forms consistent with the National Incident Management System (NIMS) forms. All ICS forms can be found online on the Corporate website

5.1.1 Spill Response Status

Information relating to the status of ongoing response operations should be maintained and posted in the central and field command posts, if possible. Status boards are a valuable tool to ensure that all response team members are kept informed of the status of the response operation. This aids in efficiency and communications between team members by reducing the length and number of informational briefings required. This also helps to reduce duplicated efforts or ordering of services, and improves the ability of team members to function effectively since they are able to stay informed without being interrupted from their required duties. The type of information that is useful to maintain includes:

- Maps which detailed slick size and location, trajectories, location of environmental and socioeconomic sensitivities, and location of deployed equipment.
- Activity logs

- Resource availability and status
- Recovered oil volumes
- Wildlife impact
- Historic asset impact (obtain locations from environmental unit)
- Personnel counts
- Current and forecasted weather information

5.1.2 Spill Scenario Information

All information pertaining to the oil spill and why it occurred should be documented throughout the event. Information should include the following:

- Person(s) and equipment that caused the spill.
- Details on equipment failure and/or human error.
- Person(s) discovering the spill.
- Date and time spill occurred.
- Location(s) of spill area covered by oil, and estimated volume.
- Product spilled.
- Effectiveness of containment and recovery operations.

5.1.3 Meteorological Reports

Meteorological data to be gathered for the affected areas during the incident would include:

- Temperature.
- Precipitation.
- Wind direction and speed.
- Sunrise/Sunset times.

5.1.4 Correspondence with Government Agencies

The person in charge of documentation should record all correspondence with regulatory agencies. This correspondence may include permitting, requests for permitting, notifications, and orders from the agencies.

In addition to documenting conversations with government agencies, each response team member should document all conversations, meetings, and actions. The Incident Commander must utilize an assistant or recording secretary to accomplish this. ICS Form 214a is a form that can be utilized for response team members to document their conversations and actions.

5.1.5 Cost Tracking

Documentation of all costs incurred should be recorded. This may include claims, legal services, equipment rental and purchases, contract services, and support costs (transportation, meals, lodging). Spill Response Requisitions form the basis for tracking costs for resources required for the spill.

5.1.6 Photographs

Photographs provide excellent documentation of oil spill response operations and should be utilized if conditions permit. Aerial photographs of the spill taken for planning and surveillance purposes are also useful for documentation purposes. In order to ensure adequate documentation, all photographs should

be labeled to include location, date, time and direction. Digital photos should be data tagged with data that includes GPS, date, time, azimuth, elevation, cardinal direction, etc. Note the following guidelines for photographing oil spills.

- Photographs should be taken from several views:
  - Showing the point of discharge.
  - Showing the complete route of pollutant from point of discharge to the water.
  - Showing the extent of environmental or economic impact of the pollutant. Several angles may be shown, both up close to indicate the thickness, color, and composition of the pollutant, and an overall view showing the total area affected
  - Showing an overall view of the area to establish a geographical reference.
  - Showing identifying markings, such as name of vessels or facilities.
- When photographing oil in or on the water, ensure the distance and angle are such to avoid:
  - Confusion between the oil and natural surface reflection of the water,
  - Shadow effects of organic or inorganic materials in the water column, or on the water,
  - Differences in water temperature and currents.

5.1.7 Activity Logs

Copies of personal logs that individuals maintained during response operations should also be gathered as part of the documentation record. This information would be particularly useful during the post-spill assessment in determining the strengths and weaknesses of the response efforts.

5.2 Site Safety Health Plan

In addition to assessing the dangers of explosion and fire, the Safety Officer will ensure the protection of worker health and safety. This protection is achieved by assessing and establishing exposure control zones to which only appropriately trained and equipped personnel may enter.

The criteria for establishing safety zones and respiratory protection requirements for petroleum products handled may use spill response limits for petroleum distillates (e.g., 500 ppm for 8 hours or 333 ppm or 12 hours).

Personal equipment recommended for protecting SKIN includes PVC gloves and boots for hands/feet, and PVC rain suit or Tyvek coveralls for the body.

At a minimum, safety glasses should be worn for EYE protection. Chemical goggles or a face shield should be used if a splash hazard is present. Eye protection is not required if a full face respirator is worn.

Local police and fire departments will be notified of all major spills and, if necessary, their on-site assistance will be requested to ensure personnel health and safety.

The Safety Officer will prepare an incident-specific Health and Safety Plan. The format to be followed in developing an incident-specific Site Safety & Health Plan is provided at the end of this section and is also available online on the Corporate website.

Safety Data Sheets (SDS) are available online. At a minimum, the following Federal safety standards will be addressed in the development of the incident-Specific Health and Safety Plan:

- 29 CFR 1910, Occupational Health & Safety Standards
- 29 CFR Part 1904, Record Keeping & Reporting Occupational Illnesses
- 29 CFR Part 1910.120, Hazardous Waste Operations and Emergency Response
- 29 CFR Part 1910.132-37 Subpart 1, Personal Protection Equipment
- 29 CFR Part 1920.38, Employee Emergency Action Plans & Fire Prevention

The Safety Officer should establish a dialogue with the local oil spill response contractors to assure that safe work places are established for all responders that comply with local regulations.

INCIDENT NAME: _____ **DATE PREPARED:** _____

OPERATIONAL PERIOD: _____

Site Safety & Health Plan

APPROVED BY:

IC	**DATE**
FOSC	**DATE**
SOSC	**DATE**
LOSC	**DATE**
TOSC	**DATE**

COMMENTS:

Table of Contents

SECTION 1 – INCIDENT DESCRIPTION 2
1.1 EVENT DESCRIPTION 2
Type of Event: 2
Event Description: 2
1.1 HAZARDS: 2
1.2 METEOROLOGICAL OUTLOOK 3
SECTION 2 – SAFETY GUIDELINES 3
2.1 SITE SAFETY 3
2.2 MATERIAL SAFETY DATA SHEETS 4
2.3 SAFETY EQUIPMENT – PPE 4
Conventional Safety Equipment 4
Additional Safety Equipment 5
2.4 DAILY DECONTAMINATION GUIDELINES FOR PERSONNEL 5
2.5 OFFSITE CONTROL 5
Response Zones 5
Community Safety: 6
2.6 COMMUNICATIONS 6
2.7 PERSONNEL AND ENVIRONMENTAL MONITORING 7
Personnel Monitoring 7
Environmental Monitoring 7
2.8 TRAINING 7
2.9 EMERGENCY PROCEDURES 7
Personnel Injury in the Hot Zone: 7
Personnel Injury in the Cold Zone: 8
Fire/Explosion: 8
Personnel Equipment Failure: 8
Other Equipment Failure: 8
Emergency Escape Routes: 8
SECTION 3 – RESPONDER SAFETY INFORMATION 9
3.1 GENERAL SAFETY PRACTICES 9
3.2 BOAT AND WATER SAFETY 10
Onboard Vessel 10
Capsized Craft 10
Overboard Victim 10
3.3 VEHICLE SAFETY 11
3.4 EQUIPMENT SAFETY 11
3.5 HELICOPTER SAFETY 11
3.6 CHEMICAL HAZARDS 12
3.7 PHYSICAL HAZARDS 12
Hypothermia 12
Noise 13
Dehydration and Heat Stress 13
Lifting hazards: 13
Slips, Trips, and Falls 14
3.8 DRUM HANDLING 14
3.9 PERSONAL PROTECTIVE EQUIPMENT 14
3.10 PERSONAL HYGENE 15
3.11 DECONTAMINATION 15
3.12 SANITATION 16
3.13 ILLUMINATION AND VISIBILITY 16
3.14 CONFINED SPACES 16

SECTION 1 – INCIDENT DESCRIPTION

WORK SITE:	**INCIDENT:**
DATE/TIME:	**SHIFT:**
PRODUCT:	**MSDS (Attached):**
SAFETY OFFICER:	**CONTACT RADIO FREQUENCY & PHONE NUMBER:**
INCIDENT COMMANDER:	**CONTACT RADIO FREQUENCY & PHONE NUMBER:**

1.1 EVENT DESCRIPTION

Type of Event:

___ PROCESS UNIT ___ PIPELINE ___ STORAGE TANK
___ OTHER: _____

Event Description:

1.1 HAZARDS:

Check all that apply:

_____ Oxygen
_____ Explosive Vapors >10% LEL
_____ Benzene
_____ H2S
_____ High CO
_____ Fire Hazard
_____ Skin Exposure
_____ Eye Hazards
_____ Heat Stress
_____ Slips, Trips & Falls
_____ Wind Chill
_____ High Winds
_____ Working 4' Over the Ground
_____ Night Ops
_____ Pinch Points
_____ Hypothermia
_____ Other (working on water)
_____

1.2 METEOROLOGICAL OUTLOOK

Current Weather Conditions Wind Speed: _____ Wind Direction: _____ Air Temperature: _____ Ceiling: _____ Precipitation: Rain Snow _____ Comments:	**Forecasted Weather Conditions** Wind Speed: _____ Wind Direction: _____ Air Temperature: _____ Ceiling: _____ Precipitation: Rain Snow _____ Comments:
Current Water Conditions Water Temperature: _____ Wave Height: _____ Wave Direction: _____ Current Speed: _____ Current Direction: _____	**Forecasted Water Conditions** Water Temperature: _____ Wave Height: _____ Wave Direction: _____ Current Speed: _____ Current Direction: _____
Today's Sunrise/Sunset Sunrise Time: _____ Sunset Time: _____ Comments:	**Tomorrow's Sunrise/Sunset** Sunrise Time: _____ Sunset Time: _____ Comments:
Watches/Warnings/Advisories:	

1 knot = 1.15 mph

SECTION 2 – SAFETY GUIDELINES

2.1 SITE SAFETY

1. This initial plan is intended to provide guidance for the Site Supervisors, Responders and Contractors for post-emergency response to an oil spill.

2. No smoking, eating or drinking is allowed in contaminated areas; smoking will be allowed in the support zone (cold zone) in designated areas only.

3. Work sites and boats are limited to authorized personnel only.

4. A list of personnel on each job site will be kept for each shift showing arrival and departure from the site.

5. The operator of any vessel is responsible for the overall operation of the vessel and is in charge of all emergencies aboard that vessel.

6. Employees and contractors shall:
   a. Report all injuries, illness or near miss incidents to the Site Supervisor, Safety Officer or Section Chief.
   b. Read and sign the Site Safety Plan before starting work at the job site.
   c. Sign the log sheet for each safety briefing.

d. Report all illness, injuries, or medications they are taking to their Site Supervisor prior to entry or upon exiting the job site.
e. Report unsafe acts or conditions to the Site Supervisor or the Site Safety Officer. If unsafe conditions or work practices are observed, stop those operations immediately.
f. Be responsible for inspecting their personal protection equipment (PPE) prior to entry into a job site.
g. Use the "buddy system" and monitor each other for job-related injuries, exposure to the elements, or any other abnormal behavior.

2.2 SAFETY DATA SHEETS

1. An SDS will be made available and reviewed by all employees and subcontractors at the job site as part of the Site Safety Plan.

2. Specific Information that should be noted from the SDS is: Product name, Date of SDS, Hazardous components, Chemical and Physical characteristics and Health hazards.

2.3 SAFETY EQUIPMENT – PPE

Conventional Safety Equipment

REQUIRED		PPE TYPE	COMMENTS
YES	NO		
		Personal Floatation Device	Over water/waters edge
		Hardhat	At all times
		Safety Glasses	Helo pad/wildlife handling
		Goggles	Clean up/chemical handling /splash hazards
		Hearing Protection	Helo pad/equipment operation
		Gloves (Material)	Nitrile/PVC when handling oils and/or chemicals/clean up operations
		Rubber Boots	Nitrile/PVC when handling oils and/or chemicals/clean up operations
		Rain Gear	Inclimate weather/handling oils and/or chemicals/clean up operations
		Other	Chemical Tyvek may also be used for oil clean up

Respiratory Equipment

REQUIRED		PPE TYPE	COMMENTS
YES	NO		
		Half Mask Respirator	As required by air monitoring results
		Full Face Respirator	As required by air monitoring results
		Supplied Air	As required by air monitoring results
		Other	

PPE indicated above is required for entry into Hot Zone areas.

2.4 DAILY DECONTAMINATION GUIDELINES FOR PERSONNEL

1. Three zones will be established and identified as the Hot Zone, Decon Areas and Cold Zone. Decon of equipment and/or personnel will take place in the designated Decon Areas

2. Personnel working inside the Hot Zone must check in and out of the Hot Zone. The Buddy System is in effect for all work parties. No one is allowed to enter or leave the site alone.

3. Decon Areas are provided as a control point for decontamination of individuals leaving a contaminated area. It is key in preventing the spread of contamination as well as providing worker support. These areas are identified on the Spill Plan Worksheets.

4. Decon procedures will be explained to response personnel prior to starting work at the job site. This document provides an organized method by which levels of contamination are reduced.

2.5 OFFSITE CONTROL

Response Zones

Control boundaries have been established and the Hot Zone (contaminated area), Decon Areas, and Cold Zone have been identified as follows, (refer to the Spill Plan Work Sheet):

- Hot Zone - areas involved with the clean up operations.
- Decon Areas/Warm Zone and Wildlife handling areas will be adjacent to the hot zones.
- Cold Zone - all areas immediately outside the Decon Area/Warm Zone.

- No unauthorized person should be within the Hot or Decon Area/Warm Zone. No persons shall be in the Hot Zones without proper PPE.

Coordinating access control and on site security will be coordinated by: Company Safety

The Onsite Command Post has been established at:

Community Safety:
Roads:
Boaters:
Surrounding Community:
Sheriff:
Air:

2.6 COMMUNICATIONS

1. Channel has been designated as the radio frequency for personnel in Hot Zone.

   Other channels for spill activities are:
   - Air Ops. –
   - Air medical to Ambulance –
   - Bird Rescue –

2. Personnel in the Hot Zone will remain in constant radio communication or within sight of the Site Supervisor. Any failure of radio communication requires an evaluation of whether personnel should leave the Hot Zone.

3. The emergency signal to indicate that all personnel should leave the Hot Zone is to announce "Evacuate" over all radio channels.

4. The following standard hand signals will be used in case of radio failure:

   - Hands on top of head: *Need assistance*
   - Thumbs up: *I am all right, I understand*
   - Thumbs down: *Negative*

2.7 PERSONNEL AND ENVIRONMENTAL MONITORING

Monitoring plan must include substance monitored, monitoring equipment and frequency.

HAZARD	MONITORING INSTRUMENT	FREQUENCY (*select one)			
LEL		continuous	hourly	daily	other
BENZENE		continuous	hourly	daily	other
H2S		continuous	hourly	daily	other
OTHER		continuous	hourly	daily	other

Personnel Monitoring
Initial Air monitoring performed. Based on findings, respiratory protection is not required. Monitoring results for LEL, Benzene, and H2S have shown that all exposures are below the PEL's. Air monitoring will be performed prior to each shift and/or prior to each new task being performed. Area monitoring for LEL and H2S to be performed while working under dock.

Environmental Monitoring
Initial monitoring to be performed and additional monitoring performed based on initial readings and changing conditions.

2.8 TRAINING

All Responders involved in these operations shall have been appropriately trained in emergency response procedures in accordance with the applicable Oil Spill Response Plan or Emergency Response Plan. They shall have been trained to the HAZWOPER level prescribed for them by the Company training database.

All Contractor personnel involved in these operations shall have been appropriately trained in emergency response and the appropriate HAZWOPER level.

2.9 EMERGENCY PROCEDURES

Onsite personnel will use the following standard emergency procedures. The Site Safety Officer shall be notified of any onsite emergencies and be responsible for ensuring that the appropriate procedures are followed.

Personnel Injury in the Hot Zone:
Upon notification of an injury in the Hot Zone, the designated emergency signal shall be sounded. All site personnel shall assemble at the decontamination line. The rescue team will enter the Hot Zone (if required) to remove the injured person to the hotline. The Site Safety Officer, Operations Coordinator and Site Supervisor should evaluate the nature of the injury, and the affected person should be decontaminated to the extent possible prior to movement to the Cold Zone. The onsite first responders shall initiate appropriate first aid, and contact should be made for an ambulance. No persons shall reenter the Hot Zone until the cause of the injury or symptoms is determined.

Personnel Injury in the Cold Zone:
Upon notification of an injury in the Cold Zone, the Operations Coordinator and Site Safety Officer will assess the nature of the injury. If the cause of the injury of loss of the injured person does not affect the performance of the onsite personnel, operations may continue. If the injury increases the risk to others, the designated Emergency Stop Alarm will be sounded and all site personnel shall move to the decontamination line for further instructions. Activities on site will stop until the added risk is removed or minimized.

Fire/Explosion:
Upon notification of fire or explosion on site, or the need for rescue, the designated Emergency Stop Alarm will be sounded and all site personnel shall assemble at the decontamination line. Onsite coordinators will account for there personnel and all unaffected personnel will be moved to a safe distance form the involved area.

Personnel Equipment Failure:
If any site worker experiences a failure or alteration of protective equipment that affects the protection factor, that person and his/her buddy shall immediately leave the Hot Zone. Reentry shall not be permitted until the equipment has been repaired or replaced.

Other Equipment Failure:
If any other equipment on site fails to operate properly, the Operation Coordinator and Site Safety Officer shall be notified and then determine the effect of this failure on continuing operations on site. If the failure affects the safety or personnel or prevents completion of the work plan tasks, all personnel shall leave the Hot Zone until the situation is evaluated and appropriate actions taken.

Emergency Escape Routes:
The following emergency escape routes are designated for use in those situations where egress from the Hot Zone cannot occur through the Decon Area: Take the shortest, upwind evacuation route out of the HOT ZONE. Assembly point for evacuation is the closest, safest decon site.

In all situations, when an onsite emergency results in evacuation of the Hot Zone, personnel shall not reenter until:

- The conditions resulting in the emergency have been corrected.
- The hazards have been reassessed.
- The Site Safety Plan has been reviewed.
- Site personnel have been briefed on any changes in the Site Safety Plan.

SECTION 3 – RESPONDER SAFETY INFORMATION

The ultimate responsibility for safety rests with the individuals. At all times, they should keep the following safety cycle in mind:

1. Decide to work safely.
2. Exercise good judgement and common sense.
3. Observe all safety regulations and instructions.
4. Think about prevention of unsafe acts.
5. Stop if unsafe conditions are observed.

It is also important to watch out for your fellow worker. When ever possible, the buddy system should be adopted. Keep an eye out for unsafe acts or unsafe conditions that your fellow worker may not be aware of.

During the conduct of response operations, there may be exposure to chemical and / or physical hazards such as:

- Inhalation of vapors
- Irritation of the skin
- Elevated or lowered body temperatures due to work environment.
- Exhaustion from long hours of demanding work.
- Stress, both physical and mental.
- Injuries due to lifting and body positioning.
- Cuts, bruises, sprains and strains.
- High levels of noise.

To eliminate or reduce these hazards to the maximum extent, it is imperative that the procedures prescribed in the following sections are followed.

3.1 GENERAL SAFETY PRACTICES

- Exercise good sound judgment and common sense
- Follow supervisor's instructions
- Be alert to health and safety hazards
- Attend all required safety meetings
- Wear proper safety equipment
- Set good examples for others
- Make sure tools and equipment are in good working condition.
- Use all tools and equipment as designed.
- Store tools and equipment safely after use.
- Avoid carrying loads that extend above eye level or otherwise obstruct vision.
- Size up loads before attempting to lift. Get help when needed.
- Observe all warning signs.
- Report all injuries when they occur.
- Keep work areas clear. Good housekeeping is a must.

3.2 BOAT AND WATER SAFETY

When boarding a boat, each individual should:

- Have their hands free to ensure good balance
- Know who the vessel captain is. The vessel captain has ultimate authority over all persons on the boat.
- Become familiar with the layout of the boat.
- Know where emergency equipment is located and how to use it (i.e. fire extinguisher, life jackets, life rings, and life rafts).
- Board a vessel only with a U.S. Coast Guard approved personal floatation device. Wear the device properly.

Onboard Vessel

While onboard the vessel:

- Watch out for slippery deck surfaces, especially if they are covered or stained with spilled oil. Use sorbant pads to clean up oil and/or to improve traction along walkways.
- Watch for erratic boat motions. Use safety lines when working on the deck.
- Avoid taking medicines for seasickness because they induce drowsiness
- Maintain awareness of other activities underway while performing your tasks.
- Maintain good housekeeping practices. Keep clear of ropes and lines.
- Wear gloves while handling ropes and cables.
- Wear a personal floatation device.
- Keep safety railings and/or chains in place until it is necessary to remove them to work. Replace railings/chains as soon as possible.

Capsized Craft

If the craft capsizes:

- Make every effort to get out of the water and onto the hull of the craft. If the craft continues to float, it is usually better to remain with it.
- The craft will be seen, and more easily located by rescue personnel than a lone person.
- If you cannot get out of the water, remain calm. Conserve your energy. Float as still as possible with legs together, elbows close to sides, and arms folded across the front of your lifejacket.
- Try to raise an alarm.

Overboard Victim

If a person sees someone fall overboard, the observer should:

- Watch victim constantly. Point to the victim while raising the alarm.
- Notify others by calling "Man Overboard".
- Obtain a life ring to assist in retrieving the victim.

If the overboard victim is rational but shivering when pulled onboard, have them remove wet clothes, put on dry clothing or a blanket, and rest in a warm environment.

If semiconscious or unconscious:

- Check for breathing and heartbeat. Administer CPR in necessary.
- Move victim to a warm environment
- Remove victim's clothes. Do not massage the skin
- Insulate the victim from further heat loss. Wrap in a blanket.
- Do not attempt aggressive warming.
- Gentle warming can be attempted by placing a bottle filled with warm water next to victims head, neck, arm pits, or groin
- Do not give the victim anything to eat or drink, and never offer alcohol.

3.3 VEHICLE SAFETY

All persons called upon to operate a vehicle should:

- Always carry a valid driver's license.
- Wear a seat belt.
- Be familiar with the vehicle's equipment and operation.
- Keep windows and mirrors clean and unobstructed at all times.
- Report any accident or unsafe condition to their supervisor.
- Obey all rules of the road.
- Never engage in horseplay.

3.4 EQUIPMENT SAFETY

The key to equipment safety is knowing how to operate a piece of equipment. If you have not been trained and understand how to operate a piece of equipment, notify your supervisor. While operating equipment, observe the following:

- Keep alert at all times. Know and follow signals of the operators.
- Wear the proper PPE.
- Do not wear loose fitting clothing. Keep hair tied up in such a way that it cannot come into contact with rotating parts.
- Know the safety features of the equipment. Know how to shut down and secure the equipment should an emergency occur.
- Do not operate electrical equipment while standing in water.
- Use walkways and steps where provided. Do not take short cuts.
- Use the proper tools. Do not use tools or equipment for something they were not intended.
- Follow manufactures recommendations and guidelines for equipment and tools.

3.5 HELICOPTER SAFETY

When approaching a helicopter, a person should;

- Look for the pilot to give a hand signal when it is safe to approach the helicopter.
- Always walk towards the front of the helicopter. Never walk towards or around the rear of a helicopter, even when it is idle.
- Wear a hard hat, and use one's hand to secure it to one's head.
- Wear proper eye protection.

- Ensure the pilot brief's the passenger on safety procedures before each flight.

3.6 CHEMICAL HAZARDS

Depending on the specific operations conducted at the spill scene, a person may be exposed to the following substances:

Safety Data Sheets (SDS), describing the specific hazards and precautions to be taken when handling each of these products will be available for inspection on the site. Follow precautions carefully.

All containers should be labeled as to their contents. If the containers are unidentified or unlabeled, they should notify their supervisor and not handle the container until it has been properly identified and labeled.

3.7 PHYSICAL HAZARDS

Hypothermia
Water Temperature and air temperature can be low enough to expose the body to rapid heat loss and a cooling of the body core temperature. In cold water, the body will lose heat many times faster than in the air. Even outside the water, wet clothing will conduct heat away from the body much faster than dry clothing. Normally a combination of climatic/environmental and body factors results in a person suffering from hypothermia.

Symptoms of hypothermia include:

- Continual shivering and paleness.
- Lack of coordination
- Slurring of speech
- Lack of concentration
- Dazed or confused behavior

When a person suffers from severe hypothermia, shivering will stop, blood pressure will drop substantially, consciousness will be clouded, respiration will decrease, and the victim's muscles will become rigid. Unconsciousness will ultimately occur, and death may be imminent.

To protect against hypothermia, a person should:

- Be aware of the weather, check the forecast
- Wear appropriate clothing
- If clothing becomes wet, remove it and dry it as much as possible before putting it back on
- Control sweating by removing layers of clothing so that a uniform body temperature is maintained
- Replenish energy by taking breaks for food and warm liquids

Wind Chill Indicator
Temperature (F)

Wind (MPH)	30	25	20	15	10	5	0	-10	-15	-20	-25
5	25	19	12	7	1	-5	-11	-22	-28	-34	-40
10	21	15	9	3	-4	-10	-16	-28	-35	-41	-47
15	19	13	6	0	-7	-13	-19	-32	-39	-45	-51
20	17	11	4	-2	-9	-15	-22	-35	-42	-48	-55
25	16	9	3	-4	-11	-17	-24	-37	-44	-51	-58
30	15	8	1	-5	-12	-19	-26	-39	-46	-53	-60
35	14	7	0	-7	-14	-21	-27	-41	-48	-55	-62
40	13	6	-1	-8	-15	-22	-29	-43	-50	-57	-64
45	12	5	-2	-9	-16	-23	-30	-44	-51	-58	-65
50	12	4	-3	-10	-17	-24	-31	-45	-52	-60	-67
55	11	4	-3	-11	-18	-25	-32	-46	-54	-61	-68
60	10	3	-4	-11	-19	-26	-33	-48	-55	-62	-69

Frostbite occurs in 15 minutes or less

Noise
Response operations may require the use of generators, pumps, compressors, engines, and other equipment that generate high levels of noise. Short-term exposure to extremely loud noise and/or long-term exposure to low level noise can cause hearing loss. If a worker is assigned to a high noise area, they should wear proper hearing protection.

Dehydration and Heat Stress
Response operations can involve strenuous activities that can, even in relatively cool weather, lead to excessive sweating. This is even more likely to occur when wearing protective clothing that may reduce the body's ability to discard excess heat. This may lead to dehydration, heat rash, heat cramps, heat exhaustion, and possibly heat stroke.

Symptoms of dehydration:
- Cramping in arms, legs or abdomen
- Feeling faint, dizziness or fatigue

Need to take time to rest, preferably in a shady area, and rehydrate by drinking decaffeinated, non-alcoholic fluids

Symptoms of heat exhaustion:
- Faint, dizzy, nauseous feeling
- Sweating heavily or has pale skin color
- Rapid shallow breathing
- Dilated pupils, weak rapid pulse

Need to report to a first aid station immediately

Heat stroke is a life threatening condition. The body must be cooled down immediately. It is imperative to get medical attention at once.

Lifting hazards:
The following rules for safe lifting practices should be observed:

- Plan the lift and route to travel with the load prior to lifting.
- Know the approximate weight of the object prior to lifting.
- Lift with legs, keep back straight, knees bend, squat down to lift.
- Stand up slowly, keeping the load close to the body.
- Use wide balanced stance, with one foot ahead of the other.
- Move feet to change direction; do not twist at the waist.
- Avoid carrying loads that extend above the eye.
- If lifting/carrying with a partner, communicate all moves prior to performing.
- Push, do not pull heavy objects.
- Do not stand under a suspended load.

Slips, Trips, and Falls

Oily surfaces are extremely slippery. Even in slip resistant footwear, walking through an oily area may be hazardous. The scene of shoreline protection and/or clean up operations and equipment in staging areas can contain numerous obstacles. When engaged in response operations:

- Be alert for oily surfaces.
- Use handrails and safety lines when available.
- Be aware of your surroundings. Identify tripping hazards and address the hazards appropriately.
- Keep all walkways, work surfaces, etc. free of debris, tools, or obstacles that could create a tripping hazard.
- Never engage in horseplay.

3.8 DRUM HANDLING

All drums and containers should be properly labeled. Material in unlabeled drums should not be used. Any such drums should be reported to supervision for action.

Drums and containers should be in good condition prior to being moved. Drums larger than 5 gallons should be lifted and moved with mechanical equipment.

If a drum spill occurs, notify supervision and use appropriate absorbent material or other methods to contain the spill.

3.9 PERSONAL PROTECTIVE EQUIPMENT

The primary objective of personal protective equipment is to prevent accidental contact with hazardous chemicals. Before a chemical can have an adverse effect, it must come into contact with a vulnerable area of the body. There are four methods of contact:

1. Injection - puncture wounds
2. Absorption - through healthy, intact skin or eyes
3. Inhalation - through the mouth or nasal passages. This is the most common route of entry.
4. Ingestion - direct or indirect consumption while eating or drinking

When engaged in response activities:

- Know how to don/doff personal protective equipment
- Know the limitations of the PPE
- Wear hearing protection when noise levels could cause hearing damage
- Safety glasses and splash goggles are not the same. Do not use safety glasses for protection against chemical.

Use only PPE that has been approved for use with the chemicals being handled. Leather gloves are not rated for use with oils, corrosive chemicals or hydrocarbons Wear proper footwear. Steel toe shoes are recommended when working around heavy equipment.

3.10 PERSONAL HYGENE

Good personal hygiene practices are essential to maintaining worker's states of health during response operations. Working with oils and oily wastes is dirty work. The nature of the work should not be allowed to lead workers to forsake basic personal hygiene considerations.

The following guidelines are recommended for all members of the response team:

- Shower and shampoo daily before reporting to work.
- While showering, check for unusual rashes, cuts, infections, etc.
- On sunny days, apply protective sunscreen to exposed skin.
- Use a barrier cream on hands before putting on protective gloves.
- If skin becomes contaminated with a hazardous chemical, report to a decontamination area and wash the affected area thoroughly with soap and water.
- If eyes become contaminated, report to a decontamination area and rinse the eyes for at least 15 minutes with clear water.
- If injured or ill at the work site, report to one's supervisor without delay.
- Do not touch food or drink with contaminated gloves or hands.
- Do not track oil into "clean" areas.
- Do not litter while on the work site.
- Ensure all toilet facilities are clean and sanitized to maintain healthy living conditions. Report any unhealthy conditions to your supervisor.
- Keep change rooms clean and orderly.
- Dispose of garbage and refuse in a sanitary manner.
- Water coolers or cans should be properly covered, labeled, and equipped with a spigot or valve.

3.11 DECONTAMINATION

One or more decontamination areas would be set up during response operations. These areas are to be used for decontamination at the work site, they are not to be used as a substitute for personal hygiene at home.

Decon areas are designed to protect the worker's health and to prevent the spread of contamination into "clean" areas. In the field it is not possible for a worker to remove all

contaminated clothes each time they take a break from work. It is essential that a worker cleans their hands and face to avoid injecting or spreading oil or other chemicals to otherwise protected parts of their body.

In the field, the workers will be provided with:

- Soap, water, paper towels, waterless hand cleaner, and/or other materials for washing their face and hands
- An impermeable surface to sit on
- Refuse containers
- Eyewash station

3.12 SANITATION

Proper sanitation facilities must be provided at the clean up site. Lack of proper sanitation can result in outbreaks of dysentery, food poisoning, or other debilitating diseases.

Adequate facilities need to be provided for:

- Potable water
- Non-potable water (clearly labeled)
- Toilet facilities
- Food handling
- Temporary buildings
- Washing facilities
- Shower and change rooms

3.13 ILLUMINATION AND VISIBILITY

Poor visibility can lead to accidents. Clean up workers performing night operations should have personal flashlights. All work areas performing night operations need to be well lit.

3.14 CONFINED SPACES

Any area, which may contain or have the ability to contain toxic/flammable atmospheres, or oxygen deficient or excess, shall be considered to be a confined space. When entry to confined spaces needs to be performed, a safe work permit needs to be issued. The Safety Officer shall issue the safe work permit. The following are hazards and procedures, which need to be addressed on the permit:

- Atmospheric Monitoring – (Toxic, Flammable, Oxygen Deficient or Excessive.)
- Energy Isolation – LO/TO
- Mechanical Hazards
- Electrical Hazards

Procedures needed:

- Training
- Qualified Standby
- Emergency Notification
- PPE requirements
- Rescue

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SECTION 6 SENSITIVE AREAS

6.1 Introduction

In the event of an oil spill, it may be necessary to protect nearby sensitive areas if it appears that local containment and recovery efforts will not be sufficient to control the entire spill. A critical initial step in protecting sensitive resources is identifying the presence and types of resources in the likely path of the oil. Once these resources have been identified, decisions will be made as to the proper protection strategies for each locale and the priority for application of resources to each sensitive site. The Environmental Unit will utilize the ICS 232 to document identified resources at risk. *Figure 6-1* presents an implementation sequence for protection of sensitive areas. This section describes in general terms different ecologically and culturally/economically sensitive areas.

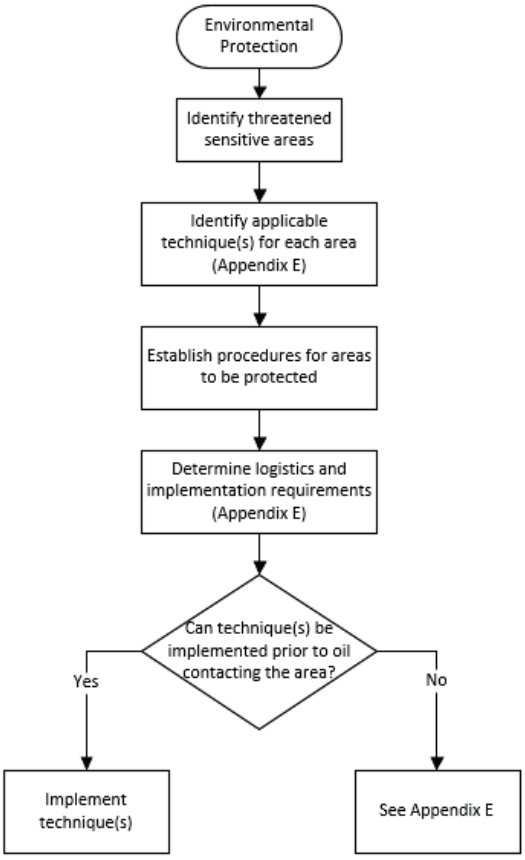

Figure 6-1 Sensitive Area Protection Implementation Sequence

6.2 Types of Sensitive Resources

Key resources requiring protection from oil spills include fish and wildlife species, sensitive habitats, and recreationally, culturally, and economically important areas. Examples of sensitive species include terrestrial birds and waterfowl, mammals, and commercially important finfish, as well as species with limited distribution or populations. Areas of more direct importance to humans include native lands, national parks and forests and farmlands.

6.2.1 Key Sensitive Areas

Wildlife

Wildlife is susceptible to significant injury and mortality from contact with oil spills. In general, the degree of sensitivity to oil spills is based on habitat location and behavior characteristics. For example, most waterfowl are very sensitive to oil spills due to their extensive use of the water, whereas terrestrial birds may nest near the water but have a low sensitivity to oil spills if they do not frequent shoreline areas.

Similarly, animals that frequent water bodies (lakes, rivers, streams) may be impacted by oil spills if they feed on vegetation or dead animals along the shoreline that could become oiled.

Wildlife impacts may result from the physical effects of the oil on their fur or feathers or through ingestion during preening or scavenging. The effects of ingestion vary depending on the toxicity of the oil. In general, the lighter the crude oil or petroleum product, the more toxic it is to wildlife.

Finfish

The sensitivity of various fish species to oil spills typically depends on their growth stage (juveniles are generally much more sensitive than adults), their feeding or migration habits, and the type of oil. Species that frequent shallow or near-surface areas will often be exposed to higher concentrations of dissolved hydrocarbons than those that reside primarily in deeper waters. Lighter crude oils and refined products have a greater impact on fish than heavier oils due to their generally greater solubility and higher concentrations of toxic components.

The substantial size and exposed nature of many finfish spawning and foraging areas and migration routes often makes their protection from oil spills impractical. Therefore, cleanup efforts in these areas may have a low probability for success. It is, however, practical to protect smaller, fishery-related areas such as anadromous fish streams, spawning grounds, and other similar areas.

Sand Shinneries

Sand shinnery is codominated by oak shrubs and mid and tallgrasses; the grasses are usually taller than the oaks. The shrubs are the small, visible shoots of massive underground stem systems, which are hundreds or thousands of years old. Of special concern are the lesser prairie-chicken and the sand dune lizard, which are heavily dependent on shinnery vegetation.

6.3 Wildlife Protection and Rehabilitation

Major oil spills can adversely impact wildlife that may be in the vicinity of the spill.

In responding to impacted wildlife, two priority items should be addressed:

- Protecting the affected habitats using technologies that minimize ecological impacts, and
- Minimizing impacts to exposed resident wildlife through cleaning and rehabilitation efforts.

With few exceptions, most wildlife populations are so large and dispersed that they would not be affected by a single oil spill incident. Other sections within this plan identify means to protect and minimize the impact of a spill on wildlife habitats.

A variety of pre- and post-spill issues should be addressed. These include:

Identification of the potentially affected regional wildlife resources and habitats;

- determination of sensitive species with specific consideration given to threatened and endangered species;
- identification of regulatory and jurisdictional responsibilities as well as lines of authority for key species at risk;
- identification of the appropriate professionals and/or organizations needed for rescue/rehabilitation efforts;
- implementation of steps to care for oiled animals; and preparation and implementation of a plan to deal with the media and public concerns.

6.4 Vulnerability Analysis

The Vulnerability Analysis addresses the potential effects of an Oil/Petroleum Product Spill to human health, property, or the environment. Analysis is undertaken to determine appropriate distances from the Bloomfield Terminal facility to environmentally sensitive areas and drinking water intakes.

The Bloomfield Terminal is located in Northwestern New Mexico, approximately 1 mile south of the City of Bloomfield (population 5,500) in San Juan County. The nearest major city is Farmington, New Mexico; which is approximately 10 miles west.

The general vicinity is largely undeveloped. Directly north of the terminal is the Hammond Irrigation Ditch and the San Juan River. The area north of the river is undeveloped land owned by the terminal. To the East are several gravel pits and vacant land. To the South of the Loading & Unloading Area are two private residences, and further south is BLM land. To the West is vacant land until the State Route 44 corridor. Several businesses are located on this road.

The terminal is situated on an elevated terrace south of the San Juan River and the Hammond Irrigation Ditch. This terrace is approximately 100 feet above the river level and 20 feet above the irrigation ditch. The northern terminal fence line adjoins the irrigation ditch and the distance from the terminal to the river's edge varies from approximately 300 to 1,000 feet.

In the event that a spill escapes containment at the terminal and migrates off-site, the primary direction of flow will be North and West toward the Hammond Irrigation Ditch and the San Juan River. A spill that enters either the ditch or river will flow westward toward Farmington.

Planning distances have been calculated using 40 CFR 112, Appendix C. The planning distance for the Hammond Irrigation Ditch is 13 miles to the point where the Ditch empties into dry arroyos and fields. The planning distance for the San Juan River is 47 miles downstream of the terminal. Planning distance trajectories are provided as *Figures 6-2*.

- **Water Intakes** - The nearest industrial water intake on the San Juan River is the Williams Field Service intake located 1/2 mile west of the terminal near the State Route 44 bridges. The nearest public drinking water intake is the City of Farmington intake located 13 miles Downstream of the terminal. Both of these intakes may be adversely impacted by a spill which reaches the San Juan River.
- **Schools** - The nearest school is located in Bloomfield approximately 1 mile north of the San Juan River. It is unlikely this school will be adversely impacted by a spill.
- **Medical Facilities** - The nearest medical facility is the San Juan Regional Medical Center located in Farmington. It is unlikely this hospital will be adversely impacted by a spill.
- **Residential Areas** - The nearest residences are located approximately 400 feet south of the terminal, and upgradient from potential spill sources. It is possible these residences would be adversely impacted by a spill with possible medical effects including eye and throat irritation, power outages and water supply contamination.
- **Businesses** - The nearest businesses are located on State Route 44, west of the terminal. Most of these businesses are located upgradient of potential spill sources and therefore it is unlikely they will be impacted by a spill.
- **Wetlands/Environmentally Sensitive Areas** –

  - Native vegetation is present along the banks of the San Juan River and adjacent to the Hammond Irrigation Ditch. It is likely this vegetation will be adversely impacted by a spill which reaches either of these waterways.
  - Native fish and wildlife are present in the San Juan River and general vicinity. It is likely that fish will be adversely impacted by a spill which reaches the San Juan River.
  - The San Juan River is the nearest perennial surface water body in the vicinity of the terminal. The Hammond Irrigation Ditch is only in use for 6 months of the year. Both of these waterways may be adversely impacted by a spill.
- **Fish and Wildlife -** Three endangered fish species, the Colorado Squawfish, the Colorado Pike minnow and the Razorback Sucker, may be present in the San Juan River and therefore could be adversely impacted by a spill which reaches the river. Other wildlife in the area may also be impacted by a spill. Information on endangered wildlife in New Mexico can be found on the Biota Information System of New Mexico (BISON-M), located at: http://www.bison-m.org/
- **Lakes and Streams –**
  - Based on the formula provided by the US EPA for Oil Transport over Land, a Worst-Case Scenario of 4,620,000 gallons (110,000 barrels) of Crude Oil has the potential to spread 3640 feet from its initial point of discharge when it would reach the Hammond Ditch and the San Juan River. Upon reaching these waterways, the Crude Oil would migrate downstream toward Mexican Hat and beyond.
  - Approximately 120 miles further downstream on the San Juan River, the Glen Canyon National Recreational Area begins which includes Lake Powell. This plan calls for every effort to be made to keep any spilled product from reaching the Lake Powell area.
  - The response planning window for the Bloomfield Terminal puts the response team 47 miles down the river before an effective response can be made. The Glen Canyon National Recreational Area and Lake Powell could conceivably be impacted in a Worst-Case Scenario.
- **Endangered Flora and Fauna** - In the area immediately surrounding the Bloomfield Terminal area, a variety of plants are prevalent. Information on endangered flora and fauna in New Mexico can be found on the Biota Information System of New Mexico (BISON-M), located at: http://www.bison-m.org/
- **Recreational Areas -** The San Juan River has limited recreational use, primarily fishing, in the vicinity of the terminal and downstream. It is likely this recreational use will be adversely impacted by a spill which reaches the San Juan River.
- **Transportation Routes (Air, Land, Water) -** County Road 4990 (Sullivan Road) passes through the terminal site and could be adversely impacted by a spill from either the Tank Farm or the Loading & Unloading Area. However, the main East-West thoroughfare is Highway 64 just north of the terminal, so the impact on travelers would be minimal.
- **Utilities -** No Utilities would be initially impacted by a fuel spill at the Bloomfield Terminal.
- **Other Sensitive Environmental Areas -** The Hammond Irrigation Ditch supplies irrigation water to various farms and ranches located downstream of the terminal. It is likely that these users will be adversely impacted by a spill which reaches the irrigation ditch.

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Southwest Gathering System

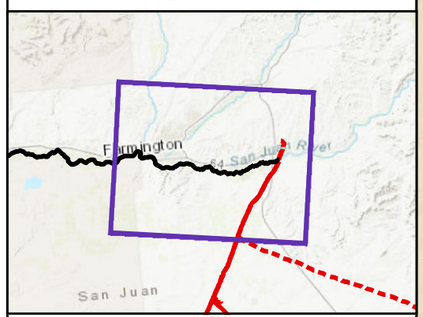
Bloomfield Terminal Trajectory Map

- Bloomfield Terminal
- Trajectory Hour
- Boom Location
- San Juan River (2 Knot Trajectory)
- Hammond Main Canal (0.5 Knot Trajectory)

Pipeline Operational

- Active
- Idle

Page 1 of 2



N
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1 in = 2 miles

0 1 2
Miles

Author: O. Dow
Date: 5/16/2019

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Spill Trajectory: 18.4 miles at approximately 8 hours.

Spill Trajectory: 9.2 miles at approximately 4 hours.

San Juan River
1st Boom Location 8.5 miles from Tank Farm

Spill Trajectory: 4.6 miles at approximately 2 hours.

Bloomfield Terminal

Hammond Main Canal
1st Boom Location at Sullivan Road

Hammond Main Canal
2nd Boom Location at Hwy 550

San Juan River
2nd Boom Location 14.5 miles from Tank Farm

Hammond Main Canal

Spill Trajectory: 1.15 miles at approximately 2 hours.

Spill Trajectory: 2.3 miles at approximately 4 hours.

0.5 Knot End Spill Trajectory: Hammond Main Canal 13.5 Miles, approximately 23.5 hours from initial spill time.

Spill Trajectory: 6.9 miles at approximately 12 hours.

Spill Trajectory: 4.6 miles at approximately 8 hours.

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Southwest Gathering System

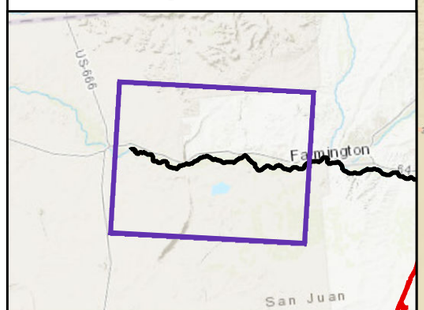
Bloomfield Terminal Trajectory Map

- Bloomfield Terminal
- Trajectory Hour
- Boom Location
- San Juan River (2 Knot Trajectory)
- Hammond Main Canal (0.5 Knot Trajectory)

Pipeline Operational

- Active
- Idle

Page 2 of 2



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1 in = 2 miles

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Miles

Author: O. Dow

Date: 5/16/2019

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2 Knot End Spill Trajectory: San Juan River
47 Miles, approximately 20.4 hours from initial spill time.

Spill Trajectory: 27.6 miles at approximately 12 hours.

Waterflow
Fruitland
Kirtland
Brigham St
CR-6100
Highway 64
Indian Service Route 36
Chaco River
Morgan Lake
2nd

SECTION 7 SUSTAINED RESPONSE ACTIONS

7.1 Response Resources

7.1.1 Oil Spill Recovery Equipment

The Company has 4,800 barrels per day (bpd) of recovery equipment available through direct ownership. Additional recovery equipment is available from MSRC. A breakdown of specific types, quantities, and de-rated recovery rates is presented in *Figure 7-1*.

Figure 7-1 Oil Spill Recovery Equipment

Owner	Type	Qty	Total De-rated* Recovery (bpd)	Location & Response Time
Marathon	Drum Skimmer	2	2,400	Bloomfield, NM
Marathon	Drum Skimmer	1	1,200	Albuquerque, NM
Marathon	Drum Skimmer	1	1,200	Loving County, TX
Total De-rated Recovery Capacity: 4,800 bpd				

* De-rated recovery rates are based on 20% of standard rates

7.1.2 Containment Boom

The Company has 4,500 feet of containment boom available through direct ownership. Additional boom is available from MSRC. A breakdown of specific types and quantities is presented in *Figure 7-2*.

Figure7-2 Containment Boom

Owner	Type	Quantity	Length (Feet)	Location
Marathon	Fast water boom	15 x 100’	1,500	Loving County, TX
Marathon	Fast water boom	15 x 100’	1,500	Albuquerque, NM
Marathon	Fast water boom	15 x 100’	1,500	Bloomfield, NM
Total Containment Boom: 4,500 Feet				

7.1.3 Temporary Storage Capacity

The Company has between 58,513 to 98,513 bbls of temporary storage capacity available through contracts or direct ownership. A breakdown of specific types, and quantities is presented in *Figure 7-3*.

Figure 7-3 Temporary Storage Capacity

Owner	Type	Capacity (bbls)	Location
Rain For Rent	Frac Tanks w/secondary (5)	2,000	Los Cruses, NM
BakerCorp	Frac Tanks w/Secondary (5)	2,000	Midland, TX
Marathon	Storage Tanks onsite (F)	40,000 – 80,000	Bloomfield Products Terminal
Marathon	Storage Tanks onsite (F)	14,000	Albuquerque Products Terminal
Marathon	2,400 gallon Fast Tank	171	Albuquerque, NM
Marathon	2,400 gallon Fast Tank	171	Bloomfield, NM
Marathon	2,400 gallon Fast Tank	171	Loving County, TX
Total Temporary Storage Capacity: 58,513 – 98,513 bbls			

7.1.4 Company Owned Equipment Inspection and Maintenance

Company owned spill response equipment is housed in separate spill trailers and can be accessed by the pipeline response personnel. To ensure operational readiness, the equipment is thoroughly inspected during the semi-annual deployment exercises with a final year-end inspection. Inspection and maintenance activities are conducted in accordance with the National Preparedness for Response Exercise Program (NPREP) guidelines and applicable regulations. A copy of the spill response equipment inspection checklists is presented in *Figures 7-4 through 7-6*.

Figure 7-4 River Response Trailer #1

Location: Loving County, TX (Conan Station)
Includes 14' aluminum boat for river booming.

Item	Quantity	Condition	Notes
Fast Water Boom	1500'	New	
Tow Bridals for Boom	40	New	
Oil Skimmer	1	New	
Air Hoses for Skimmer	2	New	
2" Hose for Skimmer	4	New	
Pump for Skimmer 2"	1	New	
T-Posts	50	New	
T-Post Driver	3	New	
T-Post Chain Tie Downs	30	New	
T-Post Chain Tie Down Caps	30	New	
Helmets	5	New	
Poly Rope 3/8"	7800'	New	
Personal Flotation Devices	24	New	
Throw Bags	2	New	
Mega-Secure 28"x25'	1	New	
Fastank 2,400 gal.	1	New	
Diesel Spate pump w/hoses	1	New	
Danforth Anchor System	4	New	
Air Compressor with Hose	1	New	
Hooded Tyvek Suits	36	New	
Rubber Gloves	48	New	
Rubber Boots	12	New	
Folding Chairs	11	New	
Folding Table	1	New	
Extension Cord	5	New	
Barricade Sign	2	New	
36" Step Stool	1	New	
Square Point Shovel	3	New	
Round Point Shovel	2	New	
Push Brooms	2	New	
First Aid Kit	2	New	
Handheld GPS	1	New	
Personal Safety Horn	2	New	
Extension Ladder 20'	1	New	
Construction Film Roll	2	New	
Polyethylene Tarp	3	New	
Fire Extinguisher 20 lb.	2	New	
Instant Canopy	1	New	
Traffic Cones	20	New	
Tool Box	1	New	
Portable Lights	3	New	
Cooler	1	New	

Item	Quantity	Condition	Notes
Buoys	10	New	
Honda Portable Generator	1	New	
2 Gallon Gas Can	1	New	
Mop	2	New	
Grounding Kit	5	New	
Handheld Radios	8	New	
D-rings	45	New	
Fender Buoys	8	Used	
Absorbent Pads (package)	3	New	
Double Loop Cables	10	New	
Kayaks	2	New	
Kayak Paddles	2	New	
Waders	2 pairs	New	
Step Stand	1	New	
Trauma Bag	1	New	
LEO Bag Inventory (Bag #1 and #2)			
Item	**Quantity**	**Condition**	**Notes**
Prussic Loops	**6**	**New**	
Anchor Plate / Carabiner	1	New	
Tandem Pulley / 3 Carabiners	1	New	
Ascenders Right Hand	4	New	
Ascenders Left Hand	2	New	
Croll Ascender	1	New	
Butterfly Pulley	3	New	
Static Rope	100’	New	
Aluminum Carabiners	6	New	
Bag (Backpack)	1	New	

Inspected by: _____ Date: _____

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Figure 7-5 River Response Trailer #2

Location: Albuquerque, NM (Located at the Albuquerque Products Terminal)
Includes 14’ aluminum boat for river booming.

Item	Quantity	Condition	Notes
Fast Water Boom	1500'	New	
Tow Bridals for Boom	40	New	
Oil Skimmer	1	New	
Air Hoses for Skimmer	2	New	
2" Hose for Skimmer	4	New	
Fastank 2,400 gal.	1	New	
Mega Secure 28”x25’	1	New	
Danforth Anchor System	1	New	Chain, 9-12” buoys
Diesel Spate Pump w/Hoses	1	New	
Pump for Skimmer 2"	1	New	
T-Posts	50	New	
T-Post Driver	3	New	
T-Post Chain Tie Downs	30	New	
T-Post Chain Tie Down Caps	30	New	
Helmets	5	New	
Poly Rope 3/8"	8400'	New	
Personal Flotation Devices	24	New	
Throw Bags	2	New	
Trash Pump	1	New	
Air Compressor with Hose	1	New	
Hooded Tyvek Suits	36	New	

Item	Quantity	Condition	Notes
Rubber Gloves	48	New	
Rubber Boots	12	New	
Folding Chairs	12	New	
Folding Table	1	New	
Extension Cord	5	New	
Barricade Sign	2	New	
36" Step Stool	1	New	
Square Point Shovel	3	New	
Round Point Shovel	2	New	
Push Brooms	2	New	
First Aid Kit	2	New	
Handheld GPS	1	New	
Personal Safety Horn	2	New	
Extension Ladder 20'	1	New	
Construction Film Roll	2	New	
Polyethylene Tarp	3	New	
Fire Extinguisher 20 lb.	2	New	
Instant Canopy	1	New	
Traffic Cones	20	New	
Tool Box	1	New	
Portable Lights	3	New	
Cooler	1	New	
Buoys	10	New	
Honda Portable Generator	1	New	
2 Gallon gas can	1	New	
Mop	2	New	
Grounding Kit	5	New	
Handheld Radio	8	New	
D-Rings	45	New	
Absorbent Pads (packages)	3	New	
Fender Buoys	9	Used	
Double Loop Cables	10	New	
Kayaks	2	New	
Kayak Paddles	2	New	
Waders	3 pair	New	
Step Stand	1	New	
Trauma Bag	1	New	
LEO Bag Inventory (Bag #1 and #2)			
Item	**Quantity**	**Condition**	**Notes**
Prussic Loops	6	New	
Anchor Plate / Carabiner	1	New	
Tandem Pulley / 3 Carabiners	1	New	
Ascenders Right Hand	4	New	
Ascenders Left Hand	2	New	
Croll Ascender	1	New	
Butterfly Pulley	3	New	
Static Rope	100’	New	
Aluminum Carabiners	6	New	
Bag (Backpack)	1	New	

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Figure 7-6 River Response Trailer #3

Location: Bloomfield, NM (Located at the trucking yard next to main office)
Includes 14' aluminum boat for river booming.

Item	Quantity	Condition	Notes
Fast Water Boom	1200'	New	
Tow Bridals for Boom	40	New	
Oil Skimmer (Air)	1	New	
Air Hoses for Skimmer	2	New	
Hydraulic Power Pack	1	New	
Hydraulic Skimmer	1	New	
Hydraulic Pump	1	New	
FASTANK (2,400 gal.)	1	New	
Mega Secure (28"x25')	1	New	
Danforth Anchor System	4	New	
2" Hose for Skimmer	4	New	
Pump for Skimmer 2"	1	New	
T-Posts	50	New	
T-Post Driver	3	New	
T-Post Chain Tie Downs	30	New	
T-Post Chain Tie Down Caps	30	New	
Helmets	5	New	
Poly Rope 3/8"	7800'	New	
Personal Flotation Devices	24	New	
Throw Bags	2	New	
Air Compressor with Hose	1	New	
Hooded Tyvek Suits	36	New	
Rubber Gloves	48	New	
Rubber Boots	12	New	
Folding Chairs	4	New	
Folding Table	1	New	
Extension Cord	5	New	
Barricade Sign	2	New	
36" Step Stool	1	New	
Square Point Shovel	2	New	
Round Point Shovel	3	New	
Push Brooms	1	New	
First Aid Kit	2	New	
Handheld GPS	1	New	
Personal Safety Horn	2	New	
Extension Ladder 20'	1	New	
Construction Film Roll	2	New	
Polyethylene Tarp	3	New	
Fire Extinguisher 20 lb.	2	New	
Instant Canopy	1	New	
Traffic Cones	20	New	
Tool Box	2	New	
Portable Lights	3	New	
Cooler	1	New	
Buoys	10	New	
Honda Portable Generator	1	New	
2 Gallon Gas Can	1	New	
Grounding Kit	5	New	
Handheld Radios	8	New	
D-rings	45	New	
Fender Buoys	8	Used	
Absorbent Pads (package)	3	New	
Double Loop Cables	10	New	

Item	Quantity	Condition	Notes
Kayaks	2	New	
Kayak Paddles	2	New	
Waders	2 pairs	New	
Step Stand	1	New	
Trauma Bag	1	New	
LEO Bag Inventory (Bag #1 and # 2)			
Item	**Quantity**	**Condition**	**Notes**
Prussic Loops	6	New	
Anchor Plate / Carabiner	1	New	
Tandem Pulley / 3 Carabiners	1	New	
Ascenders Right Hand	4	New	
Ascenders Left Hand	2	New	
Croll Ascender	1	New	
Butterfly Pulley	3	New	
Static Rope	100’	New	
Aluminum Carabiners	6	New	
Bag (Backpack)	1	New	

Inspected by: _____ Date: _____

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7.1.5 Contractor Equipment and Manpower

A description of the Company’s contractor equipment is provided in *Appendix B*.

7.1.6 Command Post

The primary Incident Command Post for BPT is at the San Juan Regional Office at 111 Road 4990, Bloomfield, NM. Additional mobile command post(s) may be set up in the vicinity of the spill, as needed. The ICP has ample phones, fax machines, copy machines and administrative supplies available to support an oil spill response operation. A second Incident Command Post for BPT is at the Albuquerque Main Office at 6700 Jefferson St NE, Albuquerque, NM.

7.1.7 Communications Equipment

The Company has a variety of communications equipment available through contracts or direct ownership. A breakdown of specific types, and quantities is presented in *Figure 7-7*.

Figure 7-7 Communications Equipment

Owner	Type	Quantity	Location
Marathon	**Handheld Line of Sight**	**8**	**Bloomfield, NM**
Marathon	**Handheld Line of Sight**	**8**	**Albuquerque, NM**
Marathon	**Handheld Line of Sight**	**8**	**Carlsbad, NM**
Personal	**Cell phones**	**>30**	**New Mexico Area**
Total Communications Equipment: 46 Units			

Proper communication is vital to effective ICS functioning.

Leasing Additional Equipment

Additional communications equipment may be leased from a communications company in the area. Such equipment might include:

- Motorola UHF portable radios with chargers and accessories.
- Motorola VHF portable radios with chargers and accessories

- Portable communications command post with UHF, VHF, simple-sideboard, telephone, and hard-line capability.

Communications with government agencies; state police, and contractors can be conducted on the hand held and/or other portable radios. Refer to *Figure 7-8* for guidelines to set up communications.

Figure 7-8 Communications Checklist

Setup Communications
Develop communications plan
Ensure adequate phone lines per staff element – contact local provider
Ensure adequate fax lines - contact local provider
Internet access necessary
Ensure recharging stations for cellular phones
VHF radio communications: *establish frequencies *assign call signs *distribute radios *establish communications schedule
Ensure recharging stations for VHF radios
Determine need for VHF repeaters
Ensure copy machine available
Ensure communications resource accountability

Note: Actions on this list may not be applicable or may be continuous activities.

7.2 Site Security Measures

7.2.1 Spill Security

Due to the large amount of public attention created at an oil spill site, additional security measures are required. Several measures should be planned in advance to prepare security personnel for possible events that may occur at the spill site. The following are guidelines for site security during an oil spill. Additional guidance is provided within the Pipeline Security Plan; however, distribution of such information is restricted due to the protected nature of Sensitive Security Information. A checklist for Site security is included in *Figure 7-9*.

Security and response personnel should be prepared to:

- Establish a perimeter (zone of safety) around the spill.
- Establish a system for controlled access to the spill site (within the safety zone) to allow easy access for key spill response personnel and equipment.
- Establish a relationship with the general public, to:
  - Ensure that general public safety is a priority.
  - Eliminate any interference from the general public to spill clean-up operations.
- Ensure that all response equipment is safeguarded.

An effective spill site security operation should include a coordinated effort with local and state law enforcement agencies, as well as the EPA (dependent on the size and location of the spill). In many instances, local and state law enforcement agencies must be contacted to close traffic to roads and other areas affected by the spill.

Consider the following spill site security measures:

- Utilize barricades in establishing a spill-site safety zone.
- Contract for additional security personnel or utilize local law enforcement agencies.
- Establish a pass system and distribute pre-prepared security passes to all spill related personnel
- Maintain a liaison with local and state police, as well as the EPA.
- Maintain a log that documents all security-related incidents and observations mad at the spill site.

Figure 7-9 Site Security Checklist

Site Security Checklist
Close gates to restrict access to the Facility
Direct traffic away from the spill area
Request assistance from the spill area
Request assistance from the Police Department to: Establish road blocks where necessary, to secure the area Divert local traffic away from the spill area Provide access for spill response equipment and personnel
Coordinate rescue operations with the local fire Department paramedics
Contact for additional security personnel, as needed
Maintain strict control of all personnel and vehicular traffic entering
Position security personnel to effectively control non-response personnel
Barricade lesser traveled points with appropriate signs warning against entry
Establish check points at barricaded points to verify security effectiveness
Maintain a log that documents all security related incidents and observations made at the spill site

7.2.2 Site Specific Security

Pump Control Locations:

- Pump Controls are located in buildings or areas restricted to authorized personnel only.

Enclosures:

- The entire Bloomfield Facility is surrounded by a seven foot chain-link fence topped with barbed wire with two chain-link Key Card access Entry Gates. There are two metal gates that are kept padlocked and are for use by the Hammond Conservancy who manages the Hammond Irrigation Ditch, XTO and some independents who have wells they need to access. In addition, there are four chain-link gates that are kept locked at all times. Finally, there are a number of pedestrian gates that are also kept locked at all times. Fencing and gates are designed to restrict access to Terminal operations. Vehicle traffic within the Terminal is restricted and supervised.

Day and Night Manned Security:

- The Terminal is manned continuously throughout the year. The Bloomfield Police Department provides perimeter drive-by patrols of the Terminal property.

Lighting:

- The entire Bloomfield Terminal Facility is lit with overhead Outdoor Night Security Lighting that provides adequate light to see any activity in the Facility.

Valve and Pump Locks:

- There are locks located throughout the facility in strategic places. Pumps and dispensers are equipped with locks that will be secured each evening.

Pipeline Connection Caps:

- Loading and unloading connection points are locked in the closed position when not in use.

7.3 Oil Handling and Disposal

Oily waste recovery and disposal are critical to an effective oil spill response since shortages of storage areas can effectively shut down recovery operations.

A spill from Company pipelines or terminals could involve crude oil. Recovered oil would either be returned to tanks at one of the Pipeline Stations, stored in bulk tank trucks or portable tanks, until the oil could be transported to the El Paso Refinery.

Waste materials associated with a spill on land would include contaminated absorbent materials, personal protective equipment, and soil. For a spill on water, it is anticipated that oil and potentially significant amounts of oily water would be recovered.

The Company maintains additional interim storage capacity (for recovered liquids) available under contract in the local area as follows:

7.3.1 Waste Management

The Company's waste disposal plan is available on the corporate intraweb at:
http://gotso/departments/contingency-planning/Pages/EnvironmentalPlanPermitTemplates.aspx

The plan is designed to accelerate the waste disposal procedure during a spill response. The Company will work closely with EPA to develop a plan for the disposal of oily waste. Recovered oil and oily debris shall be recycled and reused to the extent feasible to reduce the amount of oily waste which must be incinerated or taken to a landfill. Contaminated debris will be disposed of at a facility that has been approved for use by the Company.

7.3.2 Recovery of Spilled Oil

Collection methods and activities are under the immediate control of the Operations Section Chief. The Waste Management Specialist is responsible for handling wastes and will be in constant communication with the operations section chief to understand the requirements.

As oil is recovered, it should be placed in sealable containers such as portable tanks, tank trucks, or any other container that can be sealed to prevent spillage. At the Refinery Manager's discretion, recovered oil may be pumped back into sound tanks of compatible material at the El Paso Refinery.

Oiled solid wastes should be placed in leak-proof containers to prevent leakage during handling and transportation. Double-walled plastic bags may be used for this purpose. For larger materials or those which could penetrate the bags, debris boxes or similar containers could be used as long as they are lined with plastic or by some other means to prevent leakage. Hazardous waste bins and lined dump truck beds may also be used for collection of oiled solid wastes.

7.3.3 Interim Waste Storage

Interim or temporary waste storage of liquid and solid wastes collected during the recovery and cleanup operations is often required for proper waste classification, segregation, and packaging, in addition to making arrangements for recycling, treatment, or disposal. Small quantities of wastes can be stored in a variety of commercially available containers.

Interim storage of larger quantities of waste may require the construction of a temporary waste storage site. The sites should be located with good access to the cleanup operations and to nearby streets and highways. Flat areas, such as parking lots or undeveloped lots with a minimum slope to minimize runoff potential, are preferable. Interim storage should be sufficient to keep up with recovery operations and handle the entire volume of oil recovered and oily wastes generated.

Use of any site is dependent on the approval of the local health authority and EPA at the time of an incident. In some cases, sites can be pre-designated to save time. For small spills which are located within close proximity to one of the Pipeline Stations, small waste containers, and if needed, constructed storage beds will be located on pipeline property with prior approval. Storage areas for large spills and those that migrate away from the Station's will be located at the staging areas or other mutually agreeable site with appropriate agencies and organizations.

Normally, location approval for interim storage can be accomplished by working in conjunction with the FOSC, SOSC, and local planning representatives within the Unified Command System.

When considering a potential site, the following should be reviewed:

- Local geology
- Proximity to groundwater/surface water
- Availability of cover material (if any)
- Soil type
- Flooding potential
- Containment berm
- Land use
- Access
- Public contact
- Capacity
- Climate
- Toxic air emissions
- Security

Temporary storage sites should be designed to use the best achievable technology to protect the environment and human health. These sites should be set up in such a manner as to prevent leakage, contact, and subsequent absorption of oil by the soil.

7.3.4 Waste Characterization

The primary objective of waste characterization is to ensure employee safety and proper waste handling and disposal in accordance with applicable state and federal guidelines. Response operations will generate oily liquid and solid/semi-solid wastes. Some of these materials may be regulated as hazardous wastes. A summary of the types of wastes and the associated response operations that generate the wastes and waste handling procedures are provided below. Additional information on handling wastes generated during an oil spill response can be found in the Waste Disposal Plan.

Liquid Wastes

Oily liquid wastes (i.e., oily water and emulsions) that would be handled, stored, and disposed during response operations are very similar to those generated during routine facility operations. The largest volume of oily liquid wastes would be produced by recovery operations (e.g., through the use of skimmers). In addition, oily water and emulsions would be generated by boat and equipment cleaning operations, the storage area storm water collection systems, and wildlife cleaning and rehabilitation operations.

Solid/Semi-Solid Wastes

Oily solid/semi-solid wastes which would be generated by containment and recovery operations include damaged or worn-out booms, uncleanable equipment, used sorbent materials, saturated soils, contaminated beach sediments, driftwood, and other debris. In addition, wildlife capture, cleaning, and rehabilitation operations would produce oil-soaked towels and newspapers.

Hazardous Wastes

The EPA definition of hazardous wastes is defined in 40 CFR 261.

Per RCRA's Chapter 7045: Hazardous Waste Rules, a material is defined as hazardous for one of two reasons:

1. It could be one of the substances listed in 7045.0020 and/or 40 CFR 261, Subpart D; or
2. It could exhibit one of the following characteristics:

- Ignitable
- Reactive
- Corrosive
- Toxic

All oily waste materials generated from a spill should be characterized as dangerous until indicated otherwise by a state-accredited laboratory. Each waste must be characterized on a case-by-case basis through laboratory analysis of representative samples.

Segregation of Waste Types

The various types of wastes generated during response operations would require different disposal methods. To facilitate the disposal of wastes, all waste materials would be segregated by type for temporary storage and/or transport. *Figure 7-11* lists several options that are available to segregate oily wastes into liquid and solid components and depicts methods that may be employed to separate free and/or emulsified water from the oily liquid waste.

7.3.5 Transportation

Waste materials recovered from the water should be loaded at a location which provides convenient access, such as a boat ramp. Recovered waste materials from land should be loaded at designated transfer locations.

Carriers should be arranged to transport waste. Drums can be used for loading materials that are flammable (flashpoint less than 100°F). United States Department of Transportation (DOT) specification 17E or 17H drums can be used for liquids having a flashpoint between 20°F and 73°F, and a vapor pressure less than 18 psi absolute, at 100°F (49 CFR 119(1)). For loading solid materials that have a flashpoint from 100°F to 200°F, roll-off bins can be used. Vacuum trucks can be used for loading liquid waste materials.

Waste materials should always be covered during transportation. All truck rolloff bins shall be lined with precut plastic sheets before loading to prevent oil from leaking onto the streets. Tarpaulin covers must be used to minimize blowing or spilling of loads. New liners shall be used for each load.
The Company Waste Management Specialist will ensure that waste is transported under proper permits and labels/placards for transportation per Hazardous Waste Manifest and Transport guidelines.

7.3.6 Handling

Spilled free oil and waste materials recovered from land and water require responsible handling. Handling can pose initial and long-range problems including the storage and transportation of the material to a disposal or processing site, as well as the proper recycling, treatment, and disposal methods. Legal requirements for waste handling are established by the EPA.

A primary concern in handling recovered oil and oil solid wastes is to prevent oiling of previously unaffected areas or re-oiling of areas already cleaned. This can be accomplished by using correct handling techniques. All workers associated with the handling portion of waste should be briefed with respect to incident-specific Health and Safety Plan by the Waste Management Specialist.

Disposal of waste must be minimized. This is accomplished by proper identification, waste segregation, recycling, and treatment. Only the residue from these steps must be disposed of by an approved method.

Figure 7-10 Oily Waste Segregation

TYPE OF MATERIAL	SEGREGATION METHODS
	Liquids
Non-emulsified oils	• Treatment at El Paso Refinery, or equivalent. • Gravity separation of free water.
Emulsified oils	• Treatment at El Paso Refinery. • Emulsion broken to release water by: - heat treatment - emulsion breaking chemicals - mixing with sand - centrifuge - filter/belt press
	Solids
Oil mixed with sand	• Collection of liquid oil leaching from sand during temporary storage. • Extraction of oil from sand by washing with water or solvent. • Removal of solid oils by sieving.
Oil mixed with cobbles, pebbles, or shingle	• Screening. • Collection of liquid oil leaching from beach material during temporary storage. • Extraction of oil from beach material by washing with water or solvent.
Oil mixed with wood, plastics, seaweed, and sorbents	• Screening. • Collection of liquid oil leaching from debris during temporary storage. • Flushing of oil from debris with water.
Tar balls	• Separation from sand by sieving.

7.3.7 Waste Disposal

A number of alternatives are available for waste disposal. Recycling, treatment, or incineration of spill-generated wastes are generally preferable to landfilling, where appropriate. In the selection of one or more disposal options, consideration must be given to stipulations set by environmental regulations as

well as a clear understanding that if permanent disposal sites (i.e., landfills and treatment/stabilization locations) are utilized, they must have sufficient capacities to handle waste volumes generated.

In accordance with Chapter 70.105.150 of the Oil and Hazardous Substance Spill Prevention and Response Act, management and disposal of hazardous/dangerous wastes should be prioritized as follows:

1. Waste Reduction
2. Recycling
3. Physical, Chemical and Biological Treatment
4. Incineration
5. Solidification/Stabilization Treatment
6. Landfill

Recycling

Recycling is the preferred method of handling recovered oil. The relative salvageability of the recovered oil should be determined by the Waste Management Specialist.

Oil recovered from aquatic areas will typically contain substantial amounts of water, oil, and debris. A tank or vacuum truck can be used as an effective oil water separator by allowing the oil/water mixture to stand long enough for the oil and water to separate. The water is then drained off the bottom through the valved pipe, and the oil is pumped into a storage tank or truck. Any water drained off by separation techniques should be discharged into an aboveground tank, or effluent treatment system, as it may still contain minor amounts of oil. The Company's Environmental Unit Leader can assist with proper handling of the separated water.

Material reclaimed from the spill which can be recycled to yield a significant amount of oil and that oil returned to process, can be brought into the El Paso refinery. This recycling activity may be exempt from hazardous waste transport regulations, depending on the characterization of the material.

Treatment

Federal and state land disposal restrictions prohibit the land disposal of hazardous waste without prior treatment to strict standards. These standards vary depending upon whether the waste is classified as RCRA or state hazardous waste, and whether the waste is a listed or characteristic hazardous waste. Contact the Company's Environmental Unit Leader for applicable requirements.

Disposal

Non-recyclable waste or treatment residue may need to be disposed of at a licensed Class I landfill. Provisions should be made in advance to factor the landfill's acceptance requirements into any proposed disposal activities. Since the cost for sending non-recyclable oily waste to a landfill is significant, the amount of waste to be disposed of should be minimized to the maximum extent possible given the economic and technical constraints.

Other alternatives such as bioremediation and energy recovery (some recovered oil may be burned through boiler or heating systems) are also encouraged.

7.4 Public Relations

This section contains guidelines for dealing with the media and public during an emergency. The initial Incident Commander will play a key role in providing the initial public assessment and taking the first

steps to categorize the incident and provide information for use in preparing the Company's information released to the public. The Public Information Officer will assume this responsibility upon notification.

Guidelines for Dealing with the Media

- If you don't answer the reporter's questions, they will look elsewhere to find out what happened. However, if you do not have this information or are not prepared to answer a particular question, say I will have to get back to you on that. Give them a timeframe as to when they can expect the answers to their questions (i.e., on hour, etc.)
- Make sure that you get a business card to all reporters and that you have given your direct access number to the reporter so that you can be reached before they try and call someone with less knowledge/experience on the incident.
- It is important to be courteous to all media representative and to provide a safe place for them to wait until a company representative can meet them. You may need to provide an initial statement.

Do Provide:

- A brief, general description of what happened.
- Follow-up steps being taken to handle the emergency.

Don't Provide:

- Names of deceased or seriously injured employees until the next of kin have been notified and you have received approval from the Human Resource Department and or Plant Manager.
- Speculation about the case of the emergency.
- Any statement implying person or company negligence.
- Cost estimates of damage.

Other considerations

- Safety considerations should always receive priority in determining access to company property.
- Anticipate likely questions. There are only six questions that can be asked about any subject: Who, What, When, Where, and How.
- Keep answers short and understandable. Answer only the question that is asked by the reporter.
- Give the most important facts first.
- Talk to the public's concern about the incident. Are there deaths or injuries, is there an immediate threat to the public? Is there any danger of explosion, is the fire under control, can it be controlled?
- If you don't know the answer to a question, don't be afraid to say "I don't know." Make note of the question and tell the reporter that you will try to get the answer- then do it.
- Don't be defensive.
- There is no such thing as "talking off the record." Assume that anything and everything you say to a reporter is going to be printed or used in the story.
- Avoid "What if" or speculative questions. These questions should be answered with the restatement of the problem and what is being done to control it.
- Don't speculate about the cause of the incident.
- Don’t minimize the situation.

Holding Statements

Contact a representative from Corporate Affairs to get a holding statement developed.

SECTION 8 DEMOBILIZATION, DECONTAMINATION AND DEBRIEF

This section provides checklists and guidelines for demobilization, decontamination and post incident reviews. The plans provided are examples that are meant to be customized to address site specific or incident specific concerns and actions.

8.1 Demobilization

After the incident is controlled and tactical resources are no longer needed to support the response, a demobilization plan needs to be established to ensure a safe, controlled, efficient and cost-effective release of those resources. The demobilization planning process should begin on day one of the incident.

8.2 Equipment/Personnel Decontamination

During and after a spill, equipment and personnel that are exposed to oil or hazardous substances will need to be decontaminated. In addition, private property such as recreational or commercial vessels may need to be decontaminated. All decontamination must be done in accordance with applicable laws and according to this plan.

8.3 Post-Incident Review

The Contingency Planning and Emergency Response department has developed a procedure for Lessons Learned. This procedure includes a process for conducting after action reviews, critiques, surveys and evaluations. Elements of the Lessons Learned procedure include:

- **Unit/Section Exercise Evaluation**: After the drill, exercise or incident is concluded, but prior to releasing the participants, the sections and units shall gather together and complete the After-Action Review Evaluation Form that is included in the standard.
- **Unit/Section Leader Post Drill Discussion**: As an alternative, or in addition to the Unit/Section Exercise Evaluation, there is a Unit/Section Leader Post Drill Discussion. This is designed to gather feedback from the unit and section leaders in a round table format after the drill is completed.
- **Electronic Surveys**: An electronic survey program will be used to gather information from respondents and then develop a report based on those responses. The company uses an electronic survey program after all drills or incidents that involved the activation of the Emergency Operations Center and/or Incident Command Post.
- **Post Incident Critique**: An objective critique of the response to an emergency situation is conducted by the **Fire Brigade** or **Emergency Response Team** as soon as practical after the incident, depending on the scope of the incident and the extent of the lessons learned from the response.
- **Evaluations**: A drill evaluation is designed to allow an Evaluator to perform an objective assessment of the drill, to determine if the drill met specific goals. The assessment also allows for an opportunity to review and record strengths, weaknesses, deficiencies or other observations noted during the drill or exercise.

Actions that are generated as a result of the After-Action Reviews, critiques or evaluations will be transferred to an ICS 233 Action Tracker. This form allows for tracking of the issue, responsible party, status, category, priority, comments, due date, and actual completion date.

All forms and documents for demobilization, decontamination and after-action review and evaluation are found on the corporate website.

APPENDIX A TRAINING AND EXERCISES

A.1 Exercises

The Company participates in the National Preparedness for Response Exercise Program (PREP) in order to satisfy the exercise requirements of the EPA.

A listing of all PREP exercise requirements to be completed within the three-year (triennial) cycle is listed in *Figure A-1*. The company also strives to maintain compliance with the regulations regarding training requirements of OSHA and EPA. This training includes:

- Emergency response;
- Hazardous waste;
- Oil Spill Response; and
- Health and Safety and Emergency Response Training

Response drills will be designed to:

- Provide an opportunity for IMT personnel to practice responding to a spill.
- Test Facility Response Plan for shortcomings or errors.
- Improve Company personnel's spill response expertise.
- Comply with PREP guidelines.

The operating component, with support from the Emergency Preparedness Group, is responsible for scheduling, maintaining records, implementing and evaluating this drill program, and ensuring that post-drill evaluation improvements are implemented.

Spill Response Exercises will take three forms as described in *Figure A-1*. Descriptions of these exercises are as follows:

Figure A-1 Type and Frequency of Spill Response Exercises

Type of Exercise	Frequency
Qualified Individual (QI) Notification Drills	Quarterly
Tabletop exercises where plan is discussed, and each person reviews their role or where team simulates response activities	Annually
Facility Response Equipment Deployment Exercise	Semi-Annually

A.1.1 QI Notification Exercises

The Company will conduct QI Notification Drills on a quarterly basis. The notification drill will consist of someone from the Facility initiating a mock spill notification to the QI. The operating component, with support from the Emergency Preparedness Group, is responsible for ensuring documentation of who was called, the time and date of the notification, and the phone numbers called during the drill. An example of the QI Notification Exercise Report Form is provided at the end of this Appendix as *Figure A-9*. Completed documents are maintained on file with the EMG Representative and are available upon request.

A.1.2 Equipment Deployment Exercises

The company maintains and trains its employees in the use of the oil spill response and cleanup equipment located within the plan response zones. Contracted OSROs conduct maintenance and training activities for their equipment and personnel that would be employed in oil spill response clean-up. The Company will conduct semi-annual equipment deployment exercises on response equipment

identified in the response plan as per PREP guidelines. An example of the Equipment Deployment Report Form is provided at the end of this Appendix as *Figure A-10*. The Company will also verify that the response contractors identified in this Plan participate in annual equipment deployment exercises.

A.1.3 Incident Management Team Tabletop Exercises

The Company participates in the National Preparedness for Response Exercise Program (PREP) in order to satisfy the exercise requirements of the EPA. During each triennial cycle, all components of the Plan must be exercised at least once. The 15 core components listed in *Figure A-3* are the types of components that must be exercised.

The Company will conduct IMT Tabletop Exercises in order to test the IMT knowledge of spill response activities and responsibilities as outlined in the Plan. The tabletop exercises will either be announced or unannounced and will involve discussion of each team member's role in a typical spill response. The exercise will document the effectiveness of the Plan and the responsibilities of IMT Members in a simulated spill scenario. Every three years, all components of the entire response plan will be exercised. The drill program is indicated in *Figure A-2*. An example of the Tabletop Exercise Report Form is provided at the end of this Appendix as *Figure A-11*. Completed documents, in addition to the supplemental documentation from the drill, are maintained on file with the EMG Representative and are available upon request.

By agreement with EPA Region VI, tabletop exercises in the Southwest Gathering area (New Mexico and Texas) are broken into two drills per year to follow the NPREP program. Under this agreement, the plans are broken into the Northern Response Zone and Southern Response Zone. The drill cycle is inverted for the region, so that when a worst-case exercise is conducted in one zone, at a minimum, a 201 exercise is conducted in the other. *Table A-1* below shows which plans are covered under this agreement:

Table A-1 Drill Program

Northern Response Zone Plans	Southern Response Zone
Southwest Gathering Pipeline System (NRZ)	Southwest Gathering Pipeline System (SRZ)
Bloomfield Products Terminal	285 Station
Albuquerque Asphalt Terminal	Jackrabbit Station
Albuquerque Products Terminal	Mason Station
Bisti Station	Zurich/Geneva Station
Lybrook Station	

A.1.4 Unannounced Exercises

An unannounced IMT tabletop exercise, a facility equipment deployment exercise, or a facility emergency procedures exercise will be conducted if quarterly emergency procedures drills are not conducted by the facility.

The Company will ensure that the spill response contractors named in this plan participate in an annual unannounced drill. The unannounced drill may be conducted with Company personnel at a Company location or it may be conducted separately, with documentation provided to the Company indicating that an unannounced drill was conducted in a satisfactory manner.

In the event that the Company participates in an unannounced drill initiated by a Federal or State agency that meets PREP requirements, the Company will document and take credit for the agency initiated unannounced drill in lieu of the drill as required by PREP guidelines.

A.1.5 Area Exercises

The Company understands that area exercises will be conducted throughout the area and will determine which exercises are appropriate to participate in, whether agency or industry lead.

A.1.6 Drill Program Evaluation Procedures

The Company conducts post exercise critiques to discuss positive items, areas for improvement and to develop an action item checklist to be implemented at a later date.

Records of Drills

Exercise documentation will consist of the following forms and guidance documents. Some exercises may not require all these documents; each exercise will be evaluated in accordance with NPREP requirements. Applicable documentation will be taken into consideration during the exercise design process. Hard copies of applicable documentation forms are kept on site as well as electronic versions saved on the Emergency Preparedness Group's shared drive.

- QI Notification Drill Log
- ICS -201 Form
- Spill Notification form (Section 3)
- Initial response checklist (Section 2)
- Initial Site Safety Plan (Section 5)
- Incident Action Plan (Product of IMT Table Top Drill documentation)
- NPREP Tabletop Exercise Report Form

A.1.7 Safety Training

Company employees receive regulatory compliance training in areas applicable to their jobs. Training includes classroom training, field training and computer-based modules. These records are maintained by the Training Department.

A.1.8 Response Equipment Inspections

Equipment inspections are conducted semi-annually. Equipment inspection logs are maintained on file within response trailers and with the refinery fire chief. Completed equipment inspection logs are available upon request.

Figure A-2 Exercise Descriptions

Exercise Type	Exercise Characteristics
Facility/QI Notification	• Conducted quarterly • One QI notification exercise will be conducted during non-business hours at least once a year • Facility initiates mock spill notification to QI • ELPR Representative documents time/date of notification, name and phone number of individuals contacted and provides copy to EMG for archive
Equipment Deployment	• Conducted semiannually • Response contractors listed in OSRP may participate in annual deployment exercise where appropriate
IMT Tabletop	• Conducted annually • Tests IMT's response activities/responsibilities • Documents plan's effectiveness • Must exercise worst case discharge scenario once every three years • Must test all plan components at least once every three years
Unannounced	• Company will either participate in unannounced tabletop exercise, facility equipment deployment exercise, or emergency procedure exercise on an annual basis • Company may take credit for participation in government initiated unannounced drill in lieu of drill required by PREP guidelines • If equipment is deployed during this exercise, it may be counted as one of the "semi-annual" deployment drills.
Area	• Company will participate in a minimum of one area exercise per six-year period

Figure A-3 PREP Response Plan Core Components

Core Components	Description
A.1 Notifications	Test the notifications procedures identified in the response plan being exercises.
A.2 Staff Mobilization	Demonstrate the ability to assemble the response organization identified in the response plan being exercised.
A.3 Ability to Operate Within the Response Management System Described in the Plan: • Unified Command • Response Management System	Demonstrate the ability of the response organization to work within a UC. Demonstrate the ability of the response organization to operate within the framework of the response management system identified in their respective plans.
A.4 Source Control	Demonstrate the ability of the response organization to control and stop the discharge at the source, and to effectively coordinate source control activities within the response management system used for the overall incident.
A.5 Assessment	Demonstrate the ability of the response organization to provide an initial assessment of the discharge or potential discharge and provide continuing assessments of the effectiveness of the tactical planning.
A.6 Containment	Demonstrate the ability of the response organization to contain the discharge at the source or in various locations for recovery operations.
A.7 Mitigation	Demonstrate the ability of the response organization to mitigate the discharged product using oil spill countermeasures, including, but not limited to, dispersants, *in-situ* burning, and bioremediation, in addition to mechanical oil recovery.
A.8 Protection	Demonstrate the ability of the response organization to protect the environmentally and economically sensitive areas identified in the ACP and the respective industry response plan.
A.9 Disposal	Demonstrate the ability of the response organization to dispose of the recovered material and contaminated debris.
A.10 Communications	Demonstrate the ability to establish an effective communications system for the response organization.
A.11 Transportation	Demonstrate the ability to provide effective multimode transportation, both for execution of the discharge and support functions.
A.12 Personnel Support	Demonstrate the ability to provide the necessary support of all personnel associated with response.
A.13 Equipment Maintenance and Support	Demonstrate the ability to maintain and support all equipment associated with the response.
A.14 Procurement	Demonstrate the ability to establish an effective procurement system.
A.15 Documentation	Demonstrate the ability of the response organization to document all operational and support aspects of the response and provide detailed records of decisions and actions taken.

A.2 Training

Experienced, well-trained personnel are essential for successful implementation of this Oil Spill Response Plan (OSRP). Exercises, both deployment and tabletop, are necessary to check the effectiveness of training and to test the OSRP. An ongoing training and exercise program is carried out and managed company wide to ensure personnel are prepared to respond to incidents at their facility,

while also providing a sufficient number of Incident Management Team (IMT) personnel to manage coordinated responses regionally and if needed cascade trained personnel nationally.

A.2.1 Oil Spill Response Training

Both field responders and IMT members are trained on the Oil Spill Response Plan annually. This training includes a general overview of the plan as well as details on the sections that are appropriate to the audience. For field responders the focus should be on accessing the plan, initial response actions and notifications. IMT members should also focus on Incident Planning, Documentation, Sustained Response Actions, and Demobilization. Information on how the plan interacts with Area and Regional Response Plans and additional information on regional issues and policies is included for both groups.

A.2.2 HAZWOPER Training Program

The HAZWOPER requirements for the various levels of response are integrated into the Facility's training applications. In general, personnel involved in protection and containment operations must have at least 8 hours of HAZWOPER training or sufficient experience to demonstrate competency. Personnel involved in more aggressive activities such as source control, on-site containment, recover, and cleanup, etc. (i.e., activities that result in direct contact) must have a minimum of 24 hours of training. Training criteria for those who respond to an emergency are based on the duties and functions associated with the level of response or types of activities they may have to perform.

A.2.3 IMT Training Program

IMT personnel must be trained on general ICS features and position specific responsibilities for roles they might fill. They must also demonstrate their abilities during tabletop exercises. The IMT training program takes advantage of both trainings provided by FEMA through the Emergency Management Institute and trainings that are created and provided internally. Trainings are provided through a mix of Computer Based and Instructor Led training. In certain instances, employees who have years of experience with the IMT can demonstrate proficiency in their duties to count for some course credit. Personnel should take all courses initially before being assigned a role and then take refresher courses as needed.

Course descriptions for all courses including course goals, topics, and learning objectives can be found in the LMS. *Figure A-4* shows a list of courses available to field responders and IMT members.

Figure A-4 Training Courses

Title	Type	Offered	Frequency
ICS 100	General	Online	One Time
ICS 200	General	Online	One Time
ICS 300	General	Classroom	One Time
ICS 700	General	Online	One Time
ICS Refresher	General	Classroom/Online	Annual
IS 29- PIO	Position Specific	Online	One Time
Qualified Individual	Position Specific	Classroom/Online	2 years
Incident Commander	Position Specific	Classroom/Online	2 years
Public Information Officer	Position Specific	Classroom	2 years
Joint Information Center Staff	Position Specific	Classroom	2 years
Crisis Communication	Position Specific	Classroom	One Time
Safety Officer	Position Specific	Classroom/Online	2 years
Liaison Officer	Position Specific	Classroom	2 years
Legal Officer	Position Specific	Classroom	2 years
Operations Section	Position Specific	Classroom	2 years
Planning Section Chief	Position Specific	Classroom/Online	2 years
Logistics Section	Position Specific	Classroom	2 years
Finance Section	Position Specific	Classroom	2 years
Resource Unit	Position Specific	Classroom/Online	2 years
Situation Unit	Position Specific	Classroom/Online	2 years
Environmental Unit	Position Specific	Classroom	2 years
Documentation Unit	Position Specific	Classroom/Online	2 years
Oil Spill Response Plan/Region 6 ACP	General	Classroom/Online	Annual
Aerial Observation	Position Specific	Classroom and Field	One Time
Initial Response Field Actions (Equipment Deployment)	Position Specific	Field-Hands On	Annual
Initial Incident Documentation	Position Specific	Classroom/Online	Annual
IMT Tabletop Exercise	Position Specific	Command Post- Hands On	2 years

A.2.4 Training in the use of the Oil Spill Plan

All field personnel will be trained in the proper procedures for the reporting and monitoring of spills. Included in this training are procedures for contacting the Qualified Individual on a 24-hour basis, and procedures and telephone numbers for contacting the National Response Center. A copy of the Facility Response Plan will also be made available to all personnel on the IMT.

At least once each calendar year the oil spill plan will be reviewed with affected field personnel and responders. In addition, they will review procedures on how and where to place materials depending on where the spill occurs and various seasonal conditions. **Records of all training activities are maintained for at least five years following completion of training.** The Company will maintain training records for each individual as long as those individuals are assigned duties in this Plan.

A.2.5 Training for Qualified Individuals (QIs)

Training will be conducted for the Qualified Individuals listed in this Plan. The training elements to be presented are listed in *Figure A-5.* Training will be provided to QI's upon initial assignment or when major revisions are made to the plan that impact QI responsibilities. Training records for the QI's listed in this Plan are available upon request.

A.2.6 Training for Spill Response Team

All Company personnel that are designated within this Plan will be trained according to the program identified in *Figure A-6.* Oil spill responders are required to adhere to the training and safety requirements outlined in the OSHA's Hazardous Waste Operations and Emergency Response regulations in 29 CFR 1910.120(q). Oil spill responders must have, at a minimum, the amount of training required under 29 CFR 1910.120(q)(6)(iii) for Hazardous Materials Technician. Incident Commanders must have the amount of training required under 29 CFR 1910.120(q)(6)(v) for On Scene Incident Commander.

A.2.7 Training for Incident Management Team Personnel

The company conducts annual training on the Oil Spill Contingency Plan and Incident Command System for Incident Management Team Members. Members of the IMT are expected to be familiar with their role within this response plan. Overall training elements are provided in *Figure A-5*.

A.2.8 Training for Casual Laborers or Volunteers

Spill Response Personnel

Trained spill response cleanup personnel will be provided by spill response contractors provided in this Plan. The Company does not intend to use casual laborers or volunteers for spill response operations requiring HAZWOPER training.

Wildlife Rescue and Rehabilitation Volunteers

The Company will rely upon the recommendations of the USFWS when dealing with oiled wildlife. Only trained personnel approved by these agencies will be utilized to respond to incidents involving oiled wildlife.

A.2.9 Training Documentation and Record Maintenance

Spill response personnel training records will be maintained for five years. The Training Department is responsible for maintaining all training records. Records include:

- Documentation of yearly training associated with the Facility Oil Spill Response Plan as provided to IMT and Facility personnel.

Records of training provided for response contractor personnel will be maintained at the respective contractor's office and will be verified by the Company on an annual basis. *Figure A-6* provides an

example of a training log, as shown from 40 CFR 112.21 Appendix F. All training records for responders are available upon request.

A.2.10 Discharge Prevention Meeting

Each plan holder is required to hold an annual discharge prevention briefing that ensures an adequate understanding of the SPCC plan for the facility. An example of the log of the discharge prevention meeting is provided in *Figure A-7*. This log must be completed each year and maintained with training records for the site.

Figure A-5 Training Elements

Training Type	Training Characteristics
Training in Use of Oil Spill Plan	• All personnel will be trained to properly report/monitor spills • Plan will be reviewed annually with all employees • The Personnel Response Training Log is provided in *Figure A-6*.
OSHA Training Requirements	• All Company responders designated in Plan must have training consistent with, at least, the requirements under 29 CFR 1920.120(q)(6)(iii) Hazardous Materials Technician. • Incident Commanders must have the amount of training required under 29 CFR 1910.120(q)(6)(v) for On Scene Incident Commander. • Annual refresher is required for all IMT and ERT members that is of sufficient content and duration to maintain competencies or shall demonstrate competency in those areas at least yearly.
Incident Management Team Personnel Training	• See recommended PREP Training Matrix (*Figure A-5*)
Training for Casual Laborers or Volunteers	• Company will not use casual laborers/volunteers for operations requiring HAZWOPER training
Wildlife	• Only trained personnel approved by USFWS and appropriate state agency will be used to treat oiled wildlife
Training Documentation and Record Maintenance	• Training activity records will be retained five years for all personnel following completion of training • Training records will be retained per the training department's guidelines.

Figure A-6 Training Program Matrix

Training Element	Qualified Individual (QI)	Incident Management Team (IMT)	Facility Personnel
Environmental Protection Agency (EPA) regions in which the facility is located.	x	x	X
Notification procedures and requirements for facility owners or operators; internal response organizations; federal and state agencies; and contracted oil spill removal organizations (OSRO's) and the information required for those organizations.	x	x	X
Communication system used for the notifications.	x	x	X
Information on the products, stored, used, or transferred, by the facility, including familiarity with the material safety data sheets, special handling procedures, health and safety hazards, spill and firefighting procedures.	x	x	X
Procedures the facility personnel may use to mitigate or prevent any discharger or a substantial threat of a discharge or oil resulting from facility operational activities associated with internal or external cargo transfers, storage, or use.	x		
Facility personnel responsibilities and procedures for use of facility equipment, which may be available to mitigate or prevent an oil discharge.	x	x	X
Operational capabilities of the contracted OSRO's to respond to the following: Average most probable discharge (small discharge); Maximum most probable discharge (medium discharge); and Worst-case discharge.	x	x	x
Responsibilities and authority of the Qualified Individual as described in the facility response plan and company response organization.	x	x	x
The organizational structure that will be used to manage the response actions including: • Command and control; • Public information; • Safety; • Liaison with government agencies; • Spill response operations; • Planning; • Logistics support; and • Finance.	x	x	x
The responsibilities and duties of each oil spill management team within the organizational structure.	x	x	
The drill and exercise program to meet federal and state regulations as required under OPA.	x	x	x
The role of the Qualified Individual in the post discharge review of the plan to evaluate and validate its effectiveness.	x		
The Area Contingency Plan (ACP) for the area in which the facility is located.	x	x	x

Training Element	Qualified Individual (QI)	Incident Management Team (IMT)	Facility Personnel
The National Contingency Plan (NCP).	x	x	x
Roles and responsibilities of federal and state agencies in pollution response.	x	x	x
Available response resources identified in response plan.	x	x	
Contracting and ordering procedures to acquire oil spill removal organization resources identified in the response plan.	x	x	
OSHA requirements for worker health and safety (20 CFR 1910.120).	x	x	x
Incident Command System/Unified Command System.	x	x	
Public Affairs.	x	x	
Crisis management.	x	x	
Procedures for obtaining approval for dispersant use or in-situ burning of the spill.	x		
Oil spill trajectory analyses.	x		
Sensitive biological areas.	x	x	
This training procedure as described in the response plan for members of the spill management team.		x	
Procedures for the post discharge review of the plan to evaluate and validate its effectiveness.		x	
Basic information on spill operations and oil spill clean-up technology including: Oil containment; Oil recovery methods and devices; Equipment limitations and uses; Shoreline clean-up and protection; Spill trajectory analysis; Use of dispersants, in-situ burning bioremediation; and Waste storage and disposal considerations.		x	
Hazard recognition and evaluation.		x	
Site safety and security procedures.		x	
Personnel management, as applicable to designated job responsibilities.		x	
Procedures for directing the deployment and use of spill response equipment, as applicable to designated job responsibilities.		x	
Specific procedures to shut down affected operations.			x
Specific procedures to follow in the event of discharge, potential discharge, or emergency involving the following equipment or scenarios: Tank overfill; Tank rupture; Piping or pipeline rupture; Piping or pipeline leak, both under pressure or not under pressure, if applicable; Explosion or fire; Equipment failure; and Failure of secondary containment system.			x
Name of the Qualified Individual and how to contact.			x

Figure A-7 Personnel Response Activities Training Log (Example)

Name	Response Training/Date and Number of Hours	Prevention Training/Date and Number of Hours

Figure A-8 Discharge Prevention Meeting Log (Example)

Date: _____

Subject / Issue Identified: _____

_____

_____

Required Action Item Identified:

1. _____
2. _____
3. _____
4. _____

Date of Implementation of Action Items:

	WO # Issued
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____

Meeting Attendee Name/Dept:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Figure A-9 Qualified Individual Notification Exercise Report Form (Example)

Qualified Individual (QI) Notification Exercise Report Form

Exercise Date: ☐ Exercise ☐ Actual Response ☐ After-Hours

Oil Spill Response Plan Name:

Drill Quarter: ☐ 1st Quarter ☐ 2nd Quarter ☐ 3rd Quarter ☐ 4th Quarter

At least once a year, the Qualified Individual Notification Exercise should be conducted during "non-business hours".

EXERCISE ACTIVITIES

Scenario

QI Name:

Is QI listed in Oil Spill Response Plan: ☐ Yes ☐ No

Method Used: ☐ Telephone ☐ In-Person ☐ Radio/Pager ☐ Other:

Time Initiated: Time QI Responded: **ETA to Facility:**

(If primary Q.I. cannot be contacted, then contact the alternate Q.I.)

Alternate QI Name:

Is Alternate QI in Oil Spill Response Plan: ☐ Yes ☐ No

Method Used: ☐ Telephone ☐ In-Person ☐ Radio/Pager ☐ Other:

Time Initiated: Time Alternate QI Responded: **ETA to Facility:**

EVALUATION & COMMENTS

Should relate to exercise objectives above and be associated with a direct observation during this exercise.
Example: Security Staff requires additional training on Q.I. Drill Requirements
Example: Q.I. reports that OSRO response to facility with equipment & response personnel would be in 1 hour

Did notification procedure follow the Plan? ☐ Yes ☐ No

This exercise satisfies the National Preparedness for Response exercise Program (PREP) Q.I. Notification Requirement:

SELF-CERTIFICATION

Print Name: Title:

SIGNATURE DATE

RETAIN THIS FORM FOR A MINIMUM OF 5 years.

Qualified Individual (QI) Notification Exercise Report Page 1

Figure A-10 Equipment Deployment Exercise Report Form (Example)

Equipment Deployment Exercise Report Form

A. Date: ☐ Announced ☐ Unannounced

B. Equipment Ownership: ☐ Facility ☐ OSRO ☐ Both

C. Deployment Location:

D. Time Started: Time Deployed: Time Completed:

E. Equipment Deployed: (or See 201-4)

F. Personnel Attending: (or See training sign-in)

G. Core Components:

☐ Notifications	☐ Containment	☐ Protection of Sensitive Areas
☐ Staff Mobilization	☐ Recovery	☐ Personnel Support
☐ Response Management System	☐ Disposal	☐ Equipment Maintenance
☐ Discharge Control	☐ Communications	☐ Procurement
☐ Assessment	☐ Transportation	☐ Documentation

H. Objectives:

I. Lessons learned and/or comments for deployment:
See attached documentation

J. Was equipment deployed in its intended operating environment? ☐ Yes ☐ No

Self-Certification:

Print Name: Title:

SIGNATURE DATE

RETAIN THIS FORM FOR A MINIMUNM OF 5 years.

Revised: January 2016

Figure A-11 Incident Management Team Tabletop Exercise Report Form (Example)

Incident Management Team Tabletop Exercise Report Form

Exercise Name: | Exercise Date: | Exercise Year:

RESPONSE CATEGORY

☐ Announced ☐ Unannounced ☐ Other:

☐ Average Most Probable Discharge ☐ Maximum Most Probable Discharge ☐ Worst Case Discharge

☐ Simulated _____ bbls ☐ Real _____ bbls

PREP CORE REQUIREMENTS COMPLETED THIS CALENDAR YEAR

☐ A.1 Notifications
☐ A.2 Staff Mobilization
☐ A.3 Response Management System
- ☐ A.3.1 Unified Command
- ☐ A.3.2 Response Management System

☐ A.4 Source Control
☐ A.5 Assessment
☐ A.6 Containment
☐ A.7 Mitigation
☐ A.8 Protection
☐ A.9 Disposal
☐ A.10 Communications
☐ A.11 Transportation
☐ A.12 Personnel Support
☐ A.13 Equipment Maintenance and Support
☐ A.14 Procurement
☐ A.15 Documentation

EXERCISE OBJECTIVES

_____

LESSONS LEARNED

_____

LIST OF ATTACHMENTS

☐ Incident or Scenario & Objective of Exercise/Incident
☐ ICS 201 Initial Incident Briefing
☐ List of Equipment Operational Problems
☐ _____
☐ _____
☐ Incident Action Plan (IAP)
☐ Critique/Lessons Learned
☐ ICS 211P (OS) Check-in List
☐ _____
☐ _____

SELF-CERTIFICATION

Print Name: Title:

_____ SIGNATURE _____ DATE

RETAIN THIS FORM FOR A MINIMUM OF 5 years.

Scan and email copy of this completed form to your Contingency Planning & Emergency Response Contact.

Revised: December 2016

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APPENDIX B CONTRACTOR AND MUTUAL AID RESPONSE EQUIPMENT

B.1 Contractor and Mutual Aid Equipment and Manpower

The Company's primary response contractors and telephone numbers for the facility are noted in *Section 3*. These contractors can provide oil spill response equipment and personnel in the event of a spill at the facility. The company has ensured by contract the availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to the worst-case discharge or the substantial threat of such discharge, including meeting daily recovery rate and shoreline protection planning requirements.

Figure B-1 provides response contractor responsibilities. Contractors' general roles and responsibilities are as follows:

- Providing booms, skimmers, temporary storage tanks, vacuum trucks, construction equipment, and other equipment necessary for containment and recovery of an oil spill.
- Providing trained personnel to operate the aforementioned equipment, along with supervising response personnel.
- Interfacing with company supervisors to implement tactical orders relating to the spill response.
- Providing appropriate safety equipment and ensuring personnel are operating according to the company's safety guidelines and applicable federal, state, and local regulations.
- Providing transportation for necessary contractor personnel and equipment.

OSRO	MSRC
Contact Information	(800) 645-7745
Time to respond	6 to 8 hours

B.1.1 MSRC

Additional manpower and spill response equipment is available through the Marine Spill Response Corporation (MSRC). MSRC is an independent, non-profit corporation dedicated to providing a best-effort response to large spills of persistent oil.

MSRC information is as follows:

- *Figure B2* MPA Member Agreement
- *Figure B3* MSRC Service Agreement
- *Figure B4* Equipment List

Figure B3 MSRC Service Agreement is an evergreen document that will only expire with the termination of the Company's membership in the Marine Preservation Association (MPA). A list of Members can be found on either the MSRC (www.msrc.org) or MPA (www.mpaz.org) websites. The Company's assets worldwide have access to MSRC's capability in the event of a response or other emergency requiring our services.

Figure B-1 Response Contractor Responsibilities

Supervisor
• Assess immediate incident information. • Notify operations personnel of the incident and direct them to carry out their assigned responsibilities. • Proceed to spill site. • Attend meetings held by the on-scene coordinator. • Interface with regulatory officials. • Develop response strategies. • Supervise response activities. • Conduct and plan briefings for contractor response personnel. • Assess what resources will be required during the immediate response and early containment, countermeasures and recovery phases. • Carry out other assigned tasks.
Foreman
• Conduct communication checks with facility and contractor personnel. • Notify personnel of location to assemble. • Assess response actions taken before arrival. • Redirect response activities, if necessary. • Develop safety plan. • Supervise work crews. • Inform supervisor of work progress. • Carry out approved cost accounting documentation. • Additional tasks may be assigned.
Operator/Spill Technician
• Directs response vans to immediately proceed to spill site. • Arrive at incident. • Advise on-scene coordinator that response contractor is on-site. • Initiate response procedures, if first to arrive. • Provide early containment and skimming operations. • Notify management of magnitude of incident. • Work as directed, ensuring personnel safety. • Assume other tasks as needed.

Figure B-2 MPA Membership

STANDARD MEMBERSHIP AGREEMENT

This STANDARD MEMBERSHIP AGREEMENT dated as of April 24, 2019 (this "Agreement") between Marathon Petroleum Company LP (the "Company") and MARINE PRESERVATION ASSOCIATION, a nonprofit membership corporation organized under the laws of the State of Arizona (the "Association").

WITNESSETH:

WHEREAS, the Association was organized exclusively to promote the welfare and interests of the petroleum transportation, petroleum, and energy industries by addressing the problems caused by spills of oil and petroleum products on water; and

WHEREAS, the Association raises funds through the collection of Annual Dues from its Members and grants the funds to nonprofit oil spill response service entities, such as Marine Spill Response Corporation, a nonprofit membership Tennessee corporation ("MSRC"); and

WHEREAS, the Company desires to become a Member of the Association as a Standard Member of the Association; and

WHEREAS, capitalized terms used herein and not otherwise defined herein shall have the meanings ascribed thereto in Schedule A.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the Association and the Company agree as follows:

1. Initial Membership Dues: Admission Effective Date. The Company will become a Standard Member on its Admission Effective Date, which is the date the Company has (i) paid in full its initial Membership Dues as required hereunder and (ii) executed and delivered this Agreement (together with any other documents required by the Association). The Company agrees that, on or before its Admission Effective Date, it shall pay Initial Membership Dues equal in amount to that portion of the estimated Annual Dues of the Company that applies to it for the most recent previous Cash Dues Call for the period in which the Company's Admission Effective Date occurs, as set forth in the Dues Procedures.

2. Annual Dues.

(a) Dues to be Paid. The Company acknowledges and agrees that, throughout its Membership Period, it shall pay Annual Dues in such amounts and at such times as shall be determined by the Board of Directors pursuant to the By-laws and as set forth in the Dues Procedures.

(b) Annual Dues Information Report. The Company acknowledges and agrees that, throughout its Membership Period, on or before the due date established each year by the Board of Directors, the Company shall provide to the Association an Annual Dues Information Report, in the form prescribed by the Board of Directors from time to time, so as to allow the Association to make a final determination of the Company's Annual Dues for the prior year with any adjustments applied as set forth in the Dues Procedures, estimate the Company's Annual Dues for the then current year and/or other periods

IN WITNESS WHEREOF, the parties hereunto have each caused this Agreement to be duly executed.

MARINE PRESERVATION ASSOCIATION	MARATHON PETROLEUM COMPANY LP By: MPC Investment LLC, its General Partner
By Brett G. Drewry	By Donald C. Templin
Title: President and Chief Executive Officer	Title President Refining, Marketing, & Supply
Address: 5415 E. High Street Suite 111 Phoenix, Arizona 85050	Address: 539 South Main St Findlay, Ohio 45840
Telephone No.: (480) 991-5599	Telephone No.: 419-421-2121

5

Figure B-3 MSRC Service Agreement

MSRC
Marine Spill Response Corporation®

SERVICE AGREEMENT EXECUTION INSTRUMENT

The MSRC SERVICE AGREEEMENT attached hereto (together with this execution instrument, the "Agreement"), a standard form of agreement amended and restated as of September 27, 1996, is hereby entered into by and between

Marathon Petroleum Company LP

a Delaware limited partnership

with its principal offices located at 539 S. Main St, Findlay, Ohio 45840 (the "COMPANY"), and MARINE SPILL RESPONSE CORPORATION, a nonprofit corporation organized under the laws of Tennessee ("MSRC"), and shall be identified as

SERVICE AGREEMENT No. GMPA601 [This is to be provided by MSRC.]

IN WITNESS WHEREOF, the parties hereto each have caused this Agreement to be duly executed and effective as of April 24, 2019.

Marathon Petroleum Company LP
By: MPC Investment LLC, its General Partner

By: Donald C. Templin

Donald C. Templin

Title: President Refining, Marketing, & Supply

Approved As To Form

Address: 539 South Main St., Findlay, Ohio 45840

email:

Telephone: 419-421-2121

MARINE SPILL RESPONSE CORPORATION:

By:

Ceren Karaer
Business Development & Customer Relationship Manager
karaer@msrc.org
220 Spring Street
Suite 500 Herndon, VA 20170
(703) 326-5617

Figure B4 MSRC Equipment

Vacuum Trucks		
ARIZONA		
Contractor Name	**City**	**QTY**
Riley Industrial	Phoenix	20
Riley Industrial	Show Low	20
H2O	Chandler	2
Colorado		
Contractor Name	**City**	**QTY**
Belfor	Denver	2
Clean Harbors	Henderson	2
Nevada		
Contractor Name	**City**	**QTY**
H2O	Las Vegas	5
Patriot	Henderson	2
New Mexico		
Contractor Name	**City**	**QTY**
Riley Industrial	Farmington	20
Clean Harbors	Albuquerque	1
ACT	Albuquerque	2
Texas		
Contractor Name	**City**	**QTY**
Riley Industrial	Lubbock	20
Riley Industrial	Odessa	20
D&H	El Paso	1

Roll Off Bins		
ARIZONA		
Contractor Name	**City**	**QTY**
H2O	Chandler	5- 20 yd; 1- 40 yd
Colorado		
Contractor Name	**City**	**QTY**
Clean Harbors	Henderson	2- 20 yd bins
Nevada		
Contractor Name	**City**	**QTY**
H2O	Las Vegas	15 - 20 yd bins
Patriot	Henderson	30 - 20 yd; 6 - 40 yd bins
New Mexico		

Contractor Name	City	QTY
ACT	Albuquerque	8 - 20's; 3 - 30's; 5 - 40 yd
Clean Harbors	Albuquerque	15 - 25 yd bins

Back Hoes		
ARIZONA		
Contractor Name	**City**	**QTY**
H2O	Chandler	1
Nevada		
Contractor Name	**City**	**QTY**
H2O	Las Vegas	1
New Mexico		
Contractor Name	**City**	**QTY**
D&H	Albuquerque	2
Texas		
Contractor Name	**City**	**QTY**
Enviro Clean	Midland	1

Skid Steers		
ARIZONA		
Contractor Name	**City**	**QTY**
H2O	Chandelr	1
Colorado		
Contractor Name	**City**	**QTY**
Belfor	Denver	1
Environmental Restoration	Commerce City	1
Nevada		
Contractor Name	**City**	**QTY**
H2O	Las Vegas	1
Patriot	Henderson	1
New Mexico		
Contractor Name	**City**	**QTY**
ACT	Albuquerque	1
D&H	Albuquerque	2
Texas		
Contractor Name	**City**	**QTY**
D&H	El Paso	1
Enviro Clean	Midland	1

Excavators				
ARIZONA				
Contractor Name		**City**		**QTY**
H2O		Chandelr		1
Colorado				
Contractor Name		**City**		**QTY**
Belfor		Denver		1 (mini)
Nevada				
Contractor Name		**City**		**QTY**
H2O		Las Vegas		1
Texas				
Contractor Name		**City**		**QTY**
Enviro Clean		Midland		1

APPENDIX C PLAN IMPLEMENTATION AND DRAINAGE

C-1 Plan Implementation

Figure C-1 Response Planning Volume Calculations

Location Data			
Location Type			Rivers and Canals
WCD Product Type			Crude
Product Group			3
Capacity of the Largest Single Tank (bbls)			110,000
Discharge Volumes/Calculations			
Average Most Probable or Small Discharge (bbls)			50
Maximum Most Probable or Medium Discharge (bbls)			857
Worst Case Discharge - Based on EPA criteria (bbls)			**110,000**
EPA WCD Calculation: 100% * Capacity of the Largest Single Tank			
Selected Calculation Factors (Based on EPA Tables)			
Removal Capacity Planning Volume - Percent Natural Dissipation			20%
Removal Capacity Planning Volume - Percent Recovered Floating Oil			15%
Removal Capacity Planning Volume - Percent Oil Onshore			65%
Emulsification Factor			2.0
Tier 1 - On Water Oil Recovery Resource Mobilization Factor			30%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor			40%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor			60%
Response Planning Volume Calculation			
On-Water Recovery Volume (bbls)			16,500
Shoreline Recovery Volume (bbls)			71,500
Shoreline Cleanup Volume (bbls)			143,000
	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bbls/day)	9,900	13,200	19,800
On-Water Response Caps (bbls/day)	1,875	3,750	7,500
Additional Response Req'd (bbls/day)	0	0	0
Response Time (hrs)	6	30	54

Immediate actions are discussed in *Section 2* of this Oil Spill Response Plan. Notifications are covered in *Section 3*. Sustained response actions are covered in *Section 7*, with *Appendix E* providing response techniques for response.

C.2 Containment and Drainage Planning

The following information for containment and drainage planning is from the SPCC for the facility.

C.2.1 Facility Drainage

The surface water runoff direction shown on *Figure C-2* is based on the observed topography at the site at the time of inspection for the SPCC. The facility is adjacent to the south shore of the San Juan River, which is the nearest continuously flowing water and significant watercourse to the facility. The Hammond Irrigation Ditch runs adjacent to the facility and only runs seasonally.

The active operating areas at the facility are all designed with secondary containment structures and drainage depressions that capture precipitation. Outside of the containment, sheet flow runoff is generally to the north. Most of the drainage that leaves the facility from the north side of CR 4990 travels to the stormwater ponds, which are located north of the Hammond Ditch and east of the pump house or to the retention area south of the warehouse. Waters are routed to the south retention pond via culverts under CR 4990. The Hammond Ditch is protected by raised berms and flow is directed to the stormwater ponds by contouring and grading.

The facility utilizes active containment response capabilities, described in Section 3.3.1 to meet the general secondary containment requirements of 40 CFR 112.7(c). Therefore, the undiked drainage area provisions of 40 CFR 112.8(b) do not apply.

Secondary containment areas exposed to stormwater are checked after each precipitation event and excess stormwater is pumped out and transferred to the on-site API separator at the WWTP via a vacuum truck. Stormwater removal to the API separator is not expected in the operating areas except during high intensity storm events; however, as the climatic conditions of this terrain are conducive to efficient and rapid evaporation of precipitation.

C.2.2 Secondary Containment

Metal, concrete, or earthen containment prevents any spills or leaks from tanks, drums, or equipment from moving out of the bermed area. Following a release, all contaminated loose gravel must be removed and disposed of or treated in accordance with appropriate regulatory requirements. All spills or leaks (leaks on valves, gauges, or other associated equipment) must be cleaned up upon discovery with any needed repairs made as soon as practicable.

Bulk storage container installations are constructed to provide secondary containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. The Company uses the 25-year, 24-hour storm event (1.96 inches) for freeboard precipitation calculations. Containment calculations for bermed areas have been completed and are provided in *Figure D-1*. Containment areas are sufficiently impervious to contain discharged oil until clean-up can occur.

Portable containment is generally used for drums or elevated storage tanks of glycol, lube oil, or treatment chemicals. The drum or tank is generally set within the containment. All spills or leaks must be cleaned up upon discovery and any needed repairs made as soon as practicable.

General secondary containment has been provided for the facility. The general secondary containment at the facility is provided by low areas, grading, and spill kit materials.

C.2.3 Drainage of Diked Areas

Standing precipitation, when accumulated in the secondary containment area, is visually inspected if not evaporated. Excess accumulation of water is transferred to the on-site API separator at the WWTP via a vacuum truck. Company personnel will monitor the removal of stormwater, and all stormwater will be removed during daylight hours so that sheen or product can be visually observed.

There are no drains from the containment structures in the tank farm or terminal area.

C.2.4 Overfill Prevention Systems

Tanks at the facility are installed using fail-safe engineering practices. The crude tanks are equipped with a high-high liquid level alarm and finished product tanks are equipped with a triple-high alarm that are constantly monitored by the SCADA system from the Western Pipeline Control Room. The triple-high alarm is associated with a float that triggers an alarm to cutoff unloading pumps and activates a SCADA alarm.

Inventory records are maintained monthly. The tanks are also equipped with a cable and sensor-type level indicator and transmitter. The volume of crude oil is electronically monitored at the Company's Pipeline Control Room and inventory records are maintained monthly. Operations periodically hand gauges the tanks and reconcile manual records to the electronic inventory data generated. Tanks at the facility are monitored through the Company Pipeline Control Room and have both high-level and low-level alarms as well as real time tank readings.

C.2.5 Effluent Treatment Facilities

The facility has a WWTP that is used to treat impacted groundwater, washwater, operations waste water, and any stormwater that enters the system via grated drains located throughout the Terminal. The WWTP consists of two 1,110 bbl API separators in parallel, a 23 bbl recovered oil sump, a 1,332 bbl benzene stripper sump, and two benzene strippers. Use of the API separators alternates to allow for removal of accumulated solids periodically. Water enters the API separators to allow settling of solids and separation of oil. Oil skim is sent to the recovered oil sump and the remaining water is sent to the benzene stripper sump. Separated water is pumped from the benzene stripper sump through benzene strippers to remove dissolved volatile organic carbons (VOCs). Water is then transferred to a series of three aeration ponds for further treatment. Following aeration, water is transferred to the evaporation ponds and finally through a series of four treated water tanks for additional solids reduction prior to final disposal of the treated water via the permitted on-site Class 1 injection well (API #30-045-35747). The WWTP is not considered exempt under 40 CFR 112.8(c)(9), and the API separators, recovered oil and benzene stripper sumps, and benzene strippers are considered bulk storage tanks and oil-filled manufacturing equipment and have been included as regulated tanks in *Figure D-1*. Containment for the WWTP is provided by a concrete berm and general containment.

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IMAGE COURTESY OF GOOGLE EARTH 2015

LEGEND

- NEW INJECTION WELL
- FORMER INJECTION WELL
- FOAM TOTE
- CORROSION INHIBITOR
- HEADER
- LACT
- SPILL KIT
- SURFACE WATER FLOW DIRECTION
- COMPRESSOR
- TRANSFORMER AREA
- ABOVEGROUND PIPE
- BELOW GROUND PIPE
- PERIMETER BERM
- PERIMETER FENCE
- SURFACE WATER
- DEPRESSION
- CONTAINMENT DIKE EXTENT

AST = ABOVEGROUND STORAGE TANK
BBL = BARREL
GAC = GRANULATED ACTIVATED CARBON
LACT = LEASE AUTOMATIC CUSTODY TRANSFER
OOS = OUT-OF-SERVICE
LPG = LIQUID PETROLEUM GAS

ALL UNDERGROUND PIPING IS FOR PROCESS FLOW DEMONSTRATION ONLY.

0 300 600
Feet

N

FIGURE 1
FACILITY DIAGRAM
BLOOMFIELD PRODUCTS TERMINAL
SAN JUAN COUNTY, NEW MEXICO
SEC 27 & 26 T29N R11W
WESTERN REFINING TERMINALS, LLC.

P:\Western Refining\GIS\MXD\029516010_BLOOMFIELD TERMINAL SPCC\029516010_FIG01_FACILITY_DIAGRAM_SPCC.mxd

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APPENDIX D HAZARD EVALUATION/RISK ANALYSIS

D.1 Hazard Evaluation

The Facility receives and stores up to 27,000 barrels per day of crude oil (approximately 1,134,000 gallons per day). Day to day operations involve receiving and storing finished product via pipe line and or truck.

Crude oil and refined products are stored in various storage tanks located onsite. Most of these tanks are located within a central Tank Farm in the main part of the Terminal. A few tanks are located near the Terminal, terminated process areas and others are located at the Terminal Area south of County Road 4990.

Crude oil is received via tank truck and unloaded into storage tanks and sent to other Company Terminal's via pipeline. Finished products are unloaded from Terminal storage tanks into tank trucks and then shipped out to customers. The maximum transfer rate for loading and unloading operations is approximately 204,400 gallons per hour; however, a typical transfer rate is closer to 186,900 gallons per hour.

Figures D-1 and D-2 provide information hazard identification information for aboveground storage tanks and surface impoundments. *Figure D-1* also provides the secondary containment capacity for the tank dikes.

Figure D-1 Hazard Identification – Aboveground Storage Tanks

HAZARD IDENTIFICATION TANKS (*Tank = any container that stores oil*)						
Tank #	**Substance Stored** *(Oil & Haz. Substance)*	**Tank Capacity** *(Gallons)*	**Tank Type**	**Year Built**	**Failure / Cause**	**Containment Capacity** *(Gallons)*
~~3x~~	~~Out of Service~~	~~420,000~~	~~Floating~~	~~1966~~	~~None~~	731,766
~~4x~~	~~Out of Service~~	~~420,000~~	~~Floating~~	~~1966~~	~~None~~	
5x	Storm Water	420,000	Cone	1966	None	
8	Slop Oil	21,000	Cone	2021	None	21,420
9	Slop Oil	21,000	Cone	1987	None	
~~10~~	~~Out of Service~~	~~16,800~~	~~Cone~~	~~1986~~	~~None~~	2,961
11x	Crude	2,310,000	Floating	1982	None	2,820,090
12x	Crude	2,310,000	Floating	1982	None	
13x	Sub-Grade Receipts / Sales	1,272,726	Floating	1987	None	
14x	Sub-Grade Receipts / Sales	1,264,074	Floating	1987	None	
~~17x~~	~~Out of Service~~	~~1,680,000~~	~~Cone/Insul.~~	~~1961~~	~~None~~	3,325,224
18x	Crude	2,310,000	Int.Float	1974	None	
35x	Crude	2,100,000	Int.Float	1996	None	
19x	ULS Diesel Sales	1,512,000	Cone	1975	None	1,689,996
20x	Transmix	840,000	IFR	1976	None	4,729,620
31x	**Crude**	**4,620,000**	**Floating**	**1977**	**None**	
23x	Sub-Grade Receipts / Sales	1,680,000	Floating	1962	None	2,225,916
24x	ULSD Receipts /Sales	420,000	Cone	2006	None	
25x	ULSD Receipts /Sales	420,000	Cone	2006	None	
~~26x~~	~~Out of Service~~	~~168,000~~	~~Int.Float~~	~~1967~~	~~None~~	
~~27x~~	~~Out of Service~~	~~420,000~~	~~Cone / Insul.~~	~~1967~~	~~None~~	
28x	Crude	3,360,000	Floating	1969	None	3,398,220
~~29x~~	~~Out of Service~~	~~714,000~~	~~Cone~~	~~1974~~	~~None~~	
~~30x~~	~~Out of Service~~	~~714,000~~	~~Int.Float~~	~~1974~~	~~None~~	
32x	Premium Sales	840,000	Floating	1988	None	2,892,372
36x	Premium Receipts	2,100,000	Int.Float	1996	None	
41x	Terminals Slop	117,600	Cone	?	None	188,874
42Ax	Terminals Slop	16,800	Cone	2003	None	
42Bx	Terminals Slop	16,800	Cone	2001	None	
~~43x~~	~~Out of Service~~	~~29,400~~	~~Cone~~	~~2007~~	~~None~~	
44	Ethanol	77,196	Int.Float	2007	None	116,466
45	Ethanol	224,070	Int.Float	1998	None	343,014

Figure D-2 Hazard Identification – Surface Impoundments

SURFACE IMPOUNDMENTS					
SI #	**Substance Stored**	**Avg Volume** *(Gallons)*	**Surface Area (sq. ft.**	**Max Volume** *(Gallons)*	**Failure / Cause**
SOWP	Wastewater	216,000	8,906	216,000	None
NOWP-E	Wastewater	360,000	10,625	360,000	None
NOWP-W	Wastewater	411,500	13,438	411,500	None
North Evap	Treated Wastewater	0	43,560	6,000,000	None
South Evap	Treated Wastewater	4,887,432	43,560	6,000,000	None

D.2 Hazard Identification

D.2.1 Analysis of the Potential for an Oil Discharge

There is the Potential for an Oil (Petroleum Product) spill at the Bloomfield Terminal Facility from the Aboveground Storage Tanks. The Terminal is near the Hammond Irrigation Ditch and the San Juan River. The horizontal range to the ditch is approximately 20 feet. The horizontal range to the river varies from 300 to 1,000 feet. A spill could result from the following:

- In the Bloomfield Terminal:
  - The Crude Oil, Gasoline and Diesel Aboveground Storage Tanks present a slight potential of an oil spill occurring because of structural failure of the tanks.
  - There is a slight potential for an oil spill as the result of a natural disaster such as high winds, lightning, earthquakes, heavy rains or extreme cold weather (ice and snow).
  - There is a potential for an oil spill during the filling of the Aboveground Storage Tanks by the Road Tankers.
  - There is the potential for spills or releases in the Process Unit Areas due to damaged or leaking process equipment such as valves, pumps, pipelines, etc.
  - There is the potential for a spill due to a Fueling Truck or Road Tanker malfunction resulting in a collision with one or more Aboveground Storage Tanks or Process Units.
  - There is the potential for a spill due to a break in the aboveground pipelines.
- In the Loading/Uploading Terminal:
  - There is a potential for an oil spill at the Loading/Uploading Terminal outside the Terminal area because of Driver Fueling Procedures (i.e. overfilling the truck).
  - There is a slight potential for an oil spill as the result of a natural disaster such as high winds, lightning, earthquakes, heavy rains or extreme cold weather (ice and snow).
  - There is the potential for a spill due to a Fueling Truck or Road Tanker malfunction resulting in a collision with one or more Aboveground Storage Tanks.
- Factors which decrease the likelihood of an off-site spill are described as follows:

  - Historically, spills are very rare at the Terminal and all of these spills have been contained onsite within secondary containment dikes. The Terminal has been in operation for over 40 years and sustained fewer than 10 spills.
  - Secondary containment is used extensively throughout the Terminal.
  - The Terminal is not located in the 100-year flood plain. Seismic activity in this region is very low. Soils are stable.
  - The Hammond Irrigation Ditch is only in service for 6 months of the year.
  - The Terminal was constructed in 1959. No tank is older than 47 years and most are less than 20 years old.
- Oil Transport on Moving Navigable Waters
  - For Bodies of Water including rivers that have a measurable velocity, the spreading of oil (petroleum products) over the surface must be considered.
  - The Surface Area covered by oil spreading on moving waters can be determined by the following formula. These calculations are based upon a Worst-Case Scenario for the Bloomfield Terminal of a rupture of Tank 31 which contains crude oil and has a maximum storage capacity of 4,620,000 gallons (110,000 barrels). Although improbable, a catastrophic tank rupture could result in a liquid wave of sufficient momentum to overflow the containment dike and escape off-site.
  - The appropriate planning distance for the Bloomfield Terminal is 84 miles based on calculations provided in 40 CFR 112 Appendix C.
- Oil Transport Over Land
  - The Bloomfield Terminal must also evaluate the potential for oil (petroleum products) to move over land because of a spill at the Aboveground Storage Tanks.
  - There is a probability that because of a Worst-Case spill of a petroleum product from the aboveground storage tanks, that the spilled product would travel over land and spill into the Hammond Ditch and the San Juan River.
  - An evaluation by the US EPA of the flow of Oil (Petroleum Products) reveals that the travel time from these storage tanks to the San Juan River is in the range of 12 seconds to 5.6 minutes. The product would follow the natural contours of the land, which slope downward toward the river.

D.2.2 Facility Reportable Oil Spill History

DATE	CAUSE	MATERIAL	SIZE* (BBL)	QTY HITTING NAVIGABLE WATER	SOURCE/ LOCATION	IMPACT	EFFECTIVENESS OF SECONDARY CONTAINMENT	MITIGATION/ CLEAN-UP ACTIONS TAKEN	TOTAL CAPACITY OF TANK/ STORAGE	ENFORCEMENT ACTIONS	HOW DETECTED/ EFFECTIVENESS OF MONITORING EQUIPMENT
18 Mar 91	Unknown	Jet Fuel	180	Not available	Dike of TK 26	Release to land	Not available	Recovered material	Not available	Not available	Not available
4 Feb 93	Unknown	Reformate	45	Not available	Dike of TK 5	Release to land	Not available	Recovered material	Not available	Not available	Not available
3 Mar 00	Unknown	Reformate	500	Not available	Dike of TK 5	Release to land	Not available	Recovered material	Not available	Not available	Not available
19 Jan 01	Overflow	Crude	25	Not available	Crude unloading sump	Release to land	Not available	Recovered material, repaired berm	Not available	Not available	Not available
25 Jan 04	Unknown	Gasoline	2.8	Not available	Truck Fueling Station	Release to land	Not available	Removed soil and replaced with clean fill	Not available	Not available	Not available
7/29/2011	Tank Overflow	Oily water	1oo gallons	none	Tank 42B Area	Release to concrete containment	Contained on-site	All liquids captured and returned to inventory	4693 bbl	none	Observed by Operations
12/6/2012	exchanger tube leak at heater treater	oily water	3 bbls	none	steam traps around the facility	release to soil	Contained on-site	impacted soils excavated for off-site disposal	N/A	none	Observed during start-up of steam system.
12/3/2013	Tank 44 overflow	Denatured ethanol	> 10bbl	none	Tank 44 containment area	release to soil	Contained on-site	impacted soils excavated for off-site disposal	N/A	State Reportable	Truck driver.
6/10/2015	Loading Rack Sump overflow	petroleum products and rainwater	45 bbls	none	Loading Rack Sump Area	Release to soil	Contained on-site	highly impacted soils removed for off-site disposal. Additional remediation deferred.	N/A	State Reportable	Operations

DATE	CAUSE	MATERIAL	SIZE* (BBL)	QTY HITTING NAVIGABLE WATER	SOURCE/ LOCATION	IMPACT	EFFECTIVENESS OF SECONDARY CONTAINMENT	MITIGATION/ CLEAN-UP ACTIONS TAKEN	TOTAL CAPACITY OF TANK/ STORAGE	ENFORCEMENT ACTIONS	HOW DETECTED/ EFFECTIVENESS OF MONITORING EQUIPMENT
3/5/2016	Ground seal at Tank 42A Area	crude oil	> 8 bbl	none	Tank 42A Area	Release to soil	Contained on-site	highly impacted soils removed for off-site disposal. Additional remediation deferred.	N/A	State Reportable	Operations
5/17/2018	CR 4990 crossing leak	oily water	> 7 bbl	none	CR 4990 culvert	release to soil	Contained on-site	highly impacted soils removed for off-site disposal. Additional remediation deferred.	N/A	State Reportable	Operations

Note: The current oil spill history only contains what was available at the time of the plan development. Future information and spill history will include all information required under 30 CFR §112.20 (h)(4). Spill history information between 2004 and 2011 in unavailable.

D.3 DISCHARGE SCENARIOS

D.3.1 Small/Medium Discharge Scenarios

Due to the small volume of material involved, a small spill is unlikely to escape secondary containment and migrate off-site. As such, it is unlikely that this type of spill will reach the Hammond Irrigation Ditch and very unlikely that it will reach the San Juan River.

The US EPA defines a Small Spill as any Oil (Petroleum Product) Spill with a volume less than 2,100 gallons (50 barrels). The following scenarios are likely to result in a small discharge.

- A small leak or overflow of a storage tank.
- A leaking drum or tote.
- A small pump seal leak.
- A small flange or piping leak.
- A small leak while loading or unloading.
- A small leak from maintenance activities

A medium-volume discharge is defined as 857 barrels (36,000 gallons) or 10 percent of the worst-case discharge (10 percent of 110,000 barrels =11,000 barrels or 462,000 US gallons), whichever is less. **The medium-volume discharge for this facility is 857 barrels (36,000 gallons)**.

- A medium-sized leak or sustained overflow of a storage tank.
- A sustained or long-term pump seal leak.
- A sustained or long-term flange or piping leak.
- A sustained or long-term leak while loading or unloading.
- A tank truck leak in the parking area.

A sustained loading or unloading leak will be captured by the secondary containment sump and is unlikely to escape the area. A tank truck leak in the parking area will travel west along County Road 4990 to the retention basin and is unlikely to escape containment.

(1) Loading and Unloading of Surface Transportation

Small Spills: Product loading occurs on the south side of CR 4990 at the loading rack. Tank truck loading is conducted on concrete pads that slope toward a surface inlet which drains to a 238 bbl below-grade sump (vault tank) that pumps to the API oil/water separator via a dedicated pump. The trucks load from body load/pup tank combination tanks with individual maximum capacities up to 214 bbls. The tanks are separate compartments where the breach of one tank would not compromise the other tank.

Signs are posted at the loading area providing detailed operating instructions on connections, loading operations, and disconnections, including an inspection that requires a complete trip around the truck prior to departure. Compliance with these posted requirements prevent drivers from departing before a complete disconnection of transfer lines is accomplished. A vehicle brake system is used on trucks during loading procedures at the product loading rack. Prior to loading and departure, drivers are instructed to inspect the lowermost drains and outlets for discharges and inspect outlets to ensure they are sufficiently closed to prevent discharge in transit.

Medium spills: The trucks involved in the loading/unloading operations typically carry a maximum of 214 barrels of product. This can fall within the range of small to medium spills, but a large spill from a tanker truck involved in loading/unloading is not feasible. The storage for spills from trucks is explained in the language for small spills.

Additional loading/unloading areas include the Gasoline AST in the Warehouse Yard, Hose connection to Tank 8 and Tank 9, Vacuum truck through gravity feed to API separator, Used oil tank, Diesel Unloading area west of Tank 23, Tank 737 via hose and vacuum truck to API separator, Gasoline additive area north of the loading rack, unloading of ethanol tank 44, and the unloading of wet oil from Tank 41. The area around each of these is graded flat, loading/unloading operations are supervised by the driver and/or facility operations and any spills are cleaned up immediately. These additional loading/unloading areas would not exceed the capacity for a medium spill.

(2) Facility Maintenance

Small Spills: Routine maintenance operations include testing, repairing, and/or replacing equipment throughout the life of the facility. Oil bearing facility equipment and tanks are maintained according to industry standards, including inspections as indicated in the facility's SPCC Plan. Small to medium spills may occur during maintenance operations. Location of the equipment or tank failure will determine the location of the spill. The probability of facility equipment failing and secondary containment failing is low. Large spills on the facility grounds with failed containment will migrate off-site and flow to either the Hammond Ditch or San Juan River. Small spills may not migrate off-site, but the facility will respond as if the spill will migrate off-site.

Medium spills: The tanks onsite have the capacity to produce a 36,000-gallon (medium) spill. Scenarios that could result in a medium spill during maintenance activities on pumps or other pieces of equipment are minimal.

(3) Facility Piping

Small Spills: Aboveground piping is easily accessed and regularly inspected. Leaks would be easy for employees to detect during normal facility operations and inspections. It is unlikely that a leak from aboveground piping would go undetected. Underground piping and valves will be pressure tested annually for integrity. Oil bearing facility piping is maintained according to industry standards, including inspections as indicated in the facility's SPCC Plan. Small to medium discharges from piping that contains oil are possible. Location of the piping will determine the location of the spill. The probability of facility piping failing and secondary containment failing is low. Large spills anywhere on the facility grounds with failed containment will eventually migrate off-site and flow to either the Hammond Ditch or San Juan River. Small spills may not migrate off-site, but the facility will respond as if the spill will migrate off-site.

Medium Spills: If a transfer pipe to a tank, or a transfer pipe from a tank to the pipeline was severed, up to 36,000 gallons could be discharged before the flow could be cut off.

(4) Pumping Stations and Sumps

Small/Medium Spills: The truck loading sump is covered under D.3.1 (1) for surface transportation. The WWTP for the facility is covered under C.2.5. Any spill from either the sump or the WWTP falls between a small and medium spill. A spill from the loading rack sump would occur as a result of the dedicated pump failure, and the sump overfilling due to a full tanker release and rainwater. The likelihood of this is minimal, but any spills would be immediately addressed with onsite spill containment. Spilled material will be removed from this sump via vac truck and disposed of according to applicable regulations. Transfer pumps for the tanks are located throughout the facility, within secondary containment. A small discharge arising from the pumping operations would be contained in secondary containment.

Containment areas are inspected for impacted stormwater. If the stormwater is found to be contaminated, it is disposed of according to applicable regulations. Leaks in piping can easily be isolated by valves up and downstream from the leaking section of piping. Potential spills associated with pumping stations or sumps will likely be small and detected quickly by operators during rounds.

(5) Oil Storage Tanks

Small and Medium Spills: All facility oil storage tanks are located in sized secondary containment. Oil bearing tanks are maintained according to industry standards, including inspections as indicated in the facility's SPCC Plan. Small to medium discharges from oil tanks are possible. Each tank has a volume readout with overfill alarm in the Operations & Maintenance Building. These alarms are checked periodically for proper operation. The risk of overfilling a tank is therefore low. Location of the tanks will determine the location of the spill. The probability of facility tanks failing and secondary containment failing due to stormwater filling the containment basin is low. Large spills anywhere on the facility with failed containment will eventually migrate off-site and flow to either the Hammond Ditch or San Juan River. Small spills may not migrate off-site, but the facility will respond as if the spill will migrate off-site.

(6) Vehicle Fueling

Small and Medium spills: There is one gasoline fueling station in the Warehouse yard. The gasoline AST is double-walled and has a maximum potential of 47.6 bbl release. Fueling operations are supervised by site personnel. The area around the tank is graded flat and any spills are addressed promptly.

(7) Age and Condition of Facility and Components

The facility began operations in 1960. As a result, equipment, pipes and tanks are in excellent condition and are not expected to contribute to small and medium discharges. In addition, the facility has a vigorous maintenance, repair, and/or replacement program. The facility performs routine observation of all equipment, visible pipes, and tanks and maintains, repairs, and/or replaces components as needed. As a result, equipment, pipes and tanks are in good condition and are not expected to contribute to small and medium discharges. Oil bearing facility equipment and tanks are maintained according to industry standards, including inspections as indicated in the facility's SPCC Plan. Age and condition of equipment is one consideration during formal facility inspections. Should maintenance personnel not maintain equipment properly, leaks to secondary containment are possible. Location of the equipment or tank failure will determine the location of the spill. The probability of facility equipment failing and secondary containment failing is low. Large spills anywhere on the facility grounds with failed containment will eventually migrate off-site and flow to either the Hammond Ditch or San Juan River. Small spills may not migrate off-site, but the facility will respond as if the spill will migrate off-site.

D.3.2 Factors Affecting Small & Medium Spill Response Efforts

Discharge scenarios discussed in the previous section consider the following factors, as appropriate, to site-specific conditions:

(1) Size of the discharge

The facility has sufficient manpower and equipment to respond to small spills. Spill response contractors and, if necessary, an OSRO will be used to respond to medium case spills at this facility.

(2) Proximity to down gradient wells, waterways, and drinking water intakes

No identified wells or drinking water intakes down gradient.

(3) Proximity to fish and wildlife and sensitive environments

Small spills described in the previous section will be contained within the facility boundaries and are not expected to discharge off-site. Medium discharges outside of secondary containment could reach an environmentally sensitive area. Sensitive environments and fish and wildlife are discussed in Section 6.

(4) Likelihood that the discharge will travel off-site (i.e., topography, drainage)

As described in *Section D.3.1*, it is unlikely that small or medium discharges from tanks would be released from the site. All tanks are aboveground and within secondary containment with sufficient capacity for the entire contents of the largest tank plus precipitation. Each containment dike has one outlet drain that is opened manually when needed. Spill kits are available on-site to clean up and contain small spills. In addition, the facility has access to pumps and heavy equipment available from the OSRO that can be used to respond to spills. Specific information on scenarios is described in *Section D.3.1*. Drainage directions are shown in *Figure C-2*.

(5) Location of the material discharged (i.e., on a concrete pad or directly on the soil)

See scenarios in *Section D.3.1*.

(6) Material discharged

Potential materials to be discharged are identified in *Figure D-1*.

(7) Weather or aquatic conditions (i.e., river flow)

Winter Conditions - The spill response contractor has experience and equipment necessary for working in winter conditions in New Mexico. While winter conditions may impede response times, frozen ground and may actually help contain a spill and facilitate the capture of spilled material.
Flooding/Large Storms - A release from a transfer operation or pipelines outside secondary containment could flow overland to Hammond Ditch or San Juan River. Soft ground may limit the access to the spill path, limiting berm/boom deployment to light (four wheelers) or wide-track equipment.

(8) Available remediation equipment

Available remediation equipment is covered in Section 7.

(9) Probability of a chain reaction of failures

The facility has automatic fail-safe controls to reduce the potential for a chain of events resulting in a failure and spill. As a result, the most likely cause for a chain reaction of failures would be from human error. For example, small failures to properly inspect containment discharge valves, combined with failure to properly test overfill equipment, could result in a discharge. A chain of failures such as improperly installing or operating a valve could result in a pressure surge that causes the pipe of pump to fail, resulting in a spill. The facility has a safety program where close calls and near misses are discussed and deconstructed to determine causes.

(10) Direction of discharge pathway

The small and medium discharge scenarios will follow the worst-case discharge path; therefore, *Figure C-2* are applicable to all discharge scenarios. Direction of flow from the facility equipment/operation can be determined from the Site Drainage Plan in *Figure C-2.*

D.3.3 Worst-Case Discharge Scenarios

The WCD volume for this facility is **110,000 barrels or 4,620,000 gallons** of Group 3 crude oil. Catastrophic tank failure is possible due to weld failure or some natural disaster causing a complete failure such as high winds, lightning, earthquake, heavy rains or extreme cold weather (ice and snow).

During a worst-case spill, all man-made structures are assumed to fail. The WCD for this facility is the failure of Tank 31 and the dike, causing spilled oil to flow northeast overland to a swale. Beyond the swale is Hammond Ditch which flows westward for 13 miles. The WCD scenario will also assume that the Hammond Ditch is partially blocked in the culvert north of Tank 11, causing the material to flow out of Hammond Ditch further north into the San Juan River. Although improbable, a catastrophic tank rupture could result in a liquid wave of sufficient momentum to overflow the containment dike and escape off-site.

Loading and Unloading of Surface Transportation

Large spills are not applicable in this section. See *Section D.3.1* for a discussion of discharge scenarios for loading and unloading areas.

Facility Maintenance

Large spills are not applicable in this section. See *Section D.3.1* for a discussion of discharge scenarios for facility maintenance.

Facility Piping

Large spills are not applicable in this section. See *Section D.3.1* for a discussion of discharge scenarios for facility piping.

Pumping Stations and Sumps

Large spills are not applicable in this section. See *Section D.3.1* for a discussion of discharge scenarios for pumping stations and pumps.

Oil Storage Tanks

The WCD is calculated as the entire capacity of the largest tank, which is 110,000 barrels or 4,620,000 gallons.

Vehicle Fueling

Large spills are not applicable in this section. See *Section D.3.1* for a discussion of discharge scenarios for vehicle fueling.

Age and Condition of Facility and Components

Age and condition of facility components is covered in *Section D.3.1*. The same discussion applies for large spills from tanks.

D.3.3.1 Factors Affecting Worst Case Response Efforts

The worst-case discharge scenario considers the same factors as discussed in *Section D.3.2*.

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APPENDIX E RESPONSE TECHNIQUES AND GUIDELINES

E.1 General Guidance

In the event an oil spill occurs from the pipeline, a response effort will be initiated as rapidly as possible. This section provides information to aid in the assessment of the spill's magnitude and the selection of appropriate response strategies. The sequence of response activities will generally follow those presented in the Response Decision Diagram shown in *Figure E-1*.

E.1.1 Personnel Safety

While the Company recognizes the importance of responding rapidly to an oil spill incident, personnel safety is always accorded the highest priority during response operations activities. To ensure personnel safety, the following guidelines will be observed:

1. Deployment of equipment will not be attempted when the threat of fire or explosion exists.
2. Deployment of equipment will not be attempted when flammable vapors are present or suspected, and action will not be taken until the vapors in the surrounding area have been reduced to a safe level (i.e., less than 10 percent of the lower explosive limit [LEL]).
3. Deployment of equipment will not be initiated until all personnel involved in deployment operations are wearing the required protective clothing.

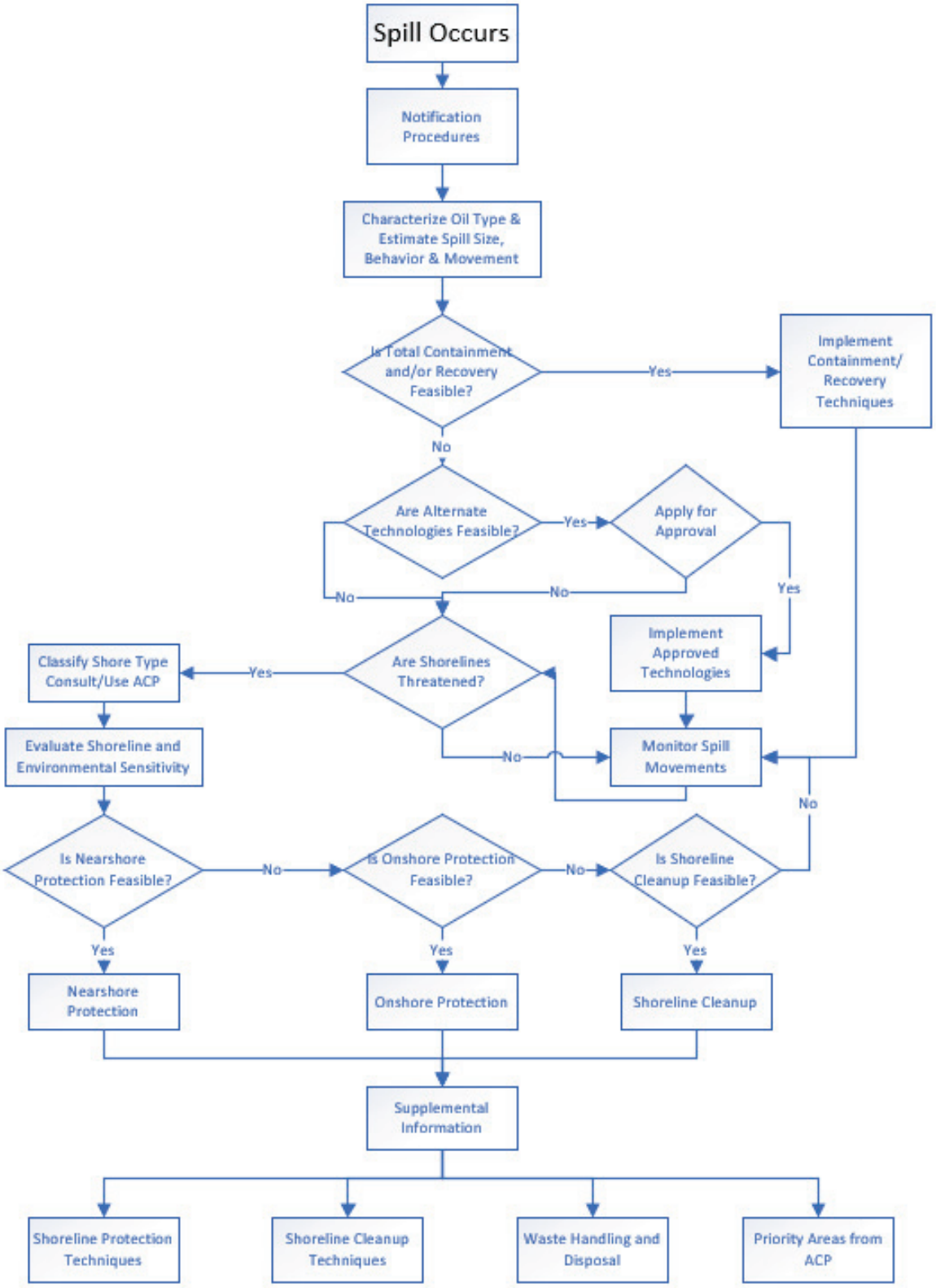
E.1.2 Protection Priorities

To the degree possible, all threatened resources will be protected. Where time or resources will not permit response to all situations (such as in major spills), the Protection Guides may be used to delegate efforts for maximum resource protection on a day-to-day basis in response to events as they unfold in the field.

In cases where resources have not yet been impacted, the setting of response priorities based on spill movement, identification of sensitive areas, and consideration of the feasibility of protective actions is relatively straight-forward. When available response time permits, sensitive areas that can reasonably be protected should be treated in the order of relative sensitivity or vulnerability.

In cases where resources have already been impacted and continued oiling is anticipated, priority judgments become less clear. Generally, if a highly sensitive and/or vulnerable resource has been only lightly oiled, its normal response priority should be maintained. If such a resource has been heavily oiled and a resource of similar value is threatened, response priority should shift to the yet unoiled resource.

Figure E-1 Response Decision Diagram



E.1.3 Environmental Controls For Cleanup Activities

Environmental controls should be implemented when selecting and implementing oil spill containment and recovery techniques. To protect environmental resources from adverse impact from cleanup activities, the following guidelines should be used:

- Cleanup activities on streams and banks of streams will be avoided, unless specifically approved by the appropriate government agencies.
- Cleanup techniques that dislodge riparian vegetation and associated invertebrates will be avoided, unless specifically approved by government agencies.
- Cleaning of marshes or vegetated shorelines will be avoided, unless specifically approved by government agencies.
- Unaffected areas adjacent to shoreline cleanup areas will be boomed off to protect them from oiling during treatment operations.
- Impact to lower emergent vegetation areas that are productive and not oiled will be minimized.
- Sorbents will be employed below oiled upper beach faces to protect emergent vegetation from oiling.
- All signs of human activity will be removed upon completion of cleanup.

All post-emergency response cleanup activities by the Company will be in accordance with those given in an approved Incident Action Plan. The Shoreline Countermeasures Manual and matrices presented in the ACP, as well as the NOAA/API document *Inland Oil Spills: Options for Minimizing Environmental Impacts of Freshwater Spill Response* should be consulted in determining appropriate shoreline cleanup techniques.

E.1.4 Description And Location Of Emergency Shutdown System

The Bloomfield Operation Center controls pumps and motor-operated valves and can provide rapid shutdown in the event of an emergency.

E.2 Incident Categorization

Incidents are classified as described below. Generally, the classifications are based on the severity of the incident as determined by the Incident Commander.

The Company operates a pipeline system, terminal/tank farm storage facilities and truck transportation system. Each of these modes of operation is faced with unique situations and/or potential incidents. As such, the classification system uses common terminology and categorizes the various hazards commonly faced by the company in order to provide a flexible framework for determining the severity of the incident and appropriate response.

Various data are considered when determining the appropriate emergency classification. These data include, but are not limited to:

- Initiating Event
  - Natural Disaster; Operational, Mechanical, System; Human Error
- Safety
  - Injuries/Fatalities
- Protective Actions
  - Evacuation, Sheltering, Personal Protective Equipment
- Surroundings
  - Community: Residential, Industrial, Commercial, Rural
- Proximity to
  - Highways, Railroads, Power Lines, Rivers or Streams, Other Waterways or Watersheds, Combustible Environments
- Commodity
  - Material: HVLs, Gasoline, Chemicals, CO2, Distillate, Crude Oil
- Plume Location
  - Concentration, Potential to affect sensitive areas or populations
- Quantity
  - Reportable Quantity, Amount Spilled, Movement/Containment of released materials
- Weather
  - Wind Velocity, Cloud Cover, Seasonal Factors, Precipitation, Fog
- Actions Taken
  - Emergency Response Organization, Emergency Management Organization (Pipeline Team), Other Company Resources activated; Non-Company Resources (Police, Fire, Regulatory Agencies) activated; Private Contractors, Consultants, Technical Experts activated. Pipeline operations suspended/shutdown and locked in.
- Capability
  - Organization Response Level: Emergency Response Organization (Pipeline Team). Other Company and Non-Company Resources involved.

Figure E-2(a & b) presents the criteria used to help determine the classification level.

E.2.1 Minor Spills Response Actions

Aquatic

In the event of a minor aquatic spill, the Company Incident Commander will activate response contractors. The following procedures will apply:

1. Shutdown pipeline operations to minimize spill volume and impacts.

2. For minor spills emanating from the pipeline, contractors will:
    a. Launch response boat and containment boom, and deploy boom.
    b. Deploy additional boom as necessary to ensure oil does not escape.
    c. Deploy recovery equipment at downstream corner of containment area to recover floating oil and use sorbent pads for sheen recovery.
    d. Maintain cleanup operations until no visible sheen is apparent.
3. For other minor spills (uncontained):
    a. Alert primary response contractor immediately. Request additional equipment and personnel if available containment and recovery equipment may not be sufficient.
    b. Launch response boat and pull containment boom into water.
    c. Deploy boom around the oil slick or in front of the leading edge to contain all or as much of the oil as possible.
    d. Bring boom ends together and begin recovering oil with recovery equipment and/or sorbent pads.
    e. If all or part of the spill is still not contained, assess wind and current direction to determine the probable trajectory of the slick.
    f. Direct primary response contractor to implement containment and recovery operations (see *Section E.5*) to control remaining oil or protection operations per the ACP if it appears oil cannot be contained prior to contacting a sensitive area.
    g. Utilize primary response or other oil spill contractors to provide rapid and complete cleanup of the spill.

Terrestrial

In the event of a minor terrestrial spill that, in the opinion of the Incident Commander, can be adequately contained and clean up with in-house equipment and personnel, the following procedures will apply:

1. Ensure personnel safety .
2. Stop the flow of the spill.
3. Begin the necessary containment and cleanup procedures. Use Response Contractor to implement the necessary techniques to limit the spread of oil.

Figure E-2(a) Minor Incident Classification

MINOR INCIDENT
Incident Command will normally be assumed by Pipeline Management. Andeavor Corporate Resources support will be utilized on an as needed basis.
Exposure
The potential Public and Environmental exposure is moderate. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have moderate impact on the public and/or the environment. Minor incidents generally include occurrences such as: • Oil spills onto pavement or impervious containment that are not greater than the portable spill retrieval equipment on-site. • Oil spills onto gravel or native soil that are less than Reportable Quantities and are not believed to directly threaten groundwater. • Oil spills to water that are readily corrected by self-deployed spill pads and sorbents.
Degree of Control
The incident can be controlled in a short period of time through implementation of the local resources available to the facility (including contract resources).
Governmental Involvement
Government involvement will be moderate and generally restricted to State and Local levels.
Media Involvement
Media interest will be moderate and generally restricted to State and Local Levels.

Figure E-2(b) Serious Incident Classification

SERIOUS INCIDENT
Local Company resources may have to be supplemented with Incident Management Team (IMT) resources to manage the spill incident.
Exposure
The potential Public and Environmental exposure is moderately high. The type and quantity of material released, while considering the overall nature of the incident (e.g., fire, proximity to private dwellings, etc.), will have moderately high impact on the public and/or the environment. Serious environmental incidents include: • Oil spills that require OSRO participation and skimming equipment deployment. • Oil spills or chemical releases that have or will likely result in significant interest by the regulatory agencies. Significant regulatory interests include NOVs or citations issued on-site and/or regulatory personnel requesting additional personnel from the same or other regulatory jurisdictions. • Oil spills or chemical releases that have or will likely result in significant interest by the press. This includes the arrival of radio, newspaper or television press personnel at the scene, or a subsequent request for a detailed telephone interview on the incident. • Oil spills that have directly impacted or oiled wildlife. • Chemical releases resulting in on-site evacuations. • Chemical releases resulting in off-site impacts, shelter-in-place notifications or evacuations.
Degree of Control
The incident can be brought under control in a moderate period of time through implementation of local resources available to the facility (including contract resources) with possible implementation of regional resources.
Governmental Involvement
Government involvement will be moderately high and generally restricted to Regional levels.
Media Involvement
Media Interest will be moderately high and generally restricted to Regional levels.

E.2.2 Major Spills Response Actions

A major spill, for the Company's purposes, is one that cannot be contained or managed using only onsite and primary response contractor equipment and personnel. In this case, the Incident Commander will immediately request the assistance of the Company Spill Management Team and primary resource contractors. The initial response actions to be taken for major aquatic and terrestrial spills are as follows.

Aquatic

The initial response actions implemented by the local Immediate Response Team (IRT) in the event of a major spill will focus primarily on personnel safety, controlling the spill near its source, and providing the first line of defense until outside resources arrive. The procedures the Incident Commander should consider are listed below in the recommended order of implementation.

1. Ensure personnel safety.
2. Stop the flow of oil at the source.
3. Initiate slick surveillance and tracking procedures.
4. Request assistance from Company Spill Management Team and primary response and other contractors, as necessary.
5. Deploy the available boom downstream of the source and/or in front of the slick's leading edge to contain as much of the oil as possible.
6. If the spill is continuing, anchor the boom in place and use a skimmer to begin recovering oil as it becomes contained by the boom.
7. If the spill is not continuing, recover the contained oil as soon as possible by skimming or with sorbents and redeploy the boom to contain additional oil or protect sensitive areas as outlined in the ACP.

8. Estimate the probable spill trajectory and identify the sensitive areas at risk per the ACP.
9. Using the ACP, determine a strategy for exclusionary, diversionary, and collection booming.
10. Continue to monitor spill movement and begin developing an overall spill response plan in conjunction with the FOSC/SOSC.
11. Set up interim waste storage sites and begin making arrangements for waste characterization and disposal.

Terrestrial

The immediate response procedures implemented by the IRT in the event of a major terrestrial spill will focus primarily on personnel safety, limiting the spread of oil, and preventing any offsite migration. The Incident Commander should consider the procedures listed below in the recommended order of implementation.

1. Ensure personnel safety.
2. Eliminate sources of ignition.
3. Evacuate the area if extreme fire or explosion hazard exists; notify local police, fire department, and Company Spill Response Team.
4. If safe, stop the flow of oil at the source.
5. If spill is within a containment area, block storm drains and construct containment and/or diversion berms to limit the spread of oil and direct the flow to natural depressions or containment areas.
6. If spill is outside of a containment area, implement containment techniques to limit the spread of oil and prevent oil from entering the water.
7. Request assistance from Company Spill Management Team, primary response, and other contractors as needed.
8. Begin recovering contained oil immediately by pumping, using vacuum trucks and/or sorbents to minimize penetration into the substrate.
9. Set up interim waste storage site(s) and begin making arrangements for waste characterization and disposal

Figure E-2(c) Major Incident Classification

MAJOR INCIDENT
Maximum Company and external resources must be implemented to respond to the spill incident. Activation of the Company Response Team would be anticipated during a major incident.
Exposure
The potential Public and Environmental exposure is significant. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have significant impact on the public and/or the environment.
Degree of Control
Maximum Company and third-party resources must be implemented in order to gain control of the incident.
Governmental Involvement
Government involvement will be intense.
Media Involvement
Media interest will be intense.

Major Spill Plan Implementation

In the event of a major spill, the Company must implement this OSRP to the full extent including the activation of the Company Spill Management Team and a number of response/support service contractors. At this point, the Incident Command post may be moved to another suitable location. In

addition to the immediate response procedures discussed above, other key initial actions that should be taken when responding to a major spill are outlined below.

1. Establish a Command Post – If the majority of the spill activities are conducted at some distance, a mobile command post may also be established at a more central location using trailers.
2. Establish Communications Systems – Refer to information provided in *Section 7* of the OSRP for communications information including radio and telephone lines.
3. Site Control and Access – The local sheriff/police department or security service should be contacted to cordon off spill area and allow access to authorized personnel only. Photo identification badges should be issued to all response workers but with an easily identifiable differentiation between Company and contractor personnel.
4. Logistical Support – Arrangements for housing, transportation, meals, supplies, and other logistical support should be initiated for response and support personnel anticipated to be involved in the spill response. The Local Emergency Planning Committee (LEPC) should be consulted to assist in these arrangements.
5. Waste Management – Establish a system for the handling, transport, temporary storage, characterization, and disposal of liquid/solid wastes generated by the spill response. Interim waste storage sites should be identified and constructed, equipment and personnel should be acquired and designated to handle and transfer wastes from the recovery points to the waste storage sites. Potential waste disposal/treatment sites should be identified along with their waste acceptance criteria and profile requirements. *Section 7* provides information on waste management.
6. Government and Public Liaison – Establish a plan and designate personnel to coordinate and maintain communications with response contractors, government agencies, the media, and the public.
7. Public Information – Use the news media to distribute information regarding the nature of the incident and actions underway to mitigate the impacts. A successful response often depends on timely and accurate public information.
8. Equipment Staging Area(s) – Establish areas adjacent to the spill site for equipment staging and deployment.

E.2.3 Climatic and Hydrographic Conditions

The prevailing climatic and hydrographic conditions at the time of a spill can influence a variety of response factors and should be quantified to the extent practical and as soon as possible following the discovery of a spill. Key climatic and hydrographic conditions and affected response factors are:

- Wind speed and direction – Aquatic spill trajectories, vapor plume dispersions, boom deployment, technique effectiveness, vessel and aircraft safety, and others.
- Current speed and direction – Aquatic spill trajectories, boom deployment, technique effectiveness, shoreline access restrictions, and others.
- Visibility – Spill movement tracking and surveillance and aircraft and vessel safety.

- Temperature – Spill volatility, worker productivity and safety, equipment effectiveness, and others.

Wind speed and direction may need to be approximated using best judgment. If an accurate estimate is required, contact the National Weather Service.

Visibility is determined by visual estimates concerning both the horizontal and vertical distances within which objects are clearly visible. The vertical visibility (or ceiling) is typically limited by low cloud cover or overcast conditions but can also be dramatically reduced by heavy fog. Lateral visibility is influenced by fog or heavy rain or snow. In general, normal aircraft operations are restricted to ceilings greater than 500 feet and horizontal visibility in excess of 0.5 miles.

Temperature can be determined using an outdoor thermometer or by calling the local weather service or airport. Only temperatures below freezing or above 80 to 90° are of concern to oil spill response operations. Temperatures above or below this range can adversely affect productivity and the health and safety of response personnel.

The climate of New Mexico is generally semiarid to arid, though areas of continental and alpine climates exist, and its territory is mostly covered by mountains, high plains, and desert. The Great Plains (High Plains) are in Eastern New Mexico, similar to the Colorado high plains in eastern Colorado. The two states share similar terrain, with both having plains, mountains, basins, mesas, and desert lands. New Mexico's average precipitation rate is 13.9 inches a year. The average annual temperatures can range from 64 °F in the southeast to below 40 °F in the northern mountains. During the summer, daytime temperatures can often exceed 100 °F at elevations below 5,000 feet, the average high temperature in July ranges from 97 °F at the lower elevations down to 78 °F at the higher elevations.

In January, the coldest month, average daytime temperatures range from the middle 50s in the southern and central valleys to the middle 30s in the higher elevations of the north. Minimum temperatures below freezing are common in all sections of the State during the winter, but subzero temperatures are rare except in the mountains.
The freeze-free season ranges from more than 200 days in the southern valleys to less than 80 days in the northern mountains where some high mountain valleys have freeze in summer months.

Additional real time weather information can be found at the following web sites:

- http://atlwx.com/wxRadar/
- http://www.nws.noaa.gov/view/largemap.php
- http://climate.umn.edu/

E.3 Predicting Slick Movements

E.3.1 Factors Affecting Slick Movement

The movement of spilled oil on the water would depend primarily on the effects of wind and surface currents present near the site of the spill. Surface currents will dominate slick movement unless the winds are strong. When winds are strong, they will cause the slick to move at approximately 3 percent of the wind speed in the same general direction. When currents and strong winds are absent, slick spreading will dictate slick movement. However, even if only weak winds or surface currents are present, they will dominate slick movement

E.3.2 Surveillance Guidelines

Surveillance operations would be essential to the conduct of response operations. Through surveillance, the Incident Commander (IC) can determine:

- The areal extent of the affected area.
- The direction of slick movements.
- The position of the slick in relation to unaffected environmentally and/or economically sensitive areas.
- Slick characteristics.
- Areas of heaviest oil concentrations including estimates of slick thicknesses.
- The location of wildlife.
- The location of response equipment.
- The location and degree of oiling on affected shorelines.

With this information, the IC can maintain tracking of the spill response resources under his/her command, moreover, those conducting surveillance can take videotapes and/or photographs that can be used for documentation purposes.

If possible, aircraft could be dedicated to surveillance operations. This does not mean that the aircraft cannot be used for other operations, but that surveillance operations would always be granted priority treatment.

Surveillance Resources Readily Available in the Local Area

Surveillance resources readily available in the local area consist of helicopters and fixed-wing aircraft which can be contracted at the time of a spill.

E.4 Establishing A Command/Communications Post And Staging Areas

The following procedures provide an outline for establishing a Central Command/ Communications Post and staging areas. It is recognized that these procedures may be somewhat dependent upon the size of the incident. Therefore, an outline of general procedures for establishing a Command/ Communications Post and staging areas in the case of a major spill is provided. A major spill may require larger facilities and additional or larger staging areas. In such a case, the exact location for establishing command and communication posts and staging areas may not be definable until the area of impact is known.

Generalized procedures are followed by pre-designated locations for command and communication posts and staging areas that are designed to deal with localized and more site-specific oil spills.

E.4.1 Command/Communications Post

A Command/Communications Post would be established to serve as the primary location for the Command Staff activities and various meetings and briefings held throughout response operations. The actual location of the Command/ Communications Post would depend upon the specific circumstances surrounding the incident. The Logistics Section Chief would be responsible for establishing the Command/Communications Post and should include:

- Proximity to incident location.
- Sufficient size to allow response personnel to operate effectively and comfortably.
- Room for conferences, Unified Command meetings, and media briefings.
- "Situation Room" with maps to track the spilled oil, response equipment locations, sensitive resource maps, lists of personnel and telephone numbers, and organization charts.
- Telephone and fax lines.
- Security.
- Office support systems (e.g., fax machines, copiers, telephone lines, computers, file system, AM radios, VHF/UHF radio telephone, base communication station, etc.).
- Communications system that would be used in an event could include: cellular telephones, local telephone system, company radios in vehicles and base stations, and pagers as conditions warrant.

E.4.2 Field Command Post

A Field Command Post may also be established at the scene of an incident. The primary function of the Field Command Post is to conduct all activities which are directed toward reduction of the immediate hazard, including recovery and cleanup operations.

E.4.3 Staging Areas

In a major spill response, numerous staging areas may be required to support containment and cleanup operations. Staging areas would need to be equipped with prime movers, cranes, and other machinery necessary to load/unload response equipment and supplies to trucks, vessels, etc. Personnel at staging areas need to establish inventory control systems to track equipment use. In selecting a suitable staging area, the following criteria should be considered:

- Direct access to impacted areas.
- Proximity to secure parking, airports, docks, pier or boat launches.
- Ability to be a secured area.
- Proximity to populated areas or environmentally-sensitive areas.
- Adequate lighting.

E.5 Containment And Recovery

This section describes the techniques that can be employed to contain and recover spilled oil. Containment is most effective when conducted near the source of the spill. The feasibility of effectively implementing containment and recovery techniques is generally dependent on the size of the spill, available logistical resources, implementation time, and environmental conditions or nature of the terrain in the spill area.

Aquatic spill containment is primarily conducted through the use of oil spill containment booms whereas skimmers are usually the most efficient means of recovery. Pumps, vacuum systems, and sorbents can also be effective. For terrestrial spills, trenches and earthen berms or other physical barriers are most often used to contain oil migrating on or just beneath the ground surface. Recovery of free oil from the ground surface is best achieved by using pumps, vacuum systems, and sorbents. Containment and recovery techniques are summarized in *Figure E-3*. The Cleanup Guides presented in this Appendix can aid in determining appropriate techniques.

E.5.1 Terrestrial Spills

Containment and recovery of terrestrial spills is best achieved by using an earthen containment berm, trenches, or physical barriers within a natural or man-made drainage course (generally preferable as the oil is already partially contained and concentrated). The presence of existing drainage courses or containment structures is often critical to effective containment of large terrestrial spills as most containment techniques for flat surfaces do not provide a significant amount of storage capacity. A detailed description of berms, dams and barriers is presented in this Appendix.

Technique selection

The primary factors influencing terrestrial containment and recovery are:

- Size – Most containment techniques provide limited storage capacity.
- Slope – Berms and barriers are generally less effective on steeper slopes and accessibility may be limited.
- Surface Texture – Rough surfaces with natural ridges and depressions enhance containment and should be taken advantage of whenever possible.
- Substrate Permeability – Highly permeable sediments will allow rapid penetration of oil into the substrate thus complicating containment and recovery.
- Existing Draining Courses – Oil is more easily contained and recovered if it is flowing within, or can be diverted to, existing natural or man-made drainage structures.
- Stormwater Runoff – Runoff generally requires the containment of larger quantities of liquids and complicates oil recovery.

E.5.2 Aquatic Spills

Effective containment and recovery of aquatic spills depends, in part, on the spill circumstances, how quickly the techniques can be implemented, and the prevailing environmental conditions. Regardless of the size of the spill, containment is most effective if conducted at or near the source of the spill before the spill spreads into a large area. The larger the area covered by the spill, the more equipment and manpower will be required. Containment at or near the source is also often associated with thicker layers of oil within the containment booms which, in turn, increases the efficiency of most skimmers.

The prevailing environmental conditions can affect containment and recovery, both in terms of effectiveness and deployment of equipment. In high winds, currents, and waves, equipment deployment is difficult and often unsafe. Wind and currents can add significant tension on containment booms making it difficult to anchor the booms in place, strong currents can also cause entrainment of oil in the water stream flowing beneath the boom resulting in ineffective containment.

Technique selection

On-water recovery techniques are described in detail in this Appendix. Selection of an appropriate aquatic containment and recovery technique depends on a number of factors, including:

- Current Speed – Surface currents >1 knot can cause boom failure or entertainment of oil beneath the boom.
- Water Depth – Depths >50 feet can complicate boom anchor placement whereas depths <2 feet can preclude effective boom use. Depths <5 to 10 feet can also preclude the use of larger boats for open water containment.
- Channel Width – Widths >200 to 300 feet will generally preclude using booms to completely contain oil floating in the waterway, particularly if strong currents are present.
- Wave Height – Breaking waves 0.5 to 1 feet will respectively render most booms and skimmers ineffective.
- Slick Thickness – Recovery effectiveness with pumps/vacuum systems and skimmers decreases with slick thickness becoming relatively ineffective for very thin slicks or sheens.
- Shoreline Access – Obstacles (i.e., rocks, debris, etc.) in the water or within steep or densely vegetated backshores could restrict access and present safety and operational problems.
- Anchor Points – Soft bottom substrates can affect boom anchor placement.
- Safety – High currents, winds, and waves, large obstacles, and other dangerous conditions could present safety hazards and preclude technique implementation.

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Figure E-3 Summary of Containment and Recovery Techniques

TECHNIQUE	DESCRIPTION	PRIMARY LOGISTICAL REQUIREMENTS	LIMITATIONS[1]	POTENTIAL ENVIRONMENTAL EFFECTS
Terrestrial Spills – Containment				
A. Containment/ Diversion Boom	Construct earthen berms ahead of advancing surface spill to contain spill or divert it to a containment area.	Equipment 1 – Backhoe, bulldozer, front-end loader, or set of hand tools. Personnel: 4 – 8 workers	• Steep slopes • Porous substrate	• Disturbance to surface soils and vegetation • Increased oil penetration
B. Storm Drain Blocking	Block drain opening with sediments, plastic sheet, boards, etc., and secure to prevent oil from entering drain.	Equipment Misc. hand tools; 1 – Board, plastic sheet, mat, etc. Personnel: 1 – 2 workers	• May be advantageous for oil to enter drain • Heavy precipitation	• Increased oil penetration • Oil can spread to other areas
C. Blocking Drains	Construct dam in drainage course/ streambed to block and contain flowing oil. Cover with plastic sheeting.	Equipment 1 – Backhoe, bulldozer, front-end loader, or set of hand tools. Personnel 4 – 6 workers	• Upstream storage capacity • Flowing water	• Increased oil penetration
D. Culvert Blocking	Block culvert opening with plywood, sediments, sandbags, etc. to prevent oil from entering culvert.	Equipment Misc. – Hand tools; Misc. – plywood, sandbags, etc. Personnel 3 – 4 workers	• Upstream storage capacity • Flowing water	• Increased oil penetration
E. Interception Trench/ Barrier	Excavate trench or install barrier ahead of advancing surface/near-surface spill to contain spill. Cover bottom and down-gradient side with plastic.	Equipment 1 – Backhoe, set of hand tools Misc. – plastic sheeting or plywood/ sheet material Personnel 3 – 6 workers	• Slope • Depth to near-surface flow	• Increased oil penetration • Disturbance to surface soils and vegetation
F. Shoreline Containment Booming	Deploy boom around point of oil entry into water and anchor to shoreline on either side.	Equipment 1 – Boat 100 feet – boom (min.) 3 – Anchor systems (min.) Personnel 2 – 3 workers	• Currents > 1 to 2 knots • Waves > 1 to 2 feet • Water depths > 50 feet	• Minor disturbance to substrate at anchor points • Heavy oiling of shoreline within booms and associated impacts

Aquatic Spills – Containment and Recovery				
G. Narrow Channel Containment Booming	Boom is deployed across channel at an angle to contain floating oil passing through channel.	Equipment 1– Boat, vehicle or winch 1 to 2 Booms (1.2 channel width ea.) 2 to 10 – Anchor systems Personnel 2 – 3 workers	• Currents > 2 to 3 knots • Water depths > 50 feet (anchoring) • Sensitive shorelines	• Minor substrate disturbance at anchor points • Heavy shoreline oiling at downstream anchor point
H. Sorbent Barriers	A barrier is constructed by installing two parallel lines of stakes across a channel, fastening wire mesh to the stakes, and filling the space between with sorbents.	Equipment (per 100 feet of barrier) 1 – Boat 20 – Fence posts 200 feet – Wire mesh 200 sq. feet – Sorbents Misc. – Hand tools, fasteners, support lines, additional stakes, etc. Personnel 2 – 3 workers	• Water depths > 5 to 10 feet • Currents > 0.5 knots • Soft substrate	• Minor substrate disturbance at post and shoreline anchor points • High substrate disturbance if boat is not used
I. Skimmers	Portable skimmers are placed within containment booms in the area of heaviest concentration.	Equipment (Portable) 50 feet – Hoses (min.) 1 – Pump (if required) 500 gallons – Storage (min.) Personnel 2 – 3 workers	• Waves > 0.5 to 1 foot • High winds • Currents > 2 knots	• No significant effects
J. Sorbents	Sorbents are applied manually to heavy oil coatings or accumulations on land or sheens on water to recover the oil.	Equipment Misc. – Sorbents, bags or containers for oiled sorbents Personnel 1 – 10 workers	• Very light or weathered oil coatings/sheens • Steep or slippery shorelines	• Significant substrate disturbance • Foot traffic can trample vegetation/crush organisms • Possible ingestion of residual sorbents by animals

(1) In addition to implementation time and accessibility

NOTE: The quantities, type of equipment and manpower shown in this table are based on experience in performing each individual task. Necessary containment/cleanup techniques will be used in the appropriate timeframes. As needed, the Company will allow input from response contractors with regard to an evaluation of the scope of cleanup activities and the availability and location of spill response resources.

E.6 Sensitive Area Protection

In the event of an aquatic spill from the Company pipeline, it may be necessary to protect sensitive areas if it appears that open water oil containment and recovery efforts will not be sufficient to control the entire spill. Protection refers to the implementation of techniques or methods to prevent oil from making contact with a shoreline or aquatic area that is determined to be sensitive for environmental, cultural, or human use reasons. Sensitive areas in the vicinity of the pipeline include: wildlife refuges, water intakes, waterfront industrial facilities, parks or other recreation areas and shorebird and waterfowl use areas. Sensitive areas are displayed on the maps in *Section 6*.

The common protection techniques are summarized in *Figure E-3* (complete descriptions are presented in this Appendix). Selected containment and recovery techniques listed in this Appendix (e.g., open water and narrow channel containment booming and sorbent barriers [see *Figure E-4*]), can also be used for protection purposes.

E.6.1 Oiled Wildlife Rehabilitation

The rehabilitation of oiled wildlife is a complex and intensive process that includes the retrieval of affected animals, treatment for toxic effects of the oil, medical treatment, careful cleaning, specialized care and feeding, and preparation for release.

In New Mexico, this responsibility rests with the New Mexico Department of Game and Fish. Contact phone numbers are listed in *Sections 3* of this OSRP.

The New Mexico Department of Game and Fish are responsible for initiating and coordinating all wildlife rescue efforts. The Company will support these efforts and supply equipment as requested through the Unified Command.

The Company recognizes that the rehabilitation of oiled waterbirds is a specialized activity and will call upon the services of the Wildlife Rescue Inc. to carry out the established rehabilitation procedures.

E.6.2 In Situ Burning And Dispersant Application

The Company Spill Management Team is trained in the use of dispersants and burning techniques for spill response. The team has immediate access to dispersant and burning equipment through contracts with OSROs around the country. It is required that before any in situ burning begins the Unified Command will receive, review and approve a written In Situ Burn Plan.

While the use of dispersants is gaining recognition as a viable response technology in the U.S., the use of dispersants in inland areas (e.g., rivers and lakes) will not be considered.

Figure E-4 Summary of Aquatic Protection Techniques

TECHNIQUE	DESCRIPTION	PRIMARY LOGISTICAL REQUIREMENTS	LIMITATIONS[1]	POTENTIAL ENVIRONMENTAL EFFECTS
A. Exclusion Booming	Boom is deployed across or around sensitive areas and anchored in place. Approaching oil is excluded from the area.	Equipment (per 500 feet of boom) 1 – Boat 6 – Anchor systems 750 feet – Boom (min.) Personnel 3 workers + boat crew	• Currents > 1 to 2 knots • Waves > 1 to 2 feet • Water depth > 50 feet (anchoring)	• Minor substrate disturbance at anchoring points
B. Diversion Booming	Boom is deployed from the shoreline at an angle towards the approaching slick and anchored or held in place with a work boat. Oil is diverted towards the shoreline for recovery.	Equipment 1 – Boat 3 – Anchor systems (min.) 100 feet – Boom (min.) Personnel 3 workers + boat crew	• Currents > 2 to 3 knots • Waves > 1 to 2 feet • Water depth > 50 feet (anchoring) • Sensitive shorelines	• Minor substrate disturbance at anchoring points • Heavy oiling at shoreline anchor point
C. Deflection Booming	Boom is deployed from the shoreline away from the approaching slick and anchored or held in place with a work boat. Oil is deflected away from the shoreline.	Equipment 1 – Boat 5 – Anchor systems 200 feet – Boom Personnel 3 workers + boat crew	• Currents > 2 to 3 knots • Waves > 1 to 2 feet • Water depth > 50 feet (anchoring) • Onshore winds	• Minor substrate disturbance at anchoring points • Oil is not contained and may contact other shorelines
D. Inlet Dams	A dam is constructed across the inlet or channel using local shoreline sediments to exclude oil from entering inlet. Dam can be covered with plastic to minimize erosion.	Equipment 1 – Backhoe, bulldozer, front-end loader, or set of hand tools 1 – Plastic sheeting roll Personnel 2 – 6 workers	• Water outflow • Inlet depth > 5 feet • Excessive inlet width	• Sediment/vegetation disturbance at borrow areas • Inlet substrate disturbance • Increased suspended sediments • Water in inlet can become stagnant

[1] In addition to implementation time and accessibility.

NOTE: The quantities, type of equipment and manpower shown in this table are based on experience in performing each individual task. Necessary containment/cleanup techniques will be used in the appropriate timeframes. As needed, the Company will allow input from response contractors with regard to an evaluation of the scope of cleanup activities and the availability and location of spill response resources.

E.7 Protective Action Procedures

This section provides descriptions of the implementation for various protective action procedures. Based on incident specific information, the responder can choose the most appropriate technique or combination of techniques. The techniques and procedures described in these Sections are intended to be flexible, and the responder is encouraged to modify the techniques as necessary to meet site-specific criteria.

E.7.1 Protection Priorities

To the degree possible, all threatened resources will be protected. Where time or resources will not permit response to all situations (such as in major spills), the following guidelines may be used to delegate efforts for maximum resource protection on a day-to-day basis in response to events as they unfold in the field.

In cases where resources have not yet been impacted, the setting of response priorities based on spill movement, identification of sensitive areas, and consideration of the feasibility of protective actions is relatively straight forward. When available response time permits, sensitive areas that can reasonably be protected should be treated in the order of relative sensitivity or vulnerability. The basic sequence of considerations for the determination of response priorities is indicated in the priority guide, Guide 2-1.

In cases where resources have already been impacted and continued oiling is anticipated, priority judgments become less clear. Generally, if a highly sensitive and/or vulnerable resource has been only lightly oiled, its normal response priority should be maintained. If such a resource has been heavily oiled and a resource of similar value is threatened, response priority should shift to the yet unoiled resource.

E.7.2 Protection Method Selection

As a result of the infinite number of combinations of environmental conditions, no two spills will be identical. Each spill must be evaluated independently on the basis of incident- specific conditions. Therefore, in lieu of identifying specific protection measures, the following subsections provide the decision-making criteria for evaluating and selecting the appropriate protection procedures. The specific protective action procedures referenced by the decision diagrams are presented in this section.

Inland Waters. Protective actions include those efforts intended to prevent spilled oil from entering a receiving water body and efforts to minimize damage once such water bodies have been impacted. Selection of an appropriate protection technique for an inland waters area depends on the following factors:

- Type of water body (e.g., inland waters - lakes, rivers, etc.; open water)
- Velocity of water currents
- Depth of the water
- Amount of oil

E.8 Berms, Dams And Barriers

E.8.1 Blocking Dams

- **Use**. Dams are constructed across streambeds, ditches, or other dry drainage courses to block and contain any flowing oil and to prevent oil migration.
- **Limitations**. Accessibility, implementation time, adequate storage behind the dam, flowing water, and the availability of construction materials.
- **General Instructions**. Dam locations should have high banks on the upstream side with the dam well-keyed into the banks.
- Construct the dam using on- or near-site earthen materials, sandbags, plywood sheets, or any material that blocks the flow of oil (*Figure E-5*). Excavate earthen materials from the upstream side to increase storage capacity if necessary. Oil is recovered from behind the dam by pumping or using vacuum trucks. Plastic sheeting should be placed over the dam to prevent oil penetration and erosion.
- **Equipment Required**. Bulldozer, front-end loader, backhoe, or hand tools; sand bags, plywood and plastic sheeting.
- **Maintenance**. Periodically check the dam for leaks, structural integrity, and excessive oil buildup.
- **Cleanup**. Recover remaining oil concentrations or sheen with sorbents. Remove or treat oiled sediments. Dismantle the dam or replace earthen materials in excavation site.
- **Variations**. Containment area behind the dam can be water flooded to limit oil penetration into sediments.

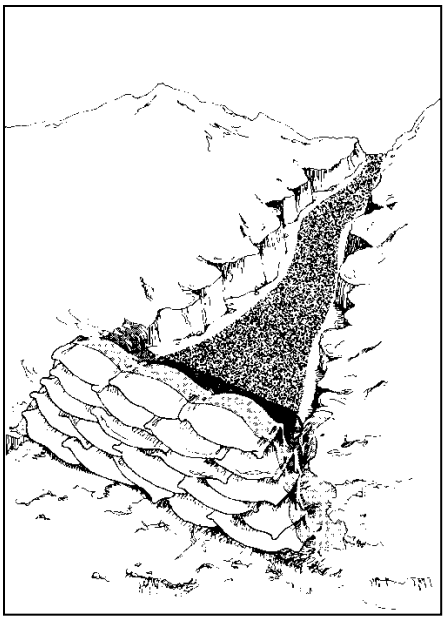


Figure E-5 Sandbag Blocking Dam

E.8.2 Flowing Water Dams

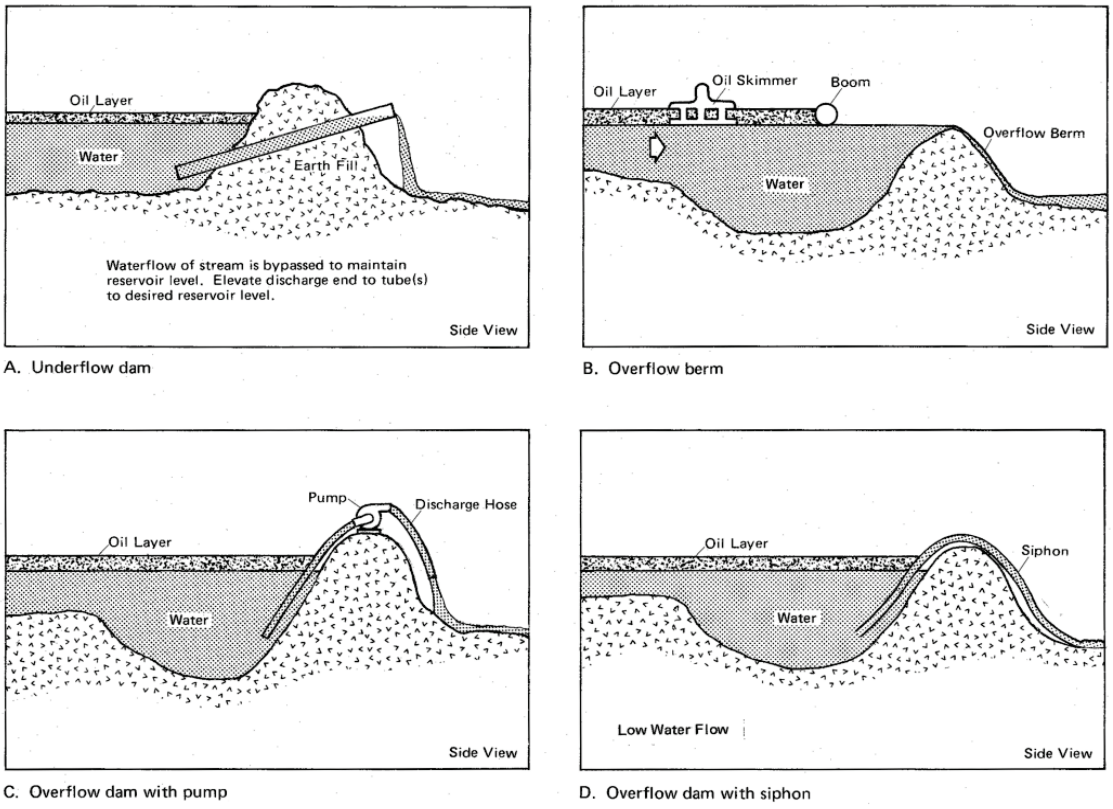
- **Use**. Dams are constructed across culverts, ditches, shallow streams, etc., to contain floating oil while not obstructing the water flow.
- **Limitations**. Accessibility, implementation time, availability of dam materials, water depth, and high current velocities.
- **General Instructions**. Dam locations should have high banks on the upstream side with the dam well-keyed into the banks. Construct dam with on- or near-site earthen materials, such as sandbags, plywood sheets, etc. If necessary, use heavy equipment or manual labor to excavate materials from the upstream side to increase dam storage capacity. Make the upstream side impermeable with plastic sheeting, if required. Underflow dams utilize inclined or valved pipes that have a flow capacity greater than the stream flow rate. Place valved pipe(s) on the streambed and build a dam on top. Adjust the valve opening(s) until a constant water/oil level is achieved behind the dam. Inclined pipes are placed in the dam at the lower end of the

upstream side. The height of the raised end determines the water level behind the dam. Both techniques are illustrated in *Figure E-6a*.

For overflow dams, water flows over the top of the dam and booms positioned be-hind the dam contain the floating oil. Construct the dam as described above and cover it with plastic sheeting to prevent erosion. Anchor the boom several feet behind the dam (*Figure E-6b*). Pumps or siphons can also be used to pass water over the dam. To be effective, the pumping rate should be greater than the stream flow rate. These techniques are depicted in *Figure E-6c and Figure E-6d*.

- **Equipment Required**. Front-end loader, bulldozer, backhoe, pipes, pumps, hoses and hand tools.
- **Maintenance**. Check dam periodically for leakage and integrity, replace eroded materials, and continually monitor water/oil level. Valved pipes, pumps, or a number of siphons may require periodic adjustment to compensate for changes in the stream flow rate.
- **Cleanup**. Remaining sheens are recovered with sorbents and dam materials are returned to borrow sites.
- **Variations**. None.

Figure E-6 Flowing Water Dams



E.8.3 Sorbent Booms/Barriers

- **Use**. Sorbent booms or barriers constructed with fencing and sorbent materials are used to contain and recover oil floating on creeks, streams. They are also effective when deployed behind skimmers to pick up oil that escapes skimmers.
- **Limitations**. Implementation time, large quantities of oil, high current velocities, and excessive water depth for barriers.
- **General Instructions**. Deploy sorbent booms across the waterway with each end anchored to the shore. Position each successive boom a few feet downstream from the previous boom.
    - Construct single-sided barriers by driving a line of posts into the stream bottom with wire mesh screen fastened to the upstream side. Place oil snare squares in front of the screens and the current will hold them in place. In tidal channels with reversing currents, construct a double-sided barrier. As depicted in *Figure E-7*, erect two parallel lines of posts across the channel and attach screen along each line of posts. Place oil snare in the area between the screens to trap floating oil and oiled debris.
    - Screen height for both types of barriers must be sufficient to prevent the scattering of loose sorbent from above or beneath the barrier as tidal flow levels change. The screen mesh must be compatible with the type and size of filler sorbent and able to withstand prevailing currents.
- **Equipment Required**. Hand tools, rope.
- **Maintenance**. Turn booms or sorbents regularly for maximum absorbency and replace them when they are completely saturated with oil. Check booms and barriers periodically for leakage or damage.
- **Cleanup**. Store used sorbents in leak-proof containers.
- **Variations**. If significant quantities of oil are to be encountered, construct multiple barriers. Recover oil pooling behind the barrier by skimming, pumping, or using sorbents.

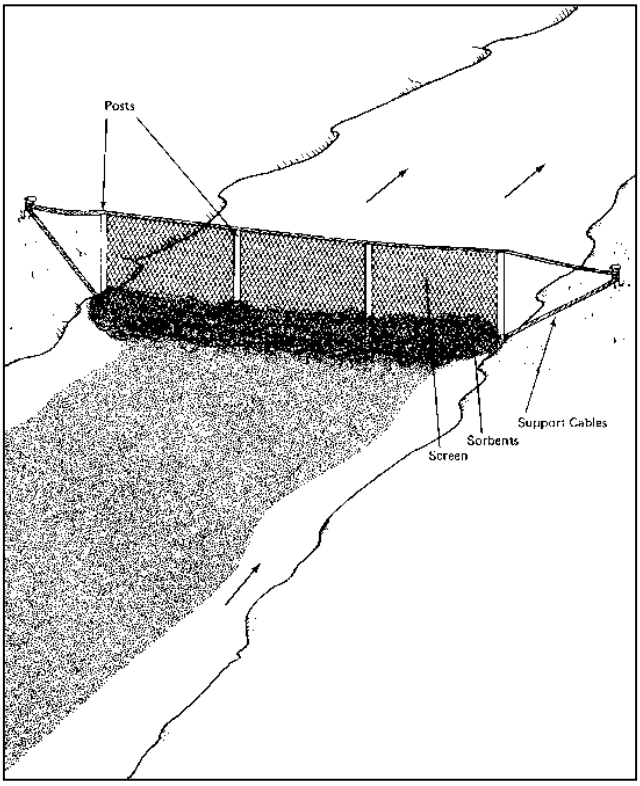


Figure E-7 Sorbent Barrier (Water)

E.8.4 Earth Containment Berms

- **Use**. Low barriers constructed with available materials (e.g., earth, gravel, sandbags, etc.) are used to contain surface oil flow on relatively flat or low-sloped terrain or wetlands.
- **Limitations**. Accessibility, implementation time, highly permeable soils and low-viscosity oils, and environmental damage inflicted by excavation of berm materials.
- **General Instructions**. Use earthmoving equipment or manual labor to construct berms by forming materials into windrows or ridges in a "horseshoe" configuration. Width of containment opening should exceed that of the leading edge of the oncoming oil. Berm height and the size of the containment area are dependent upon the physical characteristics of the oil.
- **Equipment Required**. Motor graders, bulldozers, front-end loaders, and/or hand tools.
- **Maintenance**. Check berms periodically for leakage and adequate height.
- **Cleanup**. Use sorbents to recover residual oil pools. Remove or treat oiled sediments. Backfill excavated area upon completion of cleanup operations.
- **Variations**. In areas with a high ground-water table or high soil permeability, the containment area may be flooded and/or lined with plastic sheeting to inhibit soil penetration. Oil can be recovered from the water surface by skimming. This technique is shown in *Figure E-8* and may be useful in controlling oil movement through secondary wetland drainages or wetland fringes. Earth containment berms can minimize surface disruption and restore normal circulation when cleanup has been completed.

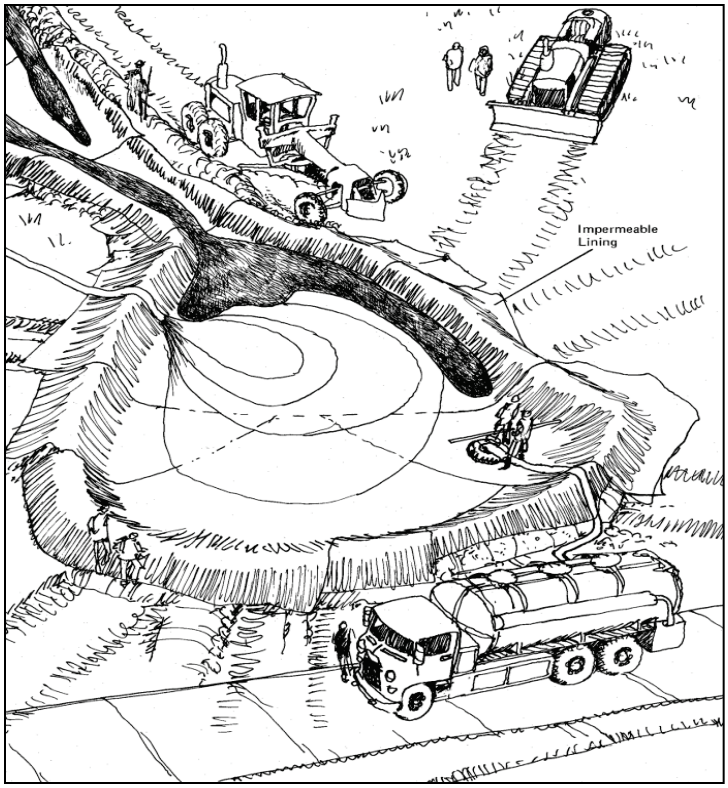


Figure E-8 Earth Containment Berm (Lined)

E.8.5 Street/Pavement Containment

- **Use**. Barriers constructed across streets or paved areas can be used to contain oil flowing onto urban streets or highways.
- **Limitations**. Storage behind barriers, implementation time, and the availability of recovery equipment.
- **General Instructions**. Construct barriers with sandbags, soil, or gravel. If coarse materials are used, the upslope side should be made impermeable with plastic sheeting or similar material. Barrier height should equal curb height. If no curb is present, construct the barrier in a "horseshoe" shape. Should a greater storage area be needed, a diversion barrier can be constructed at an angle across the street to direct oil into a parking lot or open field where a larger containment barrier has been constructed (*Figure E-9*).
  In constructing containment barriers, care must be exercised to minimize potential fire hazards. To avoid causing sparks, the blades of earthmoving equipment should not scrape the pavement, if present. The exhaust and ignition systems of on-scene motorized equipment should be shielded. (Spark arresters and elevated exhaust will be required on all equipment; use diesel-powered equipment when available.)
- **Equipment Required**. Front-end loader, hand tools and/or sandbags.
- **Maintenance**. Periodically check barrier for leakage and adequate height.
- **Cleanup**. Oiled areas should be flushed with water. Direct the spray towards the containment site where the oil can be skimmed or pumped out. Oiled barrier materials must be removed for disposal. Remaining oil can be removed with sorbents.
- **Variations**. The area behind the barrier may be flooded with water in order to float the oncoming oil. This makes recovery easier and prevents further surface oiling.

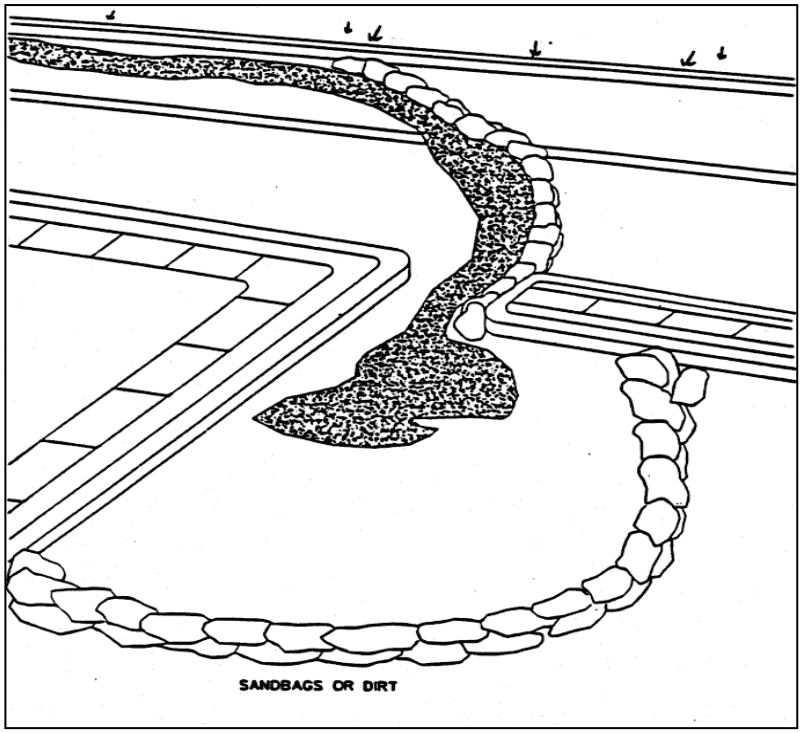


Figure E-9 Dam on a Large Paved Area

E.8.6 Culvert Blocking

- **Use**. Boards, sandbags, inflatable plugs, or earthen materials are used to block culverts as a means of containing oil flowing into ditches, creeks, or other drainage courses that feed into culverts. Culvert blocking may also be used to prevent oil from entering tidal channels that are connected to the ocean through culverts.
- **Limitations**. Accessibility, implementation time, storage area behind culvert, flowing water, and culvert size.
- **General Instructions.** Block the culverts by piling dirt, sand, or similar material over the upstream end of the culvert, thereby creating a containment dam. Sandbags or plywood sheets are also effective (*Figure E-10*). Inflatable plugs work best if available at the site.
- **Equipment Required.** Front-end loader and/or hand tools.
- **Maintenance**. Periodically check culvert for leakage.
- **Cleanup**. Remove or treat oiled sediments using techniques described in this Appendix and remove the block from the culvert.
- **Variations**. If water is flowing into a drainage ditch, it can be removed by pumping or siphoning to the culvert outlet or a near-by drainage course.
- If there is little or no storage area upslope from a culvert, it may be advantageous to permit the oil to pass through the culvert and to contain the spill at the culvert out-fall. In areas where a culvert outfall discharges into a borrow ditch, the borrow ditch can be dammed to form a storage area for the spilled oil. If there is no borrow ditch or similar structure draining the culvert outfall, a storage area can be created by constructing a horseshoe-shaped dam around the outfall (*Figure E-11*).

Figure E-10 Culvert Blocking

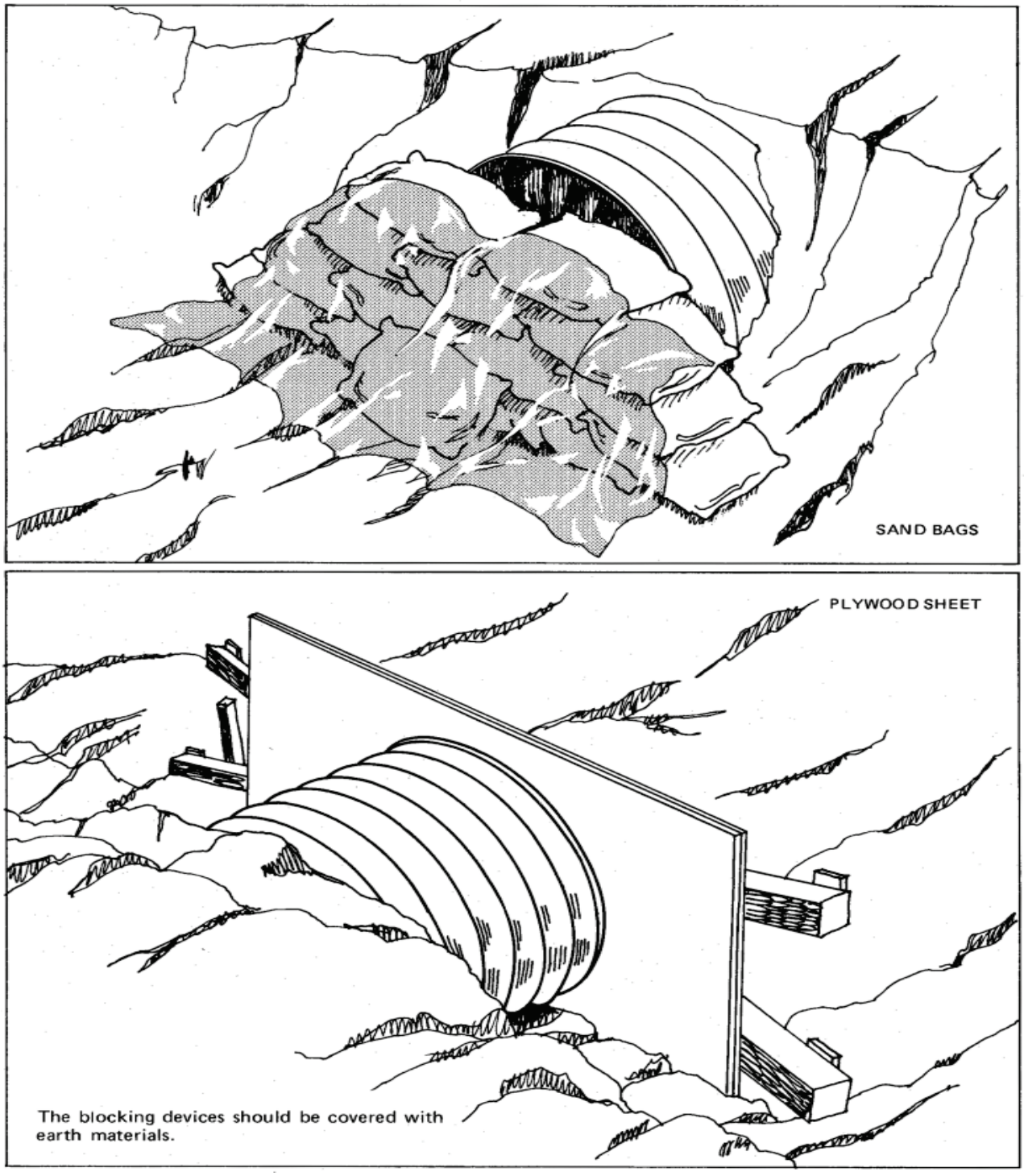
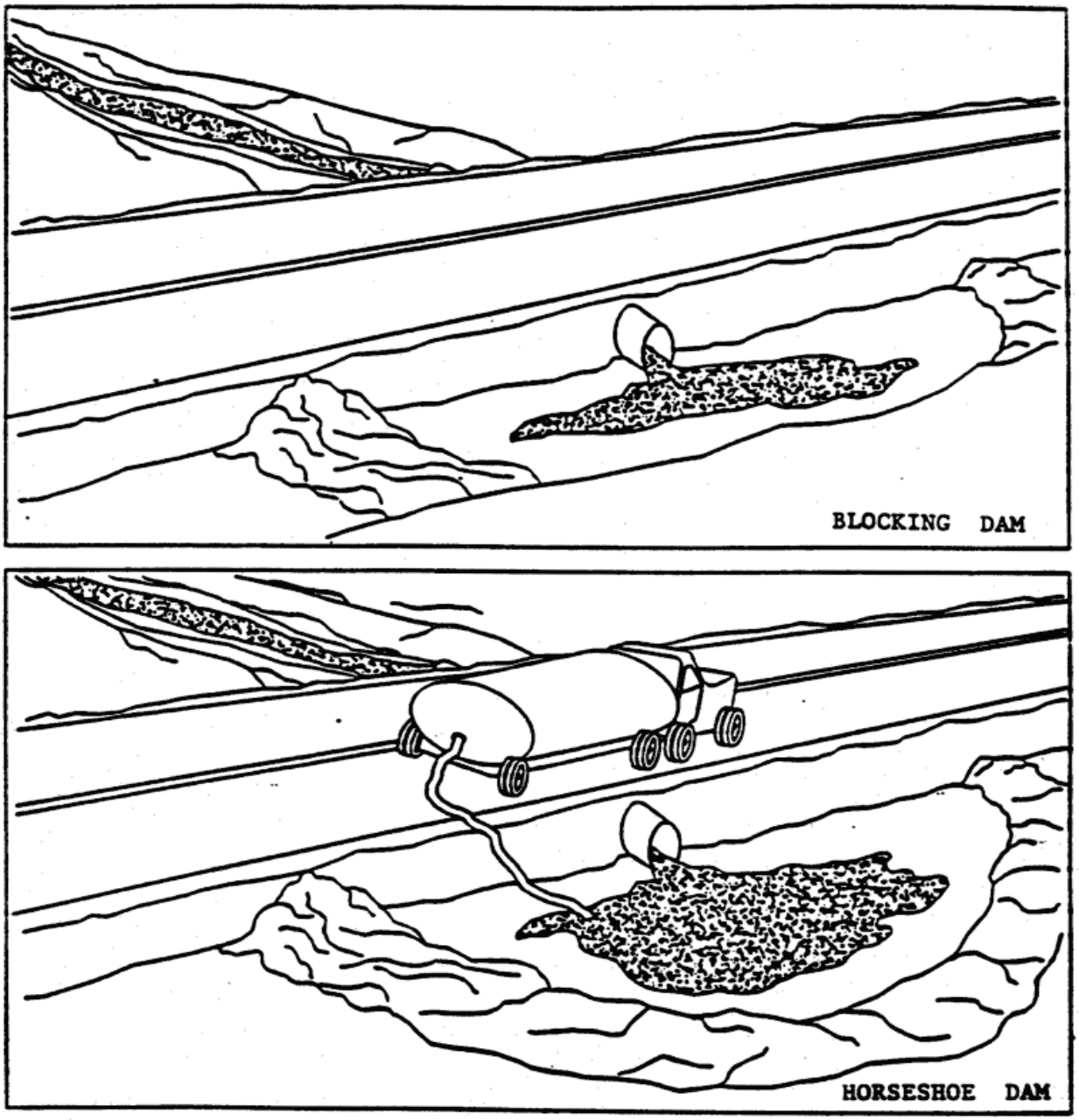


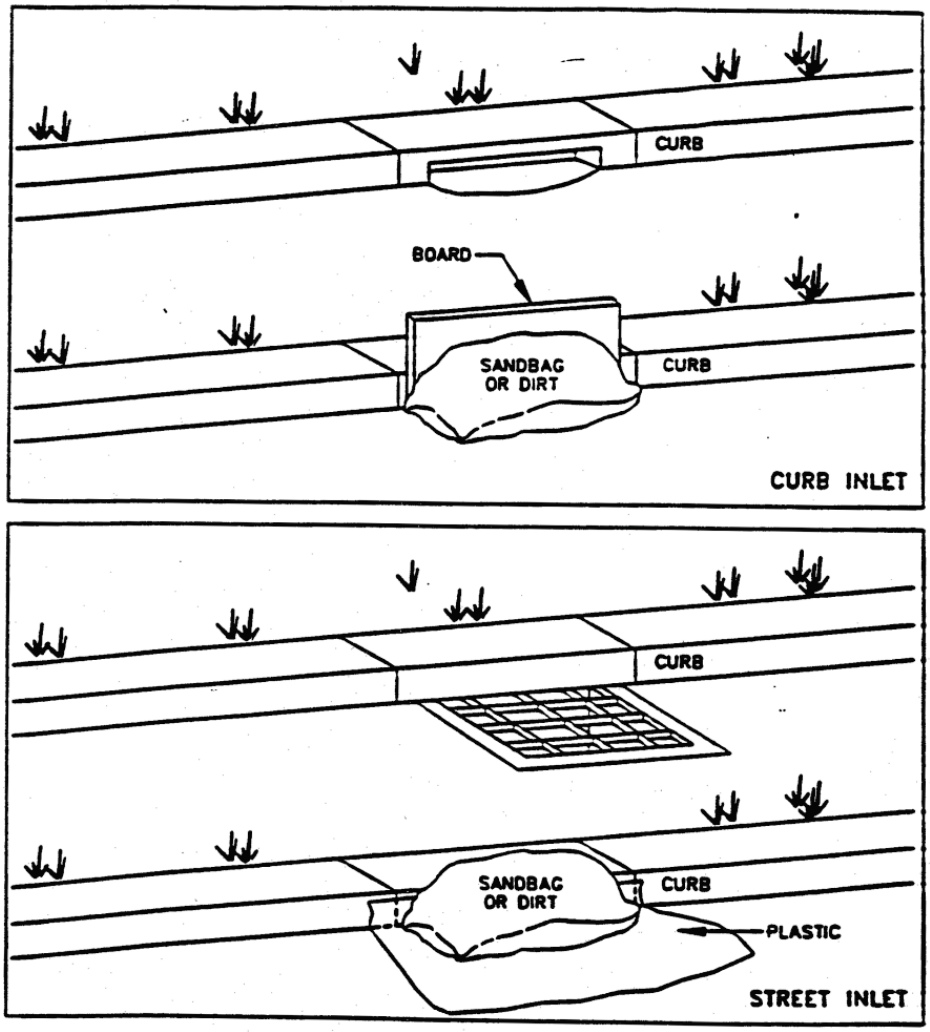
Figure E-11 Damming Flow at Borrow Ditch



E.8.7 Storm Drain Blocking

- **Use**. Sandbags, boards, and specially constructed mats are used to prevent oil spilled on roadways from entering urban storm drains.
- **Limitations**. Implementation time.
- **General Instructions**. For curb inlets, position a board over the curb inlet and hold it in place with a sandbag. Street inlets can be blocked similarly with a board or plastic sheeting. Both inlet-blocking techniques are illustrated in *Figure E-12*. Specially constructed mats can be used expeditiously if they are kept on hand.
- **Equipment Required**. Sandbags, plywood, plastic sheeting.
- **Maintenance**. Periodically check for leak-age.
- **Cleanup**. Water-flush streets to remove remaining oil. Remove blocking materials from storm drains.
- **Variations**. Other materials may be used to block inlets.

Figure E-12 Storm Drain Blocking Techniques



E.8.8 Sorbent Barrier

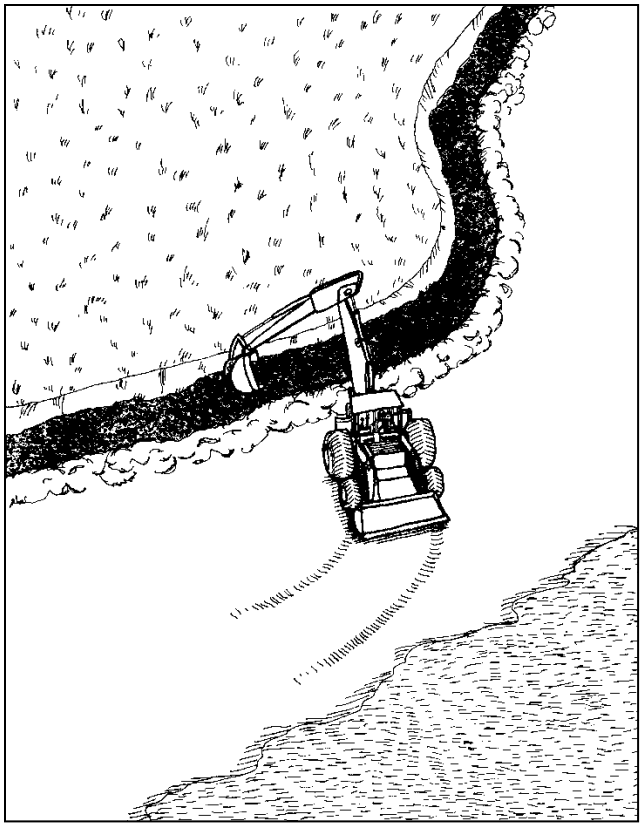
- **Use**. Low barriers constructed of sorbents stacked on the ground are used on relatively flat or low-slope terrain to contain minor oil flows and recover a portion of the oil. Sorbents used in this manner also tend to immobilize oil and can be used to limit penetration into permeable soils.
- **Limitations**. Implementation time, steep slopes, and cleanup/disposal problems.
- **General Instructions**. Stack or pile sorbents to form a continuous barrier across the entire leading edge of the advancing oil mass with the ends curved toward the on-coming flow. A sorbent barrier is shown in *Figure E-13* Collected oil is recovered by physical removal of spent sorbents or by vacuuming or pumping if quantity exceeds absorption capabilities of the sorbents.
- **Equipment Required**. No special equipment. Roll and granular sorbents generally work best.
- **Maintenance**. Turn sorbents periodically to maximize recovery and replace saturated sorbents. Add additional material as necessary.
- **Cleanup**. Place oiled sorbents in leak-proof containers (drums or plastic bags) for disposal. Do not store recovered material onsite. Minimize manpower and surface disruption during cleanup.
- **Variations**. Entire spill surface may be covered to immobilize oil.

Figure E-13 Sorbent Barrier (Land)

E.8.9 Diversion Trench

- **Use**. Excavated trenches are used to intercept surface oil flows on most terrain types and divert them to recovery points or around sensitive areas.
- **Limitations**. Accessibility, implementation time, low-viscosity oils on highly permeable soils, high water table, and environmental damage inflicted by trench excavation.
- **General Instructions**. Excavate trench in the desired direction of oil flow. Angle trench slightly downhill to avoid excessive flow backup. Trench must completely intercept the oncoming oil and divert it to the recovery point or well past the sensitive area as shown in *Figure E-14*. Trench width and depth is volume dependent. Pile excavated materials on downhill side of trench. For relatively flat areas, such as wetlands, trench depth should increase slightly towards recovery or discharge point to maintain adequate flow in that direction.
- **Equipment Required**. Backhoe, trenching machine, or hand tools.
- **Maintenance**. Periodically check for adequate flow, blockages caused by trench walls sloughing in, and debris.
- **Cleanup**. Flush trench with water (if applicable), recover remaining oil pools with sorbents, remove or treat soil, and backfill trench.
- **Variations**. Partially flood trench with water to inhibit sediment penetration and stimulate flow. Trench can be dug perpendicular to the slope to contain, rather than divert, the oil flow. In tidal wetlands, dig trenches across the mid-intertidal area to intercept incoming oil and/or collect oil draining from back areas. Oil is then diverted to recovery point by increasing the trench depth. Stranded oil can also be drained from back areas by a series of increasing depth trenches.

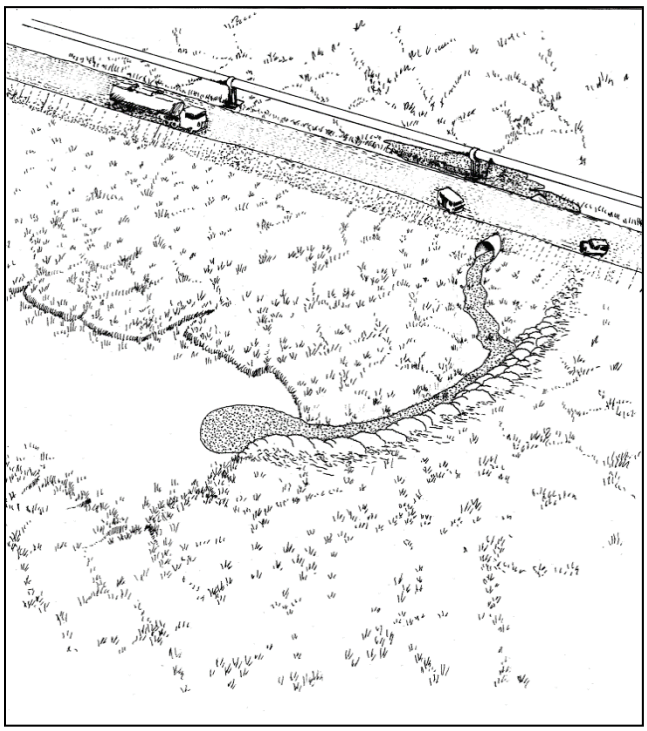
Figure E-14 Diversion Trench



E.8.10 Earth Diversion Berm

- **Use.** Low barriers are constructed of available materials (earth, gravel, sandbags, etc.) to divert oil flows to a recovery point or around a sensitive area. Used primarily on low- to moderate-slope terrains.
- **Limitations.** Accessibility, implementation time, rugged terrain, and environmental damage inflicted by berm material excavation.
- **General Instructions.** Use earthmoving equipment or manual labor to construct berm(s) by forming materials or placing sandbags in windrows or ridges along the desired path of oil flow. If onsite materials are used, excavate from the downhill side of the berm. *Figure E-15* depicts a diversion berm.
- **Equipment Required.** Bulldozer, front-end loader, motor grader, or hand tools.
- **Maintenance.** Periodically check for berm erosion, leakage, and adequate height.
- **Cleanup.** Remove or treat oiled sediments. Recover pooled oil by pumping, vacuuming, or with sorbents. Backfill excavated areas after completion of cleanup operations.
- **Variations.** In areas with little gradient, diversion berms can be constructed on each side of oil flow to limit spread and channel oil to a recovery site (e.g., excavated sump or natural depression). Berms constructed along roadways can prevent oil from crossing road and/or divert oil to a recovery site.

Figure E-15 Earth Diversion Berm



E.9 Protective Booming

E.9.1 Flowing Water Containment Booms

- **Use**. Booms are deployed at an angle across a waterway to contain oil floating downstream for subsequent recovery.
- **Limitations**. Accessibility, implementation time, current in excess of 1 knot, and water depths less than 1 foot below the boom skirt.
- **General Instructions**. Use the currents to assist in the streaming and placement of the boom. For example, anchor one boom end to the shoreline. Use a boat or winch to pull the free end across the river and anchor it slightly upstream (*Figure E-16*). The optimum deployment angle depends on current velocity, boom length, and boom stability. In general, boom length should be four times the width of the waterway. As current velocity and boom length increase, the deployment angle relative to the shoreline decreases. To improve boom stability, anchor it in several places.
    - Remove oil from the downstream end of the boom by skimming, pumping, or using vacuum trucks. A containment pit dug into the shoreline can expedite the containment and recovery process (*Figure E-17*).
- **Equipment Required**. Boat or winch, anchors, backhoe (to dig containment pit), and hand tools.
- **Maintenance**. Periodically check the boom for leakage and adjust its placement angle, if necessary. Also, check the boom for twisted, damaged, or submerged sections. Check anchors for security.
- **Cleanup**. Remaining sheens are recovered with sorbents. Booms are removed.
- **Variations**. For fast moving streams, deploy two or more booms from each bank with one positioned slightly downstream from the other. Anchor the free ends so that they overlap slightly past the midstream point. If not enough boom is available, deploy a single boom from the side of the stream with the heaviest concentration of oil or from the outside shore of a bend in the stream where oil concentrates naturally.

Figure E-16 Flowing Water Containment Boom

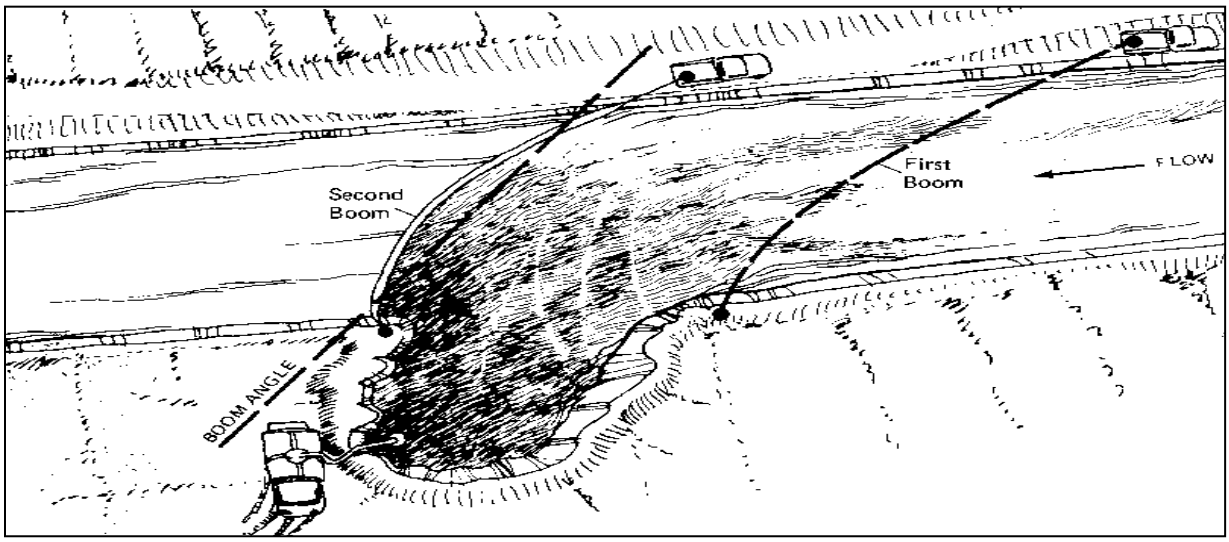
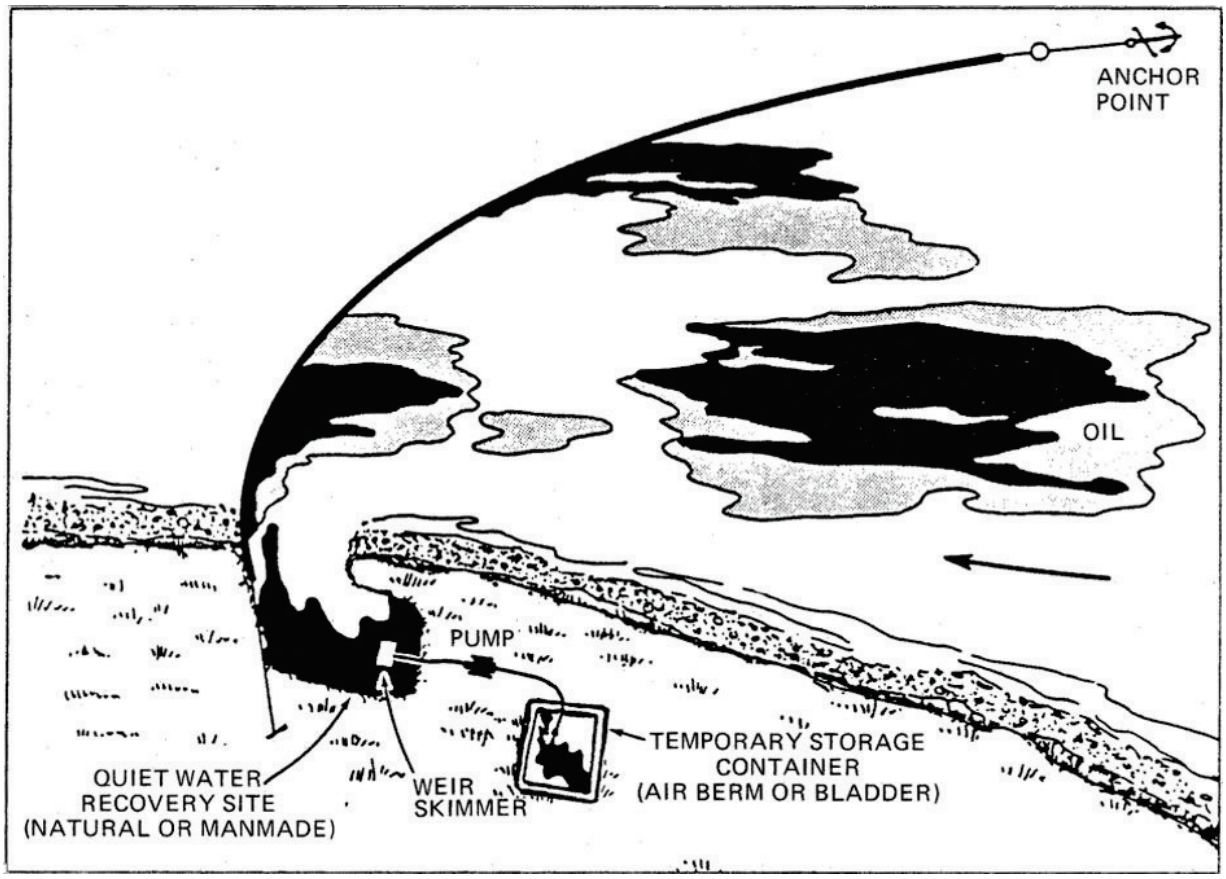


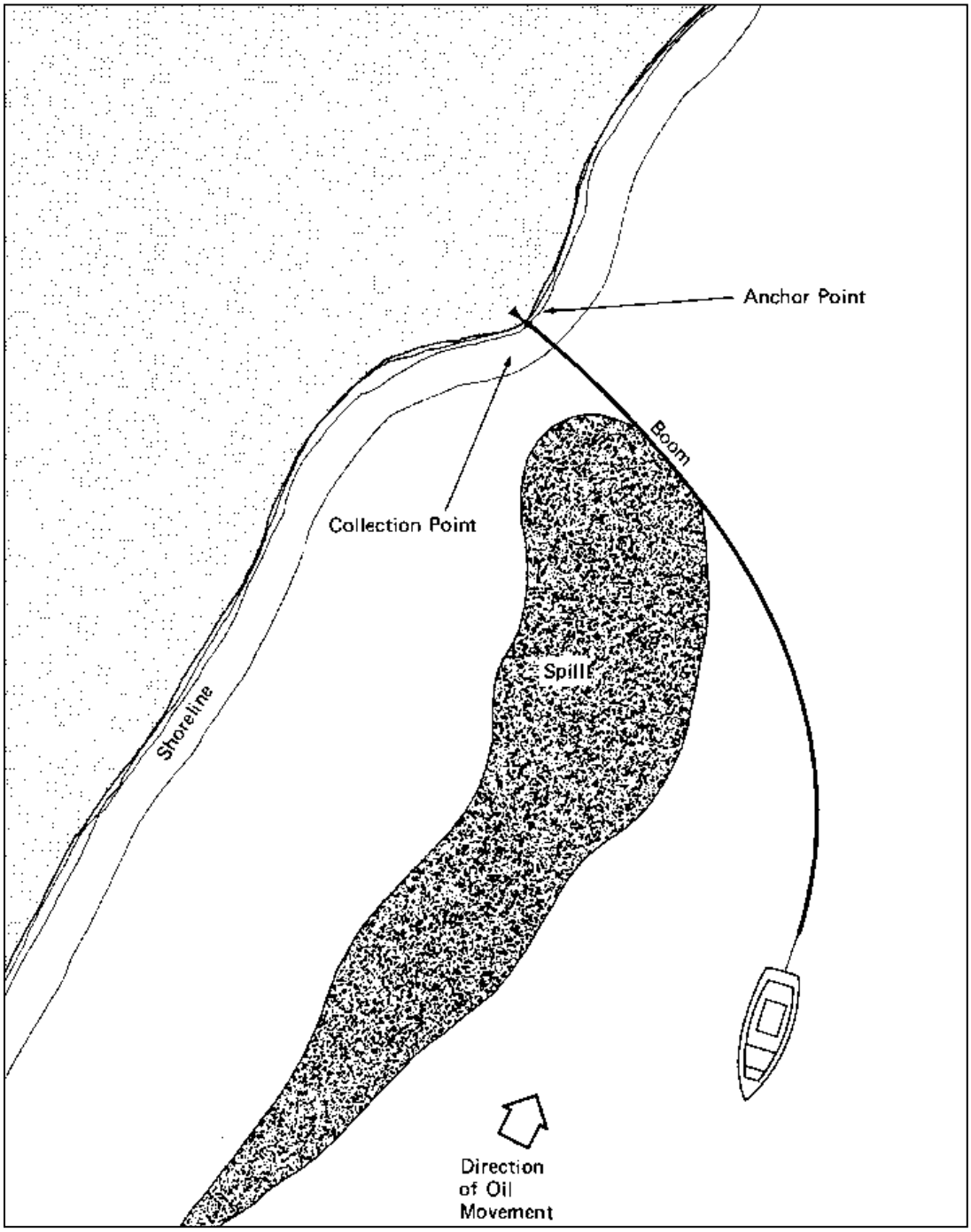
Figure E-17 Use of Skimmers along a Shoreline



E.9.2 Diversion Booming

- **Use**. Booms are positioned along low-energy shorelines to divert oil away from sensitive shoreline areas to less sensitive onshore or offshore areas for subsequent recovery. Proven to be an effective booming technique in currents greater than 1 knot.
- **Limitations**. Accessibility, implementation time, availability of deployment equipment, and heavy wave conditions.
- **General Instructions**. Anchor one end of the boom to the shoreline and, using a vessel, position the boom's free end at an angle to the current. If oil is being diverted to the shore, angle the boom's free end towards the oncoming oil, as shown in *Figure E-18*. Oil diverted towards the shore can be recovered by skimming or pumping. If oil is being diverted away from the shore, angle the free end away from the approaching oil. If the spill is large or continuing, the free end of the boom should also be anchored in place.
- The optimum angle of boom deployment is dependent upon the type and length of boom used, the current velocity, and the shape and position of the approaching slick. Generally, the free end of the boom must be angled toward the shoreline as current velocity increases. To avoid boom failure in strong currents, the deployment angle must be smaller than in weak currents. The same relation is true with regard to boom length. The optimum deployment angle decreases as boom length increases unless the boom is anchored at several places along its length.
- **Equipment Required**. Boom deployment boat(s), anchor(s), and hand tools.
- **Maintenance**. Check the boom periodically for leakage and broken, twisted, or submerged sections. The deployment angle may require periodic adjustment in the event of significant wind or current changes, oil entrainment beneath the boom, or excessive oil buildup behind the boom. The shoreline anchor point may require occasional repositioning due to water level fluctuations.
- **Cleanup**. Recover residual oil sheens using sorbents. See this Appendix for specific shoreline cleanup techniques.
- **Variations**. For very low-energy shorelines, a secondary boom can be anchored parallel to the shore just beyond the surf line with the down current end connected to the diversion boom. As the oil is diverted towards the shore, the secondary boom prevents contamination of the shoreline.

Figure E-18 Diversion Booming Techniques for Protection of Sensitive Areas



E.9.3 Exclusion Booming

- **Use**. Booms are used to exclude oil from sensitive shorelines by deploying them along the area's periphery.
- **Limitations**. Accessibility, implementation time, adequate water depth for effective boom placement, wave action, and current velocities.
- **General Instructions**. Place booms across the area to be protected and anchor both ends to the shore. For inlets or harbor entrances, booms should be placed inside the openings where current velocities and wave action are lowest. To allow vessel passage through harbor waters, one boom end may be attached to a small, manned boat. Booms may also be deployed in a cascading configuration, as described in this Appendix which provides vessel passage and the exclusion of oil. To maintain boom integrity, anchors should be placed at 100-foot intervals if substantial boom lengths are required. Wind and wave conditions may necessitate more frequent intervals or heavier anchors. Several exclusion techniques are shown in *Figures E-19 through E-21.*
- **Equipment Required**. Anchors, boom deployment equipment (boats, tow lines, etc.), and hand tools.
- **Maintenance**. Check boom periodically for integrity, leakage, or twisted, broken or submerged sections. In tidal waters or areas with fluctuating water levels, reposition the boom and/or its anchor points as water levels change.
- **Cleanup**. Recover contained oil by skimming or pumping. Adjacent shorelines can be cleaned using techniques described in this Appendix.
- **Variations**. Double or triple booming may be employed in areas with high currents. Position a primary boom in the area of strongest currents and deploy secondary or tertiary booms several hundred yards behind the first as a backup safety measure.

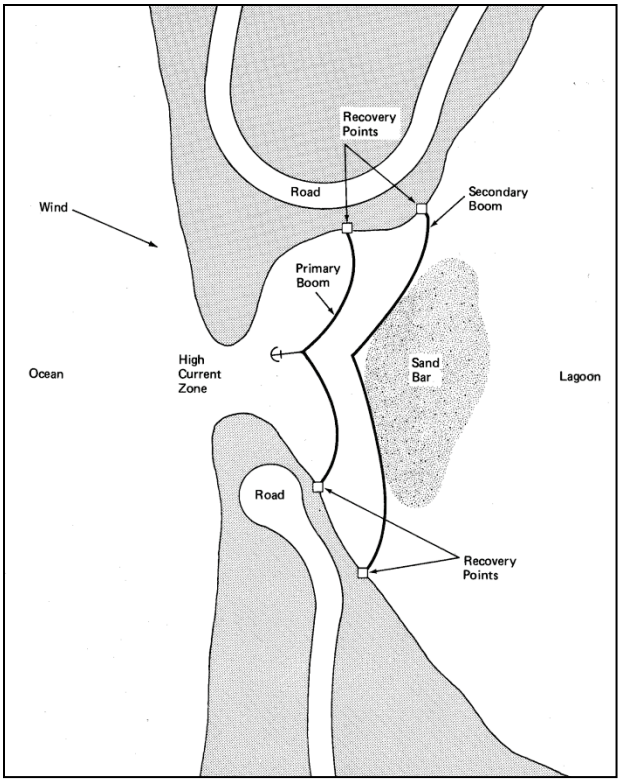


Figure E-19 Shoreline Containment: Exclusion Booming

Figure E-20 Shoreline Containment: Exclusion Booming at Inlet with High Channel Currents

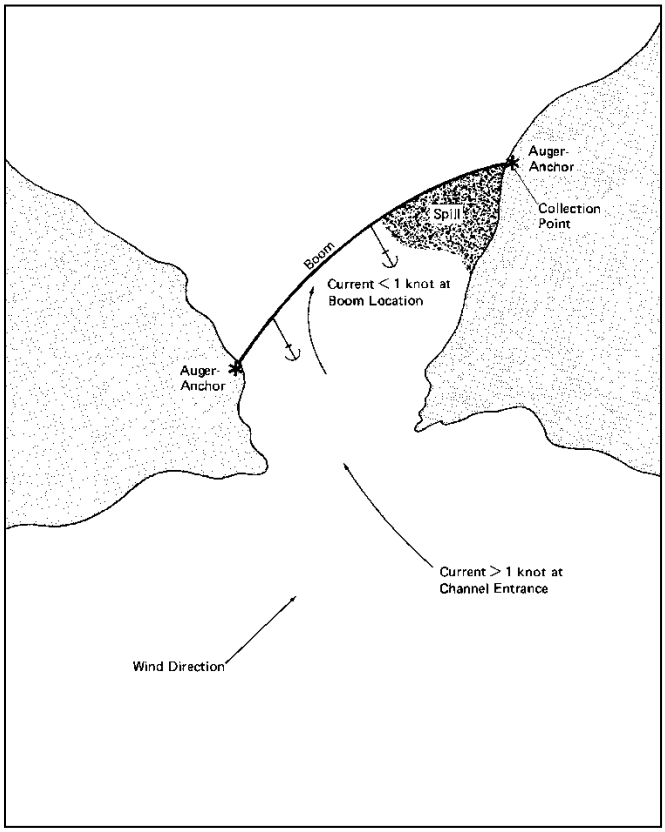
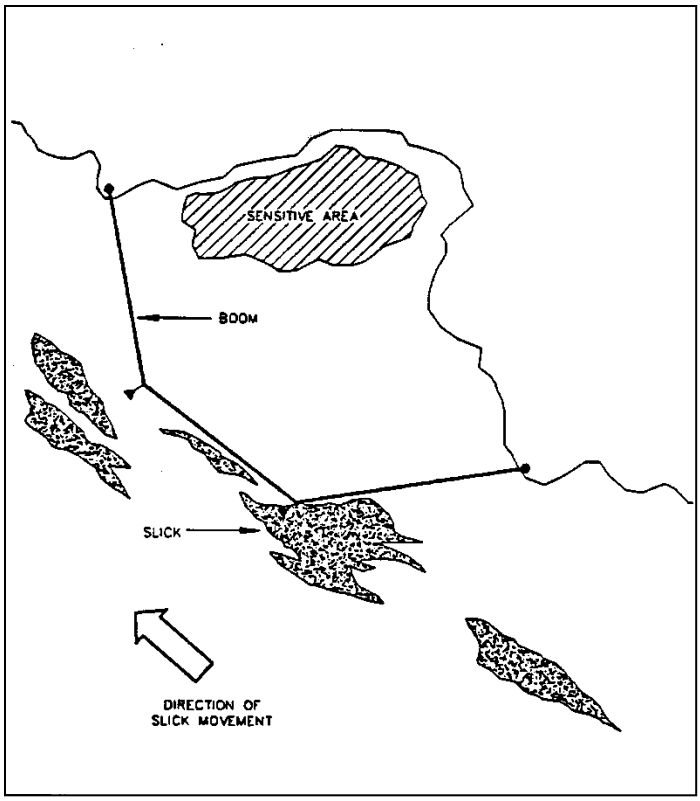


Figure E-21 Shoreline Containment: Exclusion Booming



E.9.4 Cascading Booms

- **Use**. A series of booms deployed in a cascading formation are used on rivers or coastal areas where currents are too strong for standard containment booming. Cascading booms direct oil to the shore for recovery.
- **Limitations**. Accessibility, implementation time, currents over 2.5 knots, and soft stream bottoms.
- **General Instructions**. Tow the lead boom to the opposite shore or to some point mid-stream and anchor it at an angle to the current. Deploy a second boom angled toward the shoreline and anchor the free end 25 to 30 feet downstream from the first so that it overlaps the trailing end of the lead boom. Deploy successive booms in the same manner until the shoreline is reached (*Figures E-22 and E-23*). Diverted oil is recovered by skimming, pumping, or using vacuum trucks. A containment pit can be dug into the river bank or shoreline to assist oil recovery. The optimum boom deployment angle decreases as current velocity and boom length increase, unless several anchor points are set along the length of the boom.
- **Equipment Required**. Deployment boat, anchors, backhoe (to dig containment pit), and hand tools.
- **Maintenance**. Periodically check the boom for leakage and adjust the deployment angle, if necessary. Also, check the boom for damaged, twisted, or submerged sections. Check anchors for security.
- **Cleanup**. Remove booms and recover remaining sheens with sorbents.
- **Variations**. If booms are unavailable or if the water is too shallow, berms may be constructed using streambed or near-site materials arranged in a cascading configuration (see *Figure E-24*). Cascade berming can also make use of existing streambed bars.

Figure E-22 Placement Configuration of 3 Lengths of Boom (Cascading Deflection Booms)

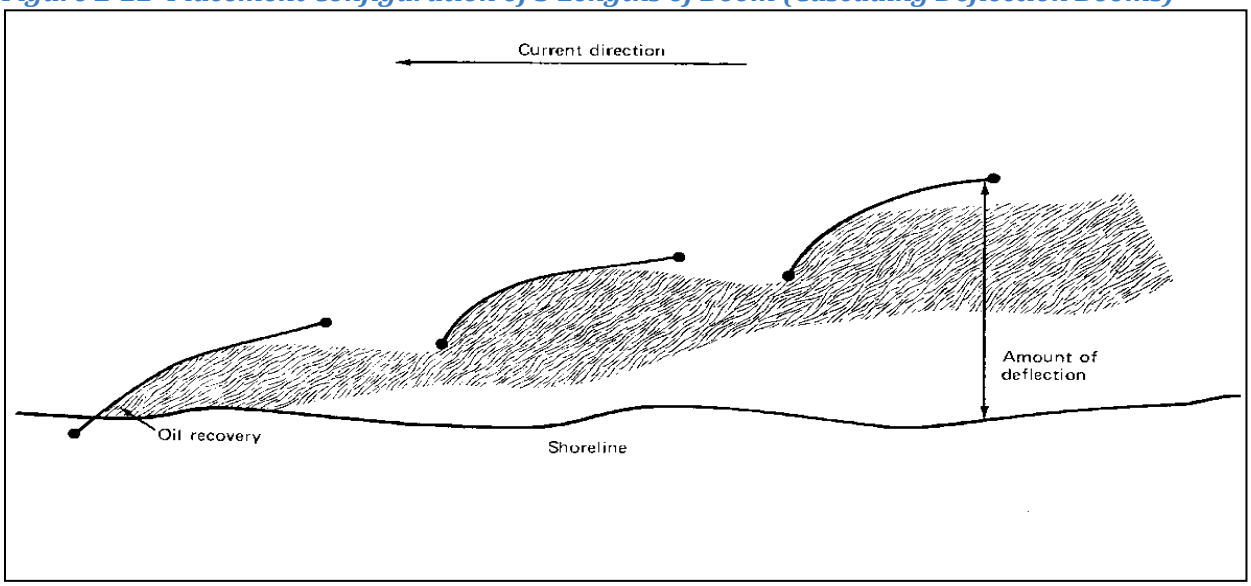


Figure E-23 Cascading Diversion Booms

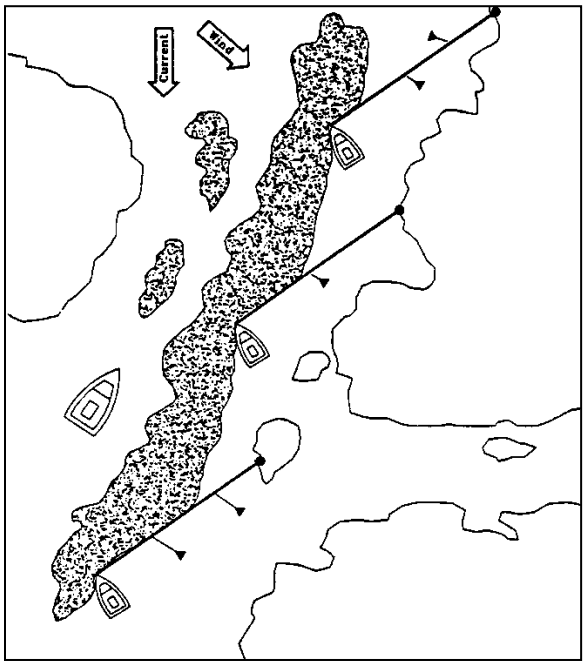
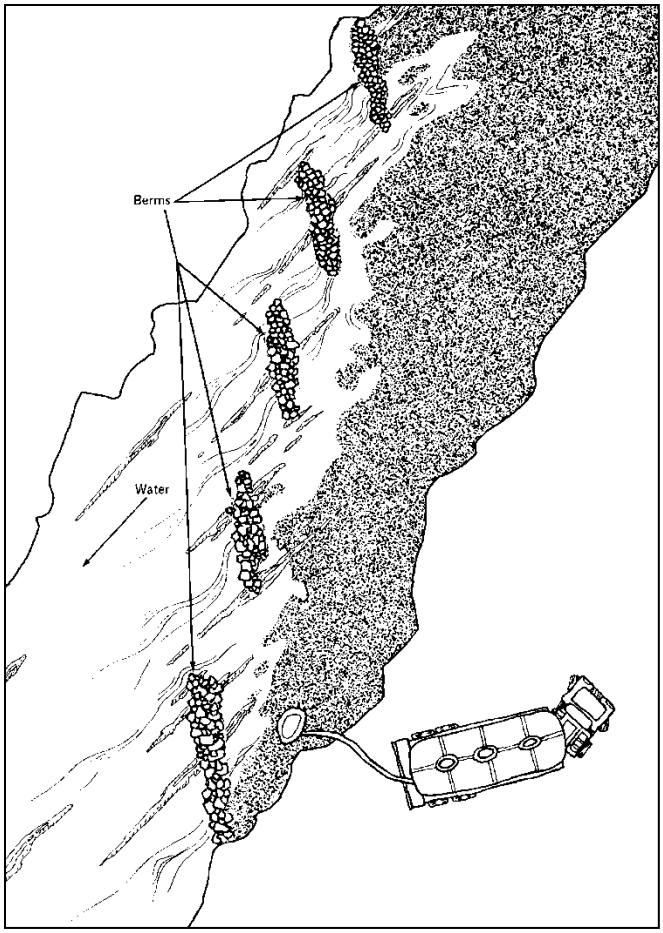


Figure E-24 Cascading Berms



E.10 On Water Recovery

E.10.1 Vacuum Trucks

- **Objectives**. To recover oil from land and water surfaces by using suction generated by the vacuum truck to draw oil from concentrated areas into the truck for transport to reprocessing or disposal facilities.
- **Limitations**. Access to spill site, high viscosity oils, very shallow oil concentration, and heavy debris.
- **General Instructions**. Position truck adjacent to area of heaviest oil concentration such as behind booms, berms, trenches, sumps, etc. Suction hose nozzle is placed in the oil and maneuvered manually until recovery becomes inefficient. Light sheens should be recovered with sorbents. Screens should be fitted over nozzle to prevent ingestion of sediments or debris. When recovering oil on water, a duck bill or Manta Ray® type skimmer head should be attached to the suction nozzle. This technique is illustrated in *Figure E-25*.
- **Logistics**. The primary logistical requirements for the vacuum truck techniques are given in *Figure E-26*.
- **Variations**. For contained spills on open water and in the absence of skimmers, a vacuum truck may be placed on a work boat or barge and brought to the containment site for oil recovery using the above method. Vacuum trucks may be left onsite with recovered oil pumped periodically to tank trucks (can improve turn-around time in some cases, and a vacuum truck acts as a primary oil-water separator).

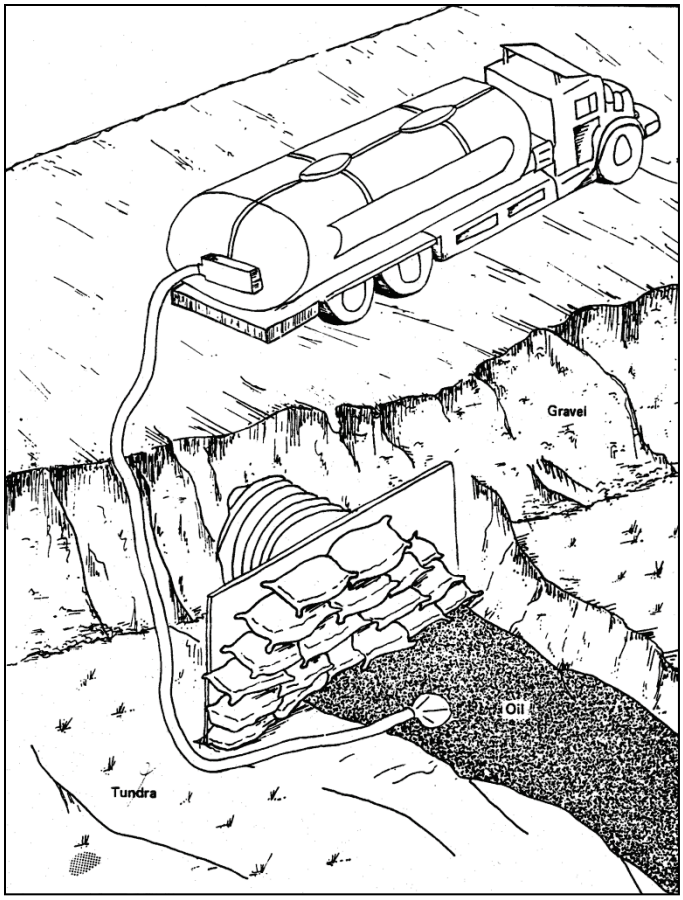


Figure E-25 Vacuum Truck Oil Recovery

Figure E-26 Logistical Requirements for Use of Vacuum Truck

Equipment	Terrestrial/Shoreline	Surface Water
Vacuum truck w/3" suction hose	Typical Suction Rate for pooled oil, 100 gpm (75% oil); fill time for 110-barrel truck, ¾ hour.	Typical Suction Rate for oil on water, 50 gpm (5% oil), fill time for 110-barrel truck, 1-½ hours.
Number of vacuum trucks required	Dependent of quantity of oil and number of pools present	Dependent on quantity of oil, number of recovery sites, and oil/water ratio.

Personnel - 1 person per suction hose and 1 to 2 persons for manual skimming and concentrating of oil, and 1 supervisor.

Support

- Vacuum truck, 6 to 140 barrel (42 gallons/barrel)
  - 6" suction hose, 700 to 800-900 gpm max.[a]
  - 4" suction hose, 500 to 600 gpm max.[a]
  - 3" suction hose, 300 to 400 gpm max.[a]
- Devices for concentrating oil on water
- Booms, skimming boards, low-pressure water hoses

Access requirements - heavy equipment, or landing craft

[a]Intake completely submerged, drawing water with little or no suction lift.

E.10.2 Portable Skimmers/Pumps

- **Objectives**. To recover small to moderate concentrations of oil from terrestrial or aquatic areas, where larger equipment cannot be brought in.
- **Limitations**. Accessibility, high viscosity oils, sheens, adequate means of storage or disposal, and adverse environmental conditions (excessive wave heights or currents).
- **General Instructions**. Position the skimmer or pump suction hose in the area of heaviest oil concentration behind booms, berms, trenches, etc., or where water currents will drive the oil to the skimmer or hose intake. Continually reposition the intake into area of thickest oil concentration. Duck bill type skimmer heads should be fitted to suction hose for aquatic spills, or screens for terrestrial spills. Pump recovered oil to a temporary storage facility such as a tank truck, 55-gallon drums, pillow tanks, or lined pit. This technique is illustrated in *Figure E-27*.
- When using portable skimmers in shallow water, a hole may have to be excavated in the bottom of the shallow waterway if the skimmer draft is greater than the water depth. Oil can now be herded or forced to the skimmer location by low pressure water flushing or by deploying a boom around a floating slick and pulling it to the floating skimmer.
- **Logistics**. The primary logistical requirements for using portable skimmers or pumps are given in *Figure E-28*.
- **Variations**. Portable skimmers can also be deployed from boats to recover open water spills contained by booms. Skimmer is operated as described previously and may be used with a floating bladder tank for oil storage. Portable endless rope skimmers have particular application in shallow water areas such as wetlands or creeks.

Figure E-27 Oil Recovery Using Portable Pump, Skimmer Head, and Tank Truck

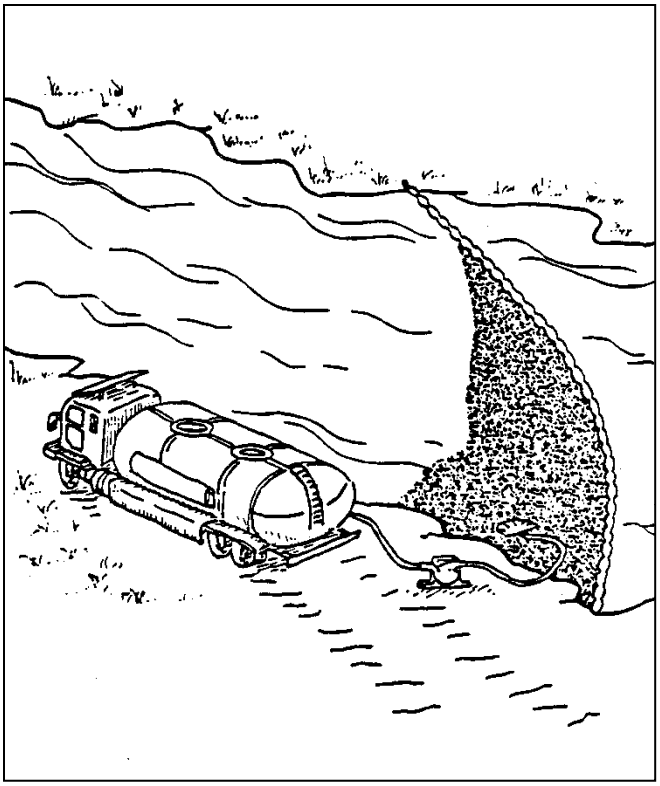


Figure E-28 Logistical Requirements for Portable Skimmer/Pumps

Logistics	Typical Recovery Rate for Thick Oil Layer (2 mm)	Typical Recovery Rate for Thin Oil Layer (.1 mm)
Equipment		
High capacity trash pump w/3" suction hose	75 gpm (50% oil)	50 gpm (5% oil)
Portable weir skimmer	varies	varies
Portable disc skimmer	varies	varies
Number of pumps or skimmers	Dependent upon quantity of oil and rate of introduction to skimmer or pump.	
Personnel - 1 person per pump suction hose, 1 to 2 persons for skimming and concentrating of oil, and 1 supervisor.		
Support	**Range of Capacities**	
• Vacuum truck	6 to 140 barrels	
• Tank truck	20 to 160 barrels	
• 3" Suction hose	300 to 400 gpm max.	
• Pillow tanks	2 to 2,500 barrels	

E.10.3 Sorbent Recovery

- **Objectives**. To recover small quantities of oil from terrestrial or aquatic areas, especially films or sheens remaining after skimming or pumping operations have been completed.
- **Limitations**. Solidified or highly weathered oil, recovery and disposal of oiled sorbents, and potential interface with granular sorbents by surface collecting agents, if used simultaneously.
- **General Instructions**. Place sorbents directly on the oil and turn continually until completely oiled. Put oiled sorbents in plastic bags or leakproof containers and replace with clean ones. Inert substrates can be wiped clean with sorbent pads or sheets. Sorbent sweeps or booms may be pulled between two boats across aquatic areas or anchored across slow moving streams to recover sheens.
- **Logistics**. The logistical requirements are heavily dependent on the type and degree of oiling and therefore cannot be accurately quantified prior to a spill. Some of the basic equipment and materials required for sorbent recovery are pitchforks, rakes, shovels, boats (if needed), and plastic bags, drums, debris boxes, or other leakproof containers.
- **Variations**. Sorbents can be placed on the ground in areas of heavy spill activities to prevent oiling of facilities, paths, work areas, etc.

E.11 Shoreline Cleanup

E.11.1 Manual Recovery

- **Objectives**. To recover oil using manual methods such as scraping, shoveling, brushing, etc., in areas inaccessible to cleanup equipment, with sporadic oiling, or as the final stage of a cleanup operation.
- **Limitations**. Environmental sensitivity of area to intense human activity.
- **General Instructions**. Remove small pools of oil with hand pumps or buckets, and oiled debris and vegetation with shovels, rakes, or pitchforks. Oil layers on rocky outcrops or cliffs, boulders, manmade structures, etc., are removed by scraping or wire brushing. Small quantities of oil or oily debris can be placed in plastic bags and removed for disposal. Larger quantities can be placed in barrels or debris boxes for disposal, or lined pits for temporary storage. On beaches or rivers all material must be stored above the high-water line. Oil and oiled materials can be removed manually or by truck, helicopter, boat, or barge.
- **Logistics**. The primary logistical requirements for manual cleaning will vary with the degree of oiling. *Figure E-29* gives the primary logistical requirements for both light and heavy oiling of a 1 mile by 50 foot area.
- **Variations**. None.

Figure E-29 Logistical Requirements for Manual Removal of Oiled Material

	For Light or Sporadic Oiling	For Heavy Oiling
Equipment		
• Debris box	2	3-4
• Helicopter (if used)	1	1-2
• Boat or barge (if used)	1	2-3
• Truck (if used)	1	2-3
Personnel		
• Workers	10-20	50-100
• Supervisors	1	2-3
Access requirements -foot, light vehicular, shallow craft, or helicopter.		
[a] For 1 mile by 50 foot area.		

E.11.2 Flushing

- **Objectives**. To remove oil from manmade structures, rocky, boulder, cobble, or sandy shorelines, or any substrate with relatively few or no living organisms, by flushing with high- or low-pressure water streams. Prior to the use of high-pressure flushing, qualified personnel should inspect oiled surfaces for biological activity. In many instances the use of high-pressure will remove attached plant and animal life. Several years may be required to recolonize the areas.
- **Limitations**. Accessibility and substrate erosion potential.
- **General Instructions**. Begin flushing at the highest point of oiling, working down to the lowest point. In tidal areas it should be timed so that the lowest point is reached at low tide. Oil flushed off by the water streams can be recovered by using berms, boards, or trenches to channel the oil to a sump or other collection point for recovery. For aquatic areas, the oil may be allowed to run back into the water where containment booms have been positioned. Pumps, vacuum trucks, skimmers, and/or sorbents are used to recover oil from the containment or collection points. Place plastic sheets over adjacent surfaces to prevent reoiling and direct oil and water to the desired area. For large areas a series of berms or ditches is used to channel the oily runoff to recovery areas as shown in *Figure E-30*. High-pressure flushing (hydroblasting) is used for removing sticky, weathered, or high-viscosity oils from solid substrates, whereas low-pressure flushing should be used for non-sticky oils or unconsolidated substrates.
- **Logistics**. The primary logistical requirements for using hydroblasting or low-pressure flushing to clean a 1 mile by 50 foot lightly oiled area are approximated in *Figure E-31*.
- **Variations**. If authorized by the FOSC, dispersants may be mixed in low concentrations with the flushing water to aid oil removal and prevent reoiling by, and recoalescing of, the removed oil. Low-pressure water streams are also used to flush out oil stranded in backwater areas or under docks and herd it into containment or recovery devices.

Figure E-30 Low Pressure Flushing Tactics

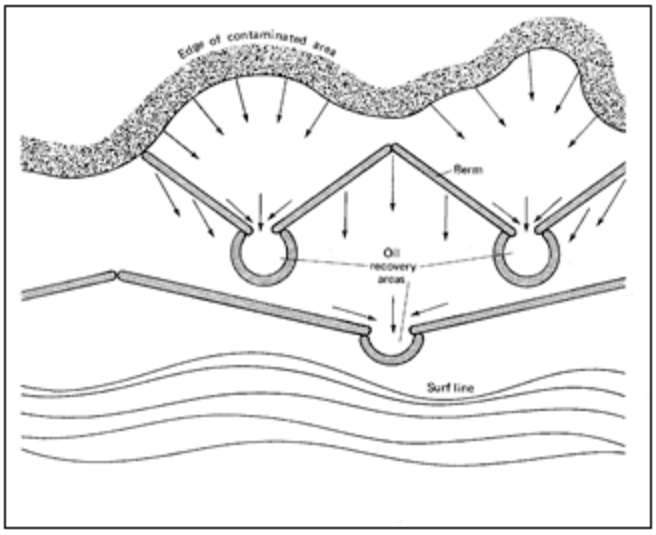


Figure E-31 Logistical Requirements for Flushing Inert Substrates

	Type	No. Required
Equipment		
• Hydroblasting unit	Self-contained, 10 gpm, @ 4,000 to 12,000 psi	2-3
• Flushing unit	Pump and hoses, 50 to 100 gpm @ 10 to 20 psi	3-5
Support		
• Vacuum Truck	60 to 80 bbl. capacity[1]	1
	110 bbl. capacity[2]	1-2
• Trash pump and tank truck	25 to 50 gpm[1]	1
	50 to 75 gpm[2]	1-2
	60 to 80 bbl. capacity[1]	1
	110 bbl. capacity[2]	1-2

Personnel - 1 to 2 operators per flushing or hydroblasting unit and 1 to 2 per recovery equipment, and 1 supervisor.

Access requirements - heavy equipment; barge or landing craft for trucks and light vehicles; shallow craft or helicopter for flushing unit.

[1] Hydroblasting

[2] Low-pressure flushing

E.12 Booming Locations

E.12.1 Hammond Ditch

The Hammond Ditch is approximately 20’ wide concrete ditch. Each booming strategy use 50’ hard boom and 50’ sorbent boom tied off to tees on the shore. *Section 6* provides a trajectory for the Hammond Location, along with booming locations. Pictures of booming locations and strategies are below:

First location, near entrance to terminal at Sullivan Road:

Figure E-32 Sullivan Road

Figure E-33 Sullivan Road Overview

Second location is south of Highway 550

Figure E-34 Highway 550

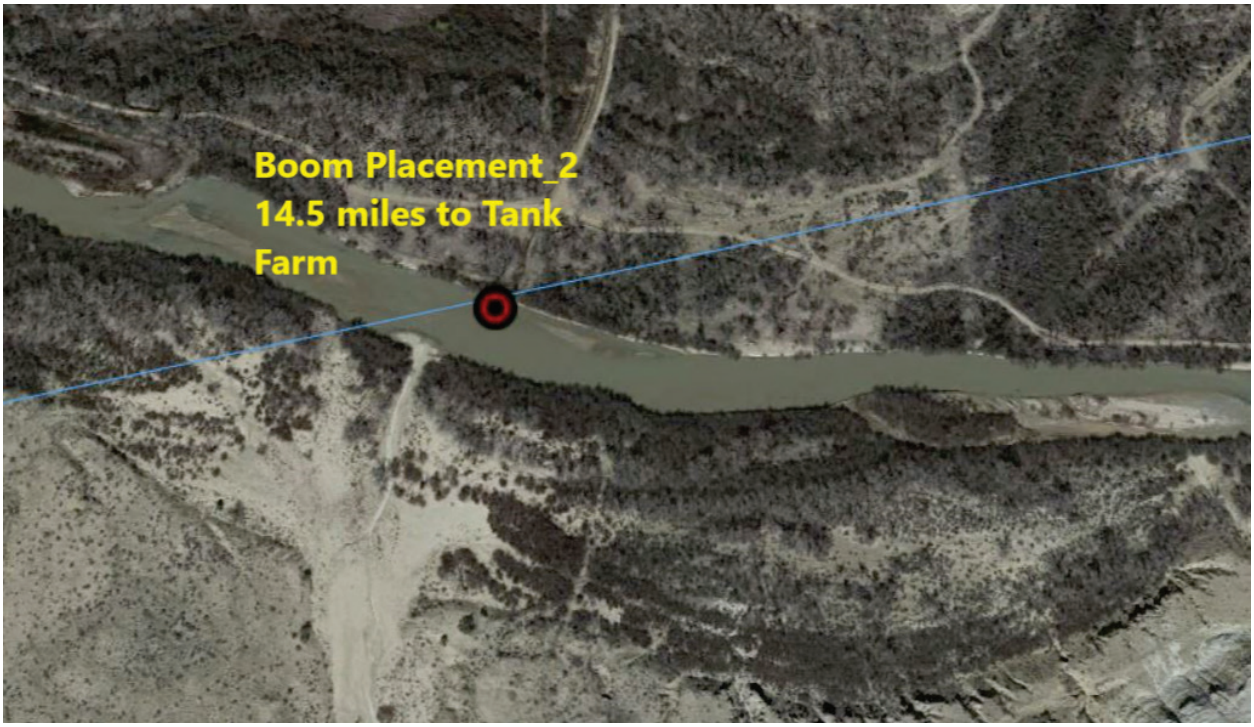
E.12.2 San Juan River

The San Juan River typically flows at approximately 2 knots, except during heavy rains or runoff. Location 1 is below, will use 300' of boom with vacuum truck and skimmer. *Section 6* contains a trajectory and booming locations for the San Juan River.

Figure E-35 San Juan River 1st Location

Location 2 will use 300’ of boom with vacuum truck and skimmer.

Figure E-36 San Juan River 2nd Location



APPENDIX F INSPECTION/PREVENTION AND MAINTENANCE

F.1 Discharge Detection

F.1.1 Discharge Detection by Personnel

Process surveillance rounds are conducted during each shift. Vessels, tanks, piping, and grounds are visually inspected for signs of abnormal conditions, leakage, or spills. Spills are immediately reported to the Operations Supervisor and a response action is initiated.

- Initial Oil (Petroleum Product) Spill detection by Bloomfield Terminal personnel will be visual during daytime operations. Spills detected by this means include, but are not limited to, storage tank overfills, tank truck overfills, storage tank leakage, pipeline and process leaks.
- During the night hours, operators check unit areas periodically.

Initial response actions are provided in the in *Section 2* of this Oil Spill Response Plan. Notifications are covered in *Section 3* of this Oil Spill Response Plan. Sustained response actions to an oil spill is covered in *Section 7*, with *Appendix E* containing response techniques for response.

F.1.2 Automated Discharge Detection

The Bloomfield Terminal Facility currently has no automated discharge detection system in place.

F.2 Facility Self-Inspection

F.2.1 Tank Inspection

The procedures and records of inspections for the Bloomfield Terminal is covered under the site-specific Spill Prevention, Control and Countermeasure (SPCC) Plan. The inspections include routine visual inspections of the storage tanks, piping, valves, containment areas, and the unloading areas monthly. These inspections are aimed at identifying and correcting any observed defects in the storage tanks, related equipment, and operational areas at the facility. Appropriate corrective actions are promptly taken to prevent discharge of oil as a result of any observed deficiencies. Results are recorded on an inspection form, a copy of which is located in the SPCC. Inspections are documented with the appropriate inspector's name and date and kept in the central files at the Company's San Juan Regional Office. Deficiencies discovered during routine site inspections are communicated to the Operations Supervisor and a maintenance work order is developed to address the issue. Required records are kept for a minimum of three years.

Compatibility

All tanks are designed for and compatible with the material stored and conditions of storage such as pressure, temperature, and corrosivity. Design data is recorded on the tank data sheets and design drawings filed in the Engineering Design Department.

Tank Integrity

The integrity of tanks is ensured through:

1. Hydrostatic testing of bulk storage tanks;
2. Routine visual inspection; and
3. Tank shell thickness testing.

Tank Inspection Records

Tank inspection records document conditions found during integrity testing and observations made on foundations and support.

Tank internal and external inspections are done according to the principles of the *API Guide for Inspection of Refinery Equipment*, Chapter XIII, "Atmospheric and Low Pressure Storage Tanks" and API Standard 653 (3rd edition, December 2001) and in accordance with 40 CFR 112, Appendix F.

F.2.2 Response Equipment Inspection

Using the Emergency Response Equipment List provided in *Section 7* of this Plan, response equipment will be checked for the following in accordance with 40 CFR 112, Appendix F:

1. Inventory (item and quantity);
2. Storage location;
3. Accessibility (time to access and respond);
4. Operational status/condition;
5. Actual use/testing (last test date and frequency of testing); and
6. Shelf life (present age, expected replacement date).

Oil spill cleanup material and emergency response equipment will be inventoried and tested by the Spill Response Team every six months or immediately after a spill. The Spill Response Team will order the supplies and record inspection notes test results on the equipment records on file at the local office. Consult the Emergency Response Supervisor for more information.

F.2.3 Secondary Containment Inspection

Secondary containment units will be evaluated at the same time as tank inspections. During inspection, discrepancies are notes in any of the items and are reported to the proper facility personnel.

F.3 Prevention Measures Necessary to Reduce an Oil Spill Occurring Due to Facility Operations

Prevention measures are covered in the Spill Prevention, Control, and Countermeasure (SPCC) Plan on file at the facilities.

F.3.1 Description of Type and Frequency of Personnel Training

The Company personnel are provided with training in compliance with EPA requirements. *Appendix A* provides a Training/Drills/Inspection matrix listing this information. The Health and Safety Department is responsible for maintaining records. The Training Department is responsible for maintaining master training records for employees.

F.3.2 Alcohol and Drug Testing Programs for Key Personnel

The Company has adopted an alcohol and drug testing program. Details about this program are in *Appendix I*.

F.3.3 Implementation of Mitigation and Control Measures to Control Hazards Identified in the Risk and Hazard Analysis

Mitigation and control measures are provided in *Section 2 and Section 7*.

APPENDIX G ACRONYMS AND DEFINITIONS

G.1 Acronyms

AC	Area Committee
ACOE	U.S. Army Corps of Engineers
ACP	Area Contingency Plan
ASTM	American Society of Testing Materials
BBL	Barrel
BLM	Bureau of Land Management (USDOI)
CAMEO	Computer-Aided Management of Emergency Operations
CDC	Center for Disease Control
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act of 1980, as amended
CERT	Company Emergency Response Team
CFR	Code of Federal Regulations
CHEMTREC	Chemical Transportation Emergency Center
CHRIS	Chemical Hazards Response Information System
CWA	Clean Water Act of 1977 (Federal)
CWS	Community Warning System
DOI	Department of Interior
DOT	Department of Transportation
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EQ	Environmental Quality
ERAP	Emergency Response Action Plan
ERC	Emergency Response Coordinator
ERP	Emergency Response Plan
ERT	Emergency Response Team
FAA	Federal Aviation Administration
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Administration
FOSC	Federal On-Scene Coordinator
FR	Federal Register
FRP	Facility Response Plan
FWPCA	Federal Water Pollution Control Act of 1972
FWS	Fish and Wildlife Service
GAL	Gallons
GIS	Geographic Information System
GPM	Gallons Per Minute
HAZMAT	Hazardous Materials
HAZWOPER	Hazardous Waste Operations and Emergency Response
HMIS	Hazardous Material Information System
IBRRC	International Bird Rescue Research Center
IC	Incident Commander
ICP	Incident Command Post
IMT	Incident Management Team

IPIECA	International Petroleum Industry Environmental Conservation Association
JIC	Joint Information Center
LEL	Lower Explosive Limit
LEPC	Local Emergency Planning Commission
LEPD	Local Emergency Planning District
LOSC	Local On-Scene Coordinator
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
LRT	Local Response Team
MOU	Memorandum of Understanding
MRL	Minimum Response Levels
MPC	Marathon Petroleum Corporation
MPLX	Marathon Petroleum Logistics
NCP	National Contingency Plan
NIC	National Incident Commander
NICa	Alternate National Incident Commander
NITF	National Incident Task Force
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPFC	National Pollution Funds Center (USCG)
NPS	National Park Service
NRC	National Response Center (USCG)
NRDA	National Resource Damage Assessment
NRS	National Response System
NRT	National Response Team
OPA 90	Federal Pollution Act of 1990
OSC	On-Scene Coordinator/Commander
OSHA	Occupational Safety and Health Administration (USDL)
OSLTF	Oil Spill Liability Trust Fund
OSPRA	Oil Spill Prevention and Response Act of 1991 (TWC)
OSRO	Oil Spill Removal/Response Organization
OSRP	Oil Spill Response Plan
PFD	Personal Flotation Device
PHMSA	Pipeline and Hazardous Materials Safety Administration
PHS	Public Health Service
PPE	Personal Protective Equipment
PREP	National Preparedness for Response Exercise Program
QI	Qualified Individual
RA	EPA Regional Administrator
RCP	Regional Oil and Hazardous Substance Pollution Contingency Plan
RCRA	Resource Conservation and Recovery Act of 1976
RP	Responsible Party
RRC	Regional Response Centers
RRI	Regional Resource Inventory
RRT	Regional Response Team (Federal)
RQ	Reportable Quantity
SAR	Search and Rescue
SARA	Superfund Amendments and Reauthorization Act

SCBA	Self-Contained Breathing Apparatus
SDWA	Safe Drinking Water Act of 1986
SDS	Safety Data Sheet
SI	Surface Impoundment
SIC	Standard Industrial Classification
SMT	Spill Management Team
SONS	Spill of National Significance
SOP	Standard Operating Procedure
SOSC	State On-Scene Coordinator
SPCC	Spill Prevention Control, and Countermeasure Plan
SRG	State Response Group
SRT	Spill Response Team
SSC	Scientific Support Coordinator (NOAA)
SSSP	Site Specific Safety & Health Plan
TAT	Tactical Assist Team (EPA)
UCS	Unified Command System
USCG	U.S. Coast Guard
USDOT	U.S. Department of Transportation
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service (USDOI)
USGS	U.S. Geological Survey (USDOI)
USHHS	U.S. Department of Health & Human Services
USPHS	U.S. Public Health Service
WCD	Worst Case Discharge
WDR	Waste Discharge Requirements

G.2 Definitions

Access/Staging Areas - Designated areas offering access to spill sites for the gathering and deployment of spill response equipment and personnel.

Absorbent Material - Any of the several materials designed to absorb oil, both hydrocarbon and non-hydrocarbon.

Adverse Weather - The weather conditions that will be considered when identifying response systems and equipment in a response plan for the applicable operating environment. Factors to consider include ice, temperature and weather-related visibility in which the systems or equipment are intended to function.

Alteration - Any work on a tank or related equipment involving cutting, burning, welding, or heating operations that changes the physical dimensions or configuration of a tank.

Barrel - Measure of space occupied by 42 U. S. gallons at 60 degrees Fahrenheit.

Boom - Any number of specially designed devices that float on water and are used to contain or redirect the flow of oil on the water=s surface.

Boom Deployment - The methodology for installing boom based on differing water depths, currents, wave heights, etc.

Booming Strategies - Techniques which identify the location, quantity, and type of boom required to protect differing water bodies and their shore lines. These strategies are developed by identifying potential spill scenarios and assuming certain conditions which affect oil movement on water.

Clean-Up - For the purposes of this document, clean-up refers to the removal and/or treatment of oil, hazardous substances, and/or the waste or contaminated materials generated by the incident. Clean-up includes restoration of the site and its natural resources.

Clean-Up Contractor - Persons contracted to undertake a response action to contain and clean up a spill.

Command Post – A site located at a safe distance from the spill site where response decisions are made, equipment and manpower deployed, and communications handled. The Incident Commander and the On-Scene Coordinators may direct the on-scene response from this location.

Communication Equipment - Equipment that will be utilized during response operations to maintain communication between employees, contractors, Federal/State/Local agencies. (Radio/telephone equipment and links).

Complex - A facility possessing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under Section 311(j) of the CWA.

Containment Boom - A flotation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to entrap and contain the product for recovery.

Contamination Reduction Zone - The area between the contaminated zone and the clean zone. This area is designed to reduce the probability that the clean zone will become contaminated. Also known as the warm zone.

Contingency Plan - A document used by (1) Federal, state, and local agencies to guide ties planning and response procedures regarding spill of oil, hazardous substances, or other emergencies; (2) a document used by industry as a response plan to spills of oil, hazardous substances, or other emergencies occurring upon their vessels or at their facilities.

Contract or Other Approved Means - Includes:

- A written contractual agreement with a response contractor. The agreement should identify and ensure the availability of the specified personnel and equipment described under USCG Regulations within stipulated response times in the specified geographic areas;
- Certification by the facility owner or operator that the specified personnel and equipment described under USCG Regulations are owned, operated, or under the direct control of the facility owner and operator, and are available within stipulated times in the specified geographic areas;
- Active membership in a local or regional oil spill removal organization that has identified specific personnel and equipment described under USCG Regulations that are available to respond to a discharge within stipulated times in the specified geographic areas; a document which:
    - Identifies the personnel, equipment, services, capable of being provided by the response contractor within stipulated response times in specified geographic areas;
    - Sets out the parties' acknowledgment that the response contractor intends to commit the resources in the event of a response;
    - Permits the Coast Guard to verify the availability of the response resources identified through tests, inspections, and drills; and
    - Is incorporated by reference into the response plan; or
    - For a facility that could reasonably be expected to cause substantial harm to the environment, with the consent of the response contractor or oil spill removal organization, the identification of a response contractor or oil spill removal organization with specified equipment and personnel which are available within stipulated response times in specific geographic areas.

Critical Areas - Areas which, if impacted by a spill, may result in threats to public health and/or safety.

Crude Oil - Any liquid hydrocarbon mixture occurring naturally in the earth, whether treated to render it suitable for transportation and includes crude oil from which certain distillate fractions may have been removed and crude oil to which certain distillate fractions may have been added.

Cultural Resources - Current, historic, prehistoric, and archaeological resources which include deposits, structures, sites, ruins, buildings, graves, artifacts, fossils, or other objects of antiquity which provide information pertaining to historical or prehistoric culture of people as well as the natural history of the state.

Damage Assessment - The process of determining and measuring damages and injury to the human environment and natural resources, including cultural resources. Damages include differences between the conditions and use of natural resources and the human environment that would have occurred without the incident, and the conditions and use that ensued following the incident. Damage assessment includes planning for restoration and determining the costs of restoration.

Decontamination - The removal of hazardous substances from personnel and equipment necessary to prevent adverse health effects.

Discharge - Any spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

Discharge Clean-up Organization - A corporation, proprietorship, partnership, company organization, or association that has, as its primary function, engaged itself in the response to, clean up, and removal of spills of oil or hazardous substance.

Dispersants - Those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.

Diversion Boom - A flotation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to deflect or divert the product towards a pick-up point, or away from certain areas.

Emergency Operations Center (EOC) - The pre-designated site where local and state agencies direct and manage off-scene logistics support to on-scene emergency operations.

Emergency Response Phase, Emergency Phase - The portion of a spill response where the primary concern is the alleviation of the immediate danger to human life, health, safety, or property by stabilizing the real or threatened release. This incident specific definition is to be made by the IC representing an appropriate First Response Agency.

Emergency Response Team - The facility-based team that makes notification of a real or threatened release and takes the first action to alleviate the threat or event.

Emergency Service - Those activities provided by the state and local government to prepare for and carry out any activity to prevent, minimize, respond to, or recover from an emergency.

Exclusion Zone - The area where contamination does or may occur.

Environmentally Sensitive Areas - Streams and water bodies, aquifer recharge zones, springs, wetlands, agricultural areas, bird rookeries, endangered or threatened species (flora and fauna) habitat, wildlife preserves or conservation areas, parks, beaches, dunes, or any other area protected or managed for its natural resource value.

Estuary - Unique environment at the mouth of coastal rivers where fresh water and sea water meet, providing important habitat for marine life, birds, and other wildlife.

Facility - Any pipeline, structure, equipment, or device used for handling oil including, but not limited to, underground and aboveground storage tanks, impoundment's, mobile or portable drilling or workover rigs, barge mounted drilling or workover rigs, and portable fueling facilities located offshore or on or adjacent to coastal waters or any place where a discharge of oil from the facility could enter coastal waters or threaten to enter the coastal waters.

Federal Fund - The oil spill liability trust fund established under the Federal Protection Act of 1990.

First Response Agency - A public health or safety agency (i.e., fire service or police department) charged with responding to a spill during the emergency phase and alleviating immediate danger to human life, health, safety, or property.

Fish and Wildlife and Sensitive Environments - Areas that may be identified by either their legal designation or by evaluations of Area Committees (for planning) or members of the Federal On-Scene Coordinator's spill response structure (during responses). These areas may include wetlands, National and State parks, critical habitats for endangered/threatened species, wilderness and natural resource areas, marine sanctuaries and estuarine reserves, conservation areas, preserves, wildlife refuges, wild and scenic rivers, recreational areas, and historical and archeological sites and parks. These areas may also include unique habitats such as aquaculture sites and agricultural surface water intakes, bird nesting areas, critical biological resource areas, designated migratory routes, and designated seasonal habitats.

Handle - To transfer, transport, pump, treat, process, store, dispose of, drill for, or produce.

Harmful Quantity of Oil - The presence of oil from an unauthorized discharge in a quantity sufficient either to create a visible film or sheen or discoloration upon water, shoreline, tidal flat, beach, or marsh, or to

cause a sludge or emulsion to be deposited beneath the surface of the water or on a shoreline, tidal flat, beach, or marsh.

Hazardous Material - Any nonradioactive solid, liquid, or gaseous substance which, when uncontrolled, may be harmful to humans, animals, or the environment. Including but not limited to substances otherwise defined as hazardous wastes, dangerous wastes, extremely hazardous wastes, oil, or pollutants.

Hazardous Substance - Any substance designed as such by the Administrator of EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act**;** regulated pursuant to Section 311 of the Federal Water Pollution Control Act**.**

Hazardous Waste - Any solid waste identified or listed as a hazardous waste by the Administrator of the EPA pursuant to the Federal Solid Waste Disposal Act, as amended by the Resources Conservation and Recovery Act (RCRA), 42 U.S.C., Section 6901, et seq as amended. The EPA Administrator has identified the characteristics of hazardous wastes and listed certain wastes as hazardous in Title 40 of the Code of Federal Regulations, Part 261, Subparts C and D respectively.

Heat Stress - Dangerous physical condition caused by over exposure to extremely high temperatures.

Hypothermia - Dangerous physical condition caused by over exposure to freezing temperatures.

Immediate Response Steps - The immediate steps that are to be taken by the spill observer after detection of a spill.

Incident - Any event that results in the spill or release of oil or hazardous materials. Action by emergency service personnel may be required to prevent or minimize loss of life or damage to property and/or natural resources.

Incident Command Agency - The agency designated under state law (RCW 70.136) as the entity responsible for coordinating all activities and resources at a spill scene, within a particular jurisdiction.

Incident Commander (IC) - The one individual in charge at any given time of an incident. The Incident Commander will be responsible for establishing a unified command with all on-scene coordinators.

Incident Command System (ICS) - A method by which the response to an extra-ordinary event, including a spill, is categorized into functional components and responsibility for each component assigned to the appropriate individual or agency.

Incident Management Team – a.k.a. Spill Management Team. The personnel identified to staff the organizational structure identified in a response plan to manage response plan implementation. They will supervise and control all response and clean-up operations. *NOTE: The Company IMT is the same as the required Spill Management Team as identified in 33 CFR 154.1035(b)(3)(v).*

Designated company individuals who will fulfill the roles determined in the oil spill response plan in the event of an oil spill. They will supervise and control all response and clean-up operations.

Initial Clean-up - Remedial action at a site to eliminate acute hazards associated with a spill. An initial clean-up action is implemented at a site when a spill of material is an actual or potentially imminent threat to public health or the environment, or difficulty of cleanup increases significantly without timely remedial action. All sites must be evaluated to determine whether initial cleanup is total cleanup; however, this will not be possible in all cases due to site conditions (i.e., a site where overland transport or flooding may occur).

Initial Notification - The process of notifying necessary company personnel and Federal/State/Local agencies that a spill has occurred, including all pertinent available information surrounding the incident.

Injury - A measurable adverse change, either long- or short-term, in the chemical or physical quality of the viability of a natural resource resulting either directly or indirectly from exposure to a discharge of oil, or exposure to a product of reactions resulting from a discharge of oil.

Inland Area - The area shoreward of the boundary lines defined on 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area shoreward of the lines of demarcations (COLREG lines) defined in '80.740 - 80.850 of Title 33 of the CFR. The inland area does not include the Great Lakes.

Interim Storage Site - A site used to temporarily store recovered oil or oily waste until the recovered oil or oily waste is disposed of at a permanent disposal site. Interim storage sites include trucks, barges, and other vehicles, used to store waste until the transport begins.

Lead Agency - The government agency that assumes the lead for directing response.

Lead Federal Agency - The agency which coordinates the Federal response to incidents on navigable waters. The lead Federal agencies are:

- U.S. Coast Guard (USCG): Oil and chemically hazardous materials incidents on navigable waters.
- U.S. Environmental Protection Agency (EPA): Oil and chemically hazardous materials incidents on inland waters.

Lead State Agency - The agency which coordinates state support to Federal and/or Local governments or assumes the lead in the absence of Federal response.

Location Boundaries - Areas where oil may be expected to impact during the first day of a spill event.

Lower Explosive Limit - Air measurement to determine the lowest concentration of vapors that support combustion. This measurement must be made prior to entry into a spill area.

Marinas - Small harbors with docks, services, etc. for pleasure craft.

Marine Facility - Any facility used for tank vessel wharfage or anchorage, including any equipment used for handling or transferring oil in bulk to or from a tank vessel.

Maximum Extent Practicable - The planning values derived from the planning criteria used to evaluate the response resources described in the response plan to provide the on-water recovery capability and the shoreline protection and clean-up capability to conduct response activities for a worst-case discharge from a facility in adverse weather.

National Contingency Plan - The plan prepared under the Federal Water Pollution Control Act (33 United States Code '1321 et seq) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 United State Code '9601 et seq), as revised from time to time.

Natural Resource - Land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to or otherwise controlled by the State, Federal government, private parties, or a municipality.

Navigable Waters of the State - Waters of the state, and their adjoining shorelines, that are subject to the ebb and flow of the tide and/or are presently used, have been used in the past, or may be susceptible for use to transport intrastate, interstate, or foreign commerce.

Nearshore Area - The area extending seaward 12 miles from the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area extending seaward 12 miles from the line of demarcation (COLREG) lines) defined in '80.740 - 80.850 of Title 33 of the CFR.

Non-Crude Oil - Any oil other than crude oil.

Non-Persistent or Group I Oil - A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:

- At least 50% of which by volume, distill at a temperature of 340°C (645°F); and
- At least 95% of which volume, distill at a temperature of 370°C (700°F).

Non-Petroleum Oil - Oil of any kind that is not petroleum-based. It includes, but is not limited to, animal and vegetable oils.

Ocean - The offshore area and nearshore area as defined in the Appendix.

Oil or Oils - Naturally occurring liquid hydrocarbons at atmospheric temperature and pressure coming from the earth, including condensate and natural gasoline, and any fractionation thereof, including, but not limited to, crude oil, petroleum gasoline, fuel oil diesel oil, oil sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil does not include any substance listed in Table 302.4 of 40 CFR Part 302 adopted August 14, 1989, under Section 101(14) of the Federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by P.L. 99-499.

Oil Spill Cooperative - Multi-company cooperative organization developed by industry to assist with oil spill response and clean up. Typically, manpower and equipment are identified by a company on a voluntary basis.

Oil Spill Removal Organization - An entity that provides oil spill response resources, and includes any for profit or not-for-profit contractor, cooperative, or in-house response resources that have been established in a geographic area to provided required response resources.

Oil Spill Response Contractors - Persons/Companies contracted to undertake a response action to contain and/or clean up a spill.

Oily Waste - Oil contaminated waste resulting from an oil spill or oil spill response operations.

Operating Area - The rivers and canals, inland, nearshore, Great Lakes, or offshore geographic location(s) in which a facility is handling, storing, or transporting oil.

Operating Environment - Rivers and canals, inland, Great Lakes, or ocean. These terms are used to define the conditions in which response equipment is designed to function.

Owner or Operator - (i) in the case of a vessel, any person owning, operating, or chartering by demise, the vessel; (ii) in the case of an onshore of offshore facility, any person owning or operating the facility; and (iii) in the case of an abandoned vessel or onshore or offshore facility, the person who owned or operated the vessel or facility immediately before its abandonment. Note: “Operator” does not include any person who owns the land underlying a facility if the person is not involved in the facility’s operations.

Person - Any political subdivision, government agency, municipality, industry, public or private corporation, co-partnership, association, firm, individual, or any other entity whatsoever.

Persistent Oil - A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. For the purposes of this Appendix, persistent oils are further classified based on specific gravity as follows:

- Group II - specific gravity less than .85.
- Group III - specific gravity between .85 and less than .95.
- Group IV - specific gravity .95 to and including 1.0.
- Group V - specific gravity greater than 1.0.

Plan - Oil Spill Response Plan (OSRP)

Primary Response Contractor(s) - An individual, company, or cooperative that has contracted directly with the plan holder to provide equipment and/or personnel for the containment or clean-up of spilled oil. For use in contingency plans, primary response contractors must be approved by OSPR.

Post-Emergency Response - The portion of a response performed after the immediate threat of a release has been stabilized or eliminated and cleanup of the sites has begun.

Qualified Individual(s) (QIs) - An English-speaking representative(s) of the facility identified in the plan, located in the United States, available on a 24-hour basis, familiar with implementation of the facility response plan, and trained in his or her responsibilities under the plan. This person must have full written authority to implement the facility's response plan. This includes:

- Activating and engaging in contracting with identified oil spill removal organization(s);
- Acting as a liaison with the predesigned Federal On-Scene Coordinator (OCS); and
- Obligating, either directly or through prearranged contracts, funds required to carry out all necessary or directed response activities.

Recreational Areas - Publicly accessible locations where social/sporting events take place.

Regional Response Team - The Federal Response Organization (consisting of representatives from selected Federal and State agencies) which acts as a regional body responsible for planning and preparedness before an oil spill occurs and providing advice to the FOSC in the event of a major or substantial spill.

Repair - Any work necessary to maintain or restore a tank or related equipment to a condition suitable for safe operation.

Response Activities - The containment and removal of oil from the water and shorelines, the temporary storage and disposal of recovered oil, or the taking of other actions as necessary to minimize or mitigate damage to the environment.

Response Contractors - Persons/companies contracted to undertake a response action to contain and/or clean up a spill.

Response Guidelines - Guidelines for initial response that are based on the types of product involved in the spill, these guidelines are utilized to determine clean-up methods and equipment.

Response Resources - The personnel, equipment, supplies, and other capability necessary to perform the response activities identified in a response plan.

Response Plan - A practical plan used by industry for responding to a spill. Its features include (1) identifying the notification sequence, responsibilities, response techniques, etc. in an easy to use format; (2) using decision trees, flowcharts, and checklists to insure the proper response for spills with varying characteristics; and (3) segregating information needed during the response from that required by regulatory agencies to prevent confusion during a spill incident.

Responsible Party - Any person, owner/operator, or facility that has control over an oil or hazardous substance immediately before entry of the oil or hazardous substance into the atmosphere or in or upon the water, surface, or subsurface land of the state.

Restoration - The actions involved in returning a site to its former condition.

Rivers and Canals - A body of water confined within the inland area that has a projected depth of 12 feet or less, including the Intracoastal Waterway and other waterways artificially created for navigation.

Securing the Source - Steps that must be taken to stop the spill of oil at the source of the spill.

Site Security and Control - Steps that must be taken to provide safeguards needed to protect personnel and property, as well as the public, to ensure an efficient clean-up operation.

Site Conditions - Details of the area surrounding the facility, including shoreline descriptions, typical weather conditions, socioeconomic breakdowns, etc.

Skimmers - Mechanical devices used to skim the surface of the water and recover floating oil. Skimmers fall into four basic categories (suction heads, floating weirs, oleophilic surface units, and hydrodynamic devices) which vary in efficiency depending on the type of oil and size of spill.

Sorbents - Materials ranging from natural products to synthetic polymeric foams placed in confined areas to soak up small quantities of oil. Sorbents are very effective in protecting walkways, boat decks, working areas, and previously uncontaminated or cleaned areas.

Spill - An unauthorized discharge of oil or hazardous substance into the waters of the state.

Spill Observer - The first company individual who discovers an oil spill. This individual must function as the responsible person-in-charge until relieved by an authorized supervisor.

Spill Response Personnel - Federal, state, local agency, and industry personnel responsible for participating in or otherwise involved in spill response. All spill response personnel will be pre-approved on a list maintained in each region.

Staging Areas - Designated areas near the spill site accessible for gathering and deploying equipment and/or personnel.

State Emergency Response Commission (SERC) - A group of officials appointed by the Governor to implement the provisions of Title III of the Federal Superfund Amendments and Reauthorization Act of 1986 (SARA). The SERC approves the State Oil and Hazardous Substance Discharge Prevention and Contingency Plan and Local Emergency Response Plans.

Substantial Threat of a Discharge - Any incident or condition involving a facility that may create a risk of discharge of fuel or cargo oil. Such incidents include, but are not limited to, storage tank or piping failures aboveground or underground leaks, fire explosions, flooding, spills contained within the facility or other similar occurrences.

Tier 2 Response - Oil spills that are beyond Local Response Team capability, and that require assistance from the Region Response Team.

Tier 3 Response - Oil spills that are beyond Local and Region Response Team capabilities, and that require assistance from the Company National Incident Management Team.

Trajectory Analysis - Estimates made concerning spill size, location, and movement through aerial surveillance or computer models.

Unauthorized Spill - Spills excluding those authorized by an in compliance with a government permit, seepage from the earth solely from natural causes, and unavoidable, minute spills of oil from a properly functioning engine, of a harmful quantity of oil from a vessel or facility either: (1) into coastal water; or (2) on any waters or land adjacent to coastal waters where harmful quantity of oil may enter coastal waters or threaten to enter coastal waters if the spill is not abated, not contained and the oil is not removed.

Underwriter - An insurer, a surety company, a guarantor, or any person other than an owner or operator who undertakes to pay all or part of the liability of an owner or operator.

Unified Command (UC) - The method by which local, state, and Federal agencies and the responsible party will work with the Incident Commander to:

- Determine their roles and responsibilities for a given incident.
- Determine their overall objectives for management of an incident.
- Select a strategy to achieve agreed upon objectives.
- Deploy resources to achieve agreed-upon objectives.

Volunteers - An individual who donates their services or time without receiving monetary compensation.

Waste - Oil or contaminated soil, debris, and other substances removed from coastal waters and adjacent waters, shorelines, estuaries, tidal flats, beaches, or marshes in response to an unauthorized discharge. Waste means any solid, liquid, or other material intended to be disposed of or discarded and generated because of an unauthorized discharge of oil. Waste does not include substances intended to be recycled if they are in fact recycled within 90 days of their generation or if they are brought to a recycling facility within that time.

Waters of the State - Includes lakes, rivers, ponds, streams, inland waters, underground water, salt water, estuaries, tidal flats, beaches and lands adjoining the seacoast of the state, sewers, and all other surface waters and watercourses within the jurisdiction of the State of New Mexico or Texas.

Wildlife Rescue - Efforts made in conjunction with Federal and State agencies to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill.

Worst Case Unauthorized Discharge - The largest foreseeable unauthorized spill under adverse weather conditions. For facilities located above the high-water line of coastal waters, a worst-case spill includes those weather conditions most likely to cause oil spilled from the facility to enter coastal waters.

Worst Case Discharge (EPA) (Storage Facilities) -

1. Loss of the entire capacity of all aboveground tank(s) at the facility not having secondary containment; plus

2. 100% of the capacity of the largest tank within a secondary containment system or 100% of the combined capacity of the largest group of aboveground tanks permanently manifolded together within the same secondary containment system - whichever is greater.

Worst Case Discharge (Pipeline) -

1. The loss of the entire capacity of all in-line and breakout storage tanks needed for the continuous operation of the pipelines used for the purpose of handling or transporting oil, in bulk, to or from a vessel regardless of the presence of secondary containment; plus
2. The discharge from all piping carrying oil between the marine transfer manifold and the non-transportation-related portion of the facility.

APPENDIX H CROSS REFERENCE

H.1 EPA Cross Reference

This table provides a means of cross referencing this Plan to EPA regulations.

EPA REFERENCE 40 CFR PART 112	DESCRIPTION	PLAN SECTION
112.7 (d) (2)	Statement of Corporate Commitment	Preface
112.20(g)	ACP/NCP Interface	Section 1.1
112.20 (h)(1)	Emergency Response Action Plan	ERAP
112.20 (h)(1)(i)	Qualified Individual(s)	Figure 3-1
112.20 (h)(1)(ii)	Spill Notification List	Figure 3-1
112.20 (h)(1)(iii)	Reportable Spill Information	Section 3
112.20 (h)(1)(iv)	Response Equipment	Section 7, Appendix B
112.20 (h)(1)(v)	Response Personnel Capabilities	Section 7
112.20 (h)(1)(vi)	Evacuation Plans	Section 2.2
112.20 (h)(1)(vii)	Source Control	Section 2, Appendix E
112.20 (h)(1)(viii)	Facility Diagram	Figure 2-1
112.20 (h)(2)	Facility Information	Preface
112.20 (h)(3)	Information about Emergency Responses	Sections 2,3
112.20 (h)(3)(i)	Identity of Private Personnel & Equipment	Section 4, Appendix B
112.20 (h)(3)(ii)	Contracts	Appendix B
112.20 (h)(3)(iii)	Individuals/Organizations Contact List	Section 3
112.20 (h)(3)(iv)	Reportable Spill Information	Section 3
112.20 (h)(3)(v)	Response Personnel Capabilities	Section 4
112.20 (h)(3)(vi)	Facility's Response Equipment	Section 7, Appendix B
112.20 (h)(3)(vii)	Plans for Evacuation of Facility	Section 2.2
112.20 (h)(3)(viii)	Diagram of Evacuation Routes	Figure 2-1
112.20 (h)(3)(ix)	Duties of the Qualified Individual(s)	Section 4
112.20 (h)(4)	Hazard Evaluation	Appendix D
112.20 (h)(5)	Response Planning Levels	Appendix C
112.20 (h)(5)(i)	Worst Case Discharge	Appendix D.3
112.20 (h)(5)(ii)	Small Discharge	Appendix D.3
112.20 (h)(5)(iii)	Medium Discharge	Appendix D.3
112.20 (h)(6)	Discharge Detection Systems	Appendix F.1
112.20 (h)(7)	Plan Implementation	Sections 2, Appendix C
112.20 (h)(7)(i)	Response Actions to be Carried Out	Section 2, 7, Appendix E
112.20 (h)(7)(ii)	Response Scenario	Appendix D.3
112.20 (h)(7)(iii)	Waste Disposal Plan	Section 7.3
112.20 (h)(7)(iv)	Adequate Containment & Drainage	Appendix C
112.20 (h)(8)	Drills/Exercises & Response Training	Appendix A
112.20 (h)(9)	Site and Drainage Diagrams	Figures 2-1, C-2
112.20 (h)(10)	Security Systems	Section 7.2
112.20 (h)(11)	Response Plan Cover Sheet	Preface
Appendix F, 1.0	Model Facility-Specific Response Plan	Entire Plan
Appendix F, 1.2	Facility Information	Figure 1-1

EPA REFERENCE 40 CFR PART 112	DESCRIPTION	PLAN SECTION
Appendix F, 1.3	Emergency Response Information	
Appendix F, 1.3.1	Notification	Section 3
Appendix F, 1.3.2	Response Equipment List	Section 7, Appendix B
Appendix F, 1.3.3	Response Equipment Testing/Deployment	Appendix A, F
Appendix F, 1.3.4	Personnel	Section 3, 4.6
Appendix F, 1.3.5	Evacuation Plans	Section 2, Figure 2-1
Appendix F, 1.3.6	Qualified Individual's Duties	Section 3, 4
Appendix F, 1.4	Hazard Evaluation	
Appendix F, 1.4.1	Hazard Identification	Appendix D.1
Appendix F, 1.4.2	Vulnerability Analysis	Section 6.4
Appendix F, 1.4.3	Analysis of the Potential for an Oil Spill	Appendix D.2.1
Appendix F, 1.4.4	Facility Reportable Oil Spill History	Appendix D.2.2
Appendix F, 1.5	Discharge Scenarios	Appendix D.3
Appendix F, 1.5.1	Small and Medium Discharges	Appendix D.3
Appendix F, 1.5.2	Worst Case Discharge	Appendix D.3
Appendix F, 1.6	Discharge Detection Systems	
Appendix F, 1.6.1	Discharge Detection by Personnel	Appendix F.1
Appendix F, 1.6.2	Automated Discharge Detection	Appendix F.1
Appendix F, 1.7	Plan Implementation	
Appendix F, 1.7.1	Response Resources for Small, Medium, and Worst-Case Spills	Section 2, 3, 7, Appendix B, C
Appendix F, 1.7.2	Disposal Plans	Section 7.3
Appendix F, 1.7.3	Containment and Drainage Planning	Appendix C.2
Appendix F, 1.8	Self-Inspection, Drills/Exercises, and Response Training	
Appendix F, 1.8.1	Facility Self-Inspection	Appendix F.2
Appendix F, 1.8.1.1	Tank Inspection	Appendix F.2
Appendix F, 1.8.1.2	Response Equipment Inspection	Section 7, Appendix F.2
Appendix F, 1.8.1.3	Secondary Containment Inspection	Appendix F.2
Appendix F, 1.8.2	Facility Drills/Exercises	Appendix A
Appendix F, 1.8.2.1	Qualified Individual Notification Drill Logs	Appendix A
Appendix F, 1.8.2.2	Spill Management Team Tabletop Exercise Logs	Appendix A
Appendix F, 1.8.3	Response Training	Appendix A
Appendix F, 1.8.3.1	Personnel Response Training Logs	Appendix A
Appendix F, 1.8.3.2	Discharge Prevention Meeting Logs	Appendix A
Appendix F, 1.9	Diagrams	Figures 2-1, C-2
Appendix F, 1.10	Security	Section 7.2
Appendix F, 2.0	Response Plan Cover Sheet	Preface
Appendix F, 3.0	Acronyms	Appendix G

APPENDIX I DRUG AND ALCOHOL POLICY

I.1 General Information

The following policy is direct from Corporate Human Resources, titled Policy #10002 Drugs and Alcohol. There are two sub-plans that are available upon request:

- Drug and Alcohol Policy Employee Guide

I.2 Policy

POLICY #10002

DRUGS AND ALCOHOL

GENERAL PURPOSE

To state the position of Marathon Petroleum Corporation ("MPC") and its consolidated subsidiaries (the "MPC Group") that the misuse of drugs, alcohol, or any substance having a physiological, psychological or biochemical effect impairs employee health, employee performance and creates unsafe working conditions. The company is committed to maintaining a productive, safe and healthy work environment free of unauthorized drug and unauthorized alcohol use.

Capitalized terms in this Policy shall have the meaning set forth in the Marathon Petroleum Corporation Drug and Alcohol Policy Employee Guide.

POLICY STATEMENT

It is the policy of the company to:

- Prohibit the manufacture, use, possession, distribution, dispensation, purchase or sale of Unauthorized Drugs, while engaged in company business or on Company Premises. Prohibit the consumption or possession of alcohol in unsealed or opened containers on Company Premises, or while engaged in company business, except in limited circumstances where specifically authorized
- Administer a comprehensive drug and alcohol testing program
- Conduct searches for unauthorized substances
- Provide for appropriate discipline for violations of this Policy
- Sponsor educational programs and, in appropriate circumstances, initiate rehabilitation
- Comply with all federal, state and local laws regarding drug and alcohol policies, including but not limited to developing, adopting, maintaining and enforcing drug and alcohol policies as required by the U.S. Department of Transportation (DOT) and the U.S. Coast Guard (USCG) for positions regulated by the DOT/USCG

This Policy should not be construed as creating or constituting a contract of employment, nor shall it be construed as limiting any action the company may take in administering the employee-employer relationship.

POLICY APPLICATION

This Policy applies to MPC and those entities within the MPC Group that have adopted it. Further, the substance of this Policy, appropriately adapted for the conditions involved, is recommended for adoption by MPC affiliate-operated joint venture entities.

POLICY #10002

POLICY ADMINISTRATION

The administration of this Policy is the responsibility of the MPC Chief Human Resources Officer, in consultation with the Law organization and Health Services. Such responsibility includes:

- Developing and implementing the Drug and Alcohol Policy Employee Guide, as well as any other operating practices, standards, procedures and guidelines to achieve the purpose and scope of this Policy
- Delegating the authorities granted herein to other employees of the company as he or she may deem advisable to achieve the purpose and scope of this Policy

POLICY REVIEW

This Policy shall be reviewed at least once every five years, or more frequently as stipulated by the approver, or when a significant change occurs, including any change in law, that impacts the content or substance of this Policy.

POLICY EXCEPTIONS

See the Drug and Alcohol Policy Employee Guide

REFERENCES

Drug and Alcohol Policy Employee Guide

POLICY #10002

REVISION HISTORY

Revision Number	Description of Change	Reviewed By	Review Date	Approved By	Approval Date	Effective Date	Next Review Date
0	Original Policy	MPC Management Executive Committee				06/30/2011	06/30/2016
	Reviewed with no change	Executive Vice President, Human Resources, Health and Administrative Services	05/04/2016	N/A	N/A	N/A	05/04/2021
1	Administrative	MPC Vice President, Corporate Secretary and Chief Compliance Officer	11/01/2016	MPC Vice President, Corporate Secretary and Chief Compliance Officer	11/01/2016	11/01/2016	05/04/2021
2	Administrative revisions associated with MarkWest integration	MPC Vice President, Corporate Secretary and Chief Compliance Officer	01/31/2017	MPC Vice President, Corporate Secretary and Chief Compliance Officer	01/31/2017	01/31/2017	05/04/2021
3	Administrative revisions associated with officer changes	MPC Vice President, Corporate Secretary and Chief Compliance Officer	01/08/2018	MPC Vice President, Corporate Secretary and Chief Compliance Officer	01/08/2018	01/08/2018	05/04/2021
4	Administrative revisions associated with Andeavor integration	MPC Vice President, Chief Securities, Governance & Compliance Officer and Corporate Secretary	11/20/2018	MPC Vice President, Chief Securities, Governance & Compliance Officer and Corporate Secretary	11/20/2018	10/1/2018	05/04/2021

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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 141952

CONDITIONS

Operator: Western Refining Southwest LLC 539 South Main Street Findlay, OH 45840	OGRID: 267595
	Action Number: 141952
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	9/12/2022