SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

D & Z Exploration, Inc

East Hastert Lease Production Facility

PO Box 159
St. Elmo, IL 62458

Prepared by
D & Z Exploration, Inc

July 13, 2015

Version 1.0, 11/28/2005

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* Only relevant rule provisions are indicated. For a complete list of SPCC requirements, refer to the full text of 40 CFR part 112.

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Introduction

The purpose of this Spill Prevention Control and Countermeasure (SPCC) Plan is to describe measures implemented by D&Z to prevent oil discharges from occurring, and to prepare Clearwater to respond in a safe, effective, and timely manner to mitigate the impacts of a discharge from the East Hastert Lease production facility. This SPCC Plan has been prepared and implemented in accordance with the SPCC requirements contained in 40 CFR part 112.

In addition to fulfilling requirements of 40 CFR part 112, this SPCC Plan is used as a reference for oil storage information and testing records, as a tool to communicate practices on preventing and responding to discharges with D&Z employees and contractors, as a guide on facility inspections, and as a resource during emergency response.

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Management Approval

40 CFR 112.7

D & Z Exploration, Inc. ("D&Z") is committed to maintaining the highest standards for preventing discharges of oil to navigable waters and the environment through the implementation of this SPCC Plan. This SPCC Plan has the full approval of Clearwater management. Clearwater's management has committed the necessary resources to implement the measures described in this Plan.

Deke Belden is the Designated Person Accountable for Oil Spill Prevention at this D&Z facility and has the authority to commit the necessary resources to implement the Plan as described.

Authorized Facility Representative:	Deke Belden
Signature:	Deke Belden
Title:	Field Operations Manager
Date:	July 15, 2015

Professional Engineer Certification

40 CFR 112.3(d)

The undersigned Registered Professional Engineer is familiar with the requirements of Part 112 of Title 40 of the *Code of Federal Regulations* (40 CFR part 112) and has visited and examined the facility, or has supervised examination of the facility by appropriately qualified personnel. The undersigned Registered Professional Engineer attests that this Spill Prevention, Control, and Countermeasure Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and the requirements of 40 CFR part 112; that procedures for required inspections and testing have been established; and that this Plan is adequate for the facility. [112.3(d)]

This certification in no way relieves the owner or operator of the facility of his/her duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR part 112.

Peter E. Trudeau — November 23, 2003
Signature — Date

Peter E. Trudeau, P.E.
Name of Professional Engineer

90535055 — Louisiana
Registration Number — Issuing State

PE Seal

Peter E. Trudeau
LA #90535055

Plan Review

40 CFR 112.5

In accordance with 40 CFR 112.5, D&Z periodically reviews and evaluates this SPCC Plan for any change in the facility design, construction, operation, or maintenance that materially affects the facility's potential for an oil discharge. D&Z reviews this SPCC Plan at least once every five years. Revisions to the Plan, if any are needed, are made within six months of this five-year review. D&Z will implement any amendment as soon as possible, but not later than six months following preparation of any amendment. A registered PE certifies any technical amendment to the Plan, as described above, in accordance with 40 CFR 112.3(d).

Scheduled five-year reviews and Plan amendments are recorded in Table 0-1. This log must be completed even if no amendment is made to the Plan. Unless a technical or administrative change prompts an earlier review, the next scheduled review of this Plan must occur by *November 23, 2008.*

Table 0-1: Record of Plan Review and Changes

Date	Authorized Individual	Review Type	PE Certification	Summary of Changes
07/15/15	Deke Belden	Initial Plan	Yes	N/A

Location of SPCC Plan

40 CFR 112.3(e)

In accordance with 40 CFR 112.3(e), and because the facility is normally unmanned, a complete copy of this SPCC is maintained at the field office closest to the facility, which is located approximately 51 miles from the facility at 33095 W. 183rd St Edgerton, KS 66021. Additional copies are available at the D & Z Exploration, Inc. management office, located at 900 N. Elm St. St. Elmo, IL 62458.

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Certification of Substantial Harm Determination

40 CFR 112.20(e), 40 CFR 112.20(f)(1)

Facility Name: **D & Z Exploration, Inc., East Hastert Lease**

1. 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 G No O

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and 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 within any aboveground storage tank area?

Yes G No O

3. 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 calculated using the appropriate formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

Yes G No O

4. 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 calculated using the appropriate formula) such that a discharge from the facility would shut down a public drinking water intake?

Yes G No O

5. 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 G No O

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 this information, I believe that the submitted information is true, accurate, and complete.

Deke Belden	*Field Operations Manager*
Signature	Title
Deke Belden	*July 15, 2015*
Name (type or print)	Date

PART I - GENERAL FACILITY INFORMATION

40 CFR 112.7(a)(3)

1.1 Company Information

Name of Facility:	D & Z Exploration, Inc. East Hastert Lease
Type	Onshore oil production facility
Date of Initial Operation	1972
Location	NE 1900 rd Garnett, KS 66032
Name and Address of Owner	D & Z Exploration, Inc. *Regional Field Office* 33095 W. 183rd St Edgerton, KS 66021 *Corporate Headquarters* 900 N. Elm St. St. Elmo, IL 62458

1.2 Contact Information

The designated person accountable for overall oil spill prevention and response at the facility, also referred to as the facility's "Response Coordinator" (RC), is the Field Operations Manager, Deke Belden. 24-hour contact information is provided in Table 1-1.

Personnel from D & Z Exploration, Inc. ("D & Z") provide operations (pumper/gauger), including performing informal daily examinations of the facility equipment, as described in Section 3.4 of this SPCC Plan. D & Z personnel regularly visit the facility to record production levels and perform other maintenance/inspection activities as requested by the D & Z Field Operations Manager. Key contacts for D & Z are included in Table 1-1.

Table 1-1: Facility contact information

Name	Title	Telephone	Address
David Belden	President of D & Z Exploration, Inc.	(618)829-3274	900 N. Elm St. St. Elmo, IL 62458
Zane Belden	Field Operations Manager D & Z Exploration, Inc.	(618)829-3270	900 N. Elm St. St. Elmo, IL 62458
Deke Belden	Field Operations Manager D & Z Exploration, Inc.	(618)829-3270 (office) (618)322-3359 (cell)	900 N. Elm St. St. Elmo, IL 62458
Matt Schott	Field Operations Supervisor D & Z Exploration, Inc..	(913) 369-5744 (cell)	33095 W. 183rd St. Edgerton, KS 66021

1.3 Facility Layout Diagram

Appendix A, at the end of this Plan, shows a general site plan for the facility. The site plan shows the site topography and the location of the facility relative to waterways, roads, and inhabited areas. Appendix A also includes a detailed facility diagram that shows the wells, flowlines, tank battery, and transfer areas for the facility. The diagram shows the location, capacity, and contents of all oil storage containers greater than 55 gallons in capacity.

1.4 Facility Location and Operations

D & Z owns and operates the East Hastert Lease production facility, which is located approximately six miles east of Garnett, Kansas (see Figure A-1 in Appendix A). The site is accessed through a private dirt/gravel road off NE 1900 Rd.

As illustrated in Figure A-2 in Appendix A, the lease is comprised of three main areas, the tank site facility, the lower lying farm field area, and the area to the east and north, which is on and around a hill, and includes two small cattle ponds. The tank facility is comprised of one 200 bbl gun barrel, two 200 bbl oil stock tanks, and three 200 bbl water tanks.

The production facility is generally unmanned. D & Z 's field office is located 51 miles from the site, at 33095 W. 183rd St. Edgerton, KS 66021. Field operations personnel from D & Z, or pumpers acting as contractors to D & Z visit the facility daily (2-4 hours each day) to record production rates and ensure the proper functioning of wellhead equipment and pumpjacks, storage tanks, flowlines, and separation vessels. This includes performing equipment inspections and maintenance as needed.

The facility produces an average of 20 bbl (840 gallons) of crude oil (approximately 22 API gravity) and 400 bbl (16,800 gallons) of produced water each day. The produced water tank contains an oil/produced water mixture. It is subject to 40 CFR part 112 and is covered by this

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SPCC Plan.

1.5 Oil Storage and Handling

1.5.1 Production Equipment

The tank facility is comprised of one 200 bbl gun barrel, two 200 bbl oil stock tanks, and two 200 bbl water tanks.

All oil storage tanks are shop-built and meet the American Petroleum Institute (API) tank construction standard. Their design and construction are compatible with the oil they contain and the temperature and pressure conditions of storage. Tanks storing crude or produced oil (#2 and #3) are constructed of welded steel following API-12F *Shop Welded Tanks for Storage of Production Liquids* specifications. Steel tanks are coated to minimize corrosion. Tank holding produced water (#1, #4, #5, and #6) constructed of fiberglass following API-12P *Fiberglass Reinforced Plastic Tanks* specifications.

Other production equipment present at the facility include the pumpjacks at each well and water pumps for transfer of saltwater to the injection well. These store a minimal amount of lubricating oil (less than 55 gallons). Lubricating oil and other substances, such as solvents and chemicals for downhole treatment, are also stored at the facility, but in quantities below the 55-gallon threshold for SPCC applicability. Table 1-2 lists all oil containers present at the facility with capacity of 55 gallons or more.

Table 1-2: Characteristics of oil containers

ID	Type	Construction	Primary Content	Capacity (barrels)	Capacity (gallons)
#1	Gun barrel	Fiberglass	Produced water and oil mixture	200	8,400
#2	AST	Steel	Oil	200	8,400
#3	AST	Steel	Oil	200	8,400
#4	AST	Fiberglass	Produced Water	200	8,400
#5	AST	Fiberglass	Produced water	200	8,400
			TOTAL	1,000	42,000

1.5.2 Transfer Activities

All production wells produce crude oil and produced water (saltwater). The oil and water are produced through the tubing. Well liquids are then routed via 2-inch steel flowlines to the gun barrel tank for separation. Produced saltwater is routed from the gun barrel to the 200-bbl saltwater storage tank first, then is pumped through flowlines to either the saltwater disposal well or the saltwater injection wells, where it is injected. The disposal and injection wells are located throughout the lease premises. The crude oil is sent to the two 200-bbl (16,800-gallon) oil storage tanks.

Crude oil from the lease is purchased by D & Z's crude oil purchaser and transported from the facility by the purchaser's tanker truck. Although daily well production rates may vary, enough crude is produced and stored for approximately one 180-bbl (7,560-gallon) load of oil to be picked up weekly by the transporter. The largest tanker truck visiting the facility has a total hauling capacity of 180 bbl (7,560 gallons). Tanker trucks come to the facility only to transfer crude oil and do not remain at the facility. All transfer operations are attended by the trucker or by field operations personnel and meet the minimum requirements of the U.S. Department of Transportation Hazardous Materials Regulations. Appendix B to this Plan summarizes the Tank Truck Loading Procedure at this facility.

Produced saltwater is pumped via transfer pumps from the saltwater tank to the saltwater disposal and injection wells, located throughout the leased premises, by 2-inch PVC flowlines (FLSW). The disposal well meets all requirements of the Underground Injection Control (UIC) program (40 CFR parts 144-148).

1.6 Proximity to Navigable Waters

The tank facility is located the south of two creeks, one flowing west by northwet, and one flowing generally north. The creek running north has been formed by the overflow of a small pond that is east of the tank facility, and higher in elevation, making it impossible for any tank site leaks to be released into the pond, but said leaks could reach the creeks should they breach containment

1.7 Conformance with Applicable State and Local Requirements [112.7(j)]

The SPCC regulation at 40 CFR part 112 is more stringent than requirements from the state of Kansas for this type of facility. This SPCC Plan was written to conform with 40 CFR part 112 requirements. The facility thereby conforms with general requirements for oil pollution facilities in Kansas. All discharge notifications are made in compliance with local, state, and federal requirements.

PART II. SPILL RESPONSE AND REPORTING

40 CFR 112.7

2.1 Discharge Discovery and Reporting [112.7(a)(3)]

Several individuals and organizations must be contacted in the event of an oil discharge. The Field Operations Manager is responsible for ensuring that all required discharge notifications have been made. All discharges should be reported to the Field Operations Manager. The summary table included in Appendix F to this SPCC Plan provides a list of agencies to be contacted under different circumstances. Discharges would typically be discovered during the inspections conducted at the facility in accordance with procedures set forth in Section 3.4.1 of this SPCC Plan, Table 3-3 and Table 3-4, and on the checklist of Appendix C. The Form included in Appendix F of this Plan summarizes the information that must be provided when reporting a discharge, including contact lists and phone numbers.

2.1.1 Verbal Notification Requirements (Local, State, and Federal (40 CFR part 110))

Any unauthorized discharge into air, land or water must be reported immediately to the State Police and the Emergency Planning Commission as soon as the discharge is detected.

For any discharge that reaches navigable waters, or threatens to reach navigable waters, *immediate* notification must be made to the National Response Center Hotline (800-424-8802) and to the Environmental Protection Agency.

In the event of a discharge that threatens to result in an emergency condition, facility field personnel must verbally notify the Kansas Department of Health and Environment (785-291-3333) immediately, and in no case later than *within one (1) hour* of the discovery of the discharge. An emergency condition is any condition that could reasonably be expected to endanger the health and safety of the public; cause significant adverse impact to the land, water, or air environment; or cause severe damage to property. This notification must be made regardless of the amount of the discharge.

In the event of a discharge that does not present an emergency situation, verbal notification must be made to the Kansas Corporation Commission District Representative (by telephone at 620-432-2303 during office hours or 620-432-6509 after hours, weekends, and holidays; or by e-mail (t.russell@kcc.ks.gov) utilizing the *within twenty-four (24) hours* of the discovery of the discharge.

2.1.2 Written Notification Requirements (State and Federal (40 CFR part 112))

A written notification will be made to EPA for any single discharge of oil to a navigable waters or adjoining shoreline waterway of more than 1,000 gallons, or for two discharges of 1 bbl (42 gallons) of oil to a waterway in any 12-month period. This written notification must be made within 60 days of the qualifying discharge, and a copy will be sent to the Kansas Department of Environmental Quality (DEQ), which is the state agency in charge of oil pollution control

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activities. This reporting requirement is separate and in addition to reporting under 40 CFR part 110 discussed above.

For any discharge reported verbally, a written notification must also be sent to the DEQ within five (5) days of the qualifying discharge.

A written notification to the State Emergency Response Commission or KCC is required for a discharge of 100 lbs or more beyond the confines of the facility (equivalent to 2 mcf of natural gas, or 13 gallons of oil) within five (5) days of the qualifying discharge.

2.1.3 Submission of SPCC Information

Whenever the facility experiences a discharge into navigable waters of more than 1,000 gallons, or two discharges of 42 gallons or more within a 12-month period, D & Z will provide information in writing to the EPA Regional office within 60 days of a qualifying discharge as described above. The required information is described in Appendix F of this SPCC Plan.

2.2 Spill Response Materials

Boom, sorbent, and other spill response materials are stored in the shed next to the loading area and are accessible by D & Z personnel. The response equipment inventory for the facility includes:

Oil sorbent loose material
Booms
Rakes
Shovel
Broom
Neoprene gloves

Additional equipment and material are also kept at the field office. The inventory is checked monthly by D & Z field operations personnel to ensure that used material is replenished. Supplies and equipment may be ordered from:

(1) Oil Patch Supply (620) 431-1890
(2) New Pig www.newpig.com (855) 493-4647

2.3 Spill Mitigation Procedures

The following is a summary of actions that must be taken in the event of a discharge. It summarizes the distribution of responsibilities among individuals and describes procedures to follow in the event of a discharge.

Reminder: *In the event of a discharge originating from Lease Flowlines, facility personnel must immediately implement the Oil Spill Contingency Plan. The Oil Spill Contingency Plan discusses the additional procedures that must be followed to respond to a discharge of oil to navigable waters or adjoining shorelines.*

A complete outline of actions to be performed in the event of a discharge from flowlines reaching or threatening to reach navigable waters is included in the facility Contingency Plan (see Appendix I of this SPCC Plan).

In the event of a discharge, D & Z or contractor field personnel and the Field Operations Manager shall be responsible for the following:

2.3.1 Shut Off Ignition Sources

Field personnel must shut off all ignition sources, including motors, electrical circuits, and open flames. See Appendix G for more information about shut-off procedures.

2.3.2 Stop Oil Flow

Field personnel should determine the source of the discharge, and if safe to do so, immediately shut off the source of the discharge. Shut in the well(s) if necessary.

2.3.3 Stop the Spread of Oil and Call the Field Operations Manager

If safe to do so, field personnel must use resources available at the facility (see spill response material and equipment listed in Section 2.2) to stop the spilled material from spreading. Measures that may be implemented, depending on the location and size of the discharge, include placing sorbent material or other barriers in the path of the discharge (e.g., sand bags), or constructing earthen berms or trenches.

In the event of a significant discharge, field personnel must immediately contact the Field Operations Manager, who may obtain assistance from authorized company contractors and direct the response and cleanup activities. Should a discharge reach one of the small creeks, only physical response and countermeasures should be employed, such as the construction of underflow dams, installation of hard boom and sorbent boom, use of sorbent pads, and use of vacuum trucks to recover oil and oily water from the creek. If water flow is low in the creek, construction of an underflow dam downstream and ahead of the spill flow may be advantageous. Sorbent material and/or boom should be placed immediately downstream of the dam to recover any sheen from the water. If water flow is normal in the creek, floating booms and sorbent boom will be deployed. Vacuum trucks will then be utilized to remove oil and oily water at dams and other access points. Crews should remove oiled vegetation and debris from the creek banks and place them in bags for later disposal. After removal of contaminated vegetation, creek banks should be flushed with water to remove free oil and help it flow down to dams and other access points where it can be recovered by vacuum truck. At no time shall any surfactants, dispersants, or other chemicals be used to remove oil from the creek.

2.3.4 Gather Spill Information

The Field Operations Manager will ensure that the *Discharge Notification Form* is filled out and

that notifications have been made to the appropriate authorities. The Field Operations Manager may ask for assistance in gathering the spill information on the *Discharge Notification Form* (Appendix F) of this Plan:

- Reporter's name
- Exact location of the spill
- Date and time of spill discovery
- Material spilled (e.g., oil, produced water containing a reportable quantity of oil)
- Total volume spilled and total volume reaching or threatening navigable waters or adjoining shorelines
- Weather conditions
- Source of spill
- Actions being taken to stop, remove, and mitigate the effects of the discharge
- Whether an evacuation may be needed
- Spill impacts (injuries; damage; environmental media, e.g., air, waterway, groundwater)
- Names of individuals and/or organizations who have also been contacted

2.3.5 Notify Agencies Verbally

Some notifications must be completed *immediately* upon discovering the discharge. It is important to immediately contact the Field Operations Manager so that timely notifications can be made. If the Field Operations Manager is not available, or the Field Operations Manager requests it, field personnel must designate one person to begin notification. Section 2.1 of this Plan describes the required notifications to government agencies. The Notification List is included in Appendix F of this SPCC Plan. The Field Operations Manager must also ensure that written notifications, if needed, are submitted to the appropriate agencies.

2.4 Disposal Plan

The cleanup contractor will handle the disposal of any recovered product, contaminated soil, contaminated materials and equipment, decontamination solutions, sorbents, and spent chemicals collected during a response to a discharge incident.

Any recovered product that can be recycled will be placed into the gun barrel tank to be separated and recycled. Any recovered product not deemed suitable for on-site recycling will be disposed of with the rest of the waste collected during the response efforts.

If the facility responds to a discharge without involvement of a cleanup contractor, Clearwater will contract a licensed transportation/disposal company to dispose of waste according to regulatory requirements. The Field Operations Manager will characterize the waste and arrange for the use of certified waste containers.

All facility personnel handling hazardous wastes must have received both the initial 40-hour and annual 8-hour refresher training in the Hazardous Waste Operations and Emergency Response

Standard (HAZWOPER) of the Occupational Health and Safety Administration (OSHA). This training is included as part of the initial training received by all field personnel. Training records and certificates are kept at the field office.

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PART III. SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PROVISIONS

40 CFR 112.7 and 112.9

3.1 Potential Discharge Volume and Direction of Flow [112.7(b)] and Containment [112.7(a)(3)(iii)]

Table 3-1, below, summarizes potential oil discharge scenarios. If unimpeded, oil could follow the site topography and reach one of the two small creeks.

Table 3-1: Potential discharge volume and direction of flow

Source	Type of failure	Maximum Volume (gal)	Maximum Discharge Rate (gal/hr)	Direction of Flow	Containment
Tank Battery					
Crude Oil Storage Tank	Rupture due to lightning strike, seam failure	8,400	8,400	North to creeks and lower lying farm field, containment berm	Containment berm
	Leak at manway, valves	24	1	North to creeks and lower lying farm field, containment berm	
	Overflow (1 day's production)	1,260	53	North to creeks and lower lying farm field, containment berm	
Gun barrel	Rupture due to lightning strike, seam failure	8,400	8,400	North to creeks and lower lying farm field, containment berm	Containment berm
	Leak at manway, valves	8,400	8,400	North to creeks and lower lying farm field, containment berm	
	Overflow (1 day's production)	1,260	53	North to creeks and lower lying farm field, containment berm	Containment berm
Flowlines and Piping					
Flowlines and Piping on Storage Tanks and Gun Barrel	Rupture/failure due to corrosion	840	35	North to creeks and lower lying farm field	Containment berm
	Pinhole leak, or leak at connection	840	35	North to creeks and lower lying farm field	
Flowlines and Piping associated with wells	Rupture/failure due to corrosion	840	35	North to creeks and lower lying farm field	None; See Oil Spill Contingency Plan

Source	Type of failure	Maximum Volume (gal)	Maximum Discharge Rate (gal/hr)	Direction of Flow	Containment
	Pinhole leak, or leak at connection	840	35	North to creeks and lower lying farm field, containment berm	None; See Oil Spill Contingency Plan
Wells					
Polished rod stuffing box, valves, fittings, gauges	Leak	24	1	North to creeks and lower lying farm field, containment berm	Well pad
Saltwater Disposal					
Piping/hoses, pumps, valves	Leak	24	1	North to creeks and lower lying farm field, containment berm	Containment berm
Transfers and Loading Operations					
Transport truck loading hose	Rupture	84	84	North to creeks and lower lying farm field, containment berm	Downslope berm
Offload line, connection	Leak	42	1	North to creeks and lower lying farm field, containment berm	Downslope berm
Tank truck	Over-topping while loading	1,680	1,680	North to creeks and lower lying farm field, containment berm	Drainage ditch
Transfer valve	Rupture, leak of valve packing	3	3	North to creeks and lower lying farm field, containment berm	Load line container, curb

3.2 Containment and Diversionary Structures [112.7(c) and 112.7(a)(3)(iii)]

The facility is configured to minimize the likelihood of a discharge reaching navigable waters. The following measures are provided:

- Secondary containment for the oil storage tanks, saltwater tank (which may have small amounts of oil), and gun barrel is provided by a 69 ft x 37 ft x 1.5 ft earthen berm that provides a total containment volume of 682 barrels (28,645 gallons), as described in Section 3.2.2 below. The berm is constructed of native soils and heavy clay that have been compacted, then covered with a layer of lime. A clay layer in the shallow subsurface exists naturally and will stop any spilled oil from seeping to deeper groundwater.

- Booms, sorbents, shovels, and other discharge response materials are stored in a shed located in close proximity to the loading area. This material is sufficient to contain small discharges. These measures are described in more details in the

following sections.

3.2.1 Oil Production Facility Drainage [112.9(b)]

Facility drainage in the production/separation area but outside containment berms is designed to flow into drainage ditches located on the North/Northwest boundaries of the site. These ditches usually run dry. The ditches are visually examined by facility personnel on a daily basis during routine facility rounds, during formal monthly inspections, and after rain events, to detect any discoloration or staining that would indicate the presence of oil from small leaks within the facility. Any accumulation of oil is promptly removed and disposed off site.

Discharges from ASTs are restrained by the secondary containment berm, as described in Section 3.2.2 of this Plan. Discharges occurring during transfer operations will be contained at each well by the rock pad.

3.2.2 Secondary Containment for Bulk Storage Containers [112.9(c)(2)]

In order to further minimize the potential for a discharge to navigable waters, bulk storage containers such as all tank battery, separation, and treating equipment are placed inside a 1.5-ft tall earthen berm (fire wall). The berm capacity exceeds the SPCC and Kansas requirements. It provides secondary containment sufficient for the size of the largest tank, plus extra freeboard to contain precipitation. This secondary containment capacity is equivalent to 341 percent of the capacity of the largest tank within the containment area (200 barrels) and exceeds the 10 percent freeboard recommended by API for firewalls around production tanks (API-12R1). The amount of freeboard also exceeds the amount of precipitation anticipated at this facility. Details of the berm capacity calculation are provided in Table 3-2.

Table 3-2: Berm capacity calculations

Berm Capacity	
Berm height	1.5 ft
Berm dimensions	69 ft x 37 ft = 2,553 ft^2
Tank footprint	6 tanks @ 12 ft dia. each = 6 x (π $12^2/6$) = 452 ft^2
Net volume	1.5 ft x (2,553 - 452) = 3152 ft^3 = 23,586 gallons
Ratio to largest tank	23,586 / 8,400 = 280%
Corresponding Amount of Freeboard	
100% of tank volume	8,400 gallons = 1,123 ft^3
Net area (minus tank footprint)	2,553 ft^2 - 452 ft^2 = 2101 ft^2
Minimum berm height for 100% of tank volume	1,123 ft^3 / 2,101 ft^2 = 0.53 ft
Freeboard	1.5 ft – 0.53 ft = 0.97 ft

The floor and walls of the berm are constructed of compacted earth with a layer of clay that ensures that the berm is able to contain the potential release of oil from the storage tanks until the discharge can be detected and addressed by field operations personnel. Facility personnel inspect the berm daily for the presence of oil. The sides of the berm are capped with gravel to minimize erosion.

The berm is equipped with a submerged 55 gallon drum, from which all rainwater is pumped into the water tanks via a small transfer pump. This system is only operated manually with an employee on site.

3.2.3 Practicability of Secondary Containment [112.7(d)]

Flowlines adjacent to the production equipment and storage tanks are located within the berm, and therefore have secondary containment. Aboveground flowlines that go from the wells to the production equipment and buried flowlines, however, lack adequate secondary containment.

The installation of double-wall piping, berms, or other permanent structures (e.g., remote impoundment) are impracticable at this facility due to the long distances involved and physical and road/fenceline right-of-way constraints. Additionally, such permanent structures would create land erosion and access problems for the landowner's farming operations and current uses of the land (e.g., agricultural production, animal grazing).

Other measures listed under 40 CFR 112.7(c) such as the use of sorbents are also impracticable as means of secondary containment since the volumes involved may exceed the sorbent capacity and the facility is attended for only a few hours each day.

Because secondary containment for flowlines outside of the tank battery is impracticable, D & Z has provided with this Plan additional elements required under 40 CFR 112.7(d), including:

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- A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful (see Appendix H).
- An Oil Spill Contingency Plan following the provisions of 40 CFR 109 (see Appendix I).

3.3 Other Spill Prevention Measures

3.3.1 Bulk Storage Containers Overflow Prevention [112.9(c)(4)]

The tank battery is designed with a fail-safe system to prevent discharge, as follows:

- The capacity of the oil storage tanks is sufficient to ensure that oil storage is adequate in the event where facility personnel are unable to perform the daily visit to unload the tanks or the pumper is delayed in stopping production. The maximum capacity of the wells linked to the tank battery is approximately 1,000 barrels per day. The oil tanks are sized to provide sufficient storage for at least six days.

$ The tanks are connected with overflow equalizing lines to ensure that a full tank can overflow to an adjacent tank.

3.3.2 Transfer Operations and Saltwater Disposal System [112.9(d)]

All aboveground valves and piping associated with transfer operations are inspected daily by the pumper and/or tank truck driver, as described in Section 3.4 of this Plan. The inspection procedure includes observing flange joints, valve glands and bodies, drip pans, and pipe supports. The conditions of the pumping well polish rod stuffing boxes, and bleeder and gauge valves, are inspected monthly.

Components of the produced water disposal system are inspected on a daily basis by field operation personnel as described in Section 3.4 and following the checklist provided in Appendix C of this SPCC Plan. This includes the pumps and motors for working condition and leaks, hoses, valves, flowlines, and the saltwater injection wellhead. Maintenance and operation of the well itself and the downhole injection comply with EPA's and the state's Underground Injection Control (UIC) rules and regulations (40 CFR parts 144-148).

3.4 Inspections, Tests, and Records [112.7(e)]

This Plan outlines procedures for inspecting the facility equipment in accordance with SPCC requirements. Records of inspections performed as described in this Plan and signed by the appropriate supervisor are a part of this Plan, and are maintained with this Plan at the St. Elmo office for a minimum of three years. The reports include a description of the inspection procedure, the date of inspection, whether drainage of accumulated rainwater was required, and

the inspector's signature.

The program established in this SPCC Plan for regular inspection of all oil storage tanks and related production and transfer equipment follows the American Petroleum Institute's *Recommended Practice for Setting Maintenance, Inspection, Operation, and Repair of Tanks in Production Service* (API RP 12R1, Fifth Edition, August 1997). Each container is inspected monthly by field operation personnel as described in this Plan section and following the checklist provided in Appendix C of this SPCC Plan. The monthly inspection is aimed at identifying signs of deterioration and maintenance needs, including the foundation and support of each container. Any leak from tank seams, gaskets, rivets, and bolts is promptly corrected.

This Plan also describes provisions for monitoring the integrity of flowlines through a combination of monthly visual inspections and periodic pressure testing or through the use of an alternate technology. The latter element is particularly important for this facility since flowlines do not have adequate secondary containment.

The inspection program is comprised of informal daily examinations, monthly scheduled inspections, and periodic condition inspections. Additional inspections and/or examinations are performed whenever an operation alert, malfunction, shell or deck leak, or potential bottom leak is reported following a scheduled examination. Written examination/inspection procedures and monthly examination/inspection reports are signed by the field inspector and are maintained at the field office for a period of at least three years.

3.4.1 Daily Examinations

The facility is visited daily by field operations personnel. The daily visual examination consists of a walk through of the tank battery and around the wells. Field operations personnel check the wells and production equipment for leaks and proper operation. They examine all aboveground valves, polished rod stuffing boxes, wellheads, fittings, gauges, and flowline piping at the wellhead. Personnel inspect pumps to verify proper function and check for damage and leakage. They look for accumulation of water within the tank battery berms and verify the condition and position of valves. The storage tanks are gauged every day. A daily production report is maintained. All malfunctions, improper operation of equipment, evidence of leakage, stained or discolored soil, etc. are logged and communicated to the D & Z Field Operations Manager.

Table 3-3: Scope of daily examinations

Facility Area	Item	Observations
Storage Tanks (Oil and Produced water)	Leaks	Tank liquid level gauged Drip marks, leaks from weld seams, base of tank Puddles containing spilled or leak material Corrosion, especially at base (pitting, flaking) Cracks in metal Excessive soil or vegetation buildup against base

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Facility Area	Item	Observations
	Foundation problems	Cracks Puddles containing spilled or leaked material Settling Gaps at base
	Flowlines problems	Evidence of leaks, especially at connections/collars Corrosion (pitting, flaking) Settling Evidence of stored material seepage from valves or seals
Wells	Leak	Evidence of oil seepage from pumping rod stuffing boxes, wellhead and wellhead flowlines, valves, gauges
SW Pumps	Leaks	Leaks at seals, flowlines, valves, hoses Puddles containing spilled or leaked material Corrosion

3.4.2 Monthly Inspections

Table 3-4 summarizes the scope of monthly inspections performed by field personnel.

The monthly inspection covers the wellheads, flowlines, and all processing equipment. It also includes verifying the proper functioning of all detection devices, including high-level sensors on oil storage tanks, heater treater, and separators. Storage tanks are inspected for signs of deterioration, leaks, or accumulation of oil inside the containment area, or other signs that maintenance or repairs are needed. The secondary containment area is checked for proper drainage, general conditions, evidence of oil, or signs of leakage. The monthly inspection also involves visually inspecting all aboveground valves and pipelines and noting the general condition of items such as transfer hoses, flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, pumping well pumping rod stuffing boxes, bleeder and gauge valves, locking of valves, and metal surfaces.

The checklist provided in Appendix C is used during monthly inspections. These inspections are performed in accordance with written procedures such as API standards (e.g., API RP 12R1), engineering specifications, and maintenance schedule developed by the equipment manufacturers.

All safety devices are tested quarterly by a third party inspector. The tests are recorded and the results are maintained with this Plan at D&Z's field office. Testing of the safety devices is conducted in accordance with guidelines API RP-14C published by the American Petroleum Institute, or in accordance with instructions from the device's manufacturer. Written test procedures are kept at the offices of the third party testing company and are available upon request.

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Table 3-4: Scope of monthly inspections

Facility Area	Equipment	Inspection Item
Tank Battery	Storage tanks	Leakage, gaskets, hatches Tank liquid level checked Tank welds in good condition Vacuum vents Overflow lines Piping, valves, and bull plugs Corrosion, paint condition Pressure / level safety devices* Emergency shut-down system(s)* Pressure relief valves*
	Area	Berm and curbing Presence of contaminated/stained soil Excessive vegetation Equipment protectors and signs Engine drip pans and sumps General housekeeping
Truck Loading	Offload lines, drip pans, valves, catchment berm	Valve closed and in good condition Cap or bull plug at end of offload line/connection Sign of oil or standing water in drip pan(s) Sign of oil or standing water in catchment berm Sign of oil in surrounding area
	Production equipment	Gauges (pressure, temperature, and liquid level) Pressure / level safety devices* Emergency shut-down system(s)* Pressure relief valves*
Wells (including saltwater disposal well)	Area	Spills and leaks (e.g., stuffing box) Equipment protectors and signs General housekeeping
Leasehold area between wells and Tank Battery	Flowlines	Flowline between the well and tank battery/gun barrel Exposed line of buried piping Valves (condition of, whether locked or sealed) Evidence of leaks and/or damage, especially at connections/collars Corrosion (pitting, flaking) Pipe supports
	Road and Field Ditches	Evidence/puddles of crude oil and/or produced water
Other	Chemicals, Fuels and Lube Oils	Storage conditions
Response staging areas	Area	Road practicable by field vehicle Area clear of excessive vegetation

* Tested quarterly by third party inspection company.

3.4.3 Periodic Condition Inspection of Bulk Storage Containers

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A condition inspection of bulk storage containers is performed by a qualified inspector according to the schedule and scope specified in API RP 12R1. The schedule is determined based on the corrosion rate; with the first inspection performed no more than 15 years after the tank construction, as detailed in Table 3-5.

Three bulk storage containers installed at this facility were moved from another facility decommissioned by Clearwater. These bulk storage containers were leak tested after relocation to the facility.

Table 3-5: Schedule of periodic condition inspection of bulk storage containers

Tank	Year Built	Last Inspection	Next inspection by
#1	1980's	7/15/15	10/1/15
#2	1980's	7/15/15	10/1/15
#3	1980's	7/15/15	10/1/15
#4	1980's	7/15/15	10/1/15
#5	1980's	7/15/15	10/1/15
#6	1980's	7/15/15	10/1/15

* Dates for subsequent external inspections must follow the recommendations of the certified inspector, not to exceed three-quarters of the predicted shell/roof deck corrosion rate life, or maximum of 15 years.

3.4.4 Brittle Fracture Evaluation [112.7(i)]

At the present time, none of the bulk storage containers at this site was field-erected, and therefore no brittle fracture evaluation is required.

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3.4.5 Flowline Maintenance Program [112.9(d)(3)]

Because the facility is relying on a contingency plan to address discharges, the flowline maintenance program is specifically implemented to maintain the integrity of the primary container (in this case piping) to minimize releases of oil from this part of the production facility. The facility's gathering lines and flowlines are configured, inspected monthly for leaks at connections and on each joint, corrosion (pitting, flaking), and maintained to minimize the potential for a discharge as summarized in Table 3-6. Records of integrity inspections, leak tests, and part replacements are kept at the facility for at least three years (integrity test results are kept for ten years).

Table 3-6: Components of flowline maintenance program

Component	Measures/Activities
Configuration	$ All Well are equipped with very low volume pumps and due to the low API gravity of the crude oil, the risk of a large or long distance migrating spill is very minimal in th event flowline leak. • Flowlines are underground but the routes are inspection by facility personnel daily. • All above ground infrastructure can be visually observed for signs of leakage, deterioration, or other damage.
Inspection	$ Lines are visually inspected for leaks and corrosion as part of the monthly rounds by field personnel, as discussed in Section 3.4 above.
Maintenance	$ Any leak in the flowline or appurtenances is promptly addressed by isolating the damaged portion and repairing or replacing the faulty piece of equipment. Any portion of a flowline that fails the mechanical integrity test is repaired and retested, or replaced.

3.5 Personnel, Training, and Discharge Prevention Procedures [112.7(f)]

The Field Operations Manager has been designated as the point of contact for all oil discharge prevention and response at this facility.

All D & Z field personnel receive training on proper handling of oil products and procedures to respond to an oil discharge prior to entering any D & Z production facility. The training ensures that all facility personnel understand the procedures described in this SPCC Plan and are informed of the requirements under applicable pollution control laws, rules and regulations. The training also covers risks associated with potential exposure to hydrogen sulfide (H_2S) gas. All D & Z field personnel also receive an initial 40-hour HAZWOPER training (and 8-hour annual refresher training) as per OSHA standard.

D & Z ensures that all contractor personnel are familiar with the facility operations, safety procedures, and spill prevention and control procedures described in this Plan prior to working at the facility. All contractors working at the facility receive a copy of this SPCC Plan.

D & Z management holds briefings with field operations personnel (including contractor personnel as appropriate) at least once a year, as described below.

3.5.1 Spill Prevention Briefing

The Field Operations Manager conducts Spill Prevention Briefings annually to ensure adequate understanding and effective implementation of this SPCC Plan. These briefings highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures. The briefings are conducted in conjunction with the company safety meetings. Sign-in sheets, which include the topics of discussion at each meeting, are maintained with this Plan at D & Z's field office. A *Discharge Prevention Briefing Log* form is provided in Appendix E to this Plan and is used to document the briefings. The scheduled annual briefing includes a review of D & Z policies and procedures relating to spill prevention, control, cleanup, and reporting; procedures for routine handling of products (e.g., loading, unloading, transfers); SPCC inspections and spill prevention procedures; spill reporting procedures; spill response; and recovery, disposal, and treatment of spilled material.

Personnel are instructed in operation and maintenance of equipment to prevent the discharge of oil, and in applicable federal, state, and local pollution laws, rules, and regulations. Facility operators and other personnel have an opportunity during the briefings to share recommendations concerning health, safety, and environmental issues encountered during facility operations.

The general outline of the briefings is as follows:

- Responsibilities of personnel and Designated Person Accountable for Spill Prevention;
- Spill prevention regulations and requirements;
- Spill prevention procedures;
- Spill reporting and cleanup procedures;
- History/cause of known spill events;
- Equipment failures and operational issues;
- Recently developed measures/procedures;
- Proper equipment operation and maintenance; and
- Procedures for draining rainwater from berms.

3.5.2 Contractor Instructions

In order that there will be no misunderstanding on joint and respective duties and responsibilities to perform work in a safe manner, contractor personnel also receive instructions on the procedures outlined in this SPCC Plan. The instructions cover the contractor activities such as servicing a well or equipment associated with the well, such as pressure vessels.

All contractual agreements between D & Z and contractors specifically state:

> Personnel must, at all times, act in a manner to preserve life and property, and prevent pollution of the environment by proper use of the facility's prevention and containment systems to prevent hydrocarbon and hazardous material spills. No pollutant, regardless of the volume, is to be disposed of onto the ground or water, or allowed to drain into the ground or water. Federal regulations impose substantial fines and/or imprisonment for willful pollution of navigable waters. Failure to report accidental pollution at this facility, or elsewhere, can be cause for equally severe penalties to be imposed by federal regulations. To this end, all personnel must comply with every requirement of this SPCC Plan, as well as taking necessary actions to preserve life, and property, and to prevent pollution of the environment. It is the contractor's (or subcontractor's) responsibility to maintain his equipment in good working order and in compliance with this SPCC Plan. The contractor (or subcontractor) is also responsible for the familiarity and compliance of his personnel with this SPCC Plan. Contractor and subcontractor personnel must secure permission from D & Z's Field Operations Manager before commencing any work on any facility. They must immediately advise the Field Operations Manager of any hazardous or abnormal condition so that the Field Operations Manager can take corrective measures.

APPENDIX A: Facility Diagrams

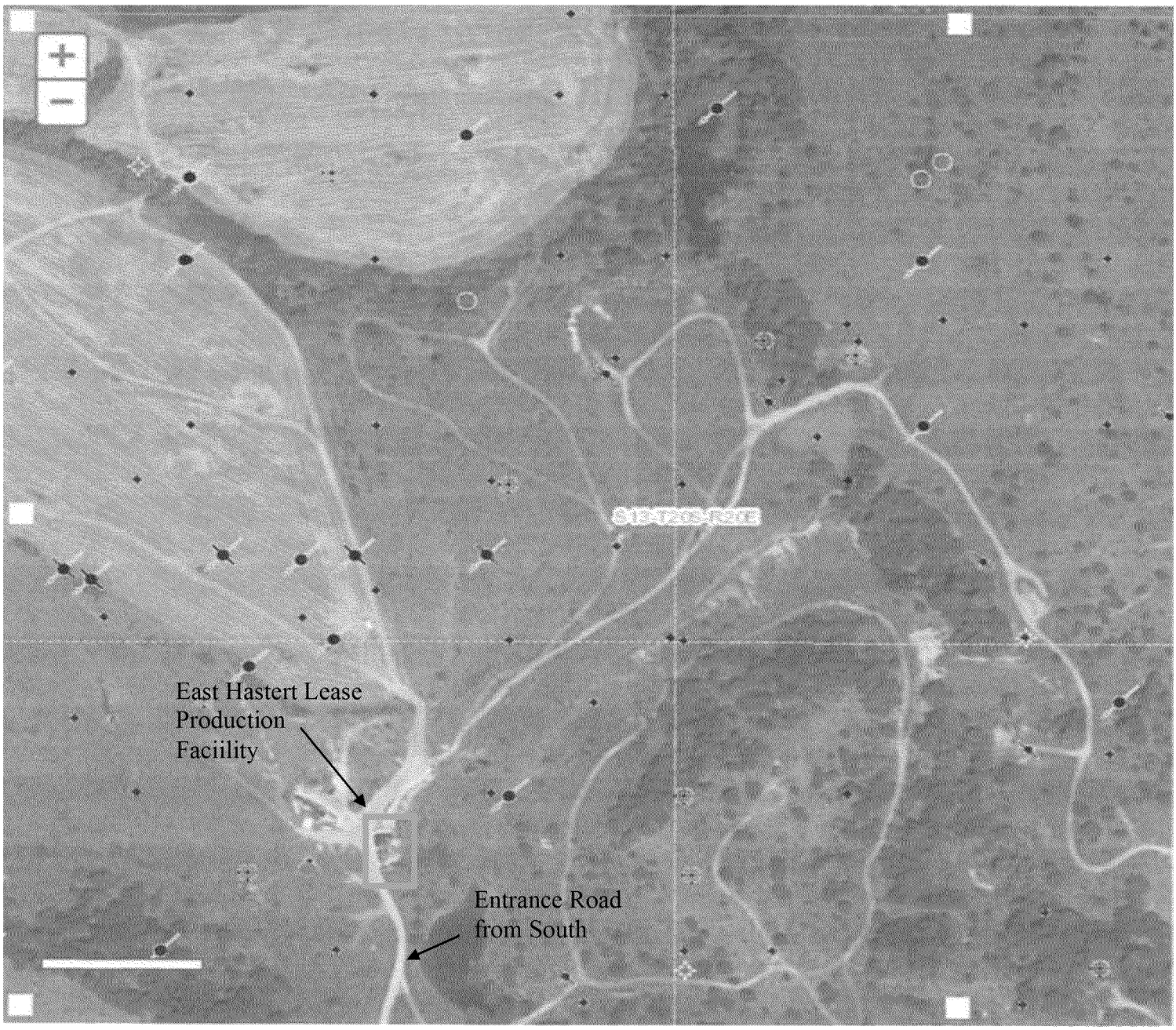

Figure A-1: Site Plan

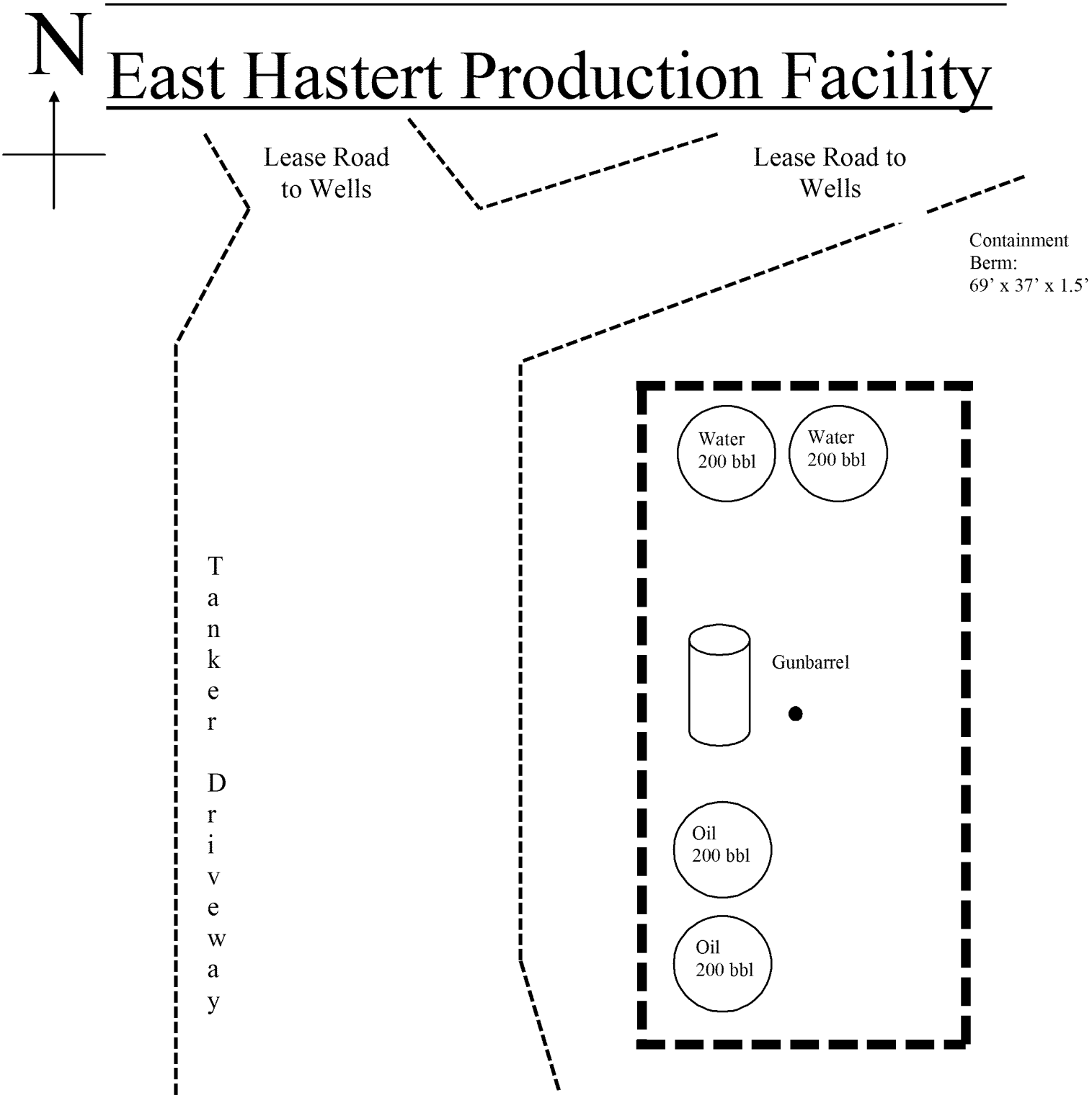

Figure A-2: Production Facility Diagram

APPENDIX B: Tank Truck Loading Procedures

Loading Tank Truck

Make sure the vehicle tank is properly vented before starting to load or unload. If you are not certain that the trailer is properly vented, you must contact your supervisor and request permission to open the trailer dome before starting to load or unload.

To Load from Storage Tank to Tank Truck

- Attach ground cable or bonding clamp to trailer.
- Use wheel chocks or other similar barrier to prevent premature departure.
- Hook up load hose and open all appropriate valves from storage tank to trailer entry.
- Disengage clutch and place pump in load position.
- Release clutch slowly.
- Adjust throttle to proper engine RPM.
- When trailer is loaded to appropriate level, slow engine speed.
- Close valve to storage tank.
- Loosen loading hose to allow enough air to drain loading hose dry.
- Ensure that drips from the hose drain into the spill bucket at the loading area.
- Disconnect loading hose completely, close load valve, plug and fasten securely.
- Close belly valve on trailer.
- Disconnect ground cable.
- Promptly clean up any spilled oil.
- Inspect lowermost drains and valves of the vehicle for discharges/leaks and ensure that they are tightened, adjusted, or replaced as needed to prevent discharges while vehicle is in transit.

APPENDIX C: Monthly Inspection Checklist

Further description and comments, if needed, should be provided on a separate sheet of paper and attached to this sheet. Any item answered "YES" needs to be promptly reported, repaired, or replaced, as it may result in non-compliance with regulatory requirements. Records are maintained with the SPCC Plan at the Ridgeview field office.

Date: _____ Signature: _____

	Yes	No	Description & Comments (Note tank/equipment ID)
Storage tanks and Separation Equipment			
Tank surfaces show signs of leakage			
Tanks show signs of damage, rust, or deterioration			
Bolts, rivets or seams are damaged			
Aboveground tank supports are deteriorated or buckled			
Aboveground tank foundations have eroded or settled			
Gaskets are leaking			
Level gauges or alarms are inoperative			
Vents are obstructed			
Thief hatch and vent valve does not seal air tight			
Containment berm shows discoloration or stains			
Berm is breached or eroded or has vegetation			
Berm drainage valves are open/broken			
Tank area clear of trash and vegetation			
Equipment protectors, labels, or signs are missing			
Piping/Flowlines and Related Equipment			
Valve seals or gaskets are leaking.			
Pipelines or supports are damaged or deteriorated.			
Buried pipelines are exposed.			
Transfer equipment			
Loading/unloading lines are damaged or deteriorated.			
Connections are not capped or blank-flanged			
Secondary containment is damaged or stained			
Response Kit Inventory			
Discharge response material is missing or damaged or needs replacement			

Additional Remarks (attach sheet as needed):

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APPENDIX D: Record of Dike Drainage

This record must be completed when rainwater from diked areas is drained into a storm drain or into an open watercourse, lake, or pond, and bypasses the water treatment system. The bypass valve must normally be sealed in closed position and opened and resealed following drainage under responsible supervision. Records are maintained with the SPCC Plan at the Ridgeview field office.

Date	Area	Presence of Oil	Time Started	Time Finished	Signature
07/15/2015	Tank battery	No oil	08:00	8:40	

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APPENDIX E: Discharge Prevention Briefing Log

Date	Type of Briefing	Instructor(s)
	Scheduled refresher. All field personnel.	Deke Belden
	Scheduled refresher. All field personnel.	

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APPENDIX F: Discharge Notification Procedures

Circumstances, instructions, and phone numbers for reporting a discharge to the National Response Center and other federal, state, and local agencies, and to other affected parties, are provided below. They are also posted at the facility in the storage shed containing the discharge response equipment. Note that any discharge to water must be reported immediately to the National Response Center.

Field Operations Manager, Deke Belden (24 hours)	(618) 322-3359
Local Emergency (fire, explosion, or other hazards)	911

Agency / Organization	Agency Contact	Circumstances	When to Notify
Federal Agencies			
National Response Center	1-800-424-9346	Discharge reaching navigable waters.	**Immediately (verbal)**
EPA Region 7 (Hotline)	1-800-223-0425		**Immediately (verbal)**
EPA Region 7 Regional Administrator	US EPA Region 7 11201 Renner Blvd. Lenexa, KS 66219	Discharge 1,000 gallons or more; or second discharge of 42 gallons or more over a 12-month period.	Written notification within 60 days (see Section 2.1 of this Plan)
State Agencies			
Kansas EPA Region Contact Bob Dye	913-551-7605	1) Injury requiring hospitalization or fatality. 2) Fire, explosion, or other impact that could affect public safety. 3) Release exceeding 24-hour reportable quantity. 4) Impact to areas beyond the facility's confines.	**Immediately (verbal)** Written notification to be made within 5 days.
Kansas Dept of Health and Environment	785-296-1500	Discharges that pose emergency conditions, regardless of the volume discharged.	**Within 1 hour** of discovery (verbal). Written notification within 7 working days.
Kansas Corporation Commission District III Troy Russell	Office: 620-432-2303 Cell: 620-432-6509	Discharges that do not pose emergency conditions.	Within 24 hours of discovery (verbal). Written notification within 7 working days.

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Agency / Organization	Agency Contact	Circumstances	When to Notify
Others			
Response/cleanup contractors	Tom Davis Excavating (913)-927-0077	Any discharge that exceeds the capacity of facility personnel to respond and cleanup.	As needed

The person reporting the discharge must provide the following information:

- Name, location, organization, and telephone number;
- Name and address of the owner/operator;
- Date and time of the incident;
- Location of the incident;
- Source and cause of discharge;
- Types of material(s) discharged;
- Total quantity of materials discharged;
- Quantity discharged in harmful quantity (to navigable waters or adjoining shorelines);
- Danger or threat posed by the release or discharge;
- Description of all affected media (e.g., water, soil);
- Number and types of injuries (if any) and damaged caused;
- Weather conditions;
- Actions used to stop, remove, and mitigate effects of the discharge;
- Whether an evacuation is needed;
- Name of individuals and/or organizations contacted; and
- Any other information that may help emergency personnel respond to the incident.

Whenever the facility discharges more than 1,000 gallons of oil in a single event, or discharges more than 42 gallons of oil in each of two discharge incidents within a 12-month period, the Manager of Field Operations must provide the following information to the U.S. Environmental Protection Agency's Regional Administrator within 60 days:

- Name of the facility;
- Name of the owner or operator;
- Location of the facility;
- Maximum storage or handling capacity and normal daily throughput;
- Corrective actions and countermeasures taken, including a description of equipment repairs and replacements;
- Description of facility, including maps, flow diagrams, and topographical maps;
- Cause of the discharge(s) to navigable waters, including a failure analysis of the system and subsystems in which the failure occurred;
- Additional preventive measures taken or contemplated to minimize possibility of recurrence; and
- Other pertinent information requested by the Regional Administrator.

Discharge Notification Form

*** Notification must not be delayed if information or individuals are not available.

Facility: D & Z Exploration, Inc. East Hastert Lease Production Facility
NE 1900 Rd Garnett, KS 66032

Description of Discharge		
Date/time	Release date: Release time: Duration:	Discovery date: Discovery time:
Reporting Individual	Name: Tel. #:	
Location of discharge	Latitude: Longitude:	Description:
Equipment source	G piping G flowline G well G unknown G stock, flare	Description: Equipment ID:
Product	G crude oil G saltwater G other*	* Describe other:
Appearance and description		
Environmental conditions	Wind direction: Wind speed:	Rainfall: Current:
Impacts		
Quantity	Released:	Recovered:
Receiving medium	G water** G land G other (describe):	G Release confined to company property. G Release outside company property. ** If water, indicate extent and body of water:
Describe circumstances of the release		
Assessment of impacts and remedial actions		
Disposal method for recovered material		
Action taken to prevent incident from reoccurring		

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Safety issues	G Injuries G Fatalities G Evacuation	
Notifications		
Agency	**Name**	**Date/time reported & Comments**
Company Spill Response Coordinator		
National Response Center 1-800-424-8802		
State police		
Parish Emergency Response Commission		
oil spill removal organization/cleanup contractor		

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APPENDIX G: Equipment Shut-off Procedures

Source	Action
Manifold, transfer pumps or hose failure	Shut in the well supplying oil to the tank battery if appropriate. Immediately close the header/manifold or appropriate valve(s). Shut off transfer pumps.
Tank overflow	Shut in the well supplying oil to the tank battery. Close header/manifold or appropriate valve(s)
Tank failure	Shut in the well supplying oil to the tank battery. Close inlet valve to the storage tanks.
Flowline rupture	Shut in the well supplying oil to the flowline. Close nearest valve to the rupture site to top the flow of oil.
Flowline leak	Shut in the well supplying oil to the flowline. Immediately close the nearest valve to stop the flow of oil to the leaking section.
Explosion or fire	Immediately evacuate personnel from the area until the danger is over. Immediately shut in both wells if safe to do so. If possible, close all manifold valves. If the fire is small enough such that it is safe to do so, attempt to extinguish with fire extinguishers available on site.
Equipment failure	Immediately close the nearest valve to stop the flow of oil into the leaking area.

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APPENDIX H: Written Commitment of Manpower, Equipment, and Materials

In addition to implementing the preventive measures described in this Plan, D & Z will also specifically:

$ In the event of a discharge:

- Make available all trained field personnel (three employees) to perform response actions
- Obtain assistance from an additional two full-time employees from its main operations
- Collaborate fully with local, state, and federal authorities on response and cleanup operations

$ Maintain all on-site oil spill control equipment described in this Plan and in the attached Oil Spill Contingency Plan. The equipment is estimated to contain oil spills of up to 500 gallons.

$ Maintain all communications equipment in operating condition at all times.

$ Ensure that staging areas to be used in the event of a discharge to Big Bear Creek? are accessible by field vehicles.

$ Review the adequacy of on-site and third-party response capacity with pre-established response/cleanup contractors on an annual basis and update response/cleanup contractor list as necessary.

$ Maintain formal agreements/contracts with response and cleanup contractors who will provide assistance in responding to an oil discharge and/or completing cleanup (see contract agreements maintained separately at the Ridgeview field office and lists of associated equipment and response contractor personnel capabilities).

Authorized Facility Representative:	Deke Belden
Signature:	Deke Belden
Title:	Field Operations Manager

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APPENDIX I: Oil Spill Contingency Plan

The oil spill contingency plan is maintained separately at the St. Elmo office.

[Refer to the sample Contingency Plan also available from EPA for more information on the content and format of that Plan]

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