

ATTACHMENTS

I. DIAGRAMS

Site Facility Diagrams and Sealing of Valve

Introduction – 1 & 2

Equipment and Valve Symbols – 3

Line Symbols and Valve Identification – 4

Diagrams	Identification	Sales Mode	
I-A.....	Lease Number NM – 1234	Tank Gauge	5 & 6
I-B.....	Lease Number NM – 1234	LACT	7 & 8
I-C.....	Able Shallow Unit	Tank Gauge	9 & 10
I-D.....	Able Shallow Unit.....	LACT	11 & 12
I-E.....	Lease Numbers W – 2345 & W – 6789	Tank Gauge	13 - 15
I-F.....	Lease Number C – 1357	LACT and Tank Gauge	16 & 17
I-G.....	Lease Number M – 2468	LACT	18 & 19
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Site Facility Diagrams and Sealing of Valves

Introduction

Attachment I is provided not as a requirement but solely as an example, both to aid operators in determining what valves are considered to be "appropriate valves" subject to the seal requirements, and to aid in the preparation of facility diagrams. In making the determination of what is an "appropriate valve," the entire facility must be considered as a whole, including the size of the facility, the type of equipment, and the on-going activities at the facility. It is impossible to cover every type of situation that exists or could exist in conducting production activities. The following diagrams are intended to be representative of the sealing requirements in this Order.

Note: This part of the Order was amended while on its way to the FR without the heading being changed. The heading should read " ATTACHMENT 1 – Site Facility Diagrams and Sealing of Valves". The right column in the table should have been titled "Attachments".

1 & 2 should have been –1. What would have been –2 was deleted without number changing.

Attachment I should be Attachment 1.

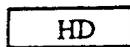
The right column in the table should have been titled "Attachments".

This page should have been numbered as shown below.

Equipment and Valve Symbols

Item

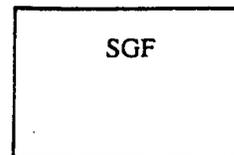
Header - HD



Free water knock - FWKO



Line heater - LH; Steam generation facility - SGF



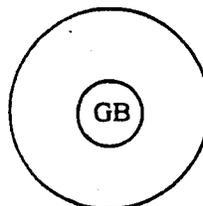
Separator - S



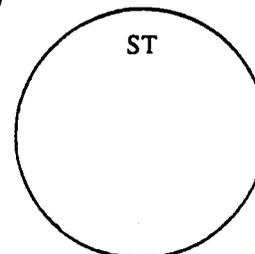
Heater Treater - HT



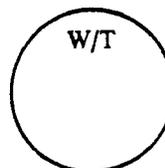
Gun barrel or wash tank - GB



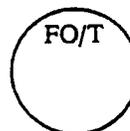
Storage tank - ST



Tank: Water - W/T; Slop oil - SO/T; Surge - ST/T



Tanks: Fuel oil - FO/T; power oil - PO/T



Pit: number of pits - (1)



Valve



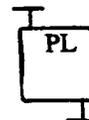
Automated custody transfer unit - LACT



Gas meter run - GM



Connection: Pipeline - PL; Truck loading - TL



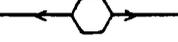
Pump: Circulating - CP; Transfer - TP

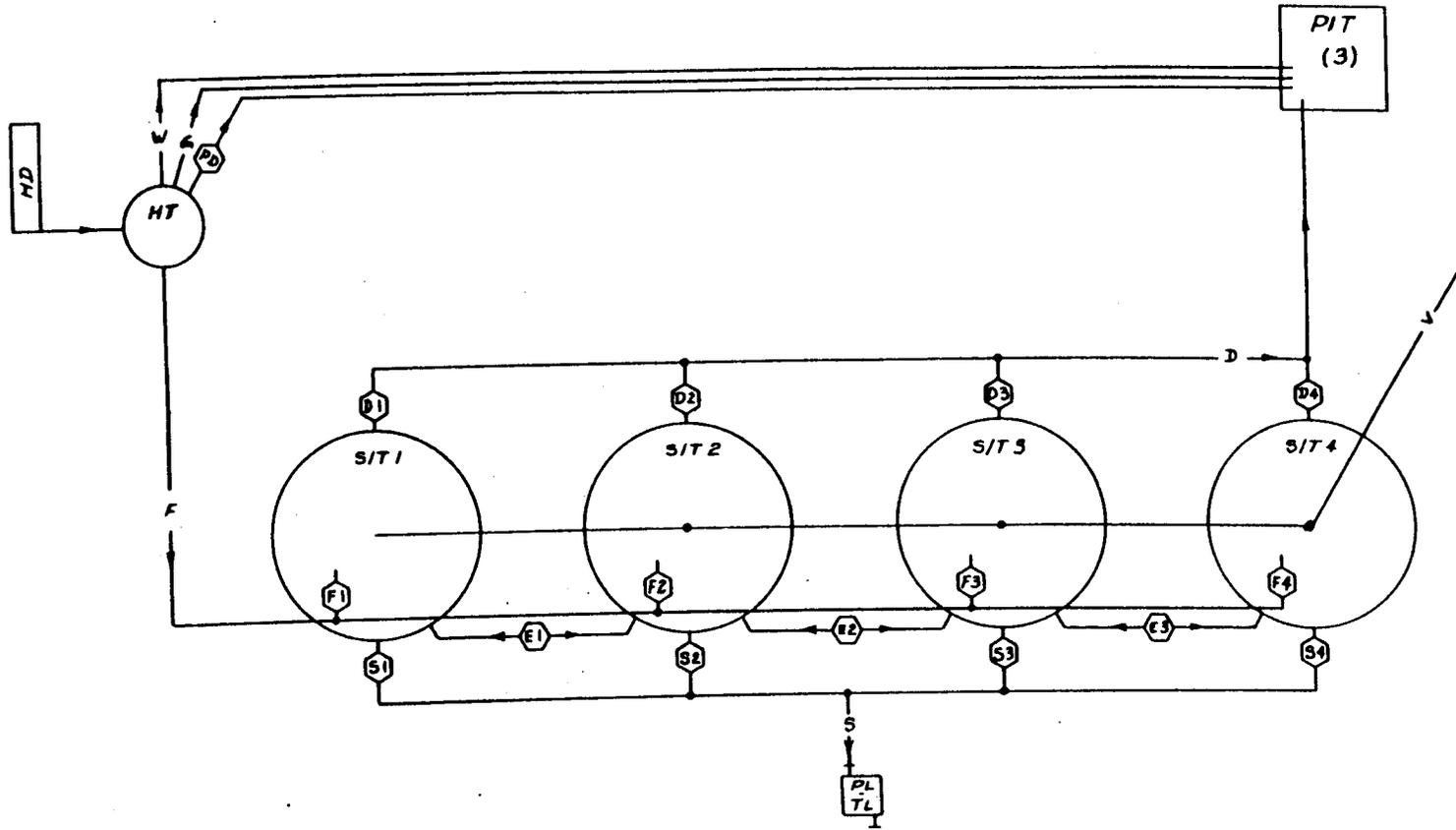


Check valve - CK



Line Symbols and Valve Identification

<u>Item</u>	<u>Line Symbol</u>	<u>Valve ID</u>
Direction of flow		
Fill line		F
Test line		T
Equalizer/overflow line		E
Sales line		S
Circulating lines: tank - C; pit - PC		C
Drain line: tank - D; production vessel - PD		D, PD
Tank vent line		V
Gas line		G
Water line		W
Bad oil line (LACT)		B
Safety valve vent line		SV
Miscellaneous access line: royalty oil; lease use		M
Heating lines: contents - O; other media - H		O,H
Fuel line - U; power oil line - PO		U,P
Water disposal line		WD
Lines: not connected		
connected		
Portable well tester outlets		PT
Gas roll line		



Able Oil Company
 Lease: Federal - NM1234
 Location: NE/4 NW/4 Sec. 4, T. 28N, R. 13W.

This lease is subject to the site security plan
 for NORTHWEST NEW MEXICO OPERATIONS. The plan
 is located at: Able Oil Company
 212 Federal Blvd.
 Farmington, NM

Diagram I-A

Attachment 1-5

Attachment to the Site Facility Diagram – Lease NM 1234

General sealing of valves, sales by tank gauging.

Production phase. All drain valves, D1 thru D4, and all sales valves, S1 thru S4, sealed closed.

Sales phase. The tank from which sales are being made will be isolated by sealing closed the drain valve, fill valve, and the equalizer valve(s) during sales.

Draining phase. The tank being drained will be isolated by sealing closed the sales valve, fill valve, equalizer valve(s), and the drain valves on the other tanks.

Example:

On going activity. Production going into tank S/T1, tank bottoms are being drained from tank S/T3, and sales are being made from tank S/T4.

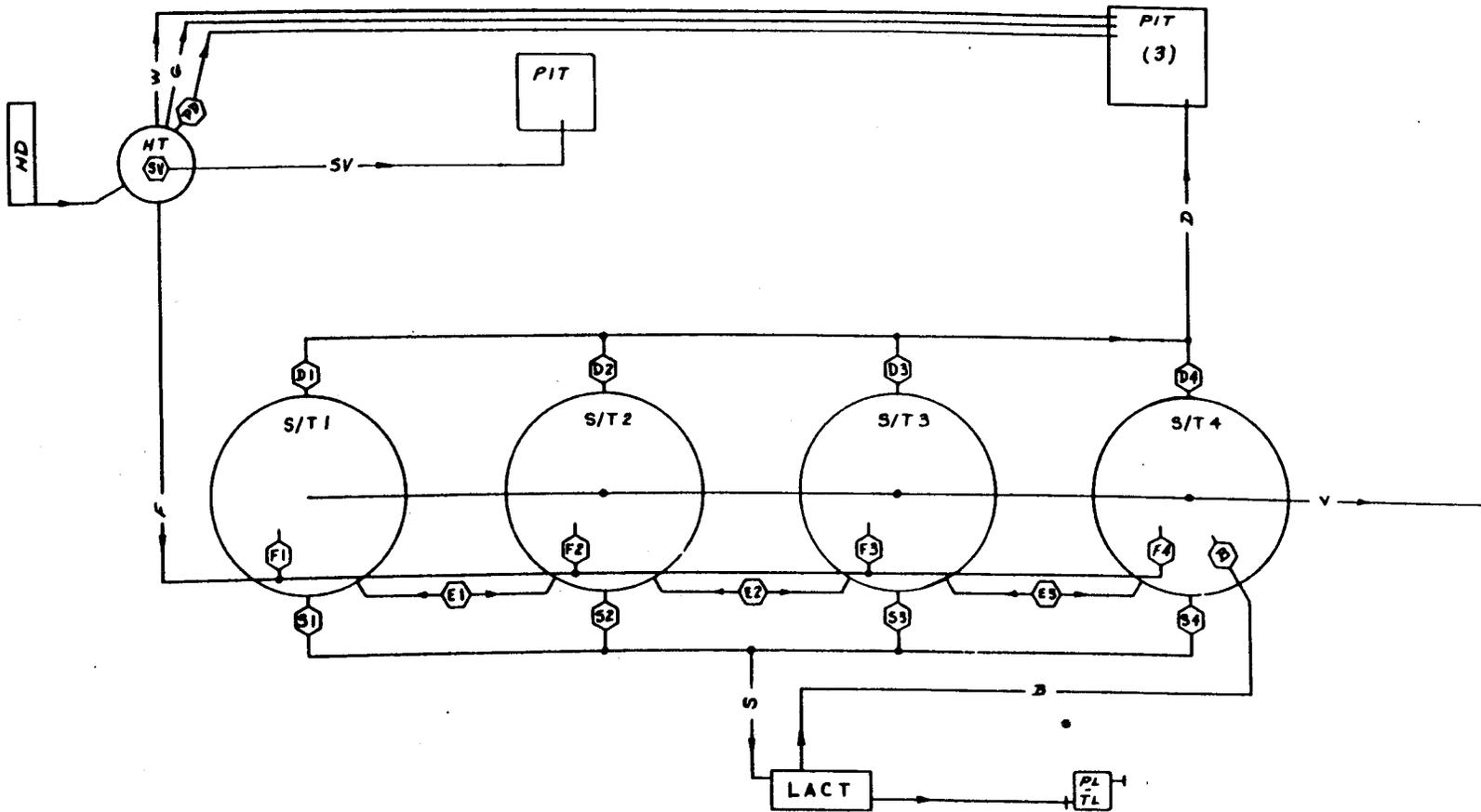
Sealing of valves.

Tank S/T1 – Valves S1 and D1 sealed closed.

Tank S/T2 – Valves S/2 and D2 sealed closed.

Tank S/T3 – Valves S3, E2, and F3 sealed closed.

Tank S/T4 – Valves E3, F4, and D4 sealed closed.



Able Oil Company
 Lease: Federal- NM 1234
 Location: NE/4 NW/4 Sec. 4,
 T. 28 N., R. 13 W.

This lease is subject to the site security plan
 for NORTHWEST NEW MEXICO OPERATIONS. The
 plan is located at: Able Oil Company
 212 Federal Blvd.
 Farmington, NM

Diagram I-B

Attachment to the Site Facility Diagram-Lease NM 1234

General sealing of valves, sales by LACT.

Production phase. All drain valves D1 thru D4 sealed closed.

Sales phase. All drain valves D1 thru D4 sealed closed.

Draining activity. The tank being drained will be isolated by sealing closed the sales, fill and equalize line valves, and the drain valves on the other three tanks.

Examples:

On going activity. Production is going tank S/T1, tank bottoms are being drained from tank S/T3, and sales are being made from tank S/T4.

Sealing of valves.

Tank S/T1 – Valve D1 sealed closed.

Tank S/T2 – Valve D2 sealed closed.

Tank S/T3 – Valves E2, E3, S3, and sealed closed.

Tank S/T4 – Valve D4 sealed close.

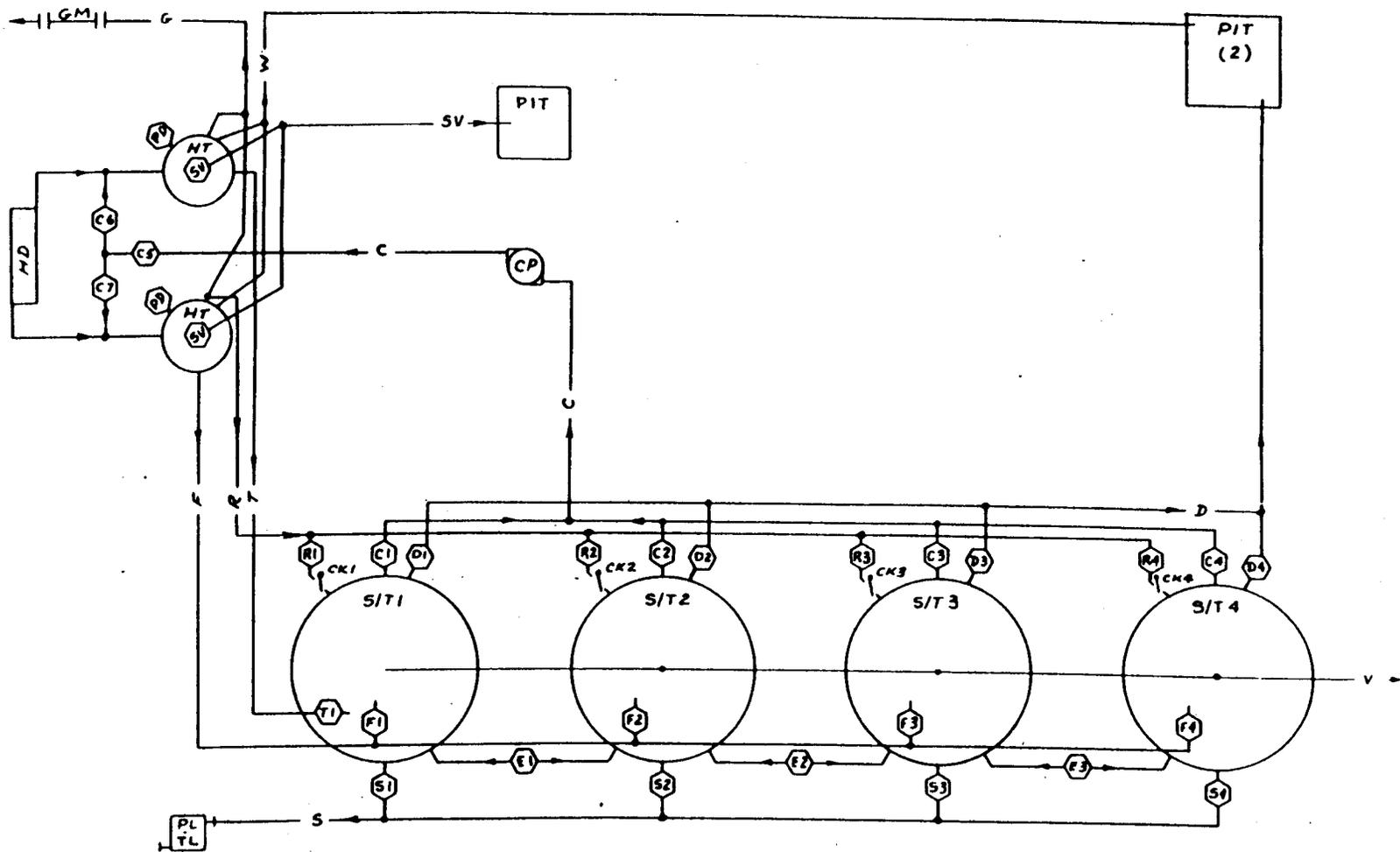


Diagram I-C

Able Oil Company
 Lease: Able Shallow Unit
 Location: NW/4 SE/4 Sec. 25,
 T. 28N., R. 13W.

This unit is subject to the site security
 plan for Northwest New Mexico Operations.
 The plan is located at: Able Oil Company
 212 Federal Blvd.
 Farmington, NM

Attachment to the Site Facility Diagram – Able Shallow Unit

General sealing of valves, sales by tank gauging.

Production phase. All drain valves, D1 thru D4, and all sales valves, S1 thru S4, sealed closed.

Sales phase. The tank from which sales are being made will be isolated by sealing closed the drain valve, circulating valve, fill valve(s), and equalizer valve(s) during sales.

Draining activity. The tank drained will be isolated by sealing closed the sales valve, fill valve(s), circulating valve, equalizer valve(s) and the drain valves on the other three tanks.

Circulating activity. All drain and sales valves sealed closed.

Tank bottom roll-over activity. No seals required on the R1 thru R4 valves since check valves were used appropriately.

Example.

On going activities. One well on routine test and all other production is going into tank S/T2. Tank S/T3 bottoms are being circulated to the production heater-treater and sales are being made from tank S/T4.

Sealing of valves.

Tank S/T1 – Valve D1 and S1 sealed closed.

Tank S/T2 – Valve D2 and S2 sealed closed.

Tank S/T3 – Valves D3 and S3 sealed closed.

Tank S/T4 – Valve E3, F4, D4, and C4 sealed closed.

No seals required on valves R1 thru R4.

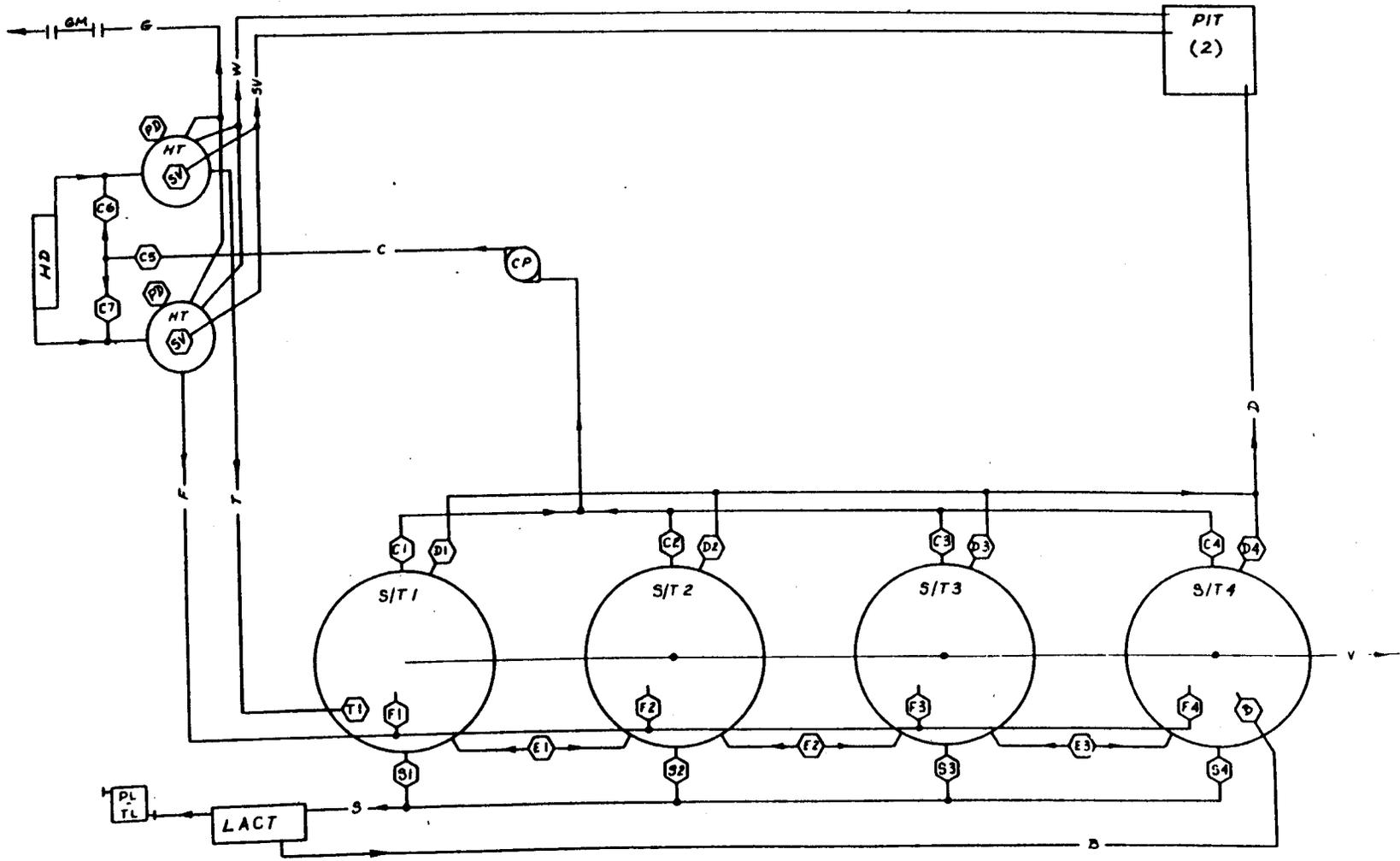


Diagram I-D

Able Oil Company
 Lease: Able Shallow Unit
 Location: NW 1/4 SE 1/4 Sec. 25,
 T. 28 N., R. 13 W.

This Unit is subject to the site security plan
 for NORTHWEST NEW MEXICO OPERATIONS.
 The plan is located at: Able Oil Company
 212 Federal Blvd.
 Farmington, NM

Attachment to the Site Facility Diagram – Able Shallow Unit

General sealing of valve – sales by LACT.

Production phase. All drain valves D1 thru D4 sealed closed.

Sales phase. All drain valves D1 thru D4 sealed closed.

Draining activity. The tank being drained will be isolated by sealing closed the sales valve, fill valve(s) circulating valve, equalizer valve(s), and the drain valves on the other three tanks.

Circulating activity. All drain valves sealed closed.

Example:

On going activities. One well on routine test and all other production is going into tank S/T2.

Tank S/T3 is being circulated to the production treater and sale are being made from tank S/T4.

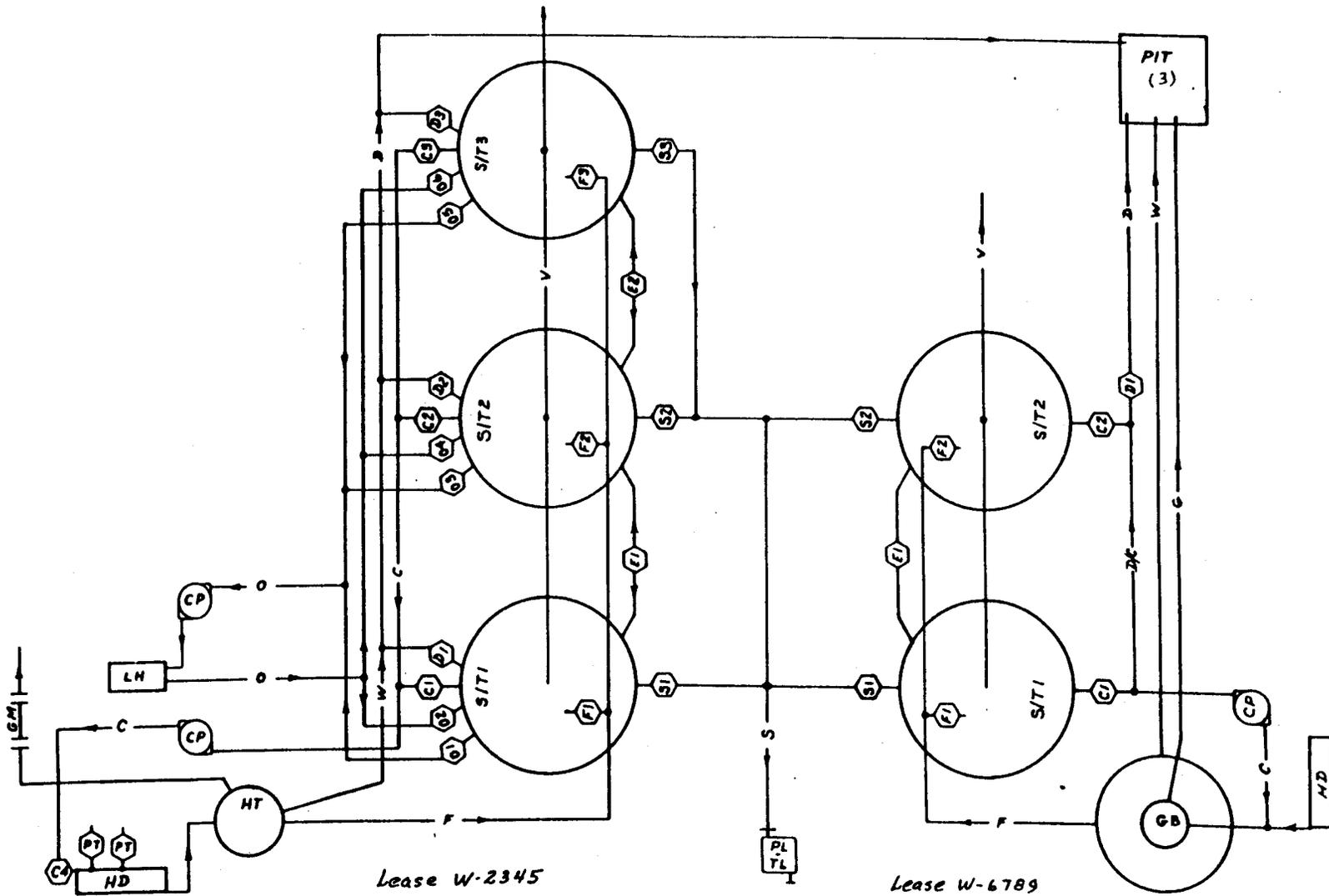
Sealing of valves.

Tank S/T1 – Valve D1 sealed closed.

Tank S/T2 – Valve D2 sealed closed.

Tank S/T3 – Valve D3 sealed closed.

Tank S/T4 – Valve D4 sealed closed.



Lease W-2345

Lease W-6789

Diagram I-E

Able Oil Company - Common storage facility.
 Location: NW/4 SW/4 Sec. 20, T. 27N., R. 113W.

Both leases are subject to the site security plan for Southwest Wyoming Operations.
 The plan is located at: Able Oil Company
 25 Front Street
 La Barge, WY

Attachment 1-13

Common Storage Facility

Attachment to the Site Facility Diagram – Lease W 2345

General sealing of valves, sales by tank gauging.

Production Phase. All valves D1 thru D3 and S1 thru S3 sealed closed.

Sales phase. The tank from which sales are being made will be isolated by sealing closed all lines entering or leaving the tank, i.e., fill valve, equalizer valve(s), circulating valve, drain valve, and the inlet and outlet valves on the heating lines.

Drain activity. The tank being drained will be isolated by sealing closed its fill valves, sales valve, circulating valve, equalizer valve(s), and the inlet and outlet valves on the heating lines. The drain valves on the other two tanks will be sealed closed.

Circulating activity. Valves D1 thru D3 and S1 thru S3 sealed closed. Both PT valves sealed closed, as well as any other valves on the header which would provide access to the production being circulated.

Example:

On going activity (1). Sales are being made from tank S/T1, production is going into tank S/T3, and bottoms are being drained from tank S/T2.

Sealing of valves.

Tank S/T1 – Valves F1, O1, O2, C1, E1, and D1 sealed closed. ,

Tank S/T2 – Valves F2, O3, O4, C2, E2, and S2 sealed closed.

Tank S/T3 – Valves S3 and D3 sealed closed.

On going activity (2). Sales have been completed at tank S/T1 and draining activities have been completed at tank S/T2.

Valves S1 and D2 have been sealed closed. Production is diverted to tank S/T1, tank S/T2 is in a sales mode, and tank S/T3 is being circulated.

Sealing of valves.

Tank S/T1 – Valves D1 and S1 sealed closed.

Tank S/T2 – Valves F2, O3, O4, C2, D2, E1, and E2 sealed closed.

Tank S/T3 – Valves D3 and S3 sealed closed. Both PT valves sealed closed.

Attachment to the Site Facility Diagram – Lease W 6789

General sealing of valves, sales by tank gauging.

Production phase. Valves S1, S2, C1 and C2 sealed closed.

Sales phase. The tank from which sales are being made will be isolated by sealing closed the fill, equalizer, circulating/drain valve.

Draining activity. The tank being drained will be isolated by sealing closed its fill valve, equalizer valve, and sales valve. Additionally, the circulating/drain valve on the other tank will be sealed closed.

Circulating activity. Valves S1, S2, D1, and the C valve on the other tank sealed closed.

Example:

On going activity (1). Production is going into tank S/T1 and tank S/T2 is being circulated to the gunbarrel.

Sealing of valves.

Tank S/T1 – Valves S1 and C1 sealed closed.

Tank S/T2 – Valves S2, and D1 must be sealed closed.

On going activity (2). Production is going into tank S/T2 and sales are on going from tank S/T1.

Sealing of valves.

Tank S/T1 – Valves F1, E1, and C1 sealed closed.

Tanks S/T2 – Valves S2 and C2 sealed closed

On going activity (3). Production is going into tank S/T1 and bottoms are being drained from tank S/T2.

Sealing of valves.

Tank S/T1 – Valves S1 and C1 sealed closed.

Tank S/T2 - Valves S2, E1, and F2 sealed closed.

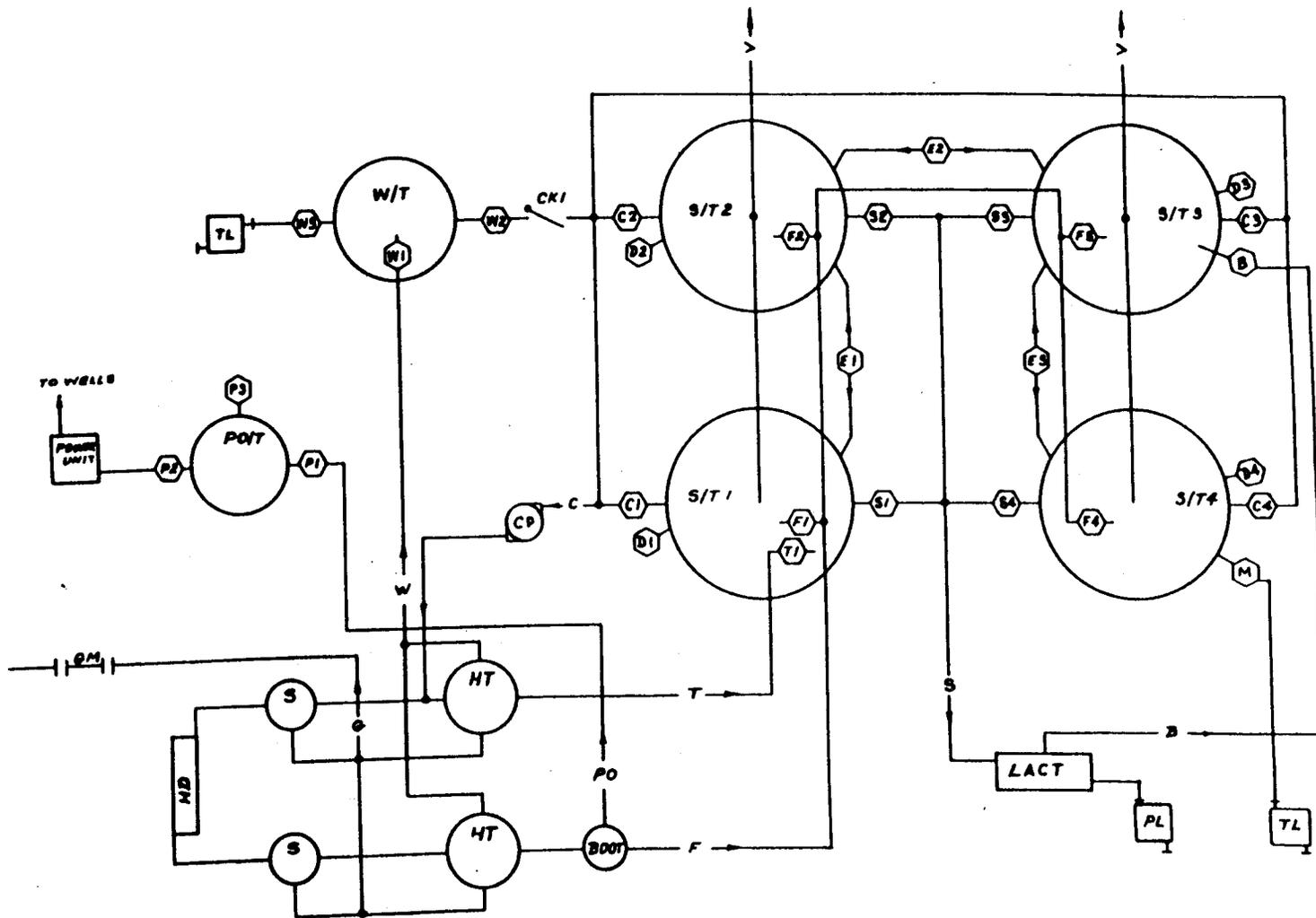


Diagram I-F

Able Oil Company
 Lease: Federal C-1357
 Location: Center NE/4 Sec. 17,
 T. 32 N., R. 13 W.

This plan is subject to the site security
 plan for the Coal Oil field. The plan is
 located at: Able Oil Company
 100 First Street
 Durango, CO

Attachment 1-16

Attachment to the Site Facility Diagram – Lease C 1357

General sealing of valves, sales by LACT and tank gauging.

Production phase. Valves D1 thru D4 and M sealed closed.

Sales phase (LACT). Valves D1 thru D4 and M sealed closed.

Withdrawal thru Valve M. Valves S4, F4, E3, D4 and C4 sealed closed.

Circulating activity. Valves D1 thru D4 and M sealed closed.

For all of the above activities valve P3 on tank PO/T will be sealed closed.

Example:

Ongoing activity (1). Production is going into tank S/T3, oil is being removed from tank S/T4 thru valve M. sales are being made from tank S/T1, tank S/T2 is being circulated. and bottoms are being drawn off from tank PO/T.

Sealing of valves.

Tank S/T1 – Valve D1 sealed closed.

Tank S/T2 – Valve D2 sealed closed.

Tank S/T3 – Valve D3 sealed closed.

Tank S/T4 – Valves S4, F4, D4, C4, and E3 sealed closed.

Tank PO/T – Valve P1 sealed closed.

On going activity (2). Production is going into tank S/T2, tank S/T3 is being circulated, and sales are being made from tank S/T4. Hydraulic lift operations has been resumed.

Sealing of valves.

Tank S/T1 – Valve D1 sealed closed.

Tank S/T2 – Valve D2 sealed closed.

Tank S/T3 – Valve D3 sealed closed.

Tank S/T4 – Valves D4 and M sealed closed.

Tank PO/T - Valve P3 sealed closed.

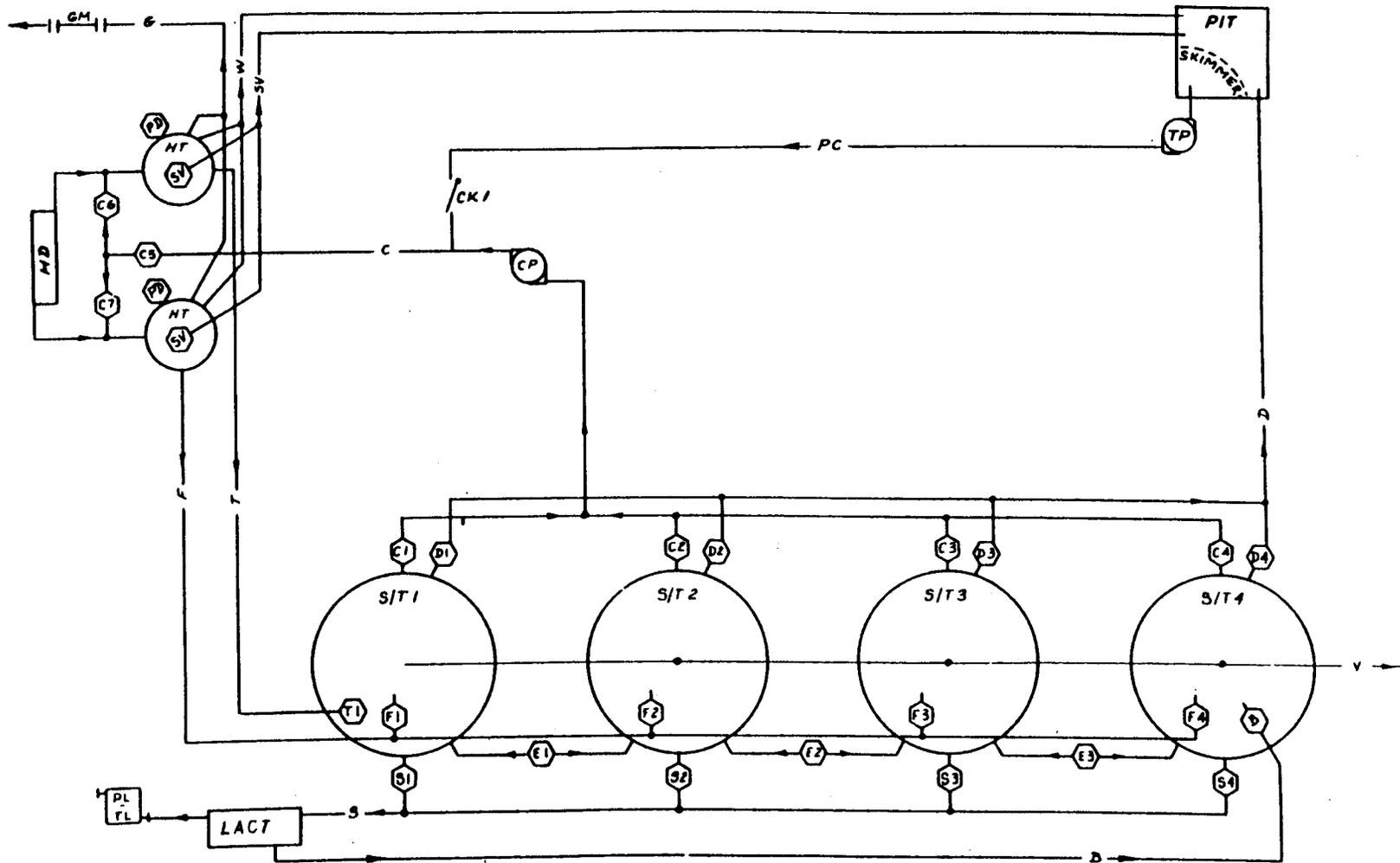


Diagram I-G

Able Oil Company
 Lease: Federal M-246B
 Location: SE/4 SE/4 Sec. 7,
 T. 35N., R. 5W.

This lease is subject to the site security
 plan for the CS oil Field. The plan
 is located at: Able Oil Company
 713 Center Street
 Outbank, MT

Attachment to the Site Facility Diagram – Lease M 2468

General sealing of valves, sales by LACT.

Production phase. Valves D1 thru D4 sealed closed.

Sales phase. Valves D1 thru D4 sealed closed.

Draining Activity. The tank being drained will be isolated by sealing closed the sales valve, fill valve(s), circulating valve, equalizer valve(s), and the drain valves on the other three tanks.

Circulating activity. All drain valves sealed closed.

Example:

On going activity. Production is going into tank S/T1, tank S/T2 is being drained, sales are being made from tank S/T3, and tank S/T4 is being circulated to the test treater. Pit skimming activity being conducted.

Sealing of valves.

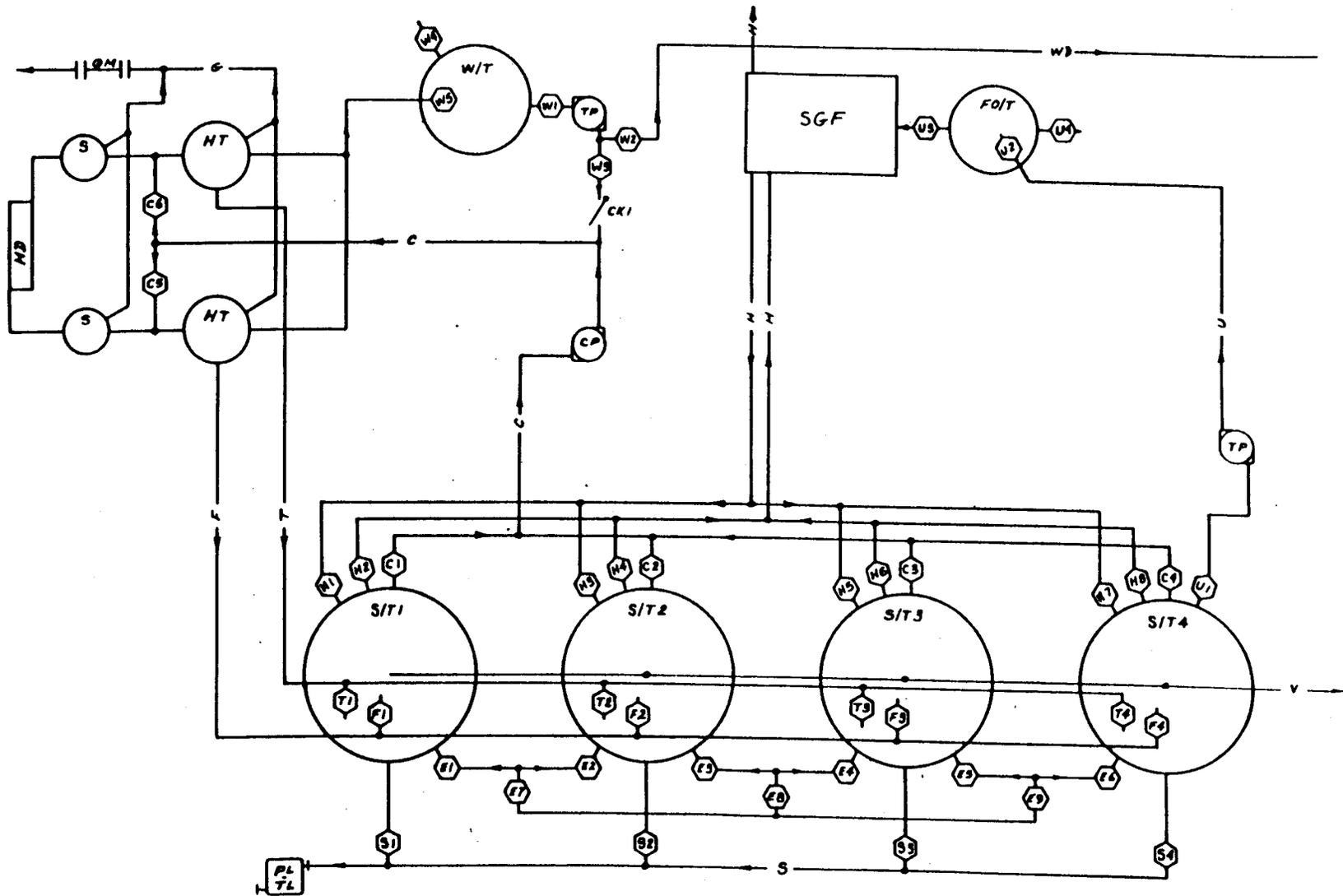
Tank S/T1 – Valve D1 sealed closed.

Tank S/T2 – Valves E1, E2, S2, F2, and C2 sealed closed.

Tank S/T3 – Valve D3 sealed closed

Tank S/T4 – Valve D4 sealed closed.

Diagram I-H



Able Oil Company
Lease: Able Sand Unit
Location: NW/4 NE/4 Sec. 12,
T. 16 S., R. 20 E.

This unit is subject to the site security
plan for the Able Sand Unit. The plan
is located at: Able Oil Company
1700 12th Ave.
Bakersfield, CA

Attachment 1-20

Attachment to the Site Facility Diagram – Able Sand Unit

General sealing of valves, sales by tank gauging.

Production phase. Valves S1 thru S4 and U1 and U4 sealed closed.

Sales phase. The tank from which sales would be made would be completely isolated by sealing the fill, test equalizer(s), and circulating valves, and if appropriate, valve U1. All other sales valves sealed closed.

Circulating activity. Valves S1 thru S4 and U1 and U4 sealed closed.

Fuel oil delivery. Valves U4, C4, T4, F4, E6 and S1 thru S4 sealed closed.

Example:

On going activity. Production is going into tank S/T1, a well is being tested into tank S/T2, sales are being made from tank S/T3, and fuel oil is being delivered from tank S/T4.

Sealing of valves.

Tank S/T1 – Valve S1 sealed closed.

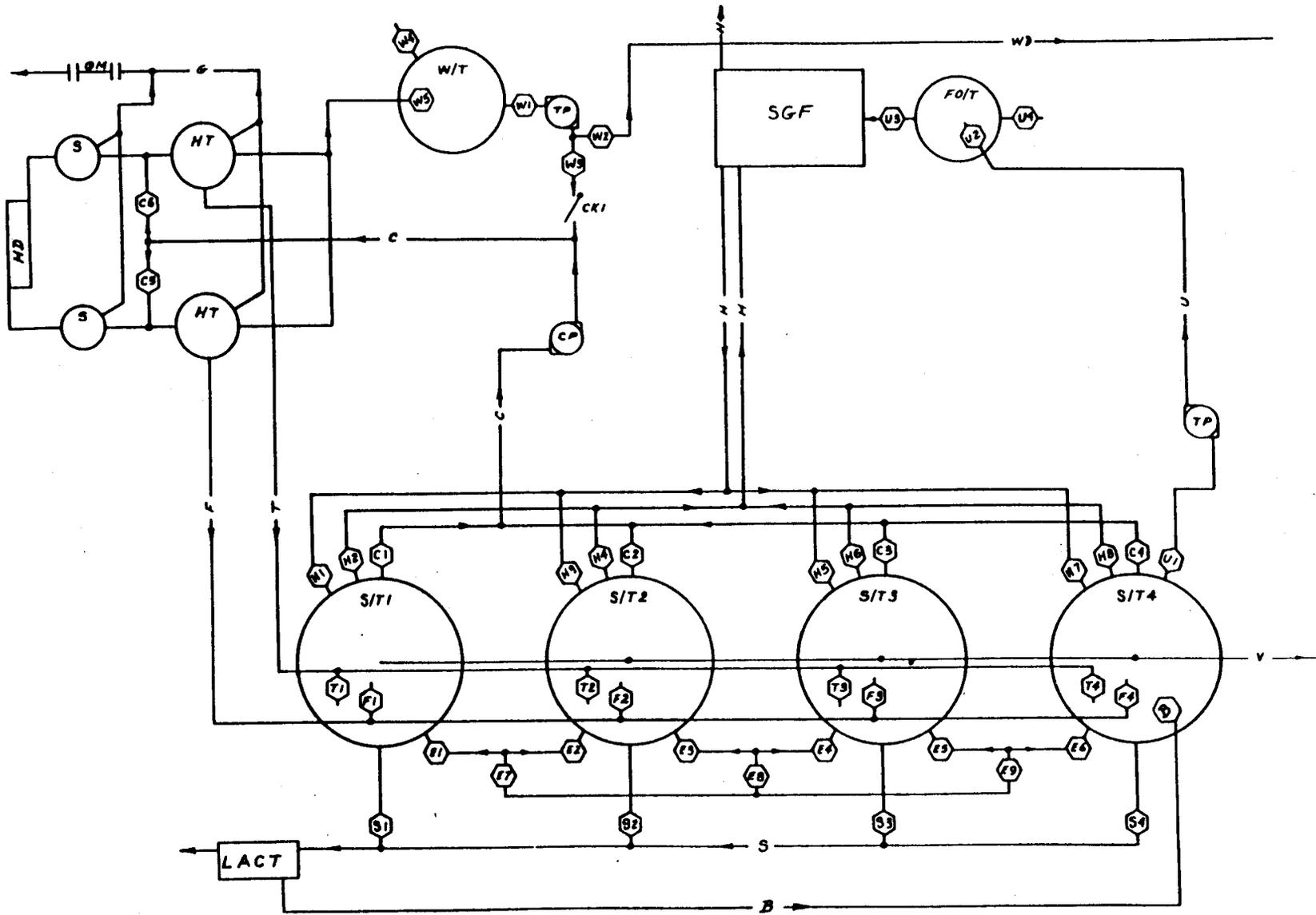
Tank S/T2 – Valve S2 sealed closed.

Tank S/T3 – Valves E4, E5, T3, F3 and C3 sealed closed.

Tank S/T4 – Valves E6, S4, T4, F4, and C4 sealed closed.

Tank FO/T – Valve U4 sealed closed.

Diagram I-1



Able Oil Company
Lease: Able Sand Unit
Location: NW/4 NE/4 Sec. 12
T. 16S., R. 20E.

This unit is subject to the site security plan for the Able Sand Unit. The plan is located at: Able Oil Company
1700 12th Ave.
Bakersfield, CA.

Attachment to the Site Facility Diagram – Able Sand Unit

General sealing of valves, sales and transfer by LACT.

Production phase. Valve U4 sealed closed.

Sales phase. Valve U4 sealed closed.

Circulating activity. Valve U4 sealed closed.

Fuel delivery to FO/T. Valve U4 sealed closed.

Circulate tank WIT. Valve U4 sealed closed.

Since the fuel oil contained in tank FO/T is used on the lease and such use is royalty free, the tank must be sealed to prevent removal of crude oil for the use other than it was intended.

No other valves require sealing for any phase or activity.