GW – 010

PERMITS, RENEWALS, & MODS Application

2007

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

March 7, 2008

Mr. Bruce Williams
Southern Union Gas Services, Ltd.
301 Commerce Street, Suite 700
Fort Worth, Texas 76102

Re: **Discharge Plan Renewal Permit GW-010**
Southern Union Gas Services, Ltd.
Jal #3 Natural Gas Processing Plant
Lea County, New Mexico

Dear Mr. Williams

Pursuant to Water Quality Control Commission (WQCC) Regulations 20.6.2.3104 - 20.6.2.3114 NMAC, the Oil Conservation Division (OCD) hereby approves the discharge permit for the **Southern Union Gas Services, Ltd.** (owner/operator) for the above referenced site contingent upon the conditions specified in the enclosed **Attachment to the Discharge Permit**. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 working days of receipt of this letter including permit fees.**

Please be advised that approval of this permit does not relieve the owner/operator of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does approval of the permit relieve the owner/operator of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If you have any questions, please contact Carl Chavez of my staff at (505-476-3491) or E-mail carlj.chavez@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Wayne Price
Environmental Bureau Chief

LWP/cc

Attachments-1
xc: OCD District Office

ATTACHMENT- DISCHARGE PERMIT APPROVAL CONDITIONS

1. **Payment of Discharge Plan Fees:** All discharge permits are subject to WQCC Regulations. Every billable facility that submits a discharge permit application will be assessed a filing fee of $100.00, plus a flat fee (*see* WQCC Regulation 20.6.2.3114 NMAC). The Oil Conservation Division ("OCD") has received the required $100.00 filing fee and $4,000.00 flat fee. Please submit this signed certification item 23 of this document after the final permit is issued in approximately 45 days.

2. **Permit Expiration, Renewal Conditions and Penalties:** Pursuant to WQCC Regulation 20.6.2.3109.H.4 NMAC, this permit is valid for a period of five years. **The permit will expire on November 21, 2013** and an application for renewal should be submitted no later than 120 days before that expiration date. Pursuant to WQCC Regulation 20.6.2.3106.F NMAC, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved. ***Expired permits are a violation of the Water Quality Act {Chapter 74, Article 6, NMSA 1978} and civil penalties may be assessed accordingly.***

3. **Permit Terms and Conditions:** Pursuant to WQCC Regulation 20.6.2.3104 NMAC, when a permit has been issued, the owner/operator must ensure that all discharges shall be consistent with the terms and conditions of the permit. In addition, all facilities shall abide by the applicable rules and regulations administered by the OCD pursuant to the Oil and Gas Act, NMSA 1978, Sections 70-2-1 through 70-2-38.

4. **Owner/Operator Commitments:** The owner/operator shall abide by all commitments submitted in its August 27, 2007 discharge plan application, and acid gas injection addendum dated December 20, 2007, including attachments and subsequent amendments and these conditions for approval. Permit applications that reference previously approved plans on file with the division shall be incorporated in this permit and the owner/operator shall abide by all previous commitments of such plans and these conditions for approval.

5. **Modifications:** WQCC Regulation 20.6.2.3107.C and 20.6.2.3109 NMAC addresses possible future modifications of a permit. The owner/operator (discharger) shall notify the OCD of any facility expansion, production increase or process modification that would result in any significant modification in the discharge of water contaminants. The Division Director may require a permit modification if any water quality standard specified at 20.6.2.3103 NMAC is being or will be exceeded, or if a toxic pollutant as defined in WQCC Regulation 20.6.2.7 NMAC is present in ground water at any place of withdrawal for present or reasonably foreseeable future use, or that the Water Quality Standards for Interstate and Intrastate streams as specified in 20.6.4 NMAC are being or may be violated in surface water in New Mexico.

6. **Waste Disposal and Storage:** The owner/operator shall dispose of all wastes at an OCD-approved facility. Only oil field RCRA-exempt wastes may be disposed of by injection in a Class

II well. RCRA non-hazardous, non-exempt oil field wastes may be disposed of at an OCD-approved facility upon proper waste determination pursuant to 40 CFR Part 261. Any waste stream that is not listed in the discharge permit application must be approved by the OCD on a case-by-case basis.

A. **OCD Rule 712 Waste:** Pursuant to OCD Rule 712 (19.15.9.712 NMAC) disposal of certain non-domestic waste without notification to the OCD is allowed at NMED permitted solid waste facilities if the waste stream has been identified in the discharge permit and existing process knowledge of the waste stream does not change.

B. **Waste Storage:** The owner/operator shall store all waste in an impermeable bermed area, except waste generated during emergency response operations for up to 72 hours. All waste storage areas shall be identified in the discharge permit application. Any waste storage area not identified in the permit shall be approved on a case-by-case basis only. The owner/operator shall not store oil field waste on-site for more than 180 days unless approved by the OCD.

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Systems that have secondary containment with leak detection shall have a monthly inspection of the leak detection system to determine if the primary containment is leaking. Small sumps or depressions in secondary containment systems used to facilitate fluid removal are exempt from these requirements if fluids are removed within 72 hours.

B. All pits and ponds, including modifications and retrofits, shall be designed by a certified registered professional engineer and approved by the OCD prior to installation. In general, all pits or ponds shall have approved hydrologic and geologic reports, location, foundation, liners, and secondary containment with leak detection, monitoring and closure plans. All pits or ponds shall be designed, constructed and operated so as to contain liquids and solids in a manner that will protect fresh water, public health, safety and the environment for the foreseeable future. The owner/operator shall retrofit all existing systems without secondary containment and leak detection before discharge permit renewal.

C. The owner/operator shall ensure that all exposed pits, including lined pits and open top tanks (8 feet in diameter or larger) shall be fenced, screened, netted, or otherwise rendered non-hazardous to wildlife, including migratory birds.

D. The owner/operator shall maintain the results of tests and inspections at the facility covered by this discharge permit and available for OCD inspection. The owner/operator shall report the discovery of any system which is found to be leaking or has lost integrity to the OCD within 15 days. The owner/operator may propose various methods for testing such as pressure testing to 3 pounds per square inch greater than normal operating pressure and/or visual inspection of cleaned tanks and/or sumps, or other OCD-approved methods. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

12. Underground Process/Wastewater Lines:

A. The owner/operator shall test all underground process/wastewater pipelines at least once every five (5) years to demonstrate their mechanical integrity, except lines containing fresh water or fluids that are gases at atmospheric temperature and pressure. Pressure rated pipe shall be tested by pressuring up to one and one-half times the normal operating pressure, if possible, or for atmospheric drain systems, to 3 pounds per square inch greater than normal operating pressure, and pressure held for a minimum of 30 minutes with no more than a 1% loss/gain in pressure. The owner/operator may use other methods for testing if approved by the OCD.

B. The owner/operator shall maintain underground process and wastewater pipeline schematic diagrams or plans showing all drains, vents, risers, valves, underground piping, pipe type, rating, size, and approximate location. All new underground piping must be approved by the OCD prior to installation. The owner/operator shall report any leaks or loss of integrity to the OCD within 15 days of discovery. The owner/operator shall maintain the results of all tests at the facility covered by this discharge permit and they shall be available for OCD inspection. The owner/operator shall notify the OCD at least 72 hours prior to all testing.

13. **Class V Wells:** The owner/operator shall close all Class V wells (e.g., septic systems, leach fields, dry wells, etc.) that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes unless it can be demonstrated that ground water will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD-regulated facilities that inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only, must be permitted by the New Mexico Environment Department (NMED).

14. **Housekeeping:** The owner/operator shall inspect all systems designed for spill collection/prevention and leak detection at least monthly to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices shall be emptied of fluids within 72 hours of discovery. The owner/operator shall maintain all records at the facility and available for OCD inspection.

15. **Spill Reporting:** The owner/operator shall report all unauthorized discharges, spills, leaks and releases and conduct corrective action pursuant to WQCC Regulation 20.5.12.1203 NMAC and OCD Rule 116 (19.15.3.116 NMAC). The owner/operator shall notify both the OCD District Office and the Santa Fe Office within 24 hours and file a written report within 15 days.

16. **OCD Inspections:** The OCD may place additional requirements on the facility and modify the permit conditions based on OCD inspections.

17. **Storm Water:** The owner/operator shall implement and maintain run-on and runoff plans and controls. The owner/operator shall not discharge any water contaminant that exceeds the WQCC standards specified in 20.6.2.3101 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) including any oil sheen in any stormwater run-off. The owner/operator shall notify the OCD within 24 hours of discovery of any releases and shall take immediate corrective action(s) to stop the discharge.

18. **Unauthorized Discharges:** The owner/operator shall not allow or cause water pollution, discharge or release of any water contaminant that exceeds the WQCC standards listed in 20.6.2.3101 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams) unless specifically listed in the permit application and approved herein. ***An unauthorized discharge is a violation of this permit.***

19. **Vadose Zone and Water Pollution:** The owner/operator shall address any contamination through the discharge permit process or pursuant to WQCC 20.6.2.4000-.4116 NMAC (Prevention and Abatement of Water Pollution). The OCD may require the owner/operator to modify its permit for investigation, remediation, abatement, and monitoring requirements for any vadose zone or water pollution. Failure to perform any required investigation, remediation, abatement and submit subsequent reports will be a violation of the permit.

20. Additional Site Specific Conditions:

A. The owner/operator shall incorporate a Hydrogen Sulfide Gas Contingency Plan pursuant to 19.15.3.118(D) NMAC into its daily safety operations at the facility.

21. Transfer of Discharge Permit (WQCC 20.6.2.3111) Prior to any transfer of ownership, control, or possession (whether by lease, conveyance or otherwise) of a facility with a discharge permit, the transferor shall notify the transferee in writing of the existence of the discharge permit, and shall deliver or send by certified mail to the department a copy of such written notification, together with a certification or other proof that such notification has in fact been received by the transferee.

Upon receipt of such notification, the transferee shall have the duty to inquire into all of the provisions and requirements contained in such discharge permit, and the transferee shall be charged with notice of all such provisions and requirements as they appear of record in the department's file or files concerning such discharge permit. The transferee (new owner/operator) shall sign and return an original copy of these permit conditions and provide a written commitment to comply with the terms and conditions of the previously approved discharge permit.

22. Closure Plan and Financial Assurance: Pursuant to 20.6.2.3107 NMAC an owner/operator shall notify the OCD when any operations of the facility are to be discontinued for a period in excess of six months. Prior to closure, or as a condition of this permit, or request from the OCD, the operator will submit an approved closure plan, modified plan, and/or provide adequate financial assurance.

23. Certification: (Owner/Operator), by the officer whose signature appears below, accepts this permit and agrees to comply with all submitted commitments, including these terms and conditions contained here. **Owner/Operator** further acknowledges that the OCD may, for good cause shown, as necessary to protect fresh water, public health, safety, and the environment, change the conditions and requirements of this permit administratively.

Conditions accepted by: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

_____
Company Name-print name above

_____
Company Representative- print name

_____
Company Representative- Signature

Title_____

Date:_____

Southern Union Gas Services

301 Commerce St., Ste. 700
Fort Worth, TX 76102

Phone: 817.302.9425 Fax:
Fax: 817-302-9351

March 19, 2008

Wayne Price
Environmental Bureau
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Subject: **Discharge Permit – Approval Conditions**
Jal #3 Natural Gas Processing Plant GW-010
Lea County, New Mexico

Dear Mr. Wayne Price:

Pursuant to Water Quality Control Commission (WQCC) Regulations 20.6.2.3104 – 20.6.2.3114 NMAC, the Oil Conservation (OCD) has approved the discharge permit for Southern Union Gas Services, Ltd. (SUGS) for the above referenced site contingent upon the conditions specified with the permit. SUGS agrees to the conditions as stated and the conditions agreement has been signed by Bruce Williams, VP Gas Operations, with an original copy attached.

We appreciate your efforts in getting this accomplished in an expeditious manner. If there are any questions, please do not hesitate to contact myself at the number above or email karen.ingram@sug.com or Tony Savoie at 585-395-2085 or email tony.savoie@sug.com.

Regards,

Karen Ingram

Karen Ingram
Compliance Coordinator, Environmental Health and Safety

C: Herb Harless
Tony Savoie
Dwight Bennett
Alberto Gutierrez w/ Geolex

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

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March 7, 2008

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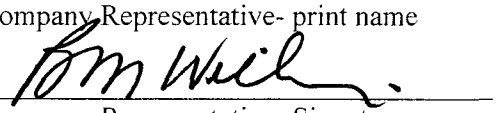
Conditions accepted by: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

Southern Union Gas Services, Ltd.
Company Name-print name above

Bruce Williams
Company Representative- print name



Company Representative- Signature

Title VP, Operations & Information Systems

Date: March 18, 2008

GW-10

Southern Union Gas Services

Application for New Mexico Oil Conservation Division Discharge Plan

Jal # 3

(Section 33, Township 24 S, Range 37 E)

August 17, 2007

Prepared For:

New Mexico Oil Conservation Division
1200 South Saint Francis Drive
Santa Fe, New Mexico 87505

On Behalf of:

Southern Union Gas Services, Ltd.
301 Commerce Street, Suite 700
Fort Worth, Texas 76102
Telephone: (817)-302-9400

Prepared By:

Geolex, Inc.
500 Marquette Avenue, NE, Suite 1350
Albuquerque, New Mexico 87102
Telephone: (505) 842-8000

GEOLEX INCORPORATED

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PART I
DRAIN LINE SYSTEMS AND TANK TESTING PROCEDURES

INTRODUCTION AND ORGANIZATION

Part I of this document contains the methods and procedures that Southern Union Gas Services (SUGS) uses to verify the integrity of underground drain lines at its Jal #3 Gas Processing Plant (Jal #3). In addition, Part II of this document contains the records of testing of the drain lines that are conducted on a periodic basis to assure their continued integrity and to identify and correct any leaks detected.

Jal #3 is a natural gas processing facility that includes the following primary processes:

- Compression
- Sweetening and sulfur recovery
- Dehydration
- Cryogenic separation
- Steam generation
- Power generation

The facility has a complex system of drain lines (both open drains and closed pressure drains), which have been modified over the life of the plant. Some lines or sections of lines have been abandoned or removed and other portions modified or replaced. This plan documents the current status of the lines as of March 2007. The drain line schematic included in this document should be reviewed and updated as necessary, and at least on an annual basis, to assure that any changes in the drain system are recorded and the appropriate modifications made to the line testing procedures included herein.

This plan allows the flexibility to test portions of smaller, low-volume sections of the drain piping without requiring a total plant shut down. The next section describes general procedures to be followed in the inspection and testing of drain lines. This section also addresses recordkeeping and reporting requirements associated with the testing. The appendices to this document include historical and current testing records organized by the year in which the testing took place.

Detailed instructions are given for testing each major section of drain line. These detailed instructions are provided in the following sections:

- Open drain lines
- SRU Open Drain Lines
- Open tile drain lines
- Closed (pressure) drain lines

As each section is tested, all smaller drains, which flow into the main header, will be subjected to the same test pressure. This will assure that all underground piping is tested.

Most of the open tile drain lines have been removed from service and are so documented in their respective sections. The testing procedures for these lines have been retained in this document to allow the evaluation of previous testing periods when the lines were still in service.

This document also contains the testing procedures for the annual testing of the tank systems.

1.0 GENERAL TESTING PROCEDURES

The following procedures have been developed to allow testing of various sections of the drain system with the plant in operation. Some sections will require a partial or total plant shutdown to allow for drain line testing.

If the total system is to be tested during a plant shutdown, the test sequence will be arranged so that water from one section can be routed into the next section to be tested where possible. This will shorten filling time and provide more economical use of water.

Raw water from the plant water system will be used for testing. Use of fire hydrants and hoses will be required in some locations to provide sufficient volume and pressure for filling and testing. In most cases, test pressures will be at or below normal line pressure in plant water mains making the use of a hydrostatic test pump unnecessary. Some selected portions of the closed (pressure) drains will require higher pressures, which may require the use of a hydrostatic test pump.

The test procedure and duration used in this procedure exceed those specified for drainage and vent systems as set forth in the 1979 ICBO Code, Sections 1004 (a) 1 and 1005. The international Conference of Building Officials (ICBO) Plumbing Code of the Uniform Plumbing Code describes the procedures to be utilized in this testing procedure. These pressures and durations are 4.3 psig and 15 minutes, respectively.

2.0 DETAILED INSTRUCTIONS APPLICABLE TO ALL DRAIN LINE AND TANK TESTING

1. Before attempting to test any section of drain line, verify the sources of effluent and vapors entering the line. Any line, which could contain significant amounts of Hydrogen Sulfide (H_2S), will be opened and tested observing all Jal #3 prescribed safety precautions and procedures.

2. Line numbers and sizes, tap numbers and locations on valves, stopple fittings and containment aprons are shown on drawing No. 1J3-1-P69 "Drain Lines (revised March 2007)." The entire test procedure is directly related to information on this drawing, which is included as Plate 1 of this document.

3. All drain and block valves, which are lubricated plug valves, shall be lubricated in the closed position to minimize possibility of leakage.

4. Before installing expandable plugs, clean the interior portion of the pipe where plug seal will contact pipe wall to assure proper sealing.

5. Use new gaskets when installing blind plates in flange unions and tighten flange bolts evenly to prevent tilting of flange faces and leakage.

6. Filling a test section of drain line should always be from the lowest tap, venting at the higher taps to displace as much air or gas from the line as possible. Air or gas in the line, especially large amounts, will cause instability in pressure readings.

7. Test pressures given for each section to be tested are 10 psig above the maximum-recorded pressure for that section of drain line. Test pressure should be applied only after system pressure is stabilized at some lower pressure. The test duration will be one (1) hour. **Most vitrified clay tile lines have been taken out of service; however, for those portions of open drains that still contain vitrified clay tile lines, there is an exception to this procedure. Test pressure on clay tile lines will *not* exceed 5 psig.**

8. After test pressure has been applied and stabilized, the system will be isolated and the static pressure test will begin. Introduction of additional pressure will void the previous time interval and will require restarting the test interval.

9. If a section of drain line will not maintain the static test pressure for the require time, all valves, fittings and flanges will be checked for proper sealing. If there is no valve, fitting or flange leakage, the section of drain line will be considered faulty. At that point if may be necessary to further isolate smaller sections of the line or expose the entire line until the leaking portion can be located and replaced or repaired.

    a) It should be noted that leakage could occur around the plug of a valve unless sealing type grease is used to lubricate the valve in the closed position.

    b) Leakage will occur around the seal of an expandable plug unless the surfaces inside the pipe are thoroughly cleaned prior to inserting the plug.

c) Improper tightening of flange unions or faulty, used, or dirty gasket will cause leakage at the blind plate installations.

d) Other points to check for system leakage are: loose screwed fittings and valves, stem packing (or bonnet), leakage on gate or globe valve, worn seating surfaces in ball valves, unseated gate or globe valves, and faulty resilient seats in butterfly valves.

10. Test pressures will be recorded on a circular chart, which will be retained as a permanent record and placed in the appropriate section in Part II this document. These charts will be scanned electronically to maintain an electronic as well as paper record of test results.

11. At the end of testing interval, remove chart from recorder before unscrewing unit from pressure tap to prevent irrelevant pen markings, ink spillage, or other chart damage.

12. Each chart will have the following information recorded on its face without obscuring the test record or, if not possible, on the back:

    a) Date
    b) Tap number
    c) Line number
    d) Initials of person changing chart
    e) Signature of person supervising testing

    Charts will be retained in the appropriate section of Part II this document at the plant office for reference and inspection as required.

13. When the integrity of the drain system or a section of the system has been verified, the system, or section, will be returned to normal service.

14. All drains will be tested every 5 years and a written summary report, which is included as part of the appendix to this document, will be sent to:

    Mr. Herb Harless, V.P.
    Southern Union Gas Services, LLP
    301 Commerce Street #700
    Ft. Worth TX 76102

15. The classifier and contingency tanks are intended to be operated at atmospheric pressure. Any pressure or vacuum testing of these tanks can cause damage to the tanks and/or coating system. Therefore, these tanks will be tested by filling the tank with water to a specified level and gauging any drop in level over a 12 or 24-hour period. This test will be performed annually.

16. Pressure or vacuum testing of the oil tank is precluded for the same reason specified for the classifier and contingency tanks. The oil tank will be tested by filling with water to a specified level and gauged to verify the maintenance of a constant level for a 4-hour period. This test will also be performed annually.

3.0 DETAILED TESTING PROCEDURES FOR OPEN DRAIN LINES (OPD)

This section contains detailed instructions for testing segments of the open drain lines (OPD), including those cooling tower blowdown (CBD) lines that are part of the OPD system. Each detailed procedure includes step-by-step testing procedures followed by a map of the portion of the line being tested. The overall map of the drain lines is included as Plate 1.

SECTION 3.1

COOLING TOWER BLOWDOWN (CBD) LINE: CBD-4/6"-L1, "A" PLANT TO THE JUNCTION WITH CBD-6"-L2

Revised 3/2007

See Plate 1 and Figure 3.1 (one page) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 19.

1. Close the 2" valve at the "A" plant cooling tower blow down. (NOTE: Connect water supply at this location)
2. Install a vented expandable plug in the sump at the north east corner of the pump house.
3. Install a vented expandable plug in the drain line coming out of the north end of the pump house.
4. Install a vented expandable plug in the apron drain north of the water treater building.
5. Install a vented expandable plug in the apron drain southeast of the reflux accumulator.
6. Ensure the valve at the junction to CBD-6"-L2 is closed. It is located between F-38 and F-48.
7. Close the 4" valve at the junction with ODL-8"L12.
8. Open the vent valves on taps F-38, F-39 and F-60.
9. Connect the water supply to the valve on tap F-38.
10. Fill the drain line with water while allowing the air to escape at the vent valves on taps F-39 and F-60.
11. Close the vent valves on taps F-39 and F-60 and Install a calibrated 60 PSIG pressure recorder at that location.
12. Using the water supply on tap F-38, stabilize the drain line pressure at approximately 20 PSIG.
13. Begin the static test as specified in the General Instructions, Item 8.
14. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
15. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
16. Release the pressure and remove the pressure recorder.
17. Remove all of the blinds or vented expandable plugs that may have been installed.
18. Return all valves to their normal operating position.
19. Close and plug all fill and vent lines.

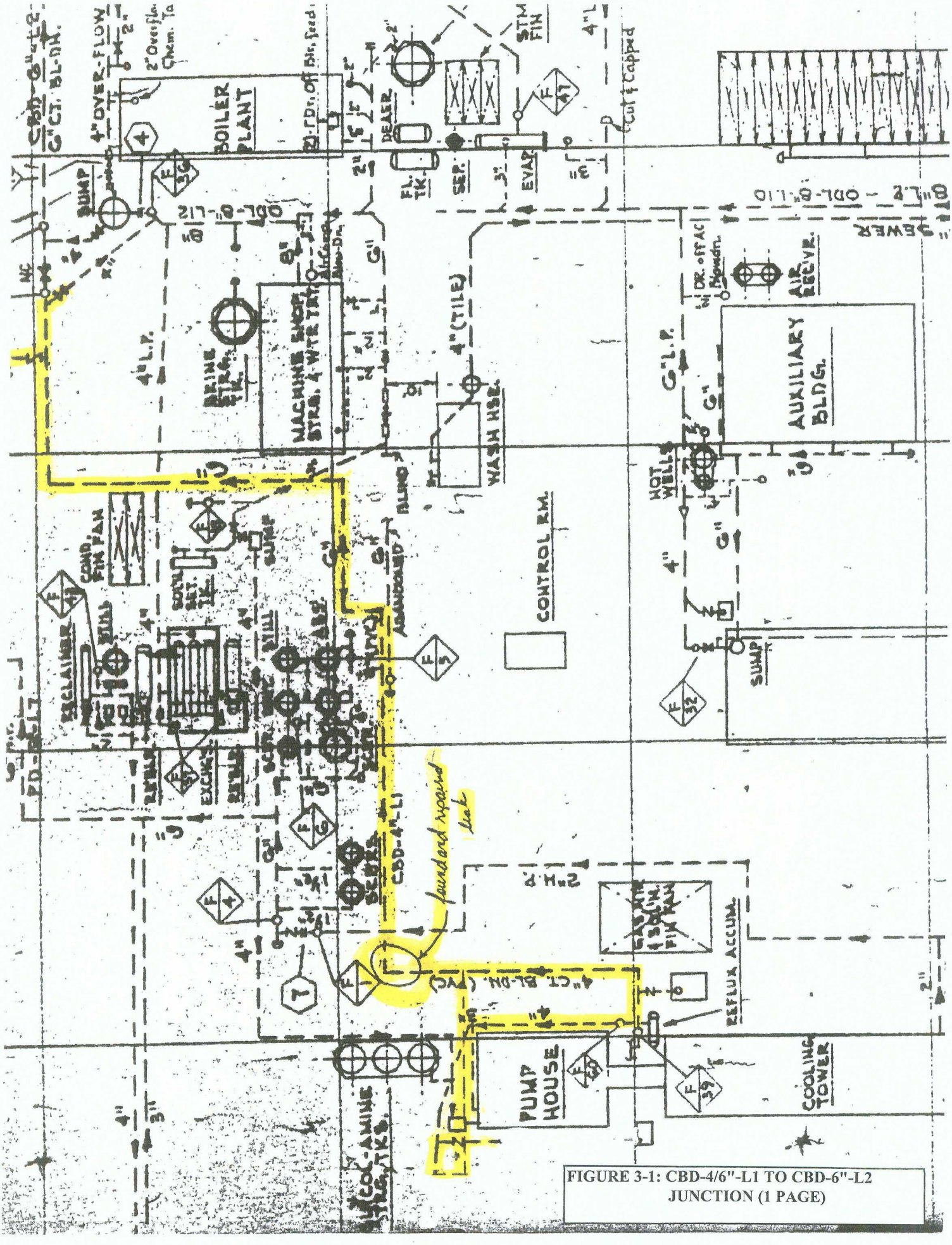


FIGURE 3-1: CBD-4/6"-L1 TO CBD-6"-L2 JUNCTION (1 PAGE)

SECTION 3.2

LINE: CBD -6"-L2, "A" PLANT COOLING TOWER BLOWDOWN FROM THE JUNCTION OF CBD-6"-L1 THROUGH CBD-6"-L3 TO THE FLANGE LOCATION F-53 IN THE NORTH EAST CORNER OF THE PLANT. ALSO THE CBD-4" FROM THE "B" PLANT COOLING TOWER TO ITS JUNCTION WITH THE CBD-6"-L3 DRAIN LINE.

Revised 3/2007

See Plate 1 and Figure 3.2 (six pages) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 17.

1. Ensure the valve at the junction to CBD-4"-L1, 6" section, is closed. It is located between taps F-38 and F-48.
2. Close the 4" valve at the sump located at the northwest corner of the boiler plant.
3. Close the cooling tower blow down valves at the "B" plant cooling tower.
4. Install a blind flange at flange location 27. It is located close to tap F-53 in the northeast corner of the plant.
5. Open the vent valves at taps F-52, F-52 and F-53.
6. Connect the water supply to the vent valve at tap F-48. (NOTE: Connected water supply off 2" pump discharge line on sump.)
7. Fill the drain line while venting through the open vent valves.
8. When filled, close the vent valves at taps F-52, F-52 and F-53.
9. Install a calibrated 60 PSIG pressure recorder on the tap F-48.
10. Using the water supply, stabilize the pressure of the drain system at approximately 20 PSIG.
11. Begin the static test as specified in the General Instructions, Item 8.
12. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
13. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
14. Release the pressure and remove the pressure recorder.
15. Remove all of the blinds or vented expandable plugs that may have been installed.
16. Return all valves to their normal operating position.
17. Close and plug all fill and vent lines.

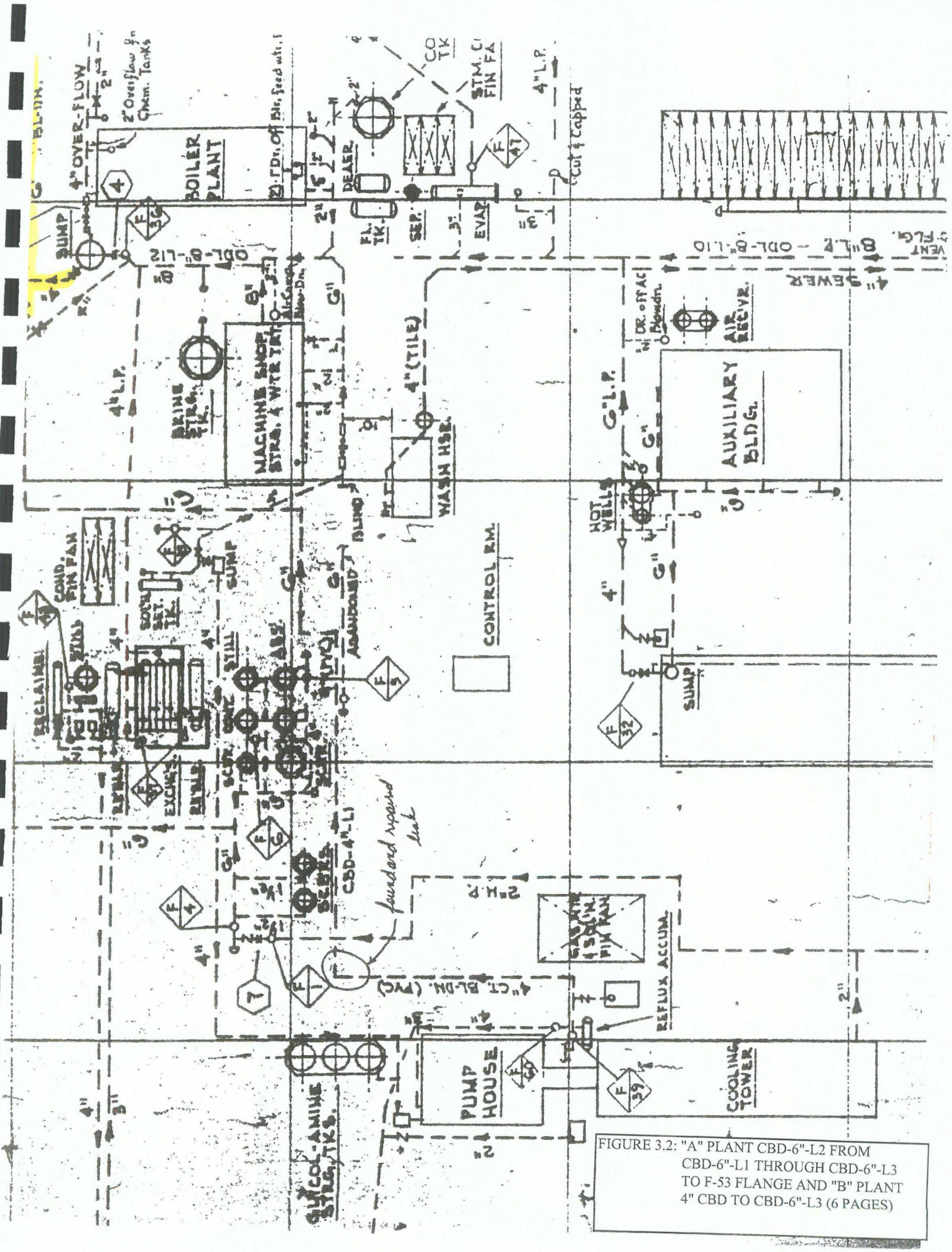


FIGURE 3.2: "A" PLANT CBD-6"-L2 FROM CBD-6"-L1 THROUGH CBD-6"-L3 TO F-53 FLANGE AND "B" PLANT 4" CBD TO CBD-6"-L3 (6 PAGES)

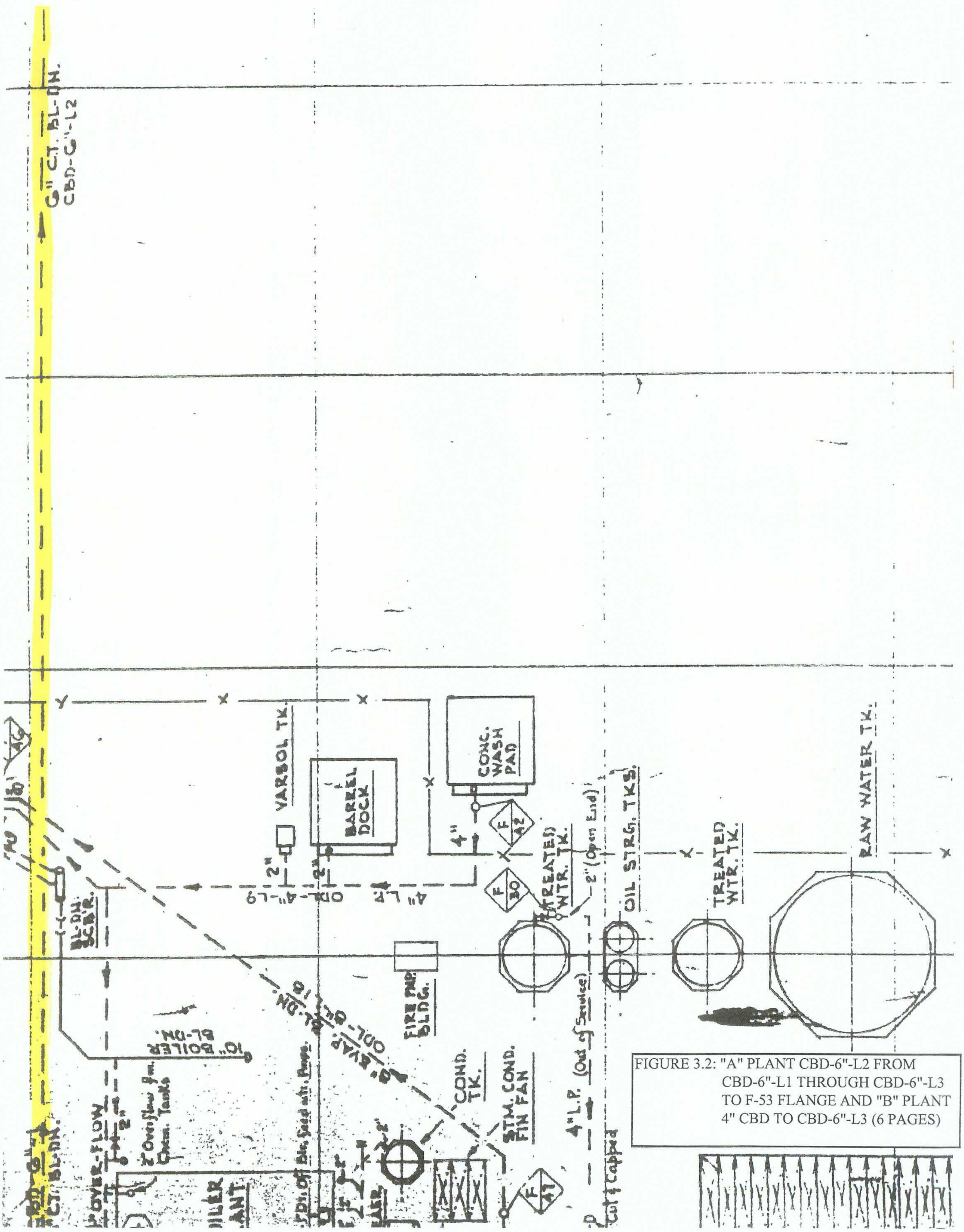


FIGURE 3.2: "A" PLANT CBD-6"-L2 FROM CBD-6"-L1 THROUGH CBD-6"-L3 TO F-53 FLANGE AND "B" PLANT 4" CBD TO CBD-6"-L3 (6 PAGES)

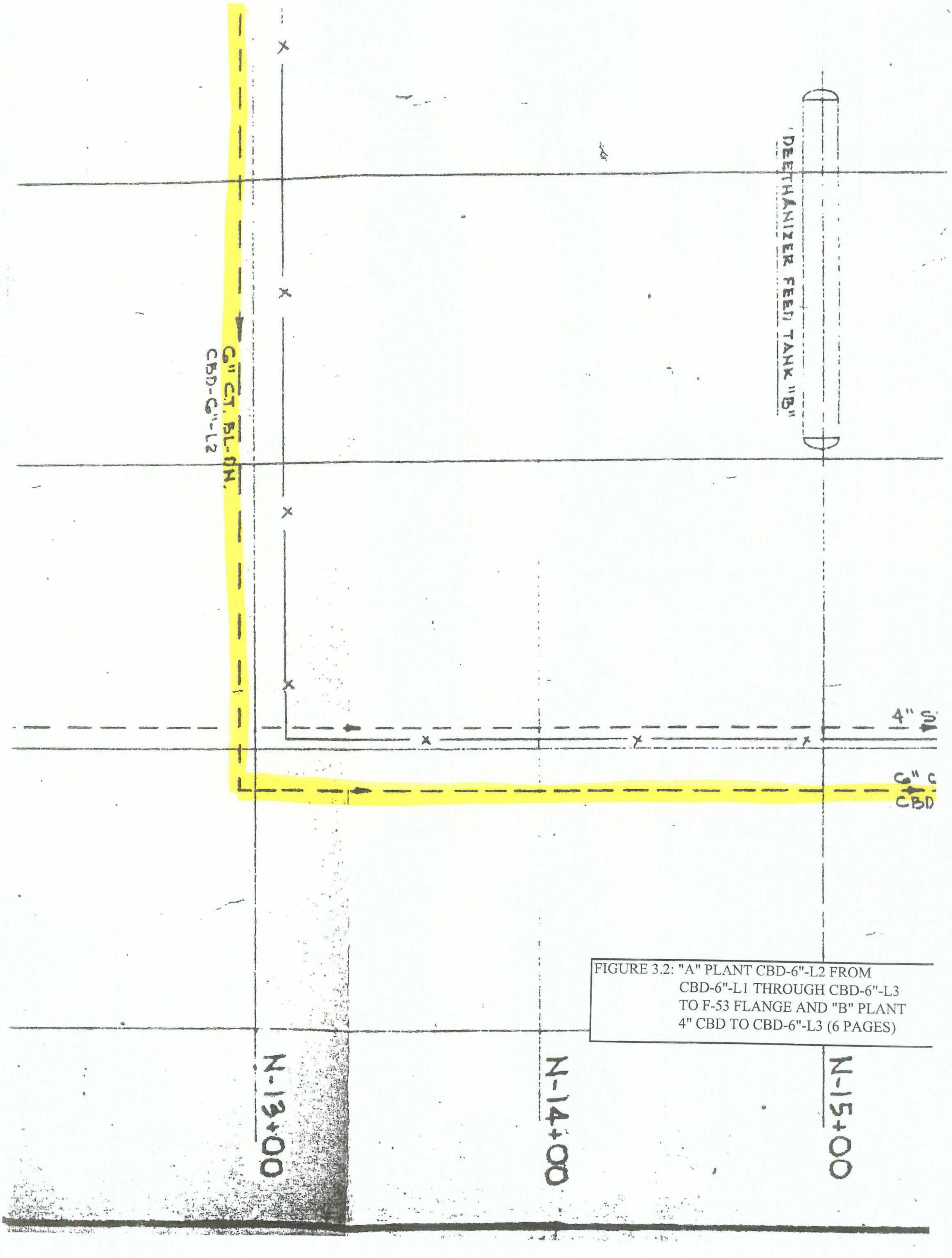


FIGURE 3.2: "A" PLANT CBD-6"-L2 FROM CBD-6"-L1 THROUGH CBD-6"-L3 TO F-53 FLANGE AND "B" PLANT 4" CBD TO CBD-6"-L3 (6 PAGES)

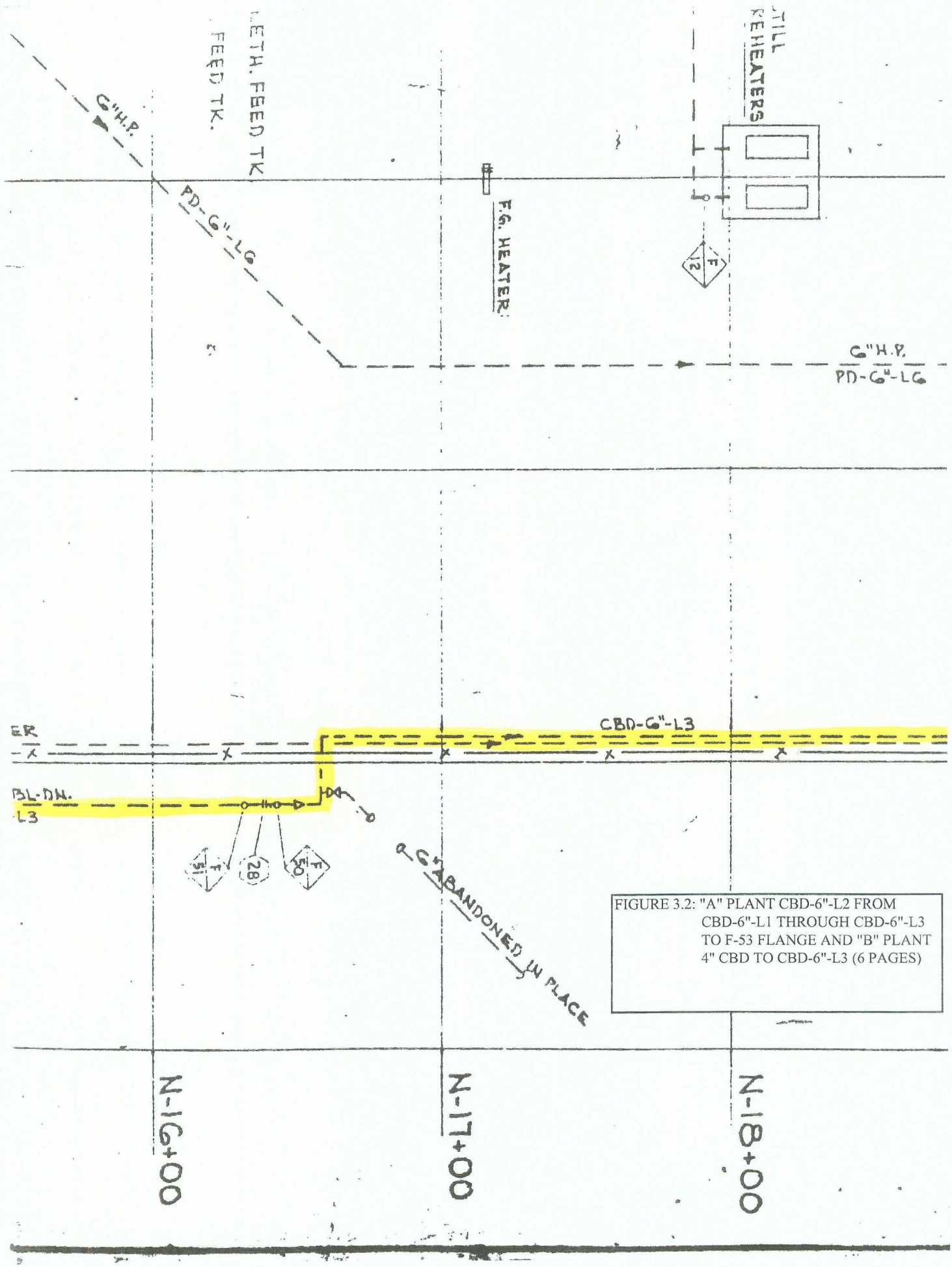


FIGURE 3.2: "A" PLANT CBD-6"-L2 FROM CBD-6"-L1 THROUGH CBD-6"-L3 TO F-53 FLANGE AND "B" PLANT 4" CBD TO CBD-6"-L3 (6 PAGES)

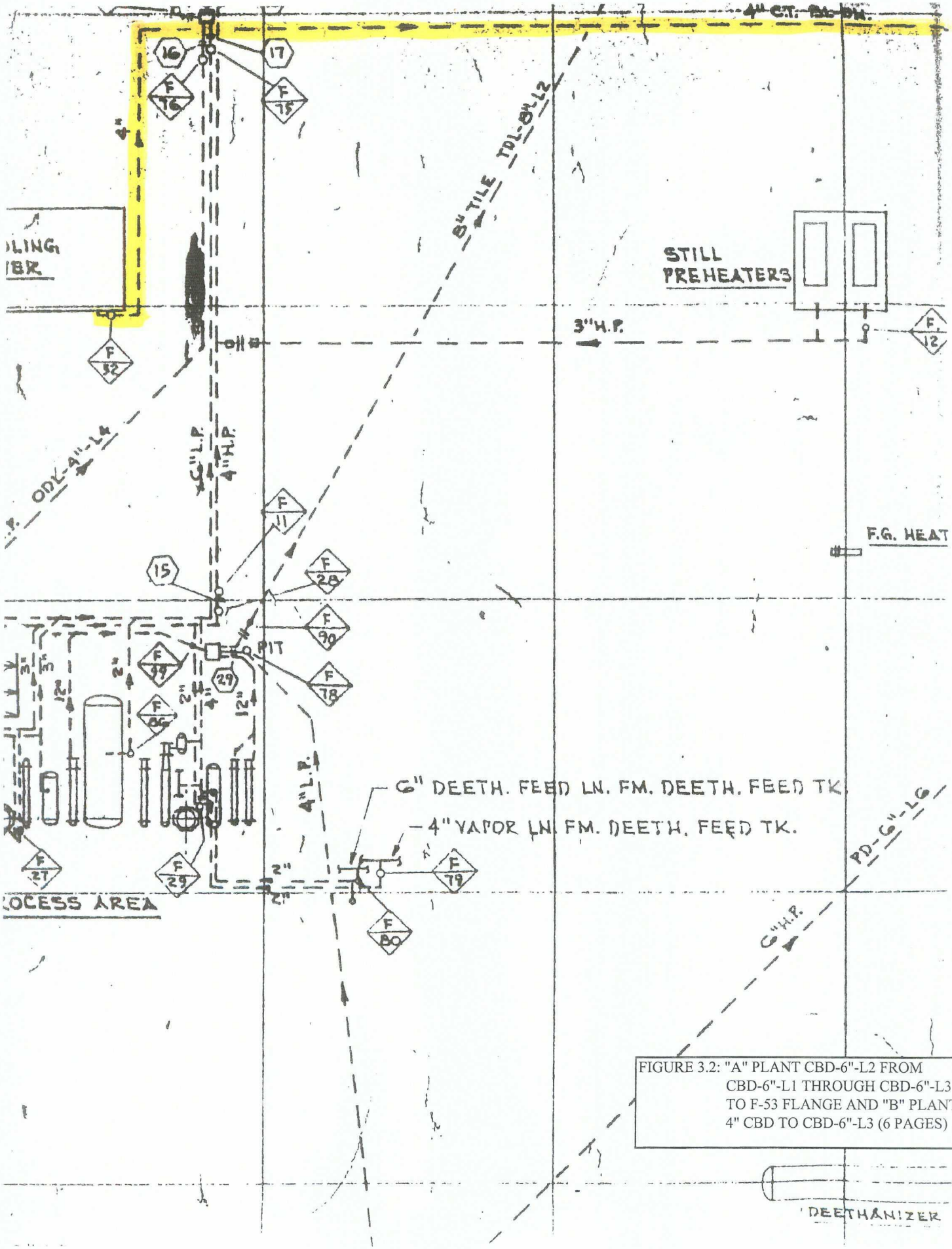


FIGURE 3.2: "A" PLANT CBD-6"-L2 FROM CBD-6"-L1 THROUGH CBD-6"-L3 TO F-53 FLANGE AND "B" PLANT 4" CBD TO CBD-6"-L3 (6 PAGES)

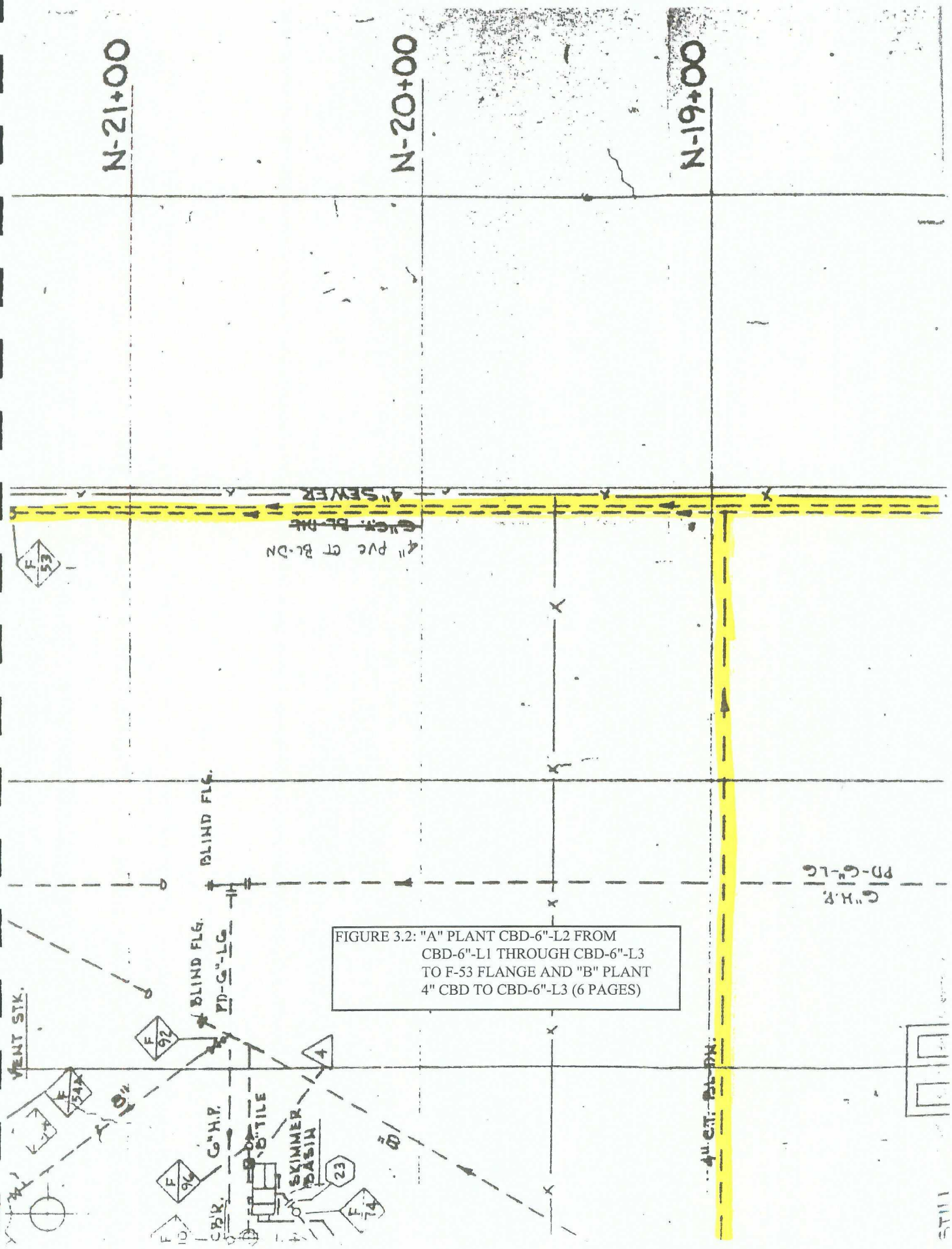


FIGURE 3.2: "A" PLANT CBD-6"-L2 FROM CBD-6"-L1 THROUGH CBD-6"-L3 TO F-53 FLANGE AND "B" PLANT 4" CBD TO CBD-6"-L3 (6 PAGES)

SECTION 3.3

LINE: ODL-6"-L1, OPEN DRAIN FROM "C" PLANT AREA TO NORTH DRAIN SUMP (NDS).

Revised 3/2007

See Plate 1 and Figure 3.3 (2 pages) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 20.

1 Install a vented expandable plug in the open drain in the box at the turbine inlet scrubber.

2 Install a vented expandable plug in the apron drain under the west end of the "C" plant building.

3 Install two vented expandable plugs in the apron drain at the third stage gas cooler south of the fin fan unit.

4 Install a vented expandable plug in the apron drain at the east end of the "C" plant building.

5 Install a vented expandable plug in the funnel drain at the condensate blowdown vessel

6 Close the 2" valve on the sump pump discharge in the basement of the "B' plant compressor building.

7 Install a blind in the 6" ANSI 150 flange union at the north drain sump (NDS), at flange location 21.

8 Open the vent valves on taps F-67, F-68, F-69, F-70 and F-71.

9 Connect the water supply to tap F-67.

10 Fill the drain line while venting through the open vent valves.

11 When filled, close the vent valves on taps F-68, F-69, F-70 and F-71.

12 Install a calibrated 60 PSIG pressure recorder on the tap F-71.

13 Using the water supply, stabilize the pressure the drain system at approximately 10 PSIG.

14 Begin the static test as specified in the General Instructions, Item 8.

15 If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.

16 At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, item 12.

17 Release the pressure and remove the pressure recorder.

18 Remove all of the blinds or vented expandable plugs that may have been installed.

19 Return all valves to their normal operating position.

20 Close and plug all fill and vent lines.

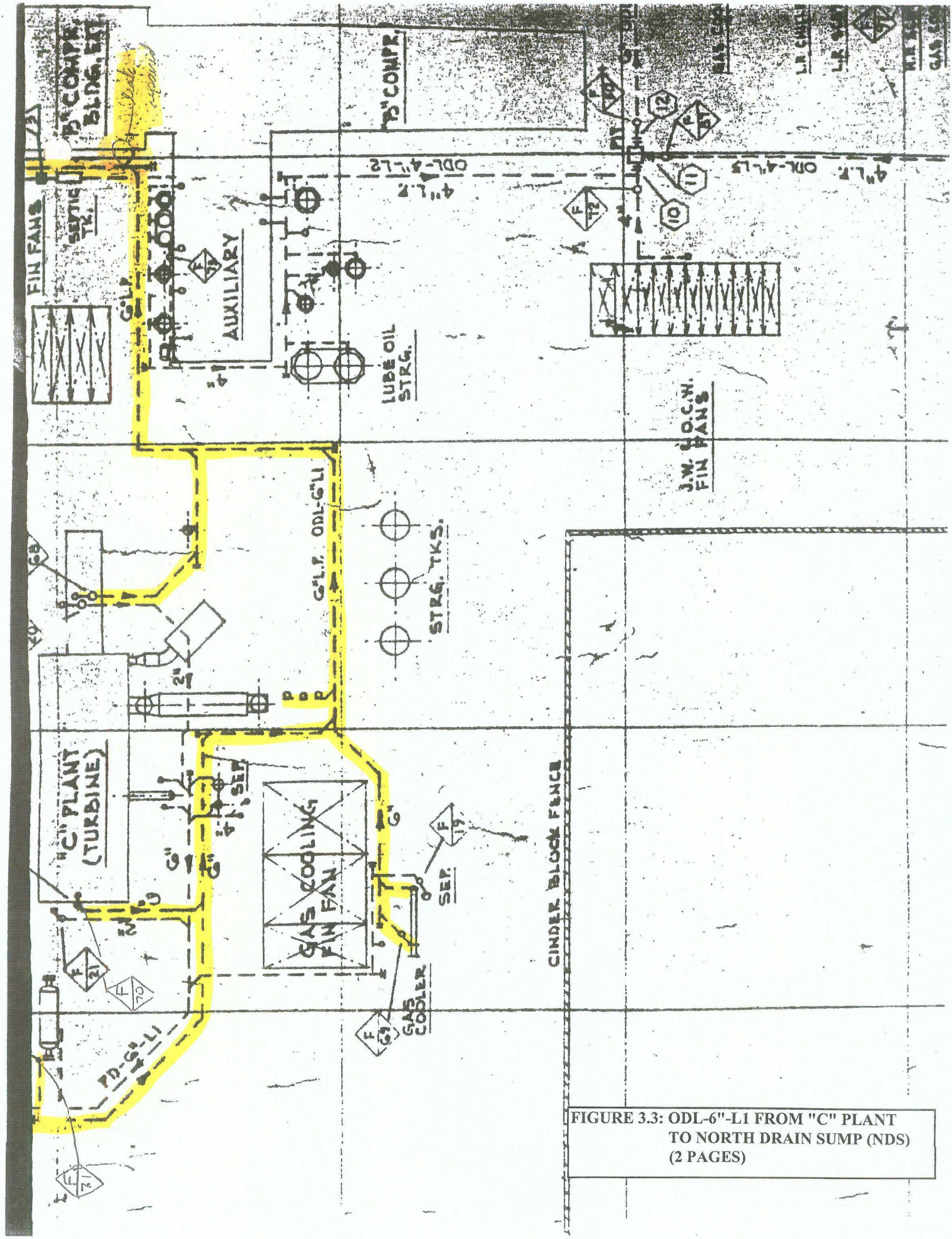


FIGURE 3.3: ODL-6"-L1 FROM "C" PLANT TO NORTH DRAIN SUMP (NDS) (2 PAGES)

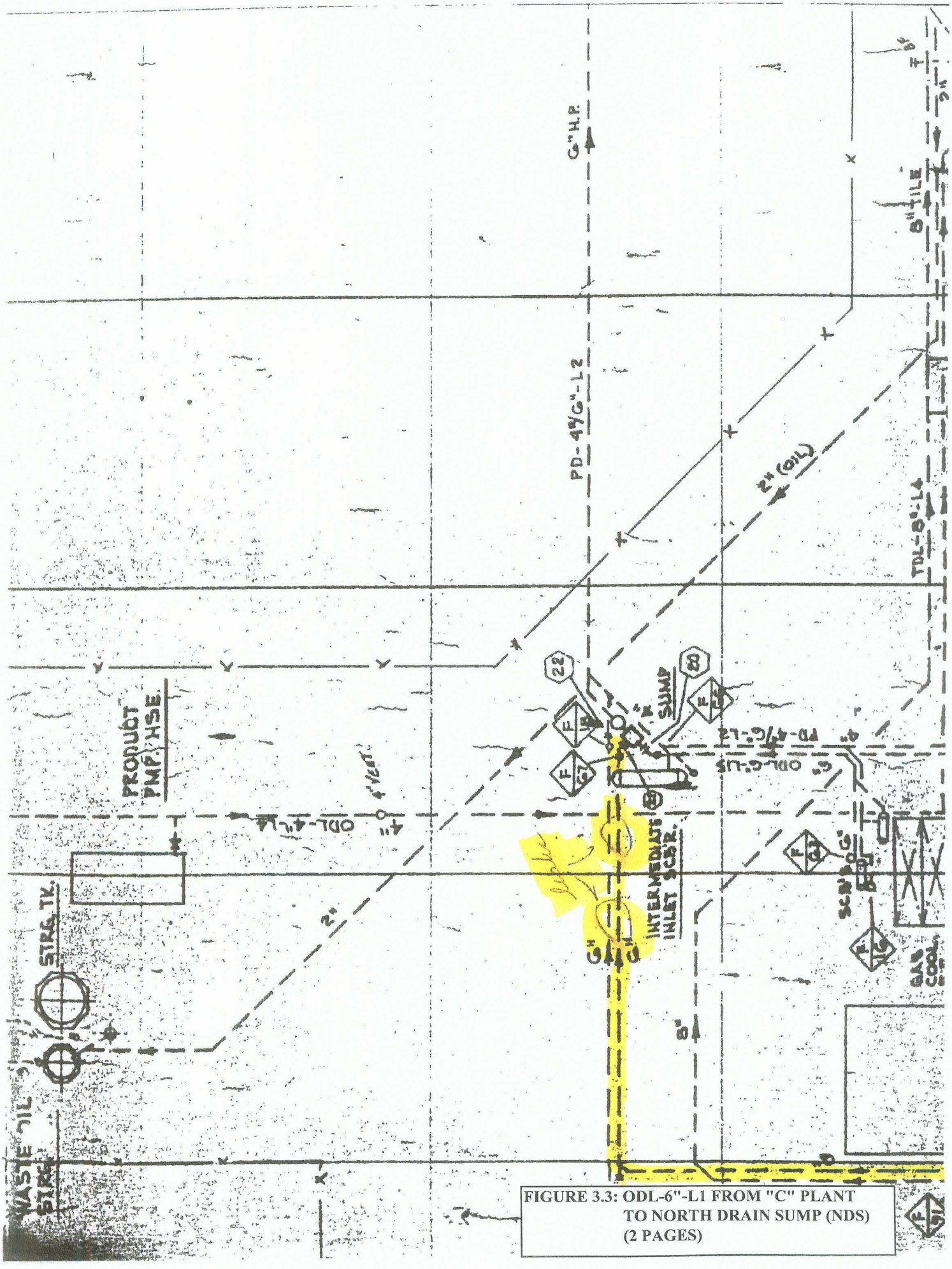


FIGURE 3.3: ODL-6"-L1 FROM "C" PLANT TO NORTH DRAIN SUMP (NDS) (2 PAGES)

SECTION 3.4

LINE: ODL-6"-L3, OPEN DRAIN FROM GASOLINE PROCESS AREA TO THE NORTH DRAIN SUMP (NDS)

Revised 3/2007

See Plate 1 and Figure 3.4 (3 pages) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 17.

1. Install a 6" blind at flange location 12 at the west sump at the south west corner of the "B" plant.
2. Install a 6" blind at flange location 17 at the north drain sump (NDS) located north and east of the "B" plant cooling tower.
3. Install vented expandable plugs in the following locations:
    a) the open drain at the "B" plant second stage scrubber
    b) the open drain at the "B" plant third stage scrubber
    c) the two open drains at the gas coolers
    d) the open drain at the scrubber just south of the gas coolers
    e) the open drain at the LP gas cooler
    f) the open drain at the LP absorber
    g) the open drain at the sweet gas scrubber
    h) the open drains at the solution contactors
4. All of the open drains in the gas plant process area have been plugged.
5. Open the vent valves at tap locations F-50, F-57, F-55, F-59 and F-75.
6. Connect the water supply to the vent valve at tap F-75.
7. Fill the drain line with water while allowing air to escape at the other vent valve locations.
8. When the drain line is filled with water, close the vent valves at taps F-50, F-57, F-55 and F-59.
9. Install a calibrated 60 PSIG pressure recorder on the tap F-75.
10. Using the water supply, stabilize the pressure the drain system at approximately 20 PSIG.
11. Begin the static test as specified in the General Instructions, item 8.
12. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.

13. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
14. Release the pressure and remove the pressure recorder.
15. Remove all of the blinds or vented expandable plugs that may have been installed.
16. Return all valves to their normal operating position.
17. Close and plug all fill and vent lines.

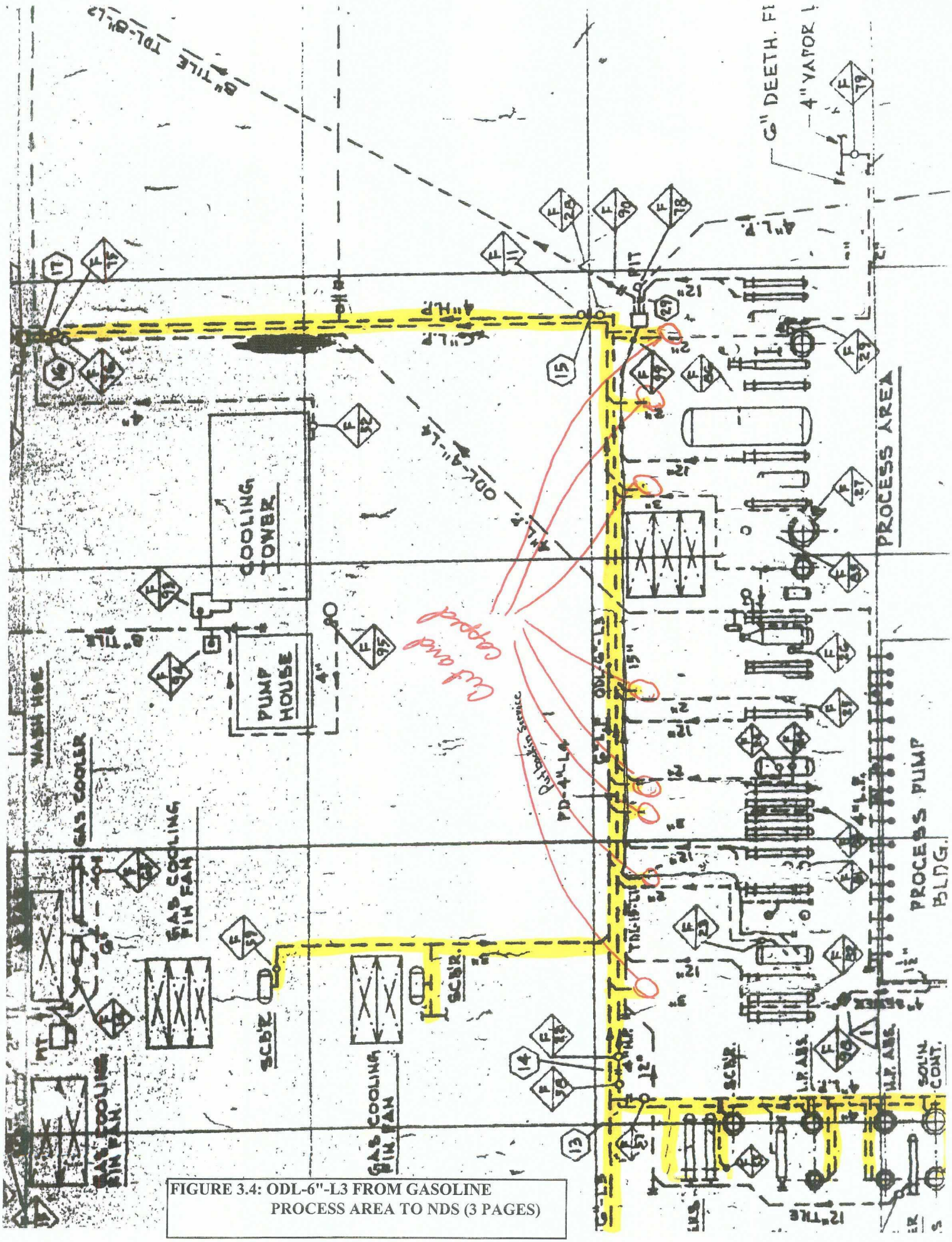


FIGURE 3.4: ODL-6"-L3 FROM GASOLINE PROCESS AREA TO NDS (3 PAGES)

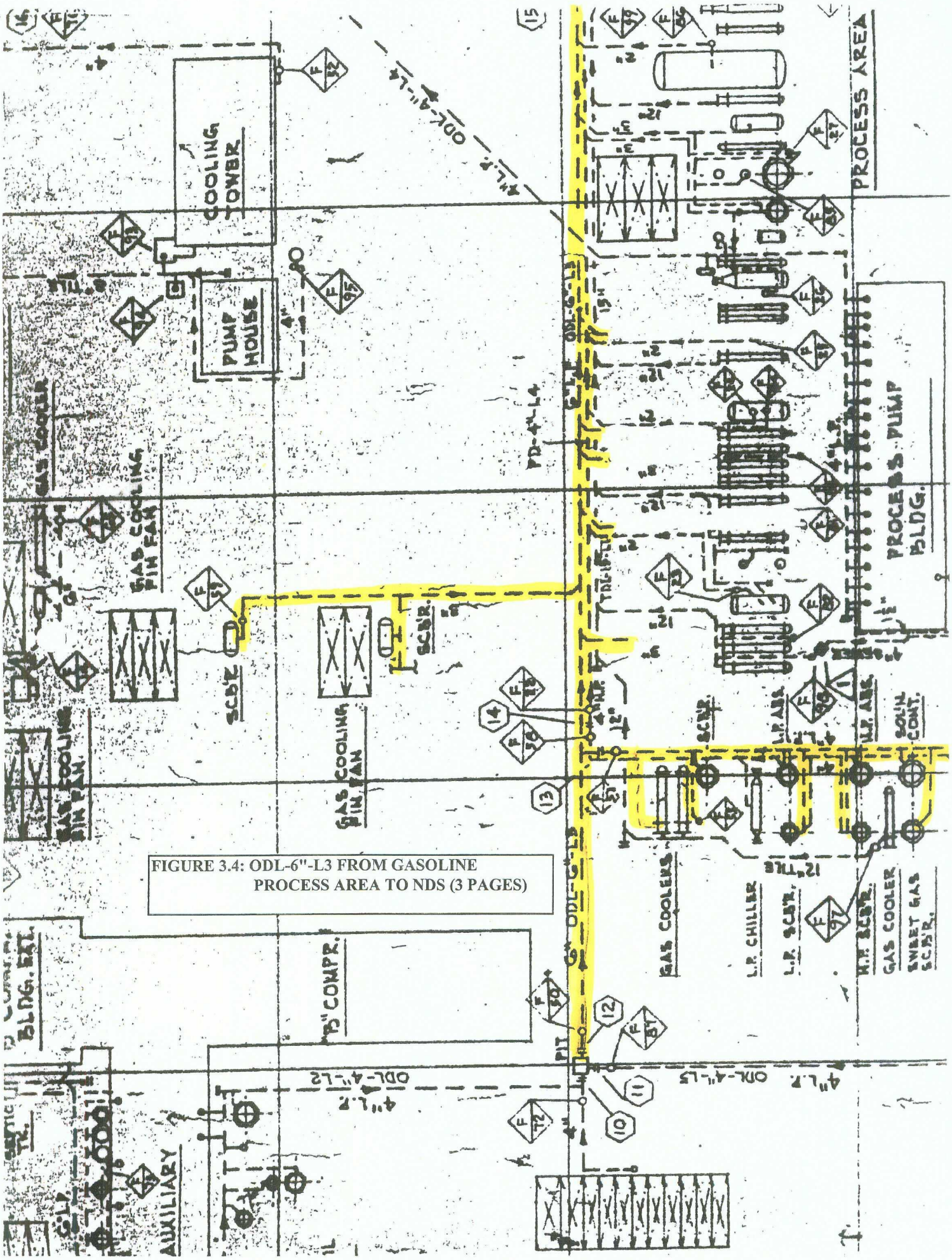


FIGURE 3.4: ODL-6"-L3 FROM GASOLINE PROCESS AREA TO NDS (3 PAGES)

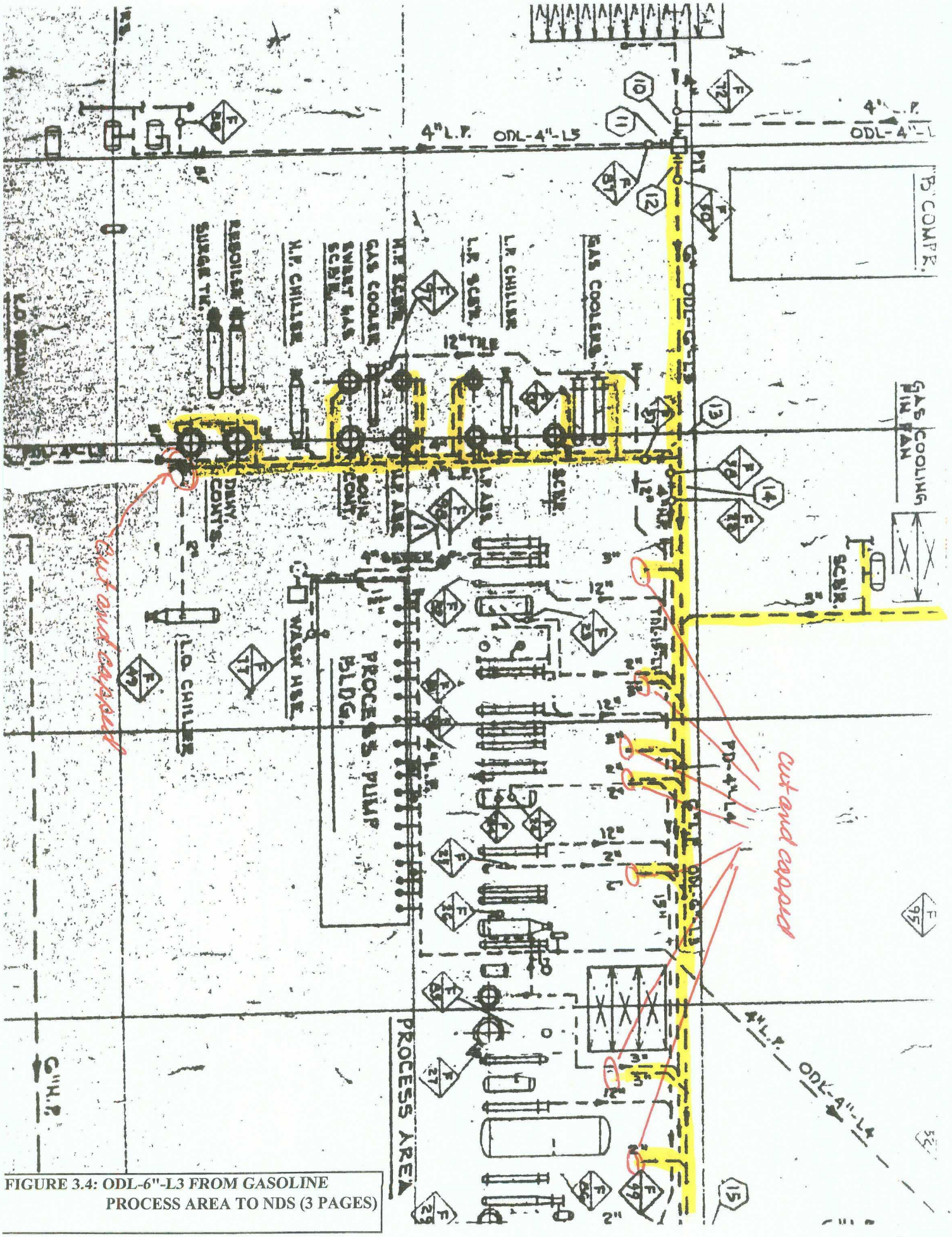


FIGURE 3.4: ODL-6"-L3 FROM GASOLINE PROCESS AREA TO NDS (3 PAGES)

SECTION 3.5

LINE: ODL-4"-L2, OPEN DRAIN LINE FROM "B" PLANT AUXILIARY BUILDING TO THE WEST DRAIN SUMP (WDS) SOUTH OF THE "B" COMPRESSOR BUILDING.

Revised 3/2007

See Plate 1 and Figure 3.5 (one page) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 22.

1. Install a vented expandable plug in the "B" plant auxiliary building at the air compressor coolant drain.
2. Install a vented expandable plug in the "B" plant auxiliary building at the drinking fountain drain.
3. Close the five ball valves on the drains from the vertical vessels on the north side of the auxiliary building.
4. Ensure that the plug valves on the drains from the lube oil storage tanks south of the auxiliary building are closed. They may need to be greased in the closed position.
5. Install a vented expandable plug in the funnel drain at the low surge tank.
6. Close the two gate valves on the oil cooling water and jacket water side steam filters.
7. Install four vented expandable plugs in the open floor drains on the south side of the auxiliary building.
8. Install a vented expandable plug in the open drain at the jacket water surge tank.
9. Install a 4" ANSI 150 blind at the flange joint at the west drain sump (WDS), flange location 10.
10. Open the vent valves at taps F-72 and F-73.
11. Connect the water supply to the vent valve at tap F-72.
12. Fill the drain line with water, while allowing air to vent through the vent valve at F-73.
13. When the drain line is filled with water, close the vent valve at tap F-73.
14. Install a calibrated 60 PSIG pressure recorder on the tap F-72.
15. Using the water supply, stabilize the pressure the drain system at approximately 10 PSIG.
16. Begin the static test as specified in the General Instructions, Item 8.
17. If the test pressure cannot be maintained on the isolated system as specified, refer to the Genera! Instructions, Item 9.
18. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.

19. Release the pressure and remove the pressure recorder.
20. Remove all of the blinds or vented expandable plugs that may have been installed.
21. Return all valves to their normal operating position.
22. Close and plug all fill and vent lines.

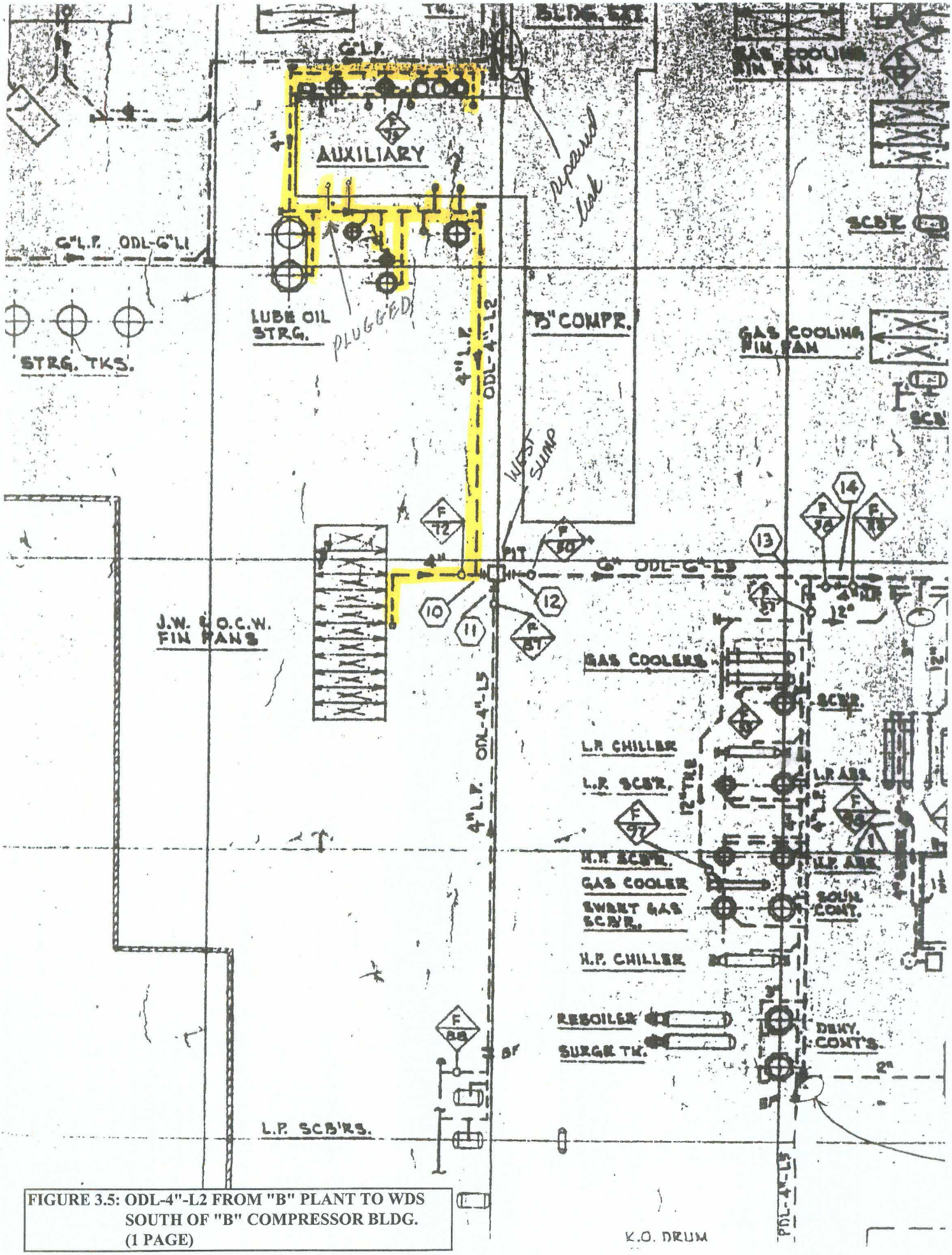


FIGURE 3.5: ODL-4"-L2 FROM "B" PLANT TO WDS SOUTH OF "B" COMPRESSOR BLDG. (1 PAGE)

SECTION 3.6

LINE: ODL-4"-L4, OPEN DRAIN LINE FROM PROCESS PUMP BUILDING TO THE NORTH DRAIN SUMP (NDS).

Revised 3/2007
See Plate 1 and Figure 3.6 (one page) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 17.

NOTE: PUMP BUILDING IS NO LONGER IN SERVICE; AND THIS LINE IS NO LONGER IN SERVICE.

1. Install 18 vented expandable plugs in the funnel drains along the north wall of the process pump room.
2. Install a 4" vented expandable plug in the open drain line where it will tie into the ODL-6"-L3 drain line.
3. Close the 1" ball on the drain from the air volume bottle on the south side of the process pump building.
4. Open the vent valve at tap F-77.
5. Open the vent in the 4" expanded plug.
6. Connect the water supply to the vent valve at tap F-77.
7. Fill the drain line while allowing air to vent through the open expanded plug vent.
8. When the drain line is filled with water, close the vent valve at the expanded plug.
9. Install a calibrated 60 PSIG pressure recorder on the tap F-77.
10. Using the water supply, stabilize the pressure the drain system at approximately 10 PSIG.
11. Begin the static test as specified in the General Instructions, Item 8.
12. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
13. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
14. Release the pressure and remove the pressure recorder.
15. Remove all of the blinds or vented expandable plugs that may have been installed.
16. Return all valves to their normal operating position.
17. Close and plug all fill and vent lines.

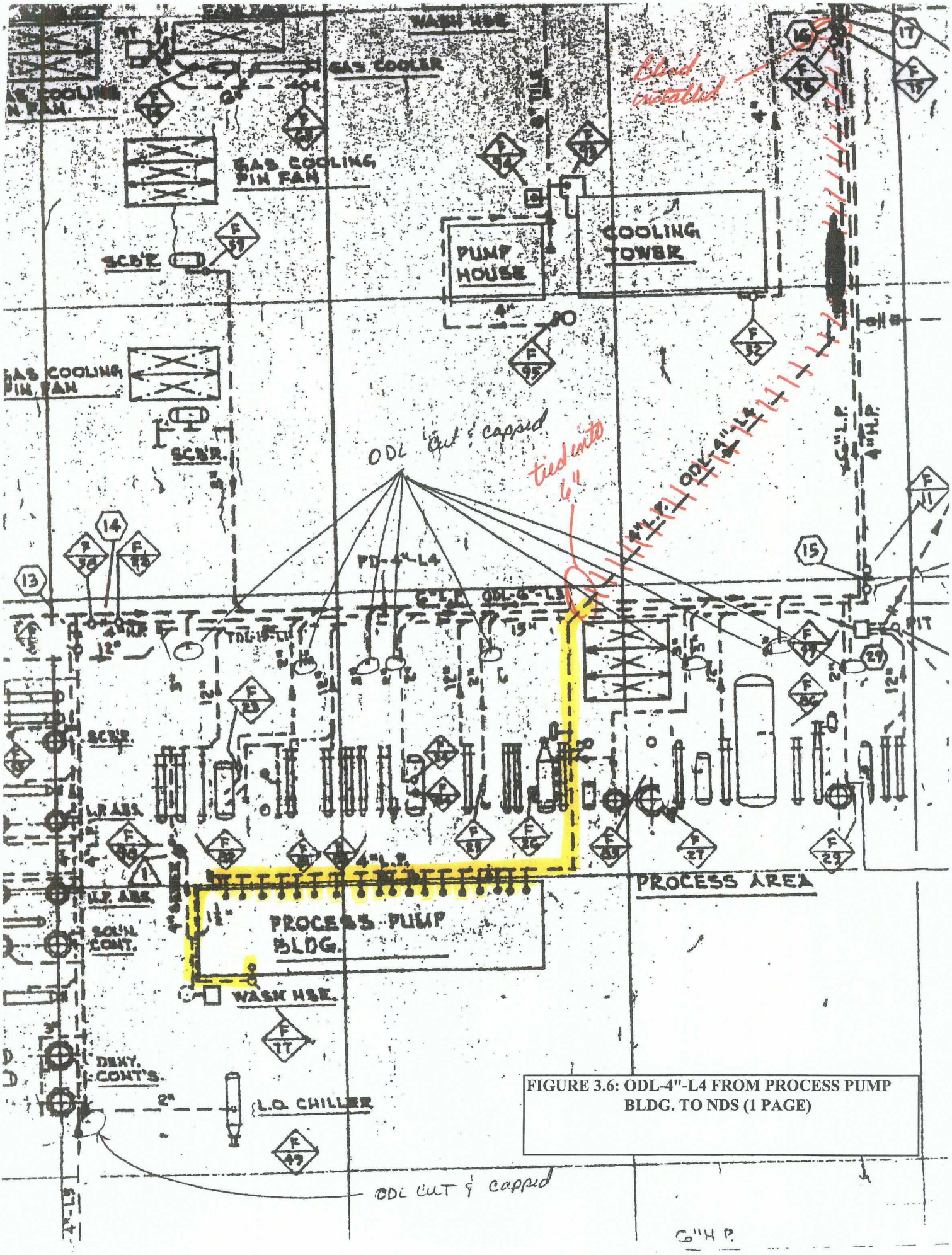


FIGURE 3.6: ODL-4"-L4 FROM PROCESS PUMP BLDG. TO NDS (1 PAGE)

SECTION 3.7

LINE: ODL-8"-L10, OPEN DRAIN LINE FROM "A" PLANT TO THE JUNCTION WITH ODL-8"-L12 AT THE BOILER PLANT AND ODL-8"-L12, OPEN DRAIN FROM THE TREATING PLANT AREA TO THE FIBERGLASS SUMP AT THE NORTHWEST CORNER OF THE BOILER PLANT.

Revised 3/2007

See Plate 1 and Figure 3.7 (one page) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 29.

1. Verify that a blind is in the drain line west of the south end of the fin fans.
2. Install a blind at flange location 4 south of the sump at the northeast corner of the boiler plant.
3. Install a vented expandable plug in the apron drain east of the north end of the "A" plant compressor building.
4. Install a vented expandable plug in the drain south of the hot wells.
5. Install a vented expandable plug in the open drain east of the north end of the "A" plant compressor building.
6. Install a vented expandable plug in the apron drain south of the evaporator.
7. Install a vented expandable plug in the apron drain under the evaporator.
8. Install a vented expandable plug in the apron drain on the north east side of the condensate tank.
9. Install a vented expandable plug in the two floor drains in the south end of the boiler plant.
10. Install a vented expandable plug in the open drain south of the boiler plant.
11. Install a vented expandable plug in the two floor drains under the solution settling tank.
12. Install a vented expandable plug in the 3 floor drains in the south side of the machine shop building.
13. Install a vented expandable plug in the 8" drain line on the east end of the machine shop building.
14. Close the valve to the sump south east of the solution settling tank.
15. Close the valve at the junction with CBD-4"-L1.
16. Close the valve at the air compressor blowdown at the east end of the machine shop building. (NOTE: Connected water supply at this location outside building.)
17. Open the vent valves at the taps F-32, F-35, F-36 and F-37 (2 ea.).
18. Connect the water supply to the vent valve at tap F-36.

19. Fill the drain line with water, while allowing air to vent through the vent valves at taps F-32, F-35 F-36 and F-37 (2 ea.).

20. When the drain line is filled with water, close the vent valve at tap F-36.

21. Install a calibrated 60 PSIG pressure recorder on the tap F-36.

22. Using the water supply, stabilize the pressure the drain system at approximately 20 PSIG.

23. Begin the static test as specified in the General Instructions, Item 8.

24. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.

25. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.

26. Release the pressure and remove the pressure recorder.

27. Remove all of the blinds or vented expandable plugs that may have been installed.

28. Return all valves to their normal operating position.

29. Close and plug all fill and vent lines.

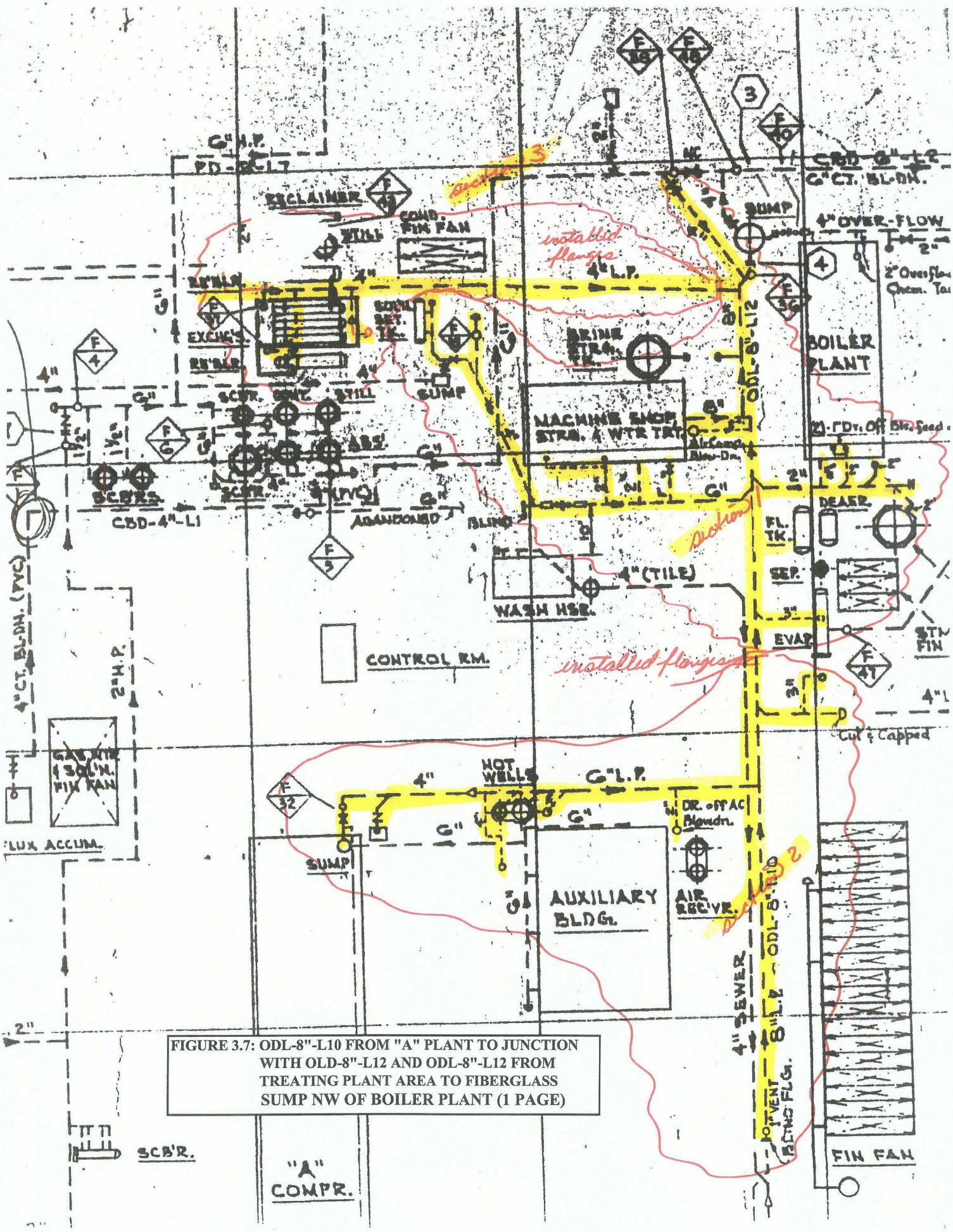


FIGURE 3.7: ODL-8"-L10 FROM "A" PLANT TO JUNCTION WITH OLD-8"-L12 AND ODL-8"-L12 FROM TREATING PLANT AREA TO FIBERGLASS SUMP NW OF BOILER PLANT (1 PAGE)

SECTION 3.8

LINE: ODL-4"-L9,4" OVERFLOW FROM SUMP AND 10" BOILER BLOWDOWN.

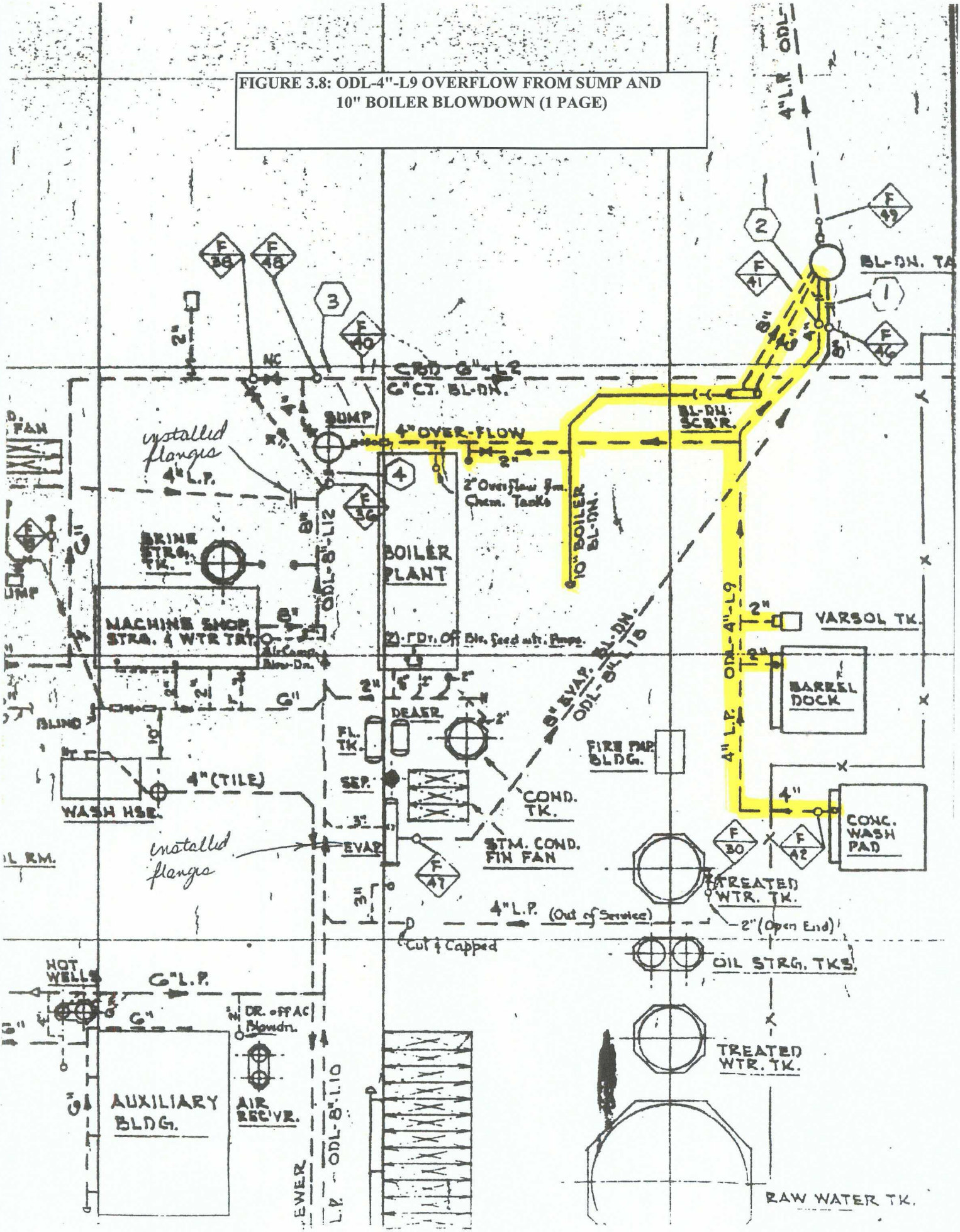
Revised 3/2007

See Plate 1 and Figure 3.8 (one page) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 22.

1. Install a vented expandable plug in the floor drain at the wash pad south of the barrel storage dock.
2. Install a vented expandable plug in the floor drain at the barrel storage dock.
3. Install a vented expandable plug in the floor drain at the varsol storage tank.
4. Install a vented expandable plug in the floor drain at the north end of the boiler plant building. (NOTE: Connected water supply here.)
5. Install a vented expandable plug in the 4" drain line going into the blowdown tank at the blow down tank.
6. Install a vented expandable plug in the 6" drain line going into the blowdown tank at the blow down tank.
7. Install a vented expandable plug in the 8" drain line going into the blowdown tank at the blow down tank.
8. Install a blind in the 4" overflow line from the fiberglass sump at the northwest corner of the boiler plant building.
9. Close the boiler blow down valves.
10. Open the vent valves at taps F-40 and F-41.
11. Connect the water supply to the vent valve at tap F-41.
12. Fill the drain line with water, while allowing air to vent through the vent valve at tap F-40.
13. When the drain line is filled with water, close the vent valve at tap F-40.
14. Install a calibrated 60 PSIG pressure recorder on the tap F-41.
15. Using the water supply, stabilize the pressure the drain system at approximately 20 PSIG.
16. Begin the static test as specified in the General Instructions, Item 8.
17. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
18. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
19. Release the pressure and remove the pressure recorder.

20. Remove all of the blinds or vented expandable plugs that may have been installed.
21. Return all valves to their normal operating position.
22. Close and plug all fill and vent lines.

FIGURE 3.8: ODL-4"-L9 OVERFLOW FROM SUMP AND 10" BOILER BLOWDOWN (1 PAGE)



SECTION 3.9

LINE: ODL-4"-L14,4" FROM THE PRODUCT STORAGE TANKS TO THE NDS.

Revised 3/2007

See Plate 1 and Figure 3.9 (2 pages) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 18.

1. Install 3 vented expandable plugs in the funnel drains under the product storage tanks.
2. Install a vented expandable plug in the floor drain at the waste oil storage tank.
3. Install a vented expandable plug in the floor drain at the storage tank by the waste oil storage tank.
4. Close the valve in the drain line from the product pump house.
5. Install a blind in the drain line at flange location 19.
6. Open the vent valves at taps F-61 and F-62.
7. Connect the water supply to the vent valve at tap F-62.
8. Fill the drain line with water, while allowing air to vent through the vent valve at tap F-61.
9. When the drain line is filled with water, close the vent valve at tap F-61.
10. Install a calibrated 60 PSIG pressure recorder on the tap F-62.
11. Using the water supply, stabilize the pressure the drain system at approximately 20 PSIG.
12. Begin the static test as specified in the General Instructions, Item 8.
13. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
14. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
15. Release the pressure and remove the pressure recorder.
16. Remove all of the blinds or vented expandable plugs that may have been installed.
17. Return all valves to their normal operating position.
18. Close and plug all fill and vent lines.

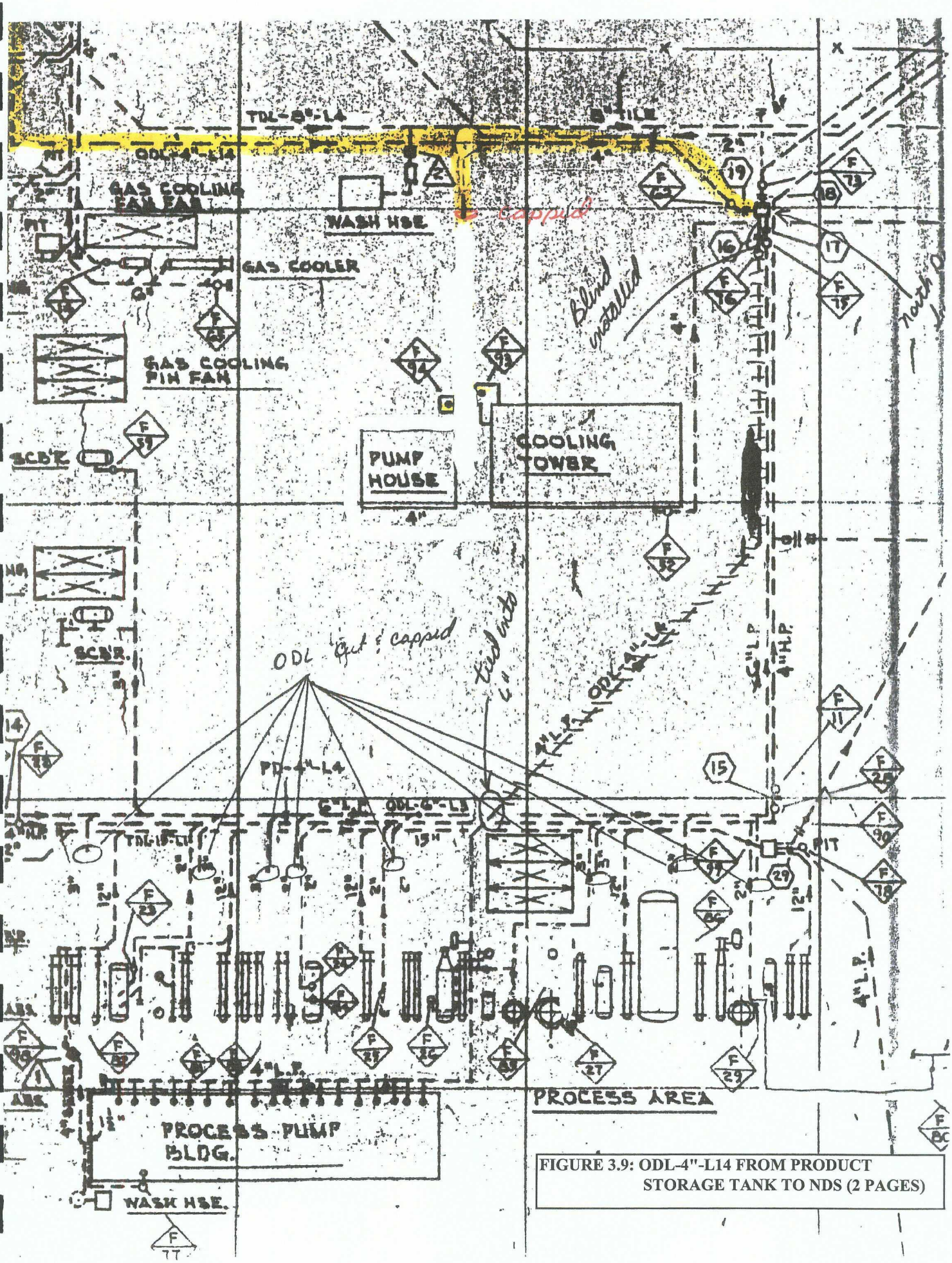


FIGURE 3.9: ODL-4"-L14 FROM PRODUCT STORAGE TANK TO NDS (2 PAGES)

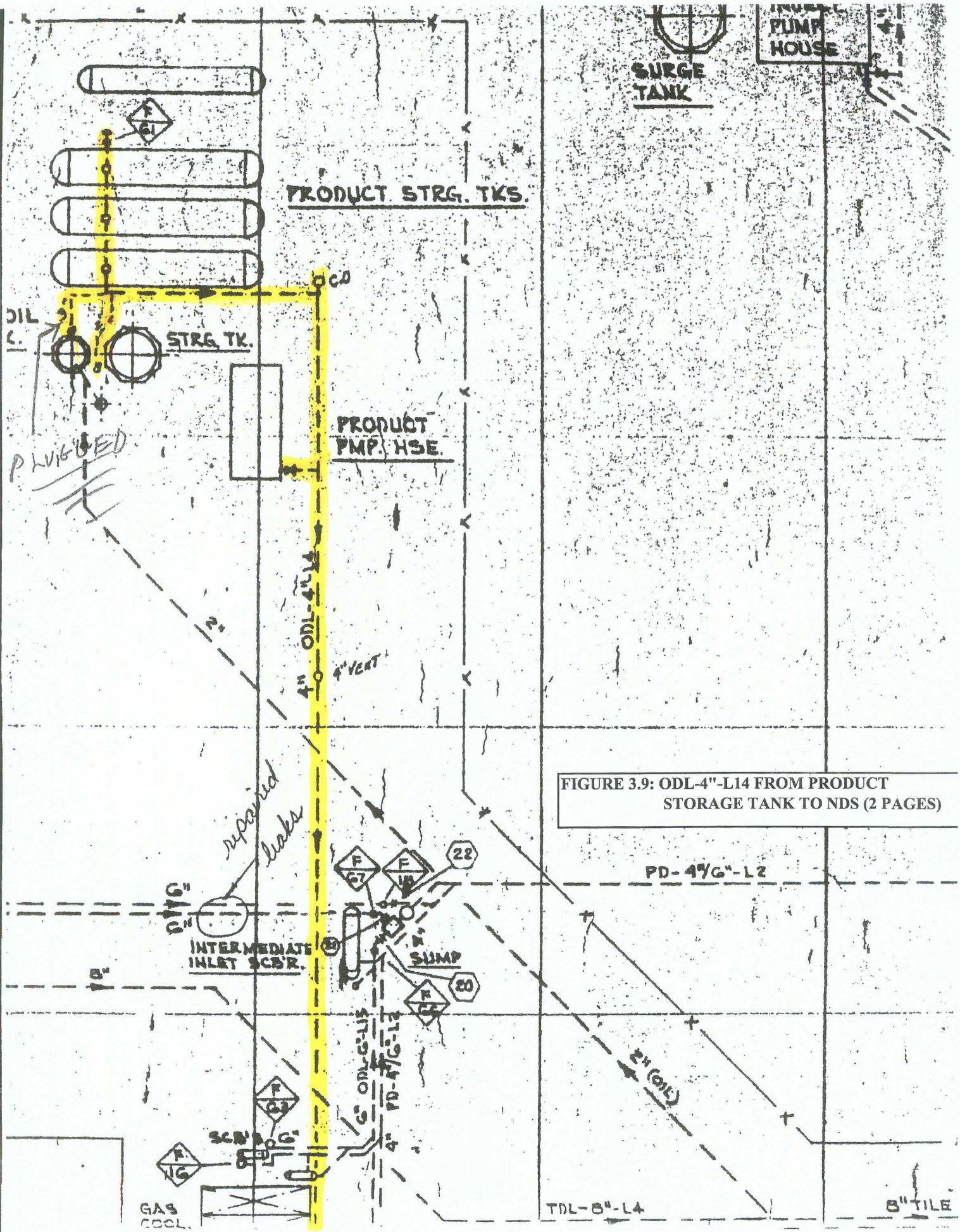


FIGURE 3.9: ODL-4"-L14 FROM PRODUCT STORAGE TANK TO NDS (2 PAGES)

SECTION 3.10

LINE: ODL-6"-L15, FROM "B" COMPRESSOR AREA TO THE NORTH SUMP.
Revised 3/2007

See Plate 1 and Figure 3.10 (one page) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 20.

1. Install a blind at flange connection 20.
2. Install a vented expandable plug in the apron drain just south of the intermediate inlet scrubber (V-9126).
3. Install a vented expandable plug in the pit drain at both second stage suction scrubbers (V-9127).
4. Install a vented expandable plug in the pit drain at both third stage scrubbers (V-9128 and V-9130).
5. Install a vented expandable plug in the pit drain for both automatic drains on the header liquid boot north of both second and both third stage scrubbers.
6. Install a vented expandable plug in the pit drain at the "B" plant third stage discharge cooler (E-9129).
7. Install a vented expandable plug in the pit drain at the "B" plant third stage discharge cooler (E-9131).
8. Open the vent valves on taps F-66, F-63, F-64 and F-65.
9. Connect the water supply to the vent valve at tap F-65.
10. Fill the drain line with water, while allowing air to vent through the vent valves at taps F-66, F-63 and F-64.
11. When the drain line is filled with water, close the vent valves at taps F-66, F-63 and F-64.
12. Install a calibrated 60 PSIG pressure recorder on the tap F-65.
13. Using the water supply, stabilize the pressure the drain system at approximately 10 PSIG.
14. Begin the static test as specified in the General Instructions, Item 8.
15. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
16. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
17. Release the pressure and remove the pressure recorder.
18. Remove all of the blinds or vented expandable plugs that may have been installed.
19. Return all valves to their normal operating position.
20. Close and plug all fill and vent lines.

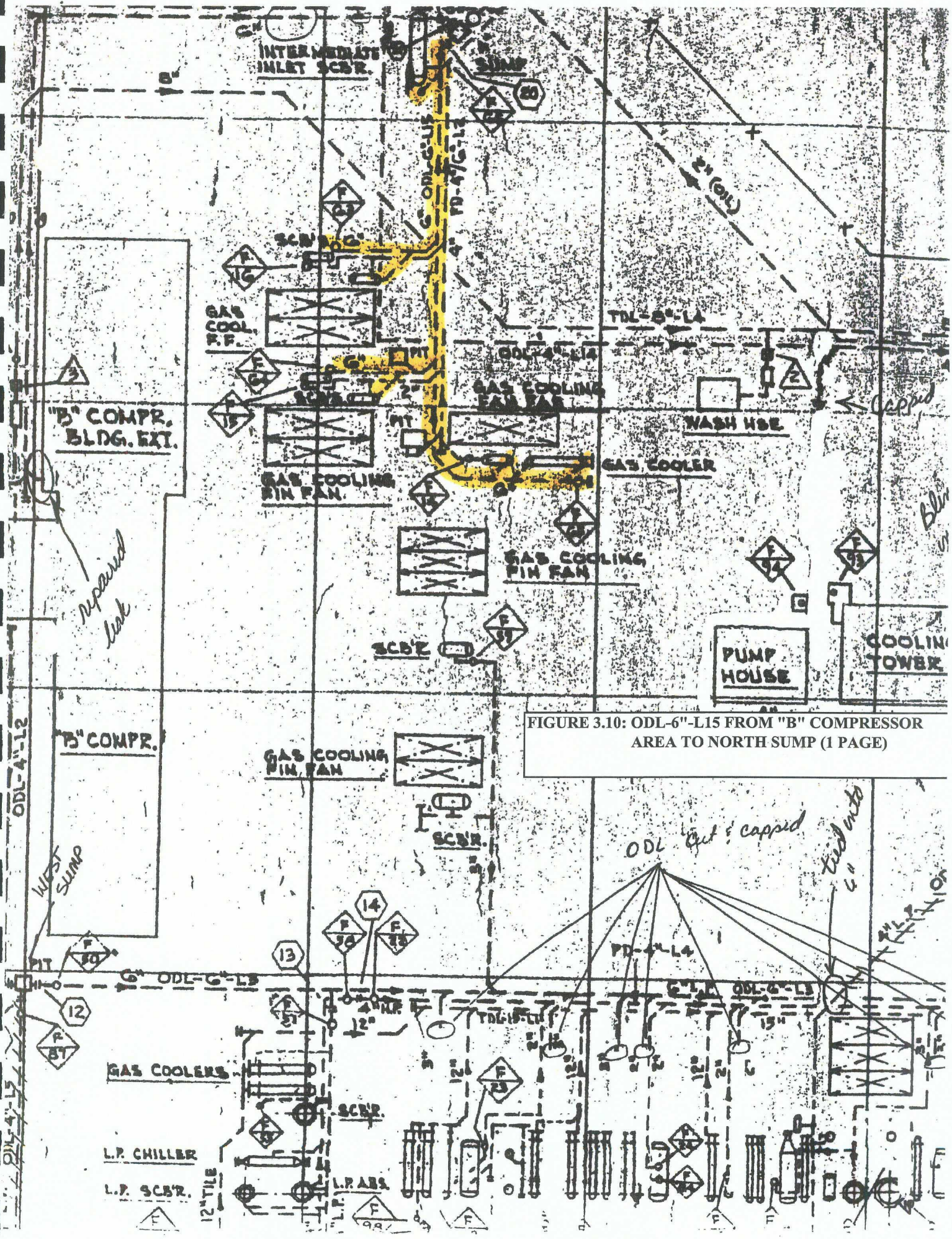


FIGURE 3.10: ODL-6"-L15 FROM "B" COMPRESSOR AREA TO NORTH SUMP (1 PAGE)

SECTION 3.11

LINE: ODL-4"-L16 FROM MEA RECLAIMER, MEA REBOILER AND THE CONDENSATE RECEIVER TO THE STEEL SUMP WEST OF THE PLANT.

Revised 3/2007

See Plate 1 and Figure 3.11 (2 pages)for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 15.

1. Install a 4" blind at flange connection 9.
2. Install 6 vented expandable plugs in the drains around the MEA reclaimer and the MEA reboiler.
3. Open the vent valves on taps F-43 and F-44.
4. Connect the water supply to the vent valve at tap F-43. (NOTE: Connected to bottom of reclaimer.)
5. Fill the drain line with water, while allowing air to vent through the vent valve at tap F-44.
6. When the drain line is filled with water, close the vent valve at tap F-44.
7. Install a calibrated 60 PSIG pressure recorder on the tap F-43.
8. Using the water supply, stabilize the pressure the drain system at approximately 10 PSIG.
9. Begin the static test as specified in the General Instructions, Item 8.
10. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
11. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
12. Release the pressure and remove the pressure recorder.
13. Remove all of the blinds or vented expandable plugs that may have been installed.
14. Return all valves to their normal operating position.
15. Close and plug all fill and vent lines.

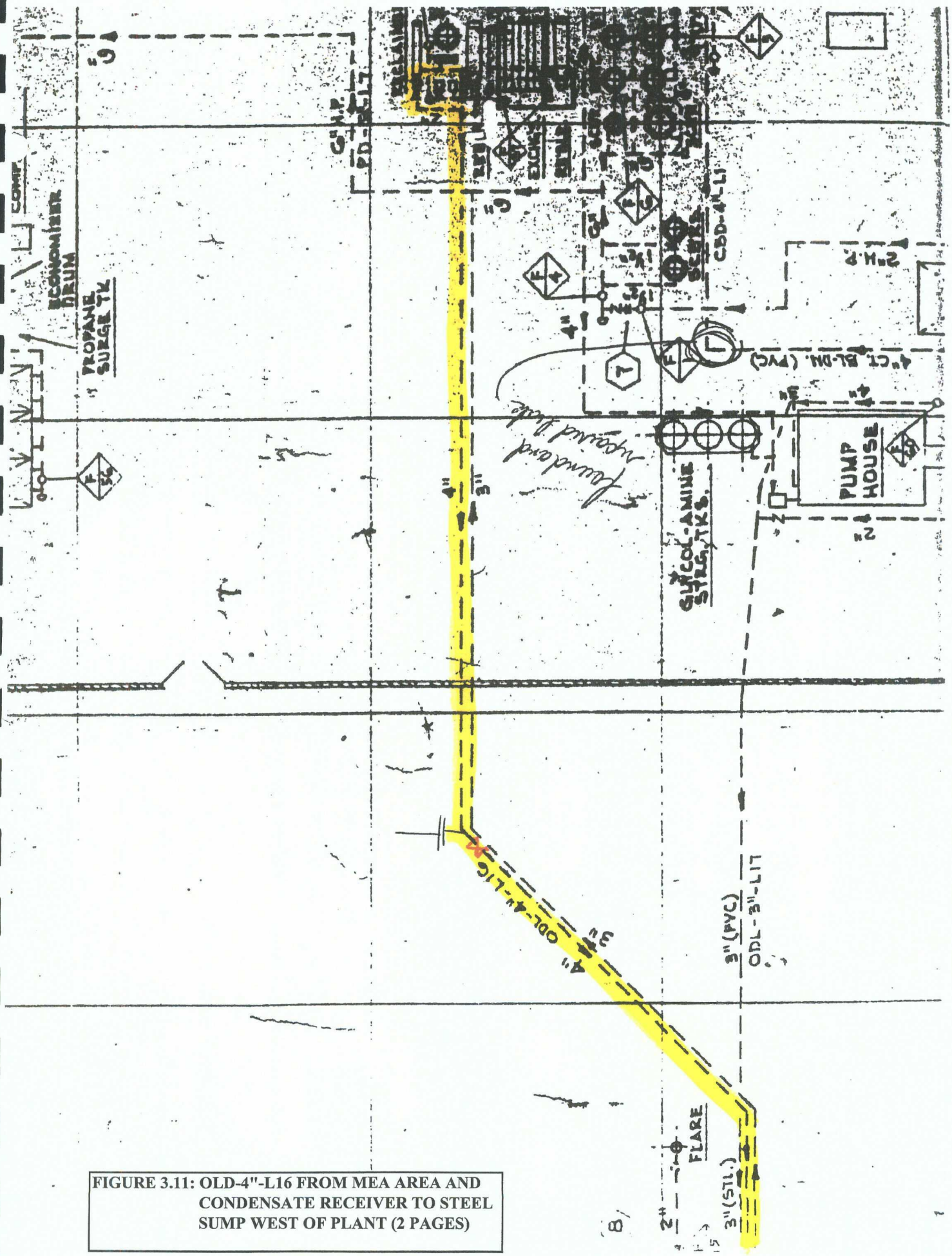


FIGURE 3.11: OLD-4"-L16 FROM MEA AREA AND CONDENSATE RECEIVER TO STEEL SUMP WEST OF PLANT (2 PAGES)

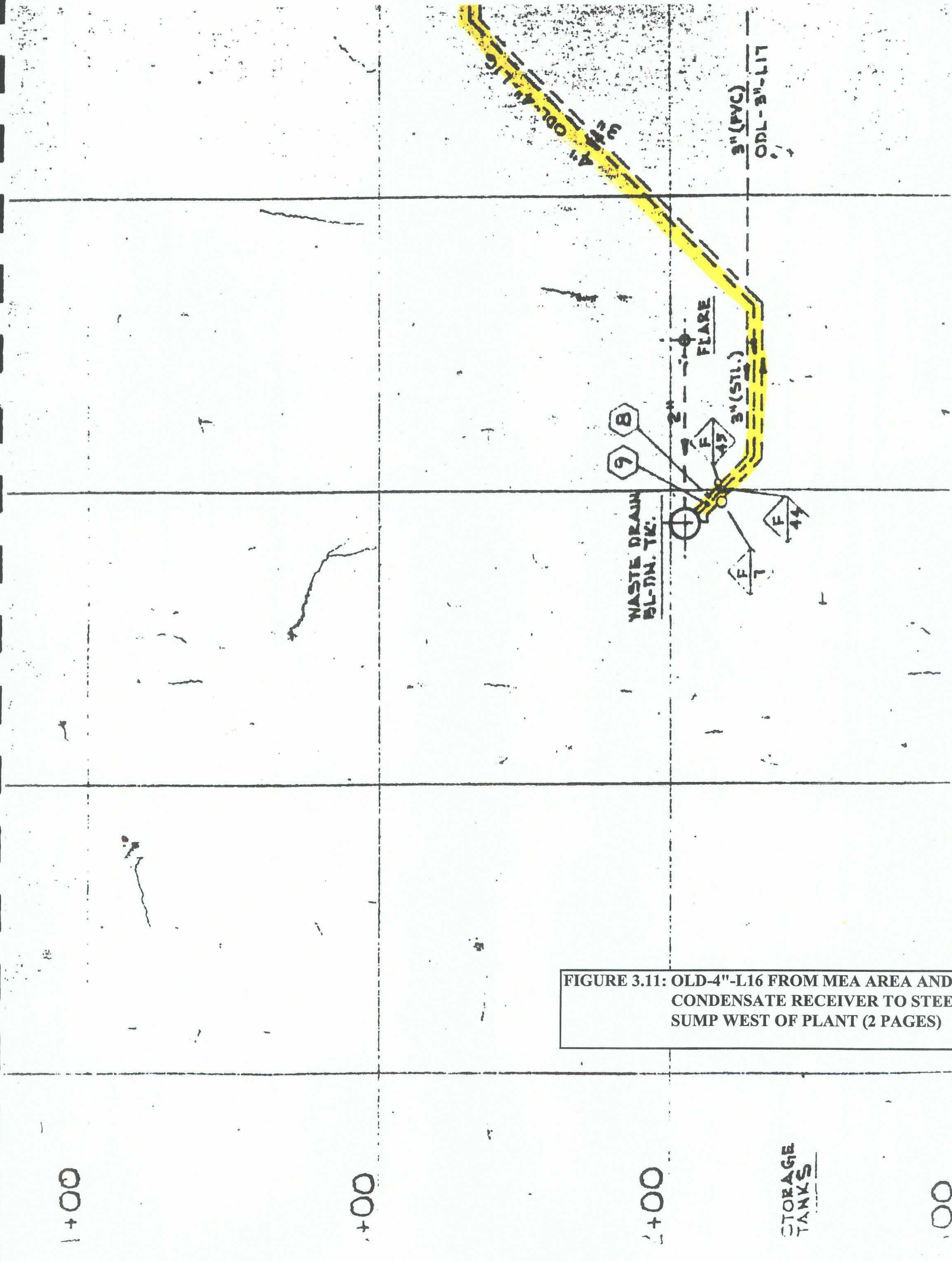


FIGURE 3.11: OLD-4"-L16 FROM MEA AREA AND CONDENSATE RECEIVER TO STEEL SUMP WEST OF PLANT (2 PAGES)

SECTION 3.12

LINE: ODL-8"-L18, EVAPORATOR BLOWDOWN LINE TO THE BLOWDOWN TANK.

Revised 3/2007

See Plate 1 and Figure 3.12 (one page) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 15.

1. Close the blow down valves on the bottom of the evaporator. (NOTE: Connected water supply on 2" line at this location.)
2. Install a blind plate at flange location 1.
3. Open the vent valves at taps F-46 and F-47.
4. Connect the water supply to the vent valve at tap F-46.
5. Fill the drain line with water, while allowing air to vent through the vent valve at tap F-47.
6. When the drain line is filled with water, close the vent valve at tap F-47.
7. Install a calibrated 60 PSIG pressure recorder on the tap F-46.
8. Using the water supply, stabilize the pressure the drain system at approximately 10 PSIG.
9. Begin the static test as specified in the General Instructions, Item 8.
10. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
11. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
12. Release the pressure and remove the pressure recorder.
13. Remove all of the blinds or expandable plugs that may have been installed.
14. Return all valves to their normal operating position.
15. Close and plug all fill and vent lines.

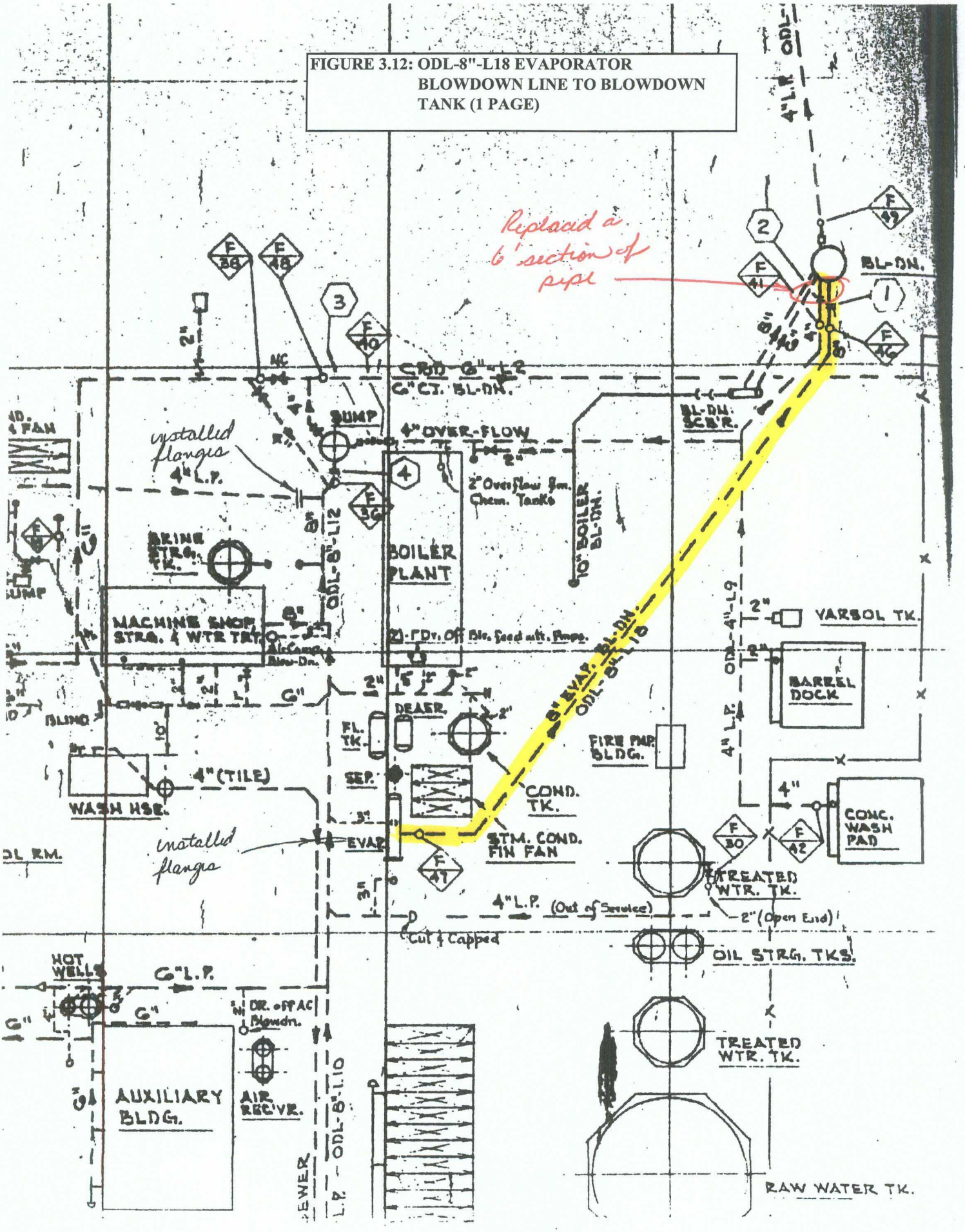


FIGURE 3.12: ODL-8"-L18 EVAPORATOR BLOWDOWN LINE TO BLOWDOWN TANK (1 PAGE)

SECTION 3.13

LINE: ODL-4"-L19, POLY PIPE FROM THE BLOW DOWN TANK TO THE GASOLINE PLANT DRAIN SUMP.

Revised 3/2007

See Plate 1 and Figure 3.13 (one page) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 15.

1. Close the valve on the discharge side of the transfer pump at the blow down tank.
2. Install a 4" blind plate at flange location 29 at the gasoline plant drain sump.
3. Open the vent valves at taps F-49 and F-78.
4. Connect the water supply to the vent valve at tap F-78. (NOTE: Connected water supply on 4" flange by pump.)
5. Fill the drain line with water, while allowing air to vent through the vent valve at tap F-49.
6. When the drain line is filled with water, close the vent valve at tap F-49.
7. Install a calibrated 60 PSIG pressure recorder on the tap F-78.
8. Using the water supply, stabilize the pressure the drain system at approximately 10 PSIG.
9. Begin the static test as specified in the General Instructions, Item 8.
10. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
11. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
12. Release the pressure and remove the pressure recorder.
13. Remove all of the blinds or vented expandable plugs that may have been installed.
14. Return all valves to their normal operating position.
15. Close and plug all fill and vent lines.

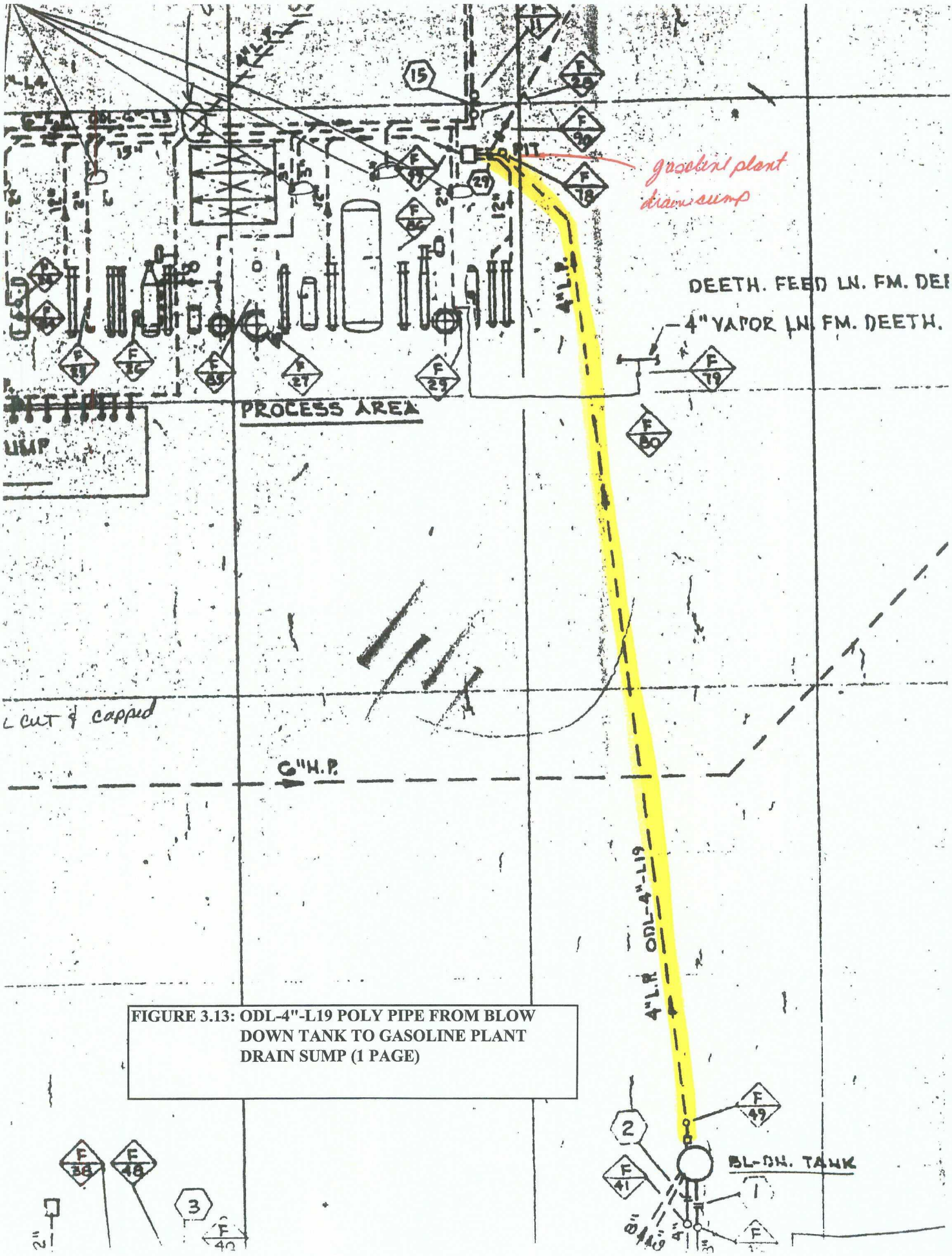


FIGURE 3.13: ODL-4"-L19 POLY PIPE FROM BLOW DOWN TANK TO GASOLINE PLANT DRAIN SUMP (1 PAGE)

SECTION 3.14

LINE: TDL-8"-L4, "B" PLANT COMPRESSOR SEWER LINE TO THE JUNCTION WITH TDL-8"-L2. TDL-8"-L2, TILE DRAIN LINE (REPLACED WITH STEEL) FROM THE GASOLINE PLANT SUMP TO THE CLASSIFIER. ODL-6"-L6, THE OPEN DRAIN LINE FROM THE NORTH DRAIN SUMP TO THE JUNCTION WITH TDL-8"-L2. THE 8" CLASSIFIER BYPASS LINE. THE 8" PVC LINE THAT RUNS FROM THE CLASSIFIER BYPASS TO THE 4" PVC COOLING TOWER BLOW DOWN LINE.

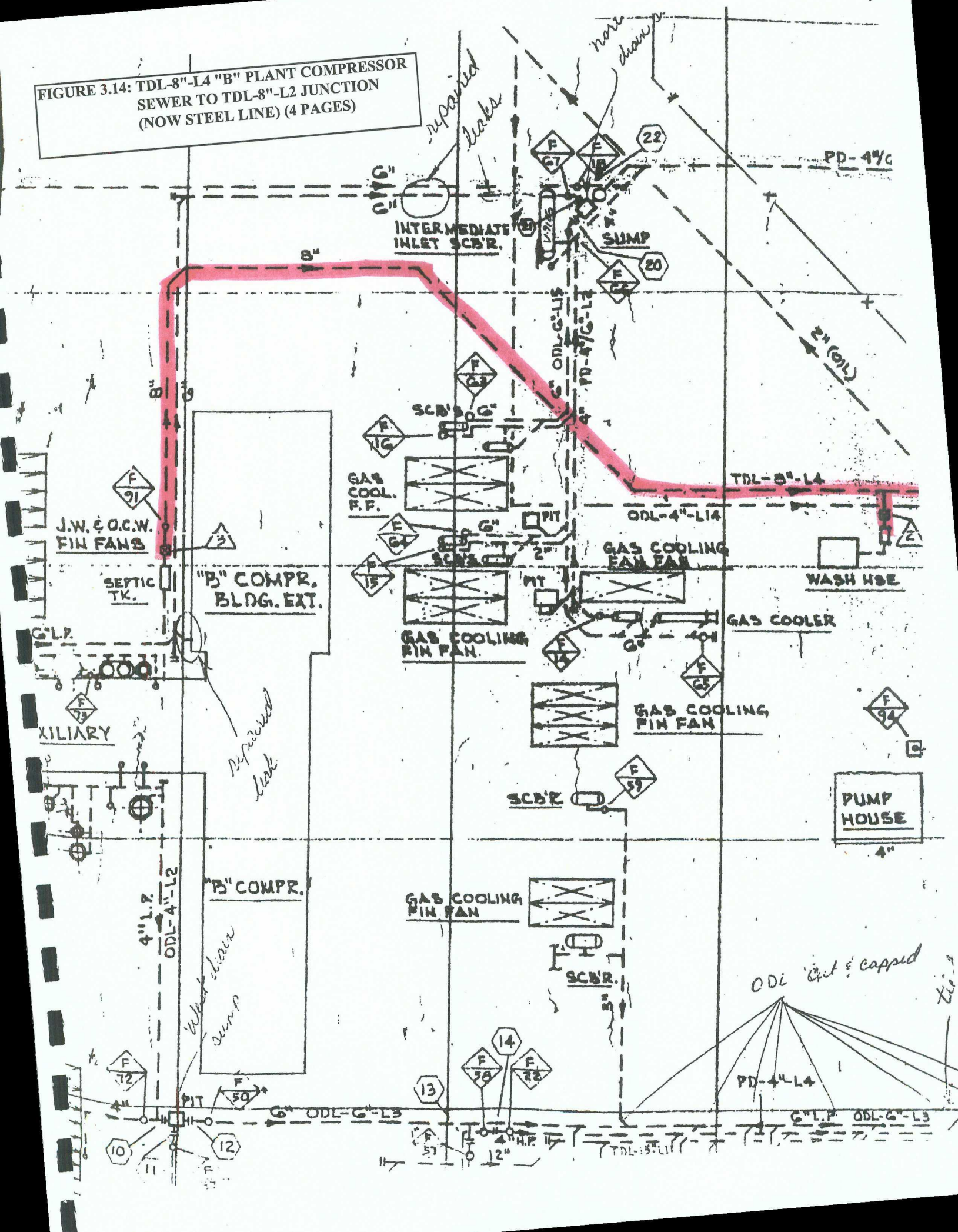
Revised 3/2007

See Plate 1 and Figure 3.14 (4 pages) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 21.

1. Install a vented expandable plug in the drain coming out of the "B" plant septic tank.
2. Install a vented expandable plug in the drain at the wash house drain north of the cooling tower pump house.
3. Install a blind plate in the 8" line coming out of the gasoline plant drain sump.
4. Install a vented expandable plug in the drain coming out of the skimmer basin.
5. Close the valve going into the SE side of the classifier.
6. Close the valve in the bypass around the classifier.
7. Install a blind plate at flange location 27.
8. Install a blind plate at the pump discharge in the flare sump south of the flare.
9. Open the vent valves at taps F-54, F-92, F-90, F-73 and F-91.
10. Connect the water supply to the vent valve at tap F-73.
11. Fill the drain line with water, while allowing air to vent through the vent valves at taps F-54, F-92, F-90 and F-91.
12. When the drain line is filled with water, close the vent valves at taps F-54, F-92, F-90 and F-91.
13. Install a calibrated 60 PSIG pressure recorder on the tap F-73.
14. Using the water supply, stabilize the pressure the drain system at approximately 15 PSIG.
15. Begin the static test as specified in the General Instructions, Item 8.
16. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
17. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
18. Release the pressure and remove the pressure recorder.

19. Remove all of the blinds or vented expandable plugs that may have been installed.
20. Return all valves to their normal operating position.
21. Close and plug all fill and vent lines.

FIGURE 3.14: TDL-8"-L4 "B" PLANT COMPRESSOR SEWER TO TDL-8"-L2 JUNCTION (NOW STEEL LINE) (4 PAGES)



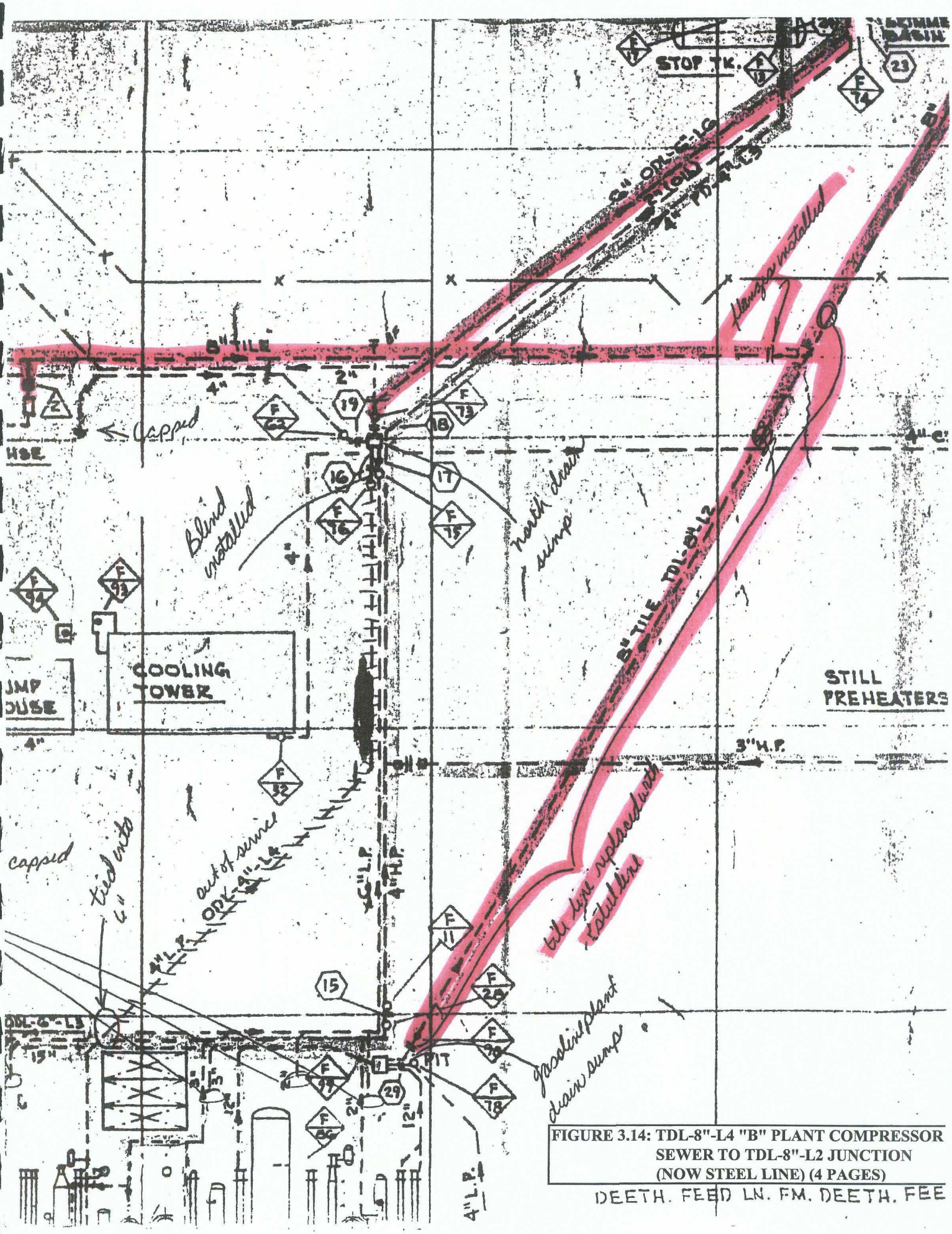


FIGURE 3.14: TDL-8"-L4 "B" PLANT COMPRESSOR SEWER TO TDL-8"-L2 JUNCTION (NOW STEEL LINE) (4 PAGES)

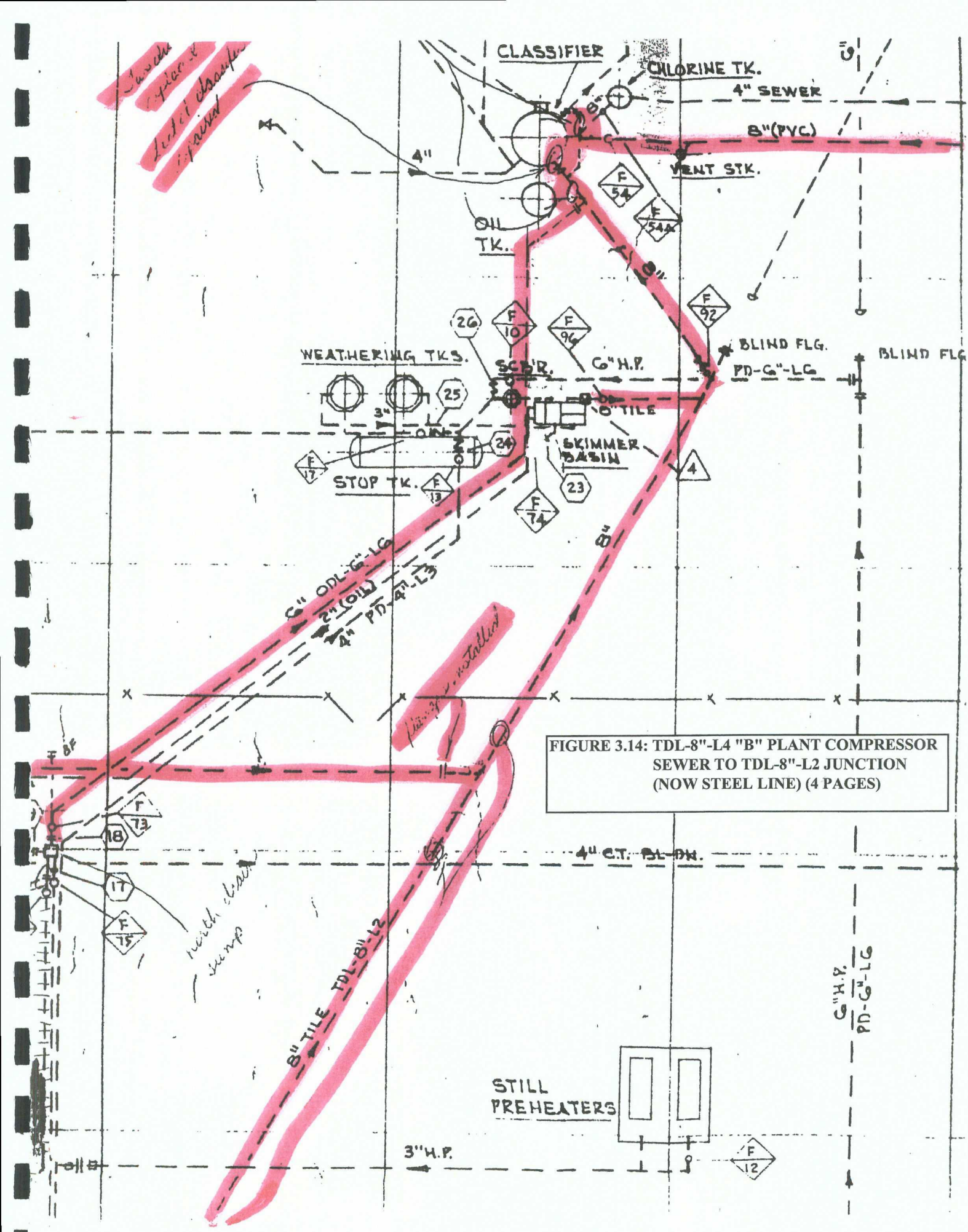


FIGURE 3.14: TDL-8"-L4 "B" PLANT COMPRESSOR SEWER TO TDL-8"-L2 JUNCTION (NOW STEEL LINE) (4 PAGES)

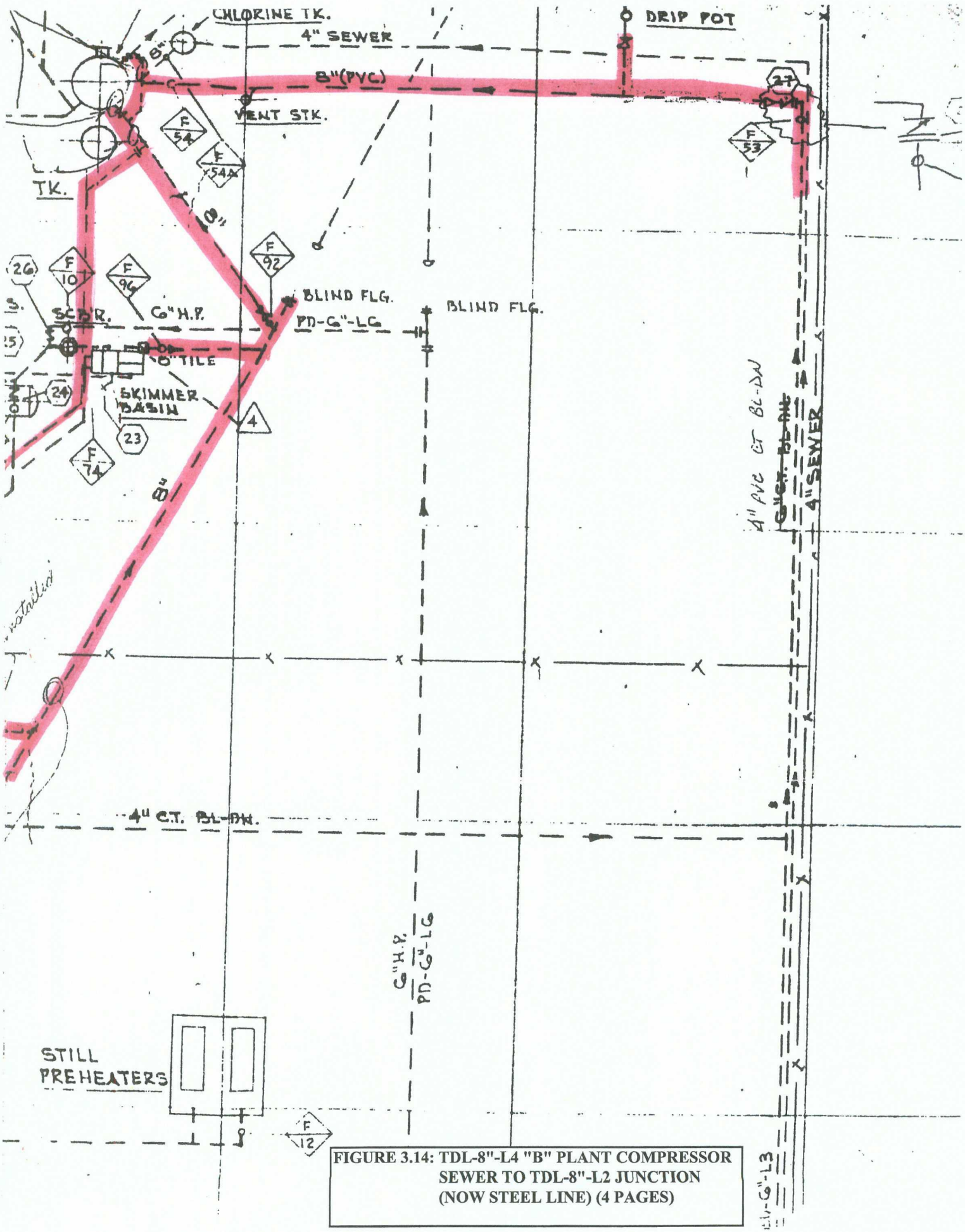


FIGURE 3.14: TDL-8"-L4 "B" PLANT COMPRESSOR SEWER TO TDL-8"-L2 JUNCTION (NOW STEEL LINE) (4 PAGES)

4.0 DETAILED TESTING PROCEDURES FOR SULFUR REDUCTION UNIT (SRU) OPEN DRAIN SYSTEM

The SRU open drain system is comprised of nineteen (19) funnel inlets to 2" I.D. service lateral lines as shown on Dwg. #PB-101-1. The 2" I.D. service laterals drain into a common 3" I.D. header that ties into the existing 4" open drain line (ODL) with a 3" gate valve and 4" x 3" reducer. The existing 4" ODL system upstream of the (new) 3" tie-in has been isolated and is no longer in service.

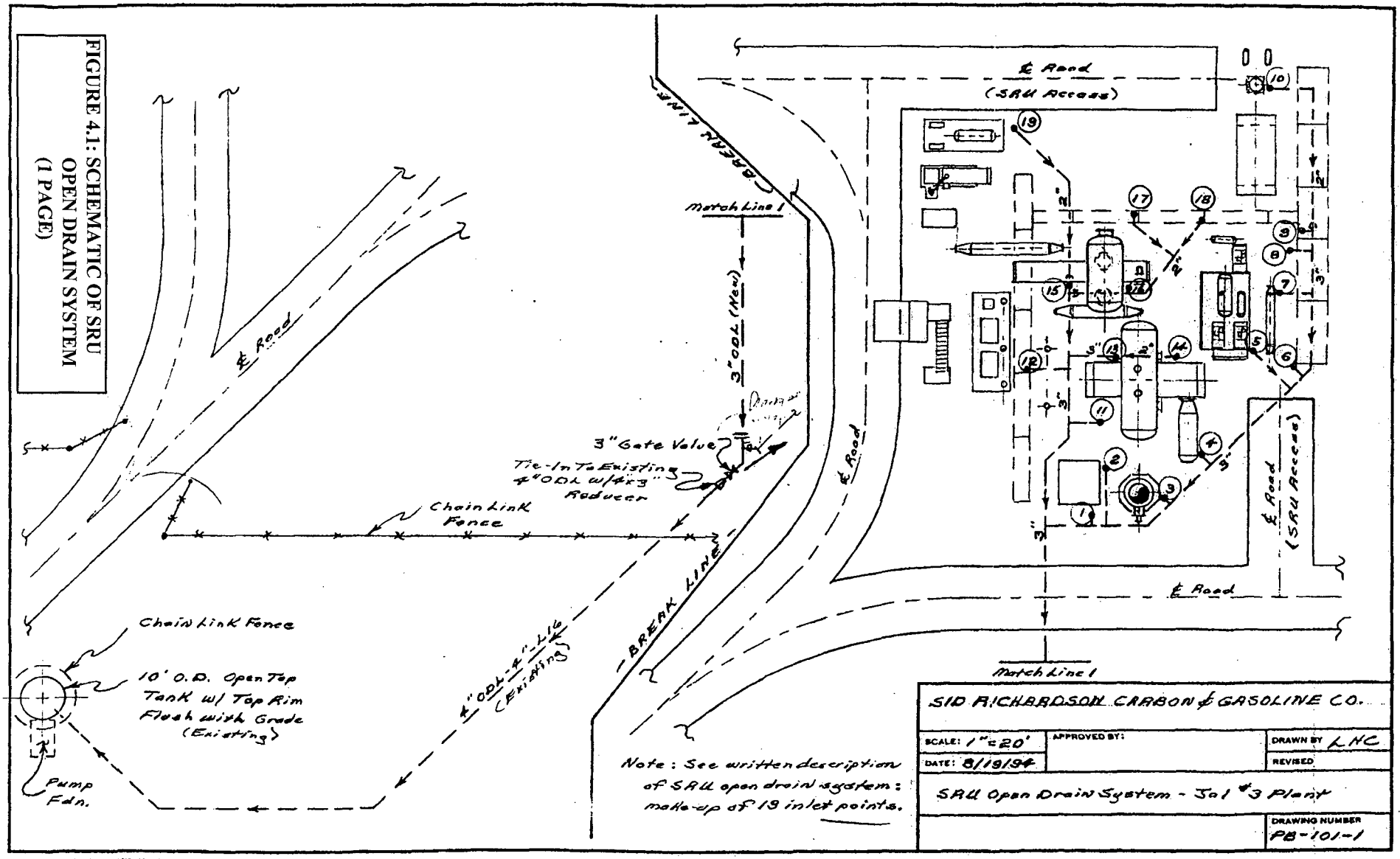
Location and numerical identification of the nineteen (19) open drain inlet points are shown on Dwg. #PB-101-1 (Figure 4.1; one page). The following is the service description for each:

1. Steam Trap - Trace on acid gas piping to incinerator.
2. Steam Trap - Trace on acid gas sample tubing to Analyzer Bldg.
3. Blowdown - Steam purge line to Incinerator.
4. Steam Trap - Trace on pressure transmitters to acid gas burner.
5. Steam Trap - Trace acid gas separator drain piping. Drain - Blower drip pans (2).
6. Steam Trap - Trace on utility water station.
7. Condensate Drain - Acid gas heat exchanger.
8. Steam Trap - Trace on steam control - pressure transmitter.
9. Drain - 20# Make-up steam control loop.
10. Steam Trap - Trace on Condensate Surge Tank.
11. Steam Trap - Trace on Waste Heat Boiler (TV-S116).
12. Steam Trap - Trace on utility water station.
13. Steam Traps (2) - Trace on Waste Heat Boiler sight glasses and level control. Drain - Waste Heat Boiler skimmer blow-down.
14. Drain - Waste Heat Boiler H_2O Sampler.
15. Steam Trap - Trace on 2nd and 3rd stage condenser sight glasses and level control.
16. Drain - 2nd and 3rd stage condenser H_2O sampler.
17. Steam Trap - Trace on utility water system.
18. Steam Trap - Trace on 2nd and 3rd stage condenser control (steam pressure transmitter).
19. Drain - Thermalane service area.

Revised 3/2007

See Plate 1 for overall drain system and Figures 4.1 and 4.2 for details on the SRU open drain system.

FIGURE 4.1: SCHEMATIC OF SRU OPEN DRAIN SYSTEM (1 PAGE)



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SECTION 4.1

LINE: SRU PLANT OPEN DRAIN SYSTEM TO ITS JUNCTION WITH ODL-4"-L16.

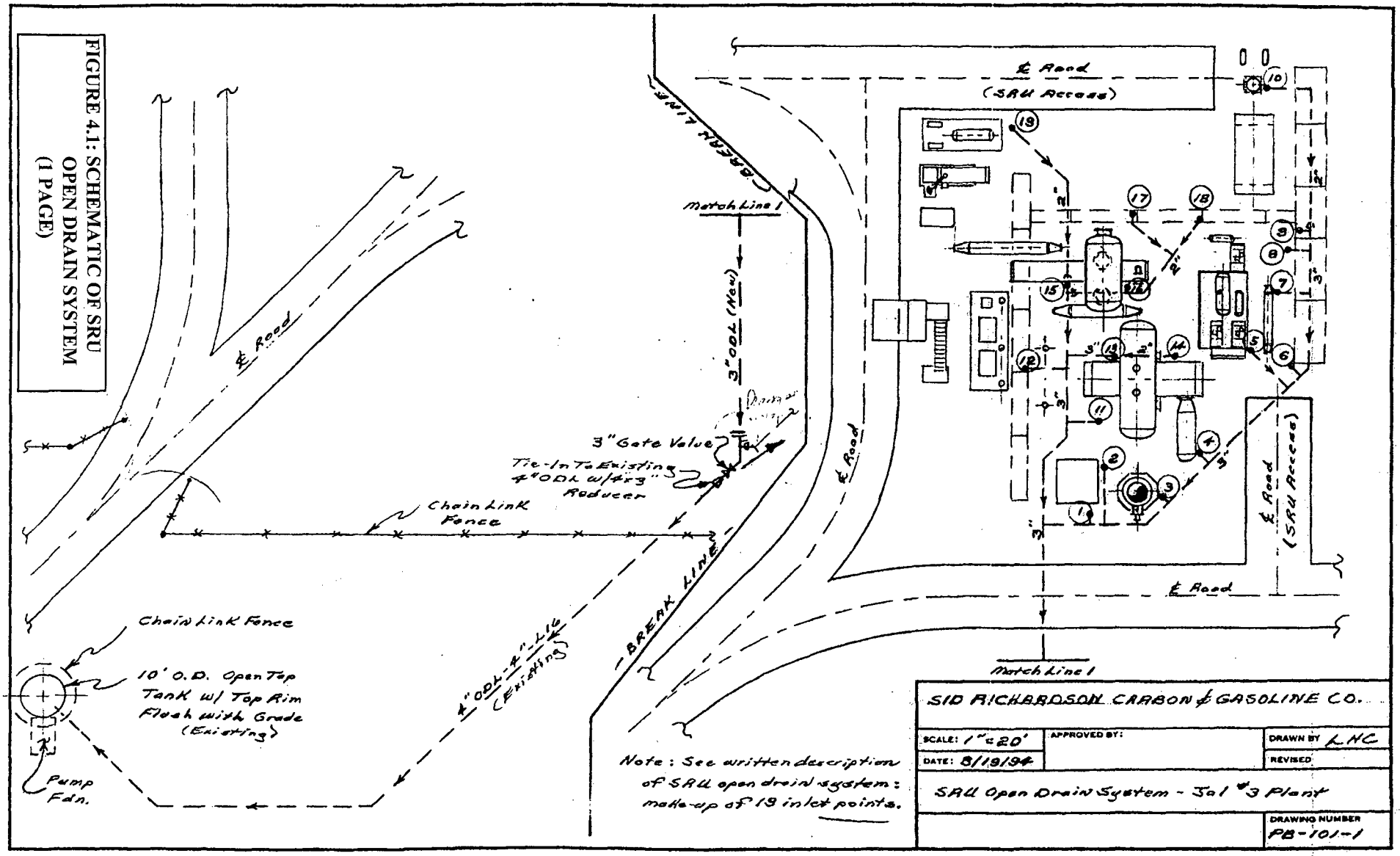
Revised 3/2007

See Plate 1 for overall drain system and Figures 4.1 (one page) and 4.2 (one page) for details on the SRU open drain system. The procedure includes Steps 1 through 30.

1. Install a vented expandable plug in the drain at the steam trap for the heat trace for the acid gas piping to the incinerator.
2. Install a vented expandable plug in the drain at the steam trap for the heat trace for the acid gas sample tubing to the analyzer building.
3. Install a vented expandable plug in the drain at the steam trap for the heat trace for the pressure transmitters to the acid gas burners.
4. Install a vented expandable plug in the drain at the steam trap for the heat trace for the acid gas separator drain piping and the blower drip pan drains, two (2) required.
5. Install a vented expandable plug in the drain at the steam trap for the heat trace for the utility water stations, three (3) required.
6. Install a vented expandable plug in the drain at the steam trap for the heat trace for the steam control pressure transmitter.
7. Install a vented expandable plug in the drain at the steam trap for the heat trace for the condensate surge tank.
8. Install a vented expandable plug in the drain at the steam trap for the heat trace for the waste heat boiler TV-S116.
9. Install a vented expandable plug in the drain at the steam trap for the heat trace for the waste heat boiler sight glasses and level control and the waste heat boiler skimmer blowdown, two (2) required.
10. Install a vented expandable plug in the drain at the steam trap for the heat trace for the 2nd and 3rd stage condenser sight glasses and level control.
11. Install a vented expandable plug in the drain at the steam trap for the heat trace for the 2nd and 3rd stage condenser control, steam pressure transmitter.
12. Install a vented expandable plug in the drain at the blowdown for the steam purge line to the incinerator.
13. Install a vented expandable plug in the condensate drain at the acid gas heat exchanger.
14. Install a vented expandable plug in the drain for the 20 Ib. make up steam control loop.
15. Install a vented expandable plug in the waste heat boiler water sampler.
16. Install a vented expandable plug in the drain at the 2nd and 3rd stage condenser water sampler.
17. Install a vented expandable plug in the drain at the thermalene service area.

18. Open the vents in the vented expandable plugs.
19. Connect the water supply to any of the vented expandable plug valve vents.
20. Fill the drain line with water, while allowing air to vent through the remaining vented expandable plug vents.
21. When the drain line is filled with water, close the vents in the vented expandable plug valves.
22. Install a calibrated 60 PSIG pressure recorder at the vented expandable plug vent where the water supply was connected,
23. Using the water supply, stabilize the pressure the drain system at approximately 10 PSIG.
24. Begin the static test as specified in the General Instructions, Item 8.
25. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
26. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
27. Release the pressure and remove the pressure recorder.
28. Remove all of the blinds or vented expandable plugs that may have been installed.
29. Return all valves to their normal operating position.
30. Close and plug all fill and vent lines.

FIGURE 4.1: SCHEMATIC OF SRU OPEN DRAIN SYSTEM (1 PAGE)



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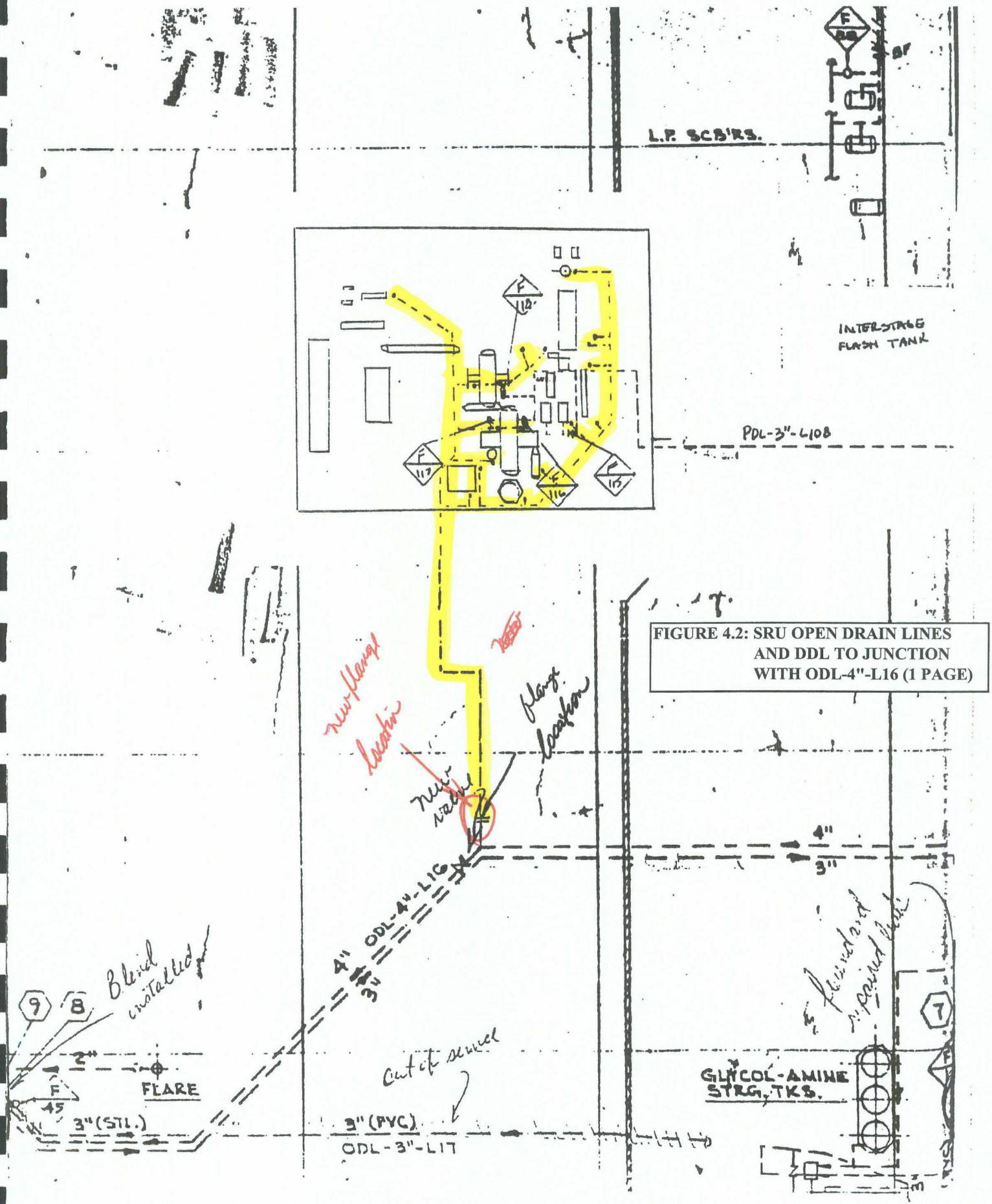


FIGURE 4.2: SRU OPEN DRAIN LINES AND DDL TO JUNCTION WITH ODL-4"-L16 (1 PAGE)

5.0 VITRIFIED CLAY OPEN-DRAIN LINES DETAILED TESTING PROCEDURES

These procedures are provided for reference only as these lines have been removed from service. If testing is required of a tile drain line for any reason, these procedures should be followed. The abandoned tile drain lines are shown on Plate 1.

SECTION 5.1

LINE: TDL-15"-L1, VITRIFIED CLAY (TILE) DRAIN PIPE HEADER ON BACKWASH DRAIN SYSTEM AT THE GASOLINE PLANT AREA EXCHANGERS TO THE DRAIN SUMP AT THE NORTH EAST CORNER OF THE GASOLINE PLANT PROCESS AREA. (NOTE: DRAINS HAVE BEEN PLUGGED OFF – THIS PART OF PLANT IS NOT IN SERVICE.)

Revised 3/2007

See Plate 1 for overall drain system and Figure5.1 (one page) for details on the SRU open drain system. The procedure includes Steps 1 through 16.

***** DO NOT EXCEED 5 PSIG ON THE CLAY (TILE) DRAIN LINE *****

1. Install twelve (12) 12" vented expandable plugs in the drains at the following locations:
   a) MEA contactor "B" residue gas cooler, E-4309, one (1) required.
   b) "B" plant 3rd stage gas coolers, E-9103, two (2) required.
   c) Low pressure absorber gas upper intercooler, E-8102, one (1) required.
   d) Low pressure absorber gas lower intercooler, E-8101, one (1) required.
   e) MEA contactor "B" intercooler, E-4103, one (1) required.
   f) Reabsorber intercooler, E-8103, one (1) required.
   g) Lean oil cooler, E-8105, one (1) required.
   h) Hot vent condenser, E-8106, one (1) required.
   i) Still final condenser, E-8109, one (1) required.
   j) Deethanizer reflux condenser, E-8112, one (1) required.
   k) Deethanizer product cooler, E-8113, one (1) required.
2. Cap the effluent line from the process area wash room septic tank,
3. Install a vented expandable plug in the 15" drain at the gasoline plant drain sump.
4. Open the vent valves at taps F-97, F-98 and F-99.
5. Connect the water supply to the vent valve at tap F-99.
6. Fill the drain line with water, while allowing air to vent through the vent valves at taps F-97 and F-98.
7. When the drain line is filled with water, close the vent valves at taps F-97 and F-98.
8. Install a calibrated 60 PSIG pressure recorder on the tap F-99.

9. Using the water supply, stabilize the pressure the drain system at approximately 5 PSIG.
10. Begin the static test as specified in the General Instructions, Item 8.
11. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
12. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
13. Release the pressure and remove the pressure recorder.
14. Remove all of the blinds or vented expandable plugs that may have been installed.
15. Return all valves to their normal operating position.
16. Close and plug all fill and vent lines.

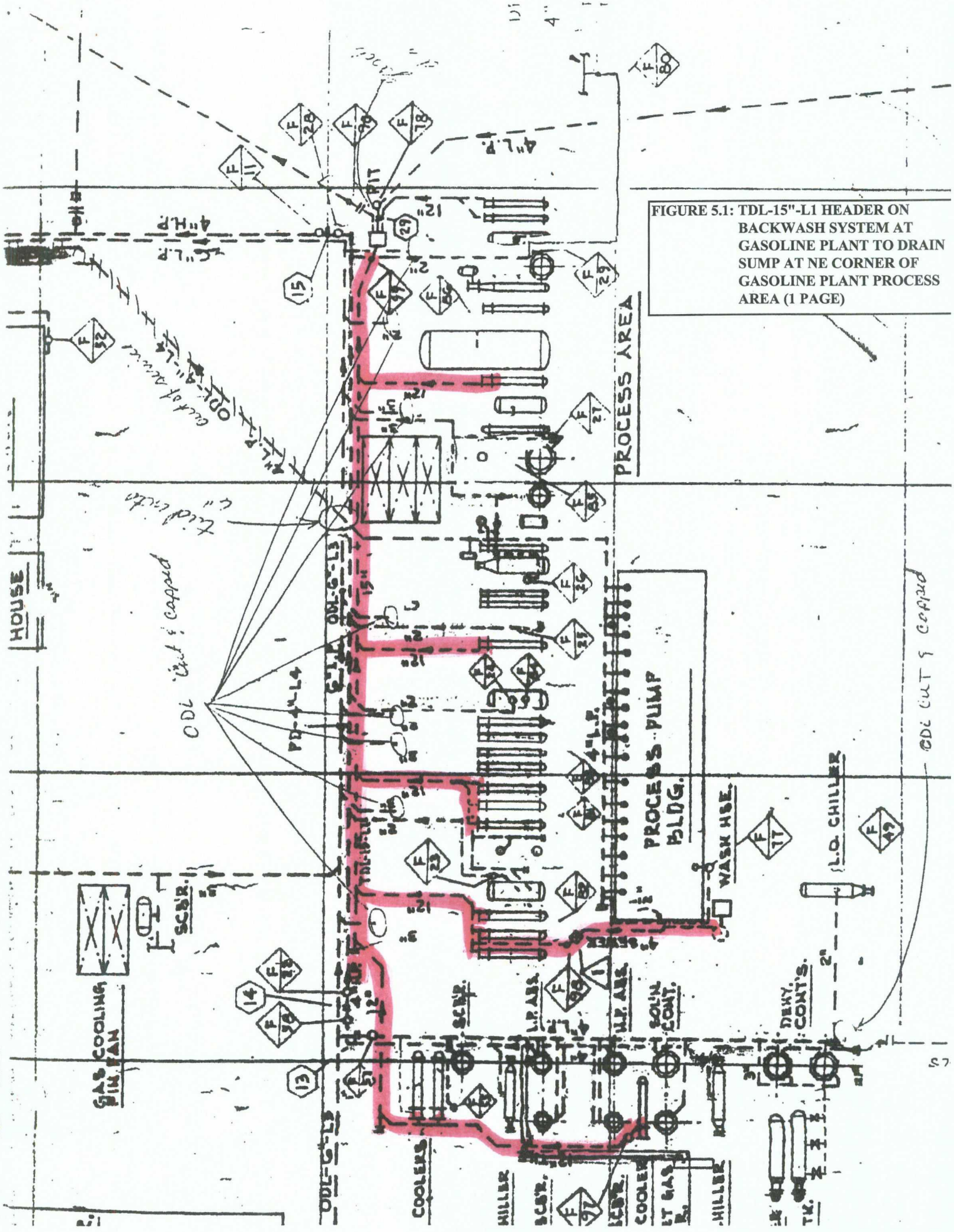


FIGURE 5.1: TDL-15"-L1 HEADER ON BACKWASH SYSTEM AT GASOLINE PLANT TO DRAIN SUMP AT NE CORNER OF GASOLINE PLANT PROCESS AREA (1 PAGE)

6.0 DETAILED TESTING PROCEDURES FOR CLOSED (PRESSURE) DRAIN SYSTEM

This section contains detailed instructions for testing segments of the closed (pressure) drain system. Each detailed procedure includes step-by-step testing procedures followed by a map of the portion of the system being tested. The overall map of the drain lines is included as Plate 1.

SECTION 6.1

LINE: PD -6"-L1, FROM THE "C" COMPRESSOR AREA TO THE JUNCTION WITH PD-4"/6"-L2, AND PD-4/6"-L2 FROM THE "B" COMPRESSOR AREA TO THE HIGH PRESSURE BLOWDOWN SCRUBBER (HPBS).

Revised 3/2007

See Plate 1 and Figure 6.1 (three pages) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 33.

1. Close the 1" ball valve on the drain line from the automatic dumps from the gas separator, V-9117.
2. Close the three (3) 1" gate valves on the lines from the automatic dumps from the header boots at the pulsation dampener, PD-9101.
3. Lubricate, in the closed position, the 2" plug valve on the dump line from the 2nd stage line separator, V-9103.
4. Lubricate, in the closed position, the 2" plug valve on the dump line from the 3rd stage line separator, V-9104.
5. Close the two (2) 1" ball valves on the automatic dumps from the header boots south of the line separators.
6. Close the three (3) 2" ball valves on the drains from the outlet of the 2nd stage fin fan coils.
7. Lubricate, in the closed position, the 2" plug valve on the automatic dump from the 3rd stage outlet header.
8. Lubricate, in the closed position, the 1-½" plug valve on the dump line from the 3rd stage final separator.
9. Close the 1" ball valve on the line from the automatic dump from the horizontal boot under the inlet scrubber, V-9101.
10. Close the valve on the GE discharge line drain.
11. Close the two (2) 1" gate valves from the inlet header drains in the pit at the east end of the 1st and 2nd stage fin fan, F-9106.
12. Close the 2" ball valve and the 2" gate valve on the drain line from the 3rd stage discharge scrubber.
13. Close the two (2) ball valves on the 3rd stage suction scrubber, V-9128, and the 2nd stage suction scrubber, V-9127, dumps.
14. Close the 1" gate valve from the header drain in the pit at the east end of the 1st and 2nd stage fin fan unit, F-9107.
15. Close the two (2) ball valves on the 3rd stage suction scrubber, V-9130, and the 2nd stage suction scrubber, V-9129, dumps.
16. Close the two (2) ball valves and the two (2) gate valves on the drains from the intermediate inlet scrubber.
17. Close the 2" gate valve on the pump discharge at the northwest drain sump near the

intermediate scrubber.

18. Close the gas flare scrubber sump pump discharge valve.
19. Ensure that the gas flare scrubber sump pump bypass valve is closed.
20. Install a 6" ANS1150 blind plate at flange location 26 by the high pressure blow down scrubber.
21. Open the vent valves on taps F-19, F-20, F-21, F-18, F-17, F-13, F-16, F-15 and F-14.
22. Connect the water supply to the vent valve at tap F-18.
23. Fill the drain line with water, while allowing air to vent through the vent valves at taps F-19, F-20, F-21, F-17, F-13, F-16, F-15 and F-14.
24. When the drain line is filled with water, close the vent valves at taps F-19, F-20, F-21, F-17, F-13, F-16, F-15 and F-14.
25. Install a calibrated 60 PSIG pressure recorder on the tap F-18.
26. Using the water supply, stabilize the pressure the drain system at approximately 50 PSIG.
27. Begin the static test as specified in the General Instructions, Item 8.
28. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
29. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
30. Release the pressure and remove the pressure recorder.
31. Remove all of the blinds or vented expandable plugs that may have been installed.
32. Return all valves to their normal operating position.
33. Close and plug all fill and vent lines.

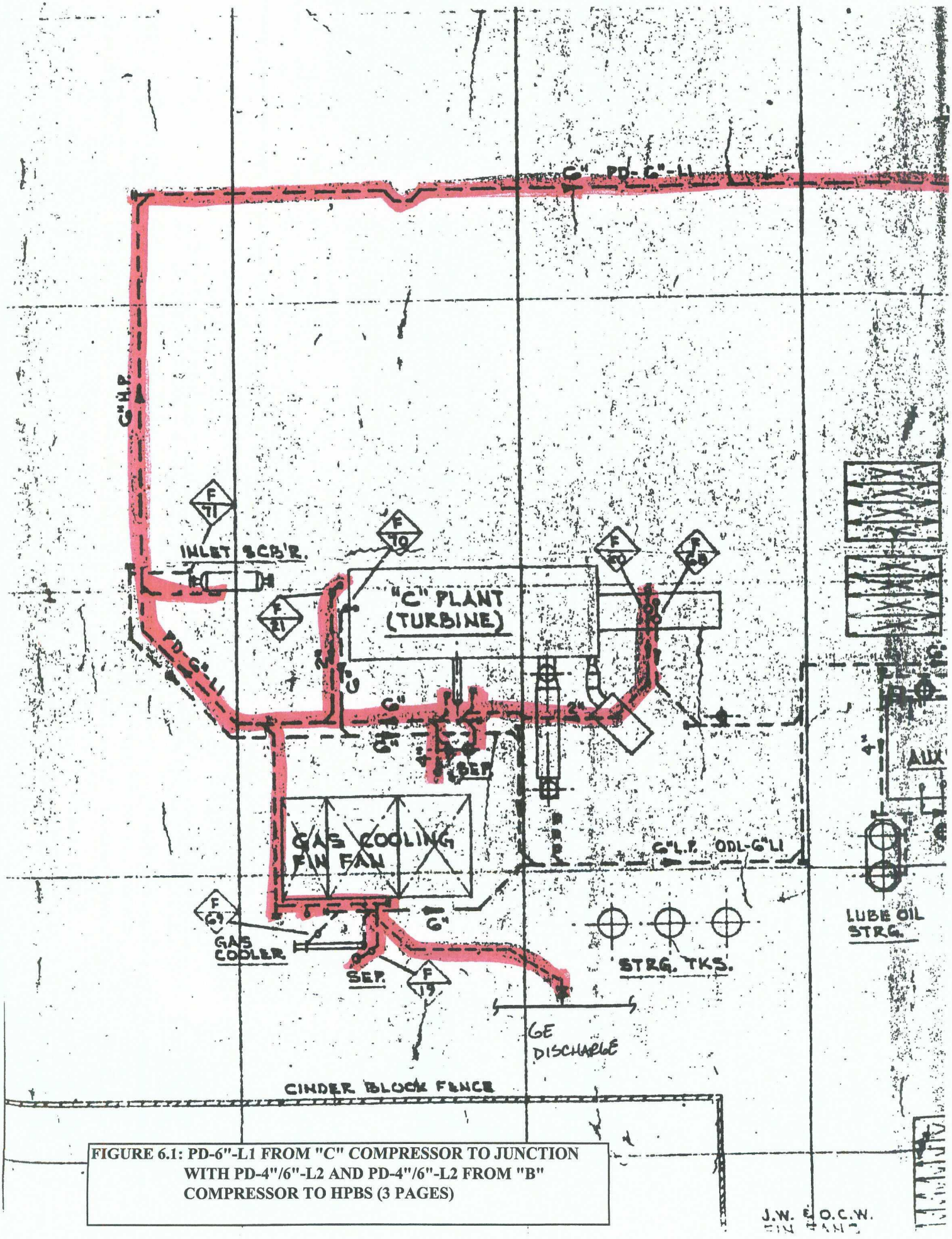
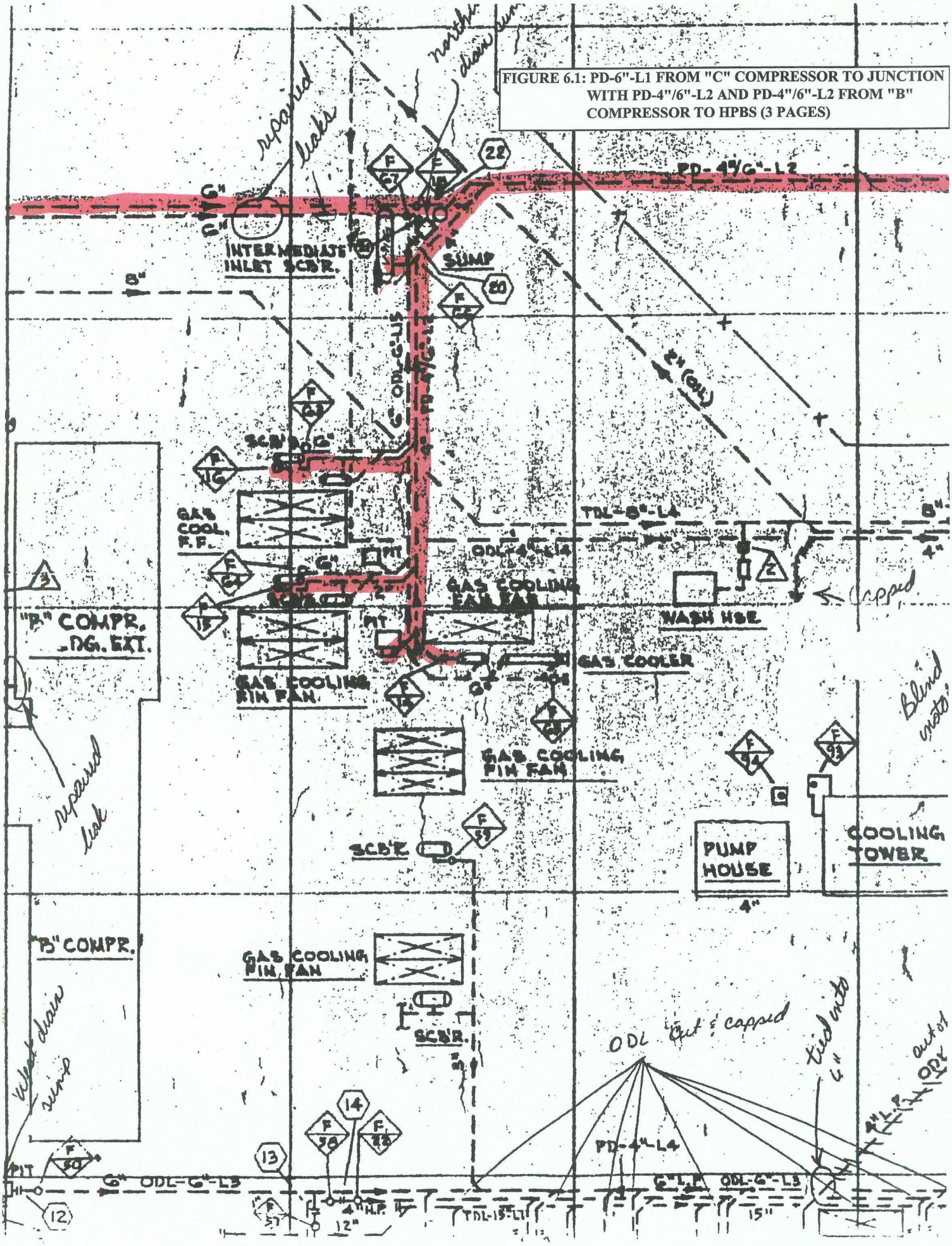


FIGURE 6.1: PD-6"-L1 FROM "C" COMPRESSOR TO JUNCTION WITH PD-4"/6"-L2 AND PD-4"/6"-L2 FROM "B" COMPRESSOR TO HPBS (3 PAGES)

FIGURE 6.1: PD-6"-L1 FROM "C" COMPRESSOR TO JUNCTION WITH PD-4"/6"-L2 AND PD-4"/6"-L2 FROM "B" COMPRESSOR TO HPBS (3 PAGES)



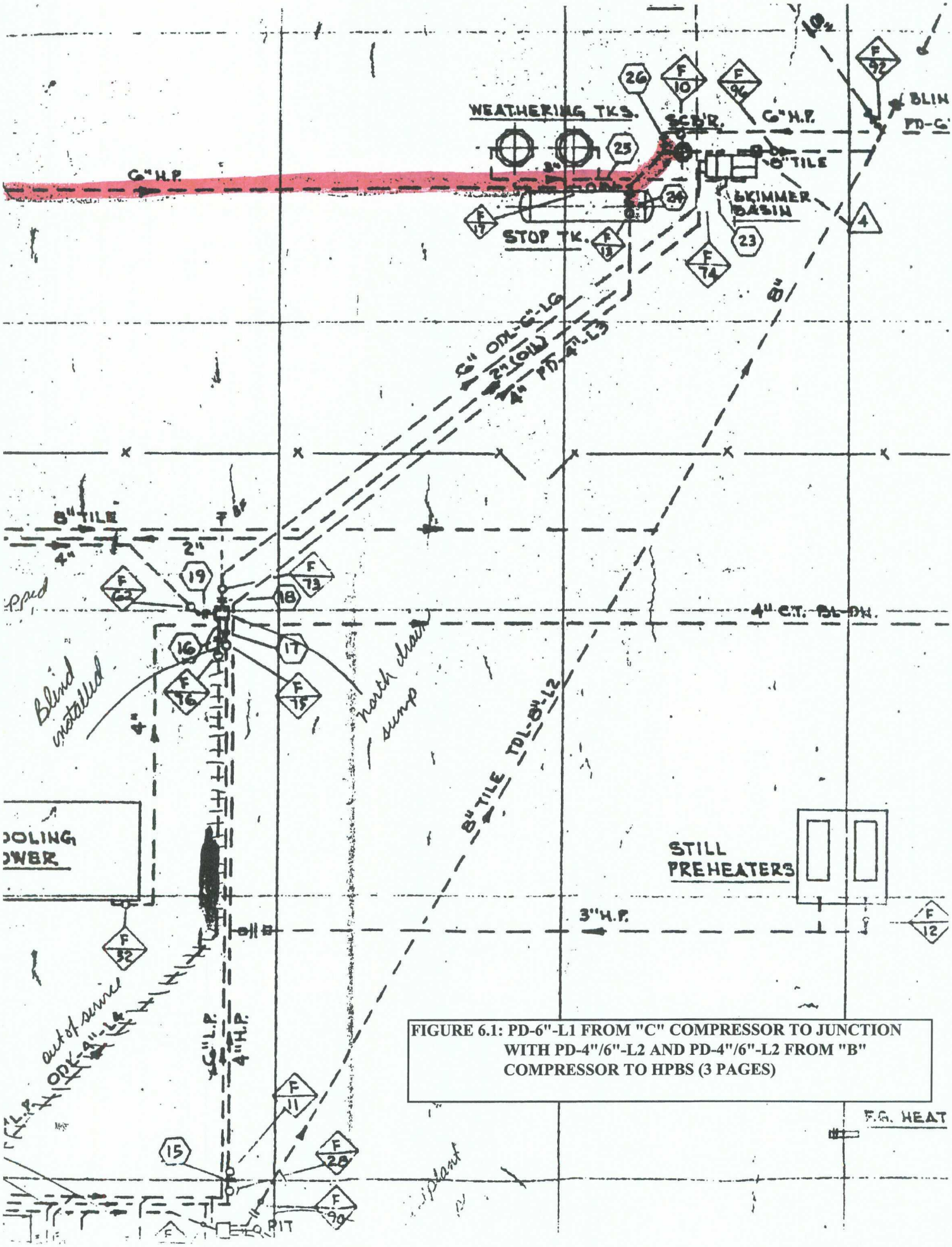


FIGURE 6.1: PD-6"-L1 FROM "C" COMPRESSOR TO JUNCTION WITH PD-4"/6"-L2 AND PD-4"/6"-L2 FROM "B" COMPRESSOR TO HPBS (3 PAGES)

SECTION 6.2

LINE: PD-4"-L3, FROM THE GASOLINE PLANT AREA TO THE HPBS IN THE CLASSIFIER AREA. PD-4"-L4, THROUGH THE NORTH SIDE OF THE PROCESS AREA OF THE GASOLINE PLANT TO THE JUNCTION WITH PD-4"-L3; PD-4"-L5 AND PD-3"-L108 FROM THE SRU.

Revised 3/2007

See Plate 1 and Figure 6.2 (four pages) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 29.

1. Lubricate, in the closed position, the two (2) plug valves and close the two (2) globe valves in the drain piping from both still preheaters.
2. Install a 4" blind plate at flange location 24.
3. Close the 2" gate valve on the drain from the cold rich oil flash tank, V-8105.
4. Close the 2" ball valve on the drain from the hot rich oil flash tank, V-8108.
5. Close the 2" ball valve on the drain from the hot vent condenser, E-8106.
6. Close the 2" gate valve on the drain from the still stripping steam evaporator, E-8114.
7. Close the 2" ball valve on the drain from the oily condensate classifier, V-8121.
8. Close the 2" ball valve on the drain from the oil reclaimer, V-8110.
9. Close the 2" globe valve on the drain from the still, V-8111.
10. Close the valve on the drain from the deethanizer, V-8115.
11. Lubricate, in the closed position, the three (3) following plug valves:
    a) propane surge tank
    b) interstage flash tank
    c) conversion to sulfur plant drains, south of the dehy contactors
12. Close the eight (8) drain valves on the following vessels:
    a) lean oil chiller, 2" gate valve
    b) high pressure chiller, 2" gate valve
    c) gas cooler at the high pressure absorber, 2" globe valve
    d) high pressure scrubber, 1" gate
    e) high pressure absorber, 2" gate

f) low pressure scrubber, 1" gate

g) low pressure absorber, 2" gate

h) low pressure chiller, 2" gate

13. Close the two drain valves at the interstage flash tank.
14. Close the drain valve at the propane surge drum.
15. Close the two valves on the waste heat boiler drains in the SRU.
16. Close the valve on the condenser drain in the SRU.
17. Open the vent valves on taps F-103, F-114, F-115, F-116, F-117, F-58, F-22 F-28,F-11 and F-13.
18. Connect the water supply to the vent valve at tap F-13.
19. Fill the drain line with water, while allowing air to vent through the vent valves at taps F-103, F-114, F-115, F-116, F-117, F-58, F-22, F-28 and F-11.
20. When the drain line is filled with water, close the vent valves at taps F-103, F-114, F-115, F-116, F-117, F-58, F-22, F-28 and F-11.
21. Install a calibrated 60 PSIG pressure recorder on the tap F-13.
22. Using the water supply, stabilize the pressure the drain system at approximately 50 PSIG.
23. Begin the static test as specified in the General Instructions, Item 8.
24. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
25. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
26. Release the pressure and remove the pressure recorder.
27. Remove all of the blinds or vented expandable plugs that may have been installed.
28. Return all valves to their normal operating position.
29. Close and plug all fill and vent lines.

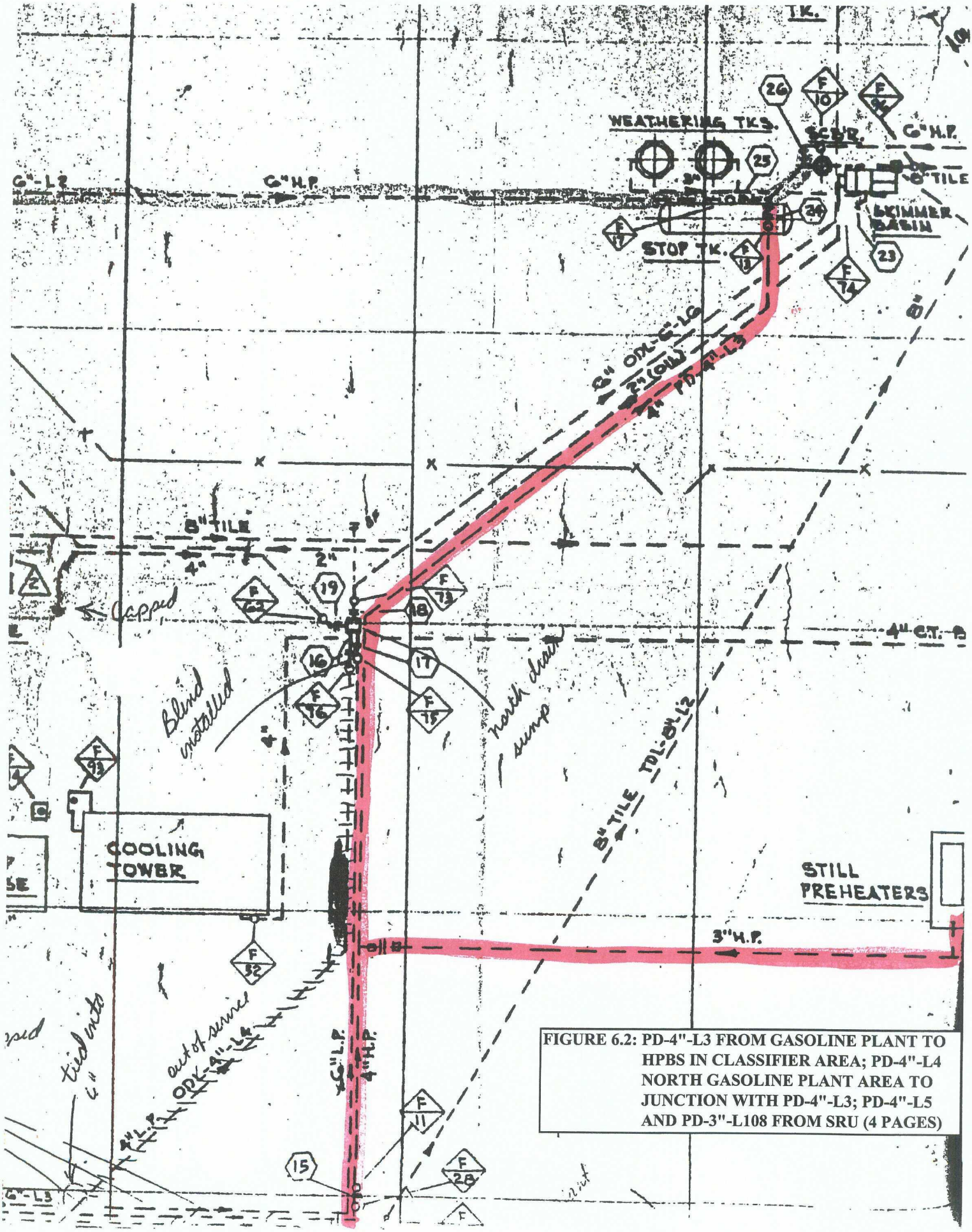


FIGURE 6.2: PD-4"-L3 FROM GASOLINE PLANT TO HPBS IN CLASSIFIER AREA; PD-4"-L4 NORTH GASOLINE PLANT AREA TO JUNCTION WITH PD-4"-L3; PD-4"-L5 AND PD-3"-L108 FROM SRU (4 PAGES)

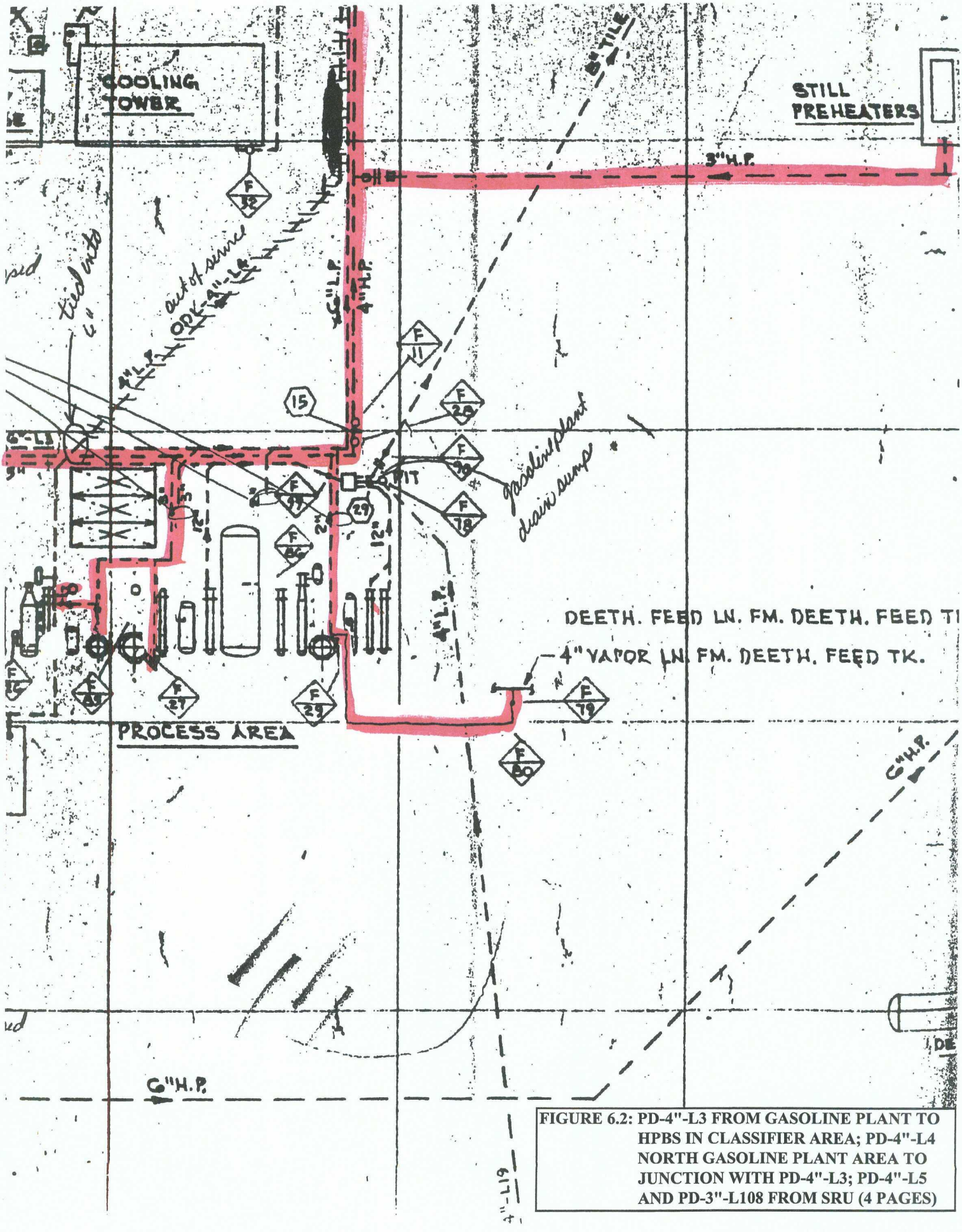


FIGURE 6.2: PD-4"-L3 FROM GASOLINE PLANT TO HPBS IN CLASSIFIER AREA; PD-4"-L4 NORTH GASOLINE PLANT AREA TO JUNCTION WITH PD-4"-L3; PD-4"-L5 AND PD-3"-L108 FROM SRU (4 PAGES)

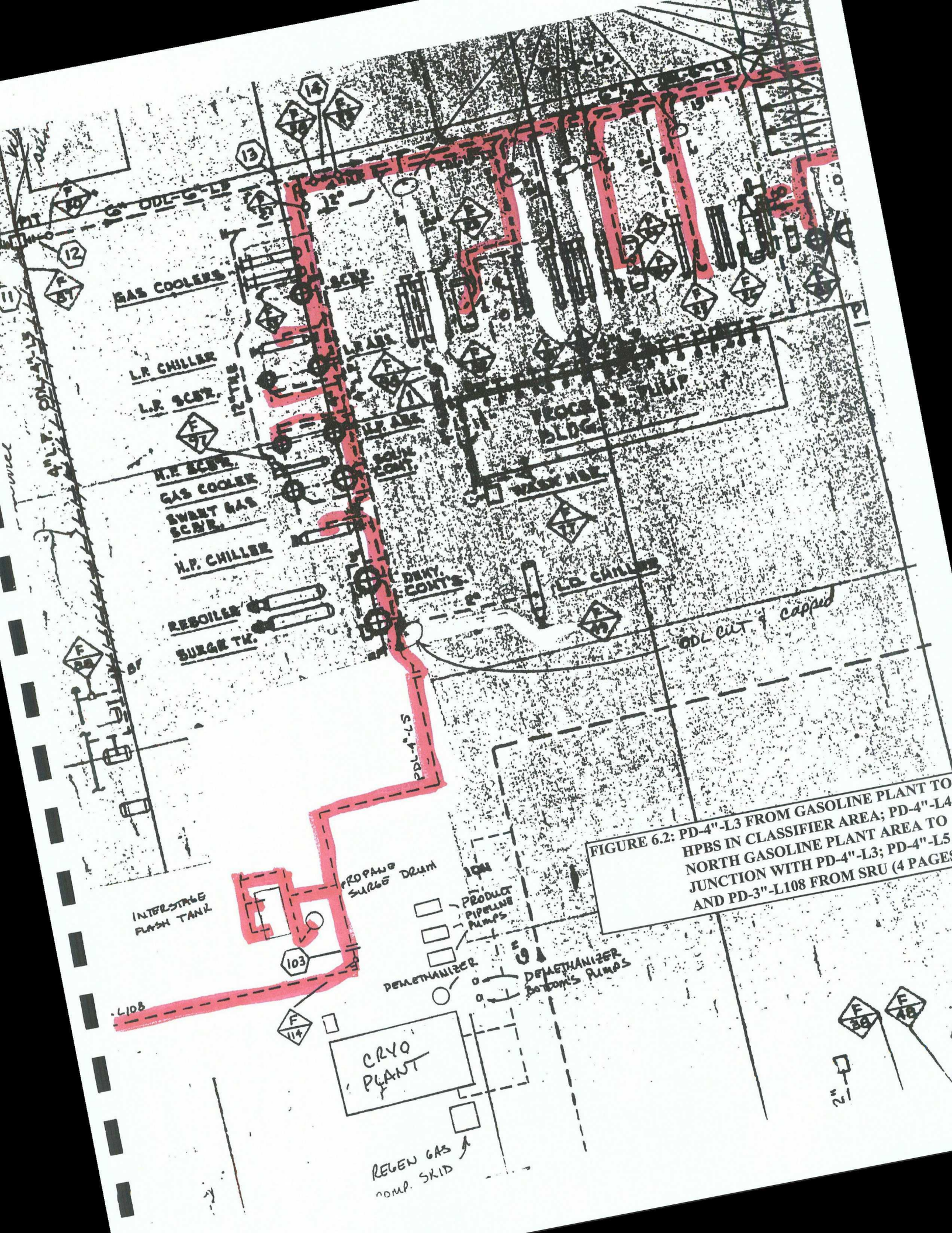
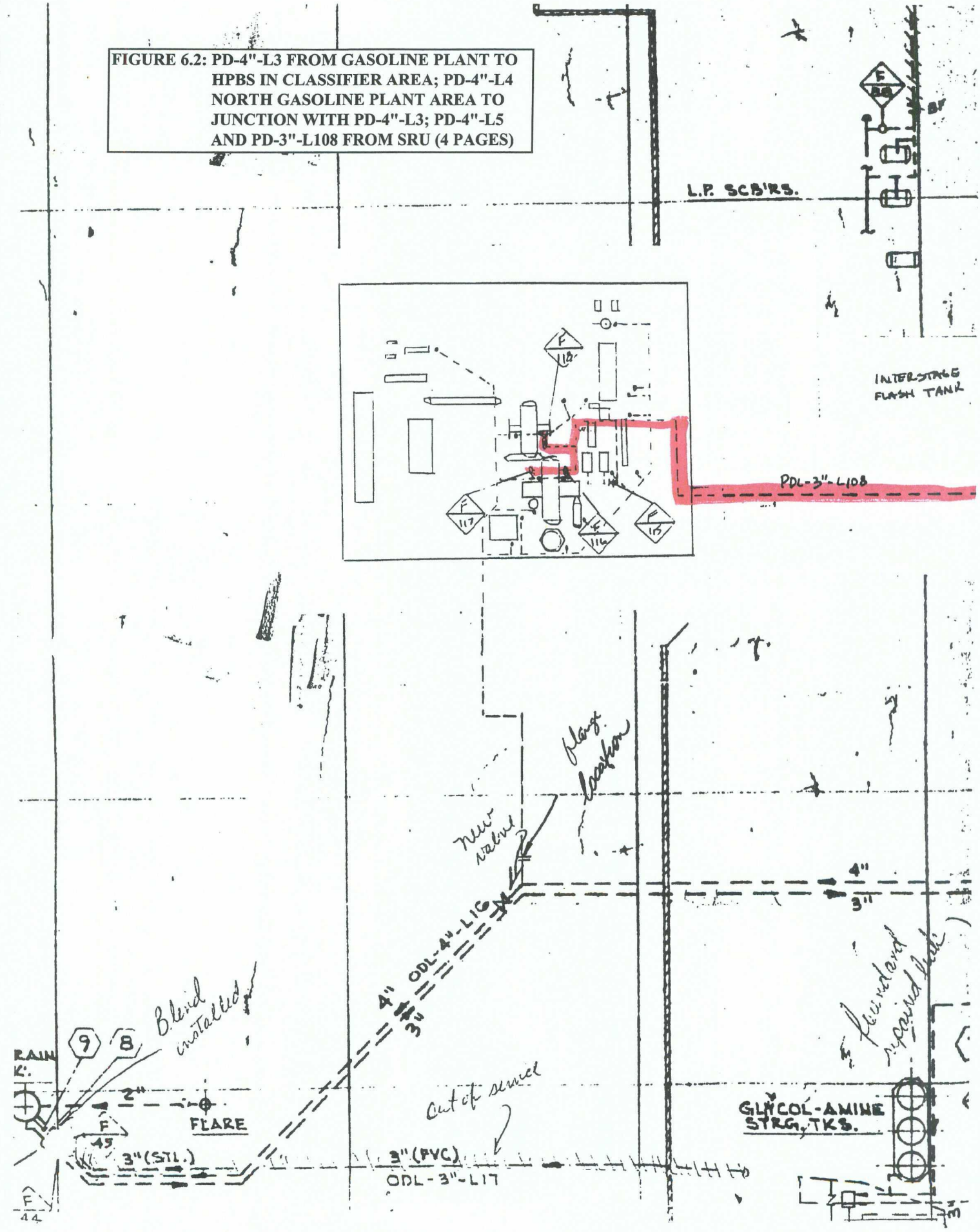


FIGURE 6.2: PD-4"-L3 FROM GASOLINE PLANT TO HPBS IN CLASSIFIER AREA; PD-4"-L4 NORTH GASOLINE PLANT AREA TO JUNCTION WITH PD-4"-L3; PD-4"-L5 AND PD-3"-L108 FROM SRU (4 PAGES

FIGURE 6.2: PD-4"-L3 FROM GASOLINE PLANT TO HPBS IN CLASSIFIER AREA; PD-4"-L4 NORTH GASOLINE PLANT AREA TO JUNCTION WITH PD-4"-L3; PD-4"-L5 AND PD-3"-L108 FROM SRU (4 PAGES)



SECTION 6.3

LINE: THE 3" LINE FROM THE WEST WASTE WATER DRAIN BLOW DOWN SUMP TO ITS JUNCTION WITH PD-6"-L7; PD-4"-L7 FROM ITS JUNCTION WITH PD-2"-L8 TO ITS JUNCTION WITH PD-5"-L6, INCLUDING THE DRAINS IN THE CRYOGENIC PLANT, AND THE PRESSURIZED DRAINS IN THE AMINE STILL AREA; PD-6"-L6 FROM ITS JUNCTION WITH PD-6"-L7 TO THE FLANGE JOINT AT LOCATION 26, EAST OF THE WEATHERING TANKS.

Revised 3/2007

See Plate 1 and Figure 6.3 (six pages) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 23.

1. Close the west waste drain blow down sump pump discharge valve.
2. Install a blind plate in the flanges at location 7 at the junction with PD-2"-L8.
3. Lubricate, in the closed position, the 1-½" plug valves and close the ball valves on the dumps from the high pressure (HP) inlet scrubber.
4. Lubricate, in the closed position, the following drain block valves:
    a) "A" remote absorber, V-80,1-½"
    b) "B" remote absorber, V-81, 1-½"
    c) MEA still, V-56, 1-½"
    d) MEA contactor, V-50, 1-½"
    e) Sweet gas scrubber, V-51, 2"
    f) Residue gas scrubber (102" ID), Three (3), 2"
5. Close the drain valves at the amine reflux pumps and the amine reflux accumulator.
6. Close the block valve, 2", DR-709-B, where the drain line enters the dehydration skid.
7. Close the block valve, 2", DR-110.-B, where the drain line enters the cryogenic skid.
8. Close all of the drain block valves on the product pipeline and booster pumps.
9. Install a blind plate at the flare liquid knockout drum pump discharge, 2", DR-613-A.
10. Install a blind plate in flange location 26 at the high pressure blowdown scrubber (HPBS) in the classifier area.
11. Open the vent valves at taps F-7, F-4, F-5, F-6 and F-10.
12. Connect the water supply to the vent valve at tap F-10.
13. Fill the drain line with water, while allowing air to vent through the vent valves at taps F-7, F-4, F-5, F-6 and F-10.
14. When the drain line is filled with water, close the vent valves at taps F-7, F-4, F-5, F-6

and F-10.

15. Install a calibrated 60 PSIG pressure recorder on the tap F-10.
16. Using the water supply, stabilize the pressure the drain system at approximately 50 PSIG.
17. Begin the static test as specified in the General Instructions, Item 8.
18. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
19. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
20. Release the pressure and remove the pressure recorder.
21. Remove all of the blinds or vented expandable plugs that may have been installed.
22. Return all valves to their normal operating position.
23. Close and plug all fill and vent lines.

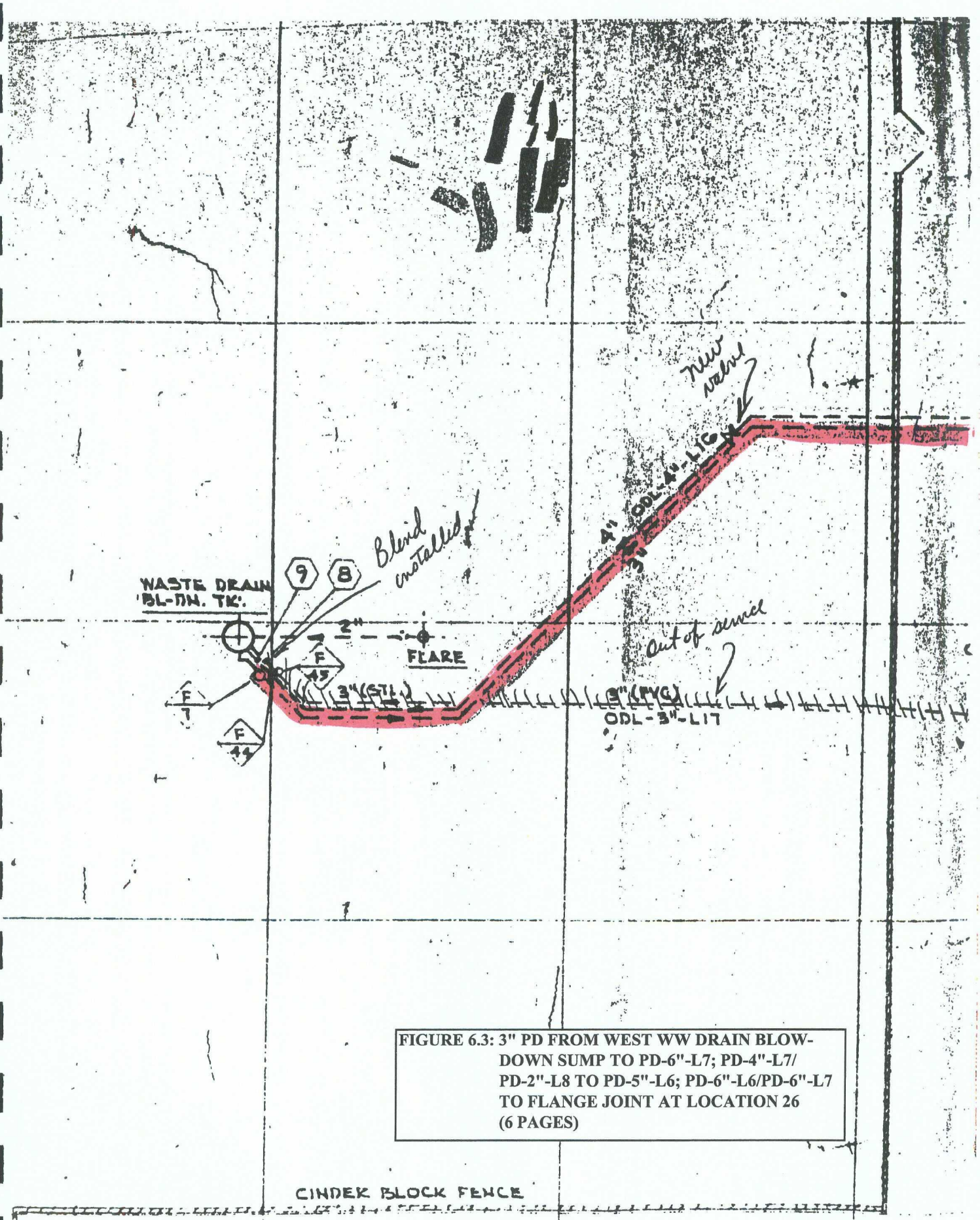


FIGURE 6.3: 3" PD FROM WEST WW DRAIN BLOW-DOWN SUMP TO PD-6"-L7; PD-4"-L7/ PD-2"-L8 TO PD-5"-L6; PD-6"-L6/PD-6"-L7 TO FLANGE JOINT AT LOCATION 26 (6 PAGES)

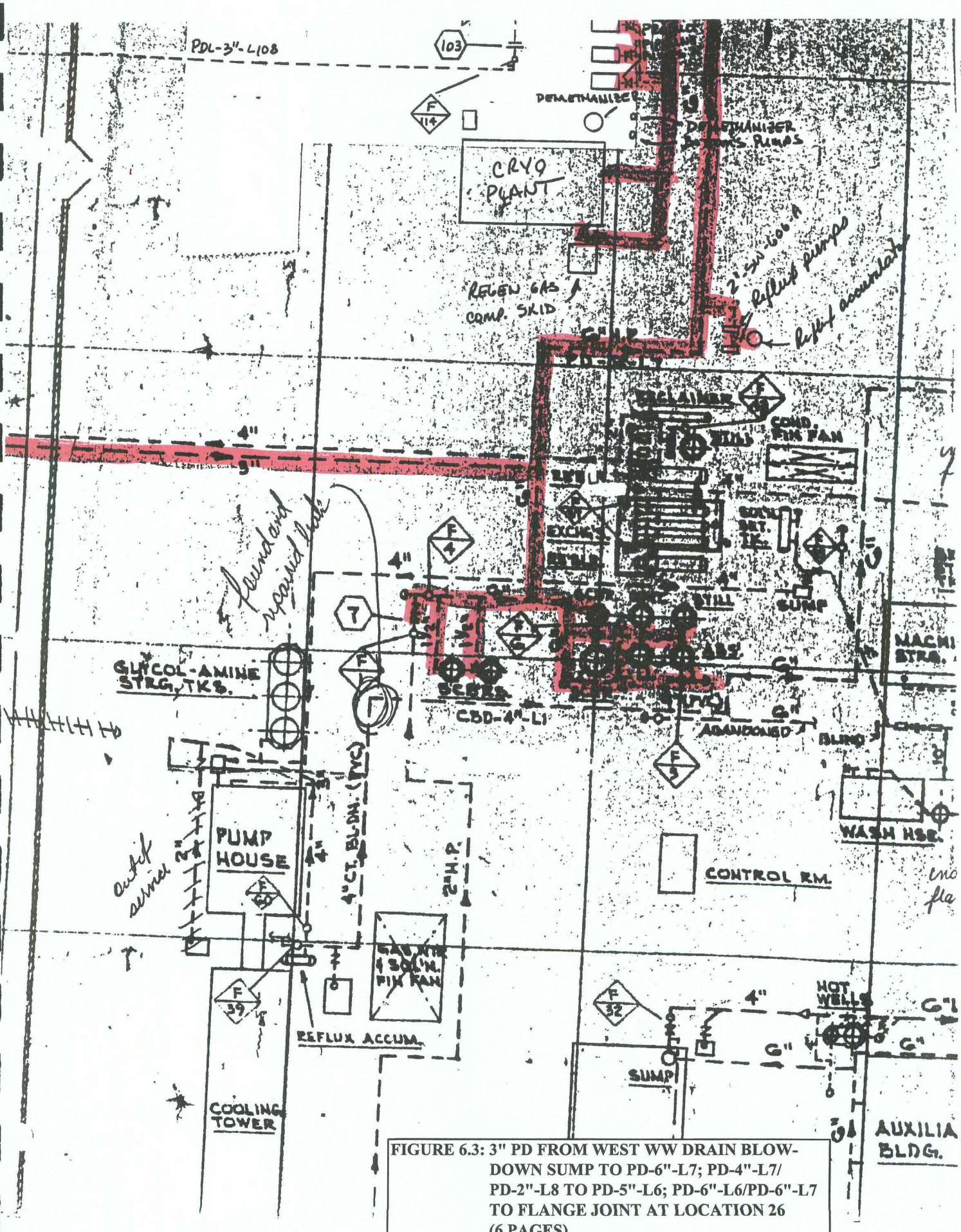


FIGURE 6.3: 3" PD FROM WEST WW DRAIN BLOW-DOWN SUMP TO PD-6"-L7; PD-4"-L7/ PD-2"-L8 TO PD-5"-L6; PD-6"-L6/PD-6"-L7 TO FLANGE JOINT AT LOCATION 26 (6 PAGES)

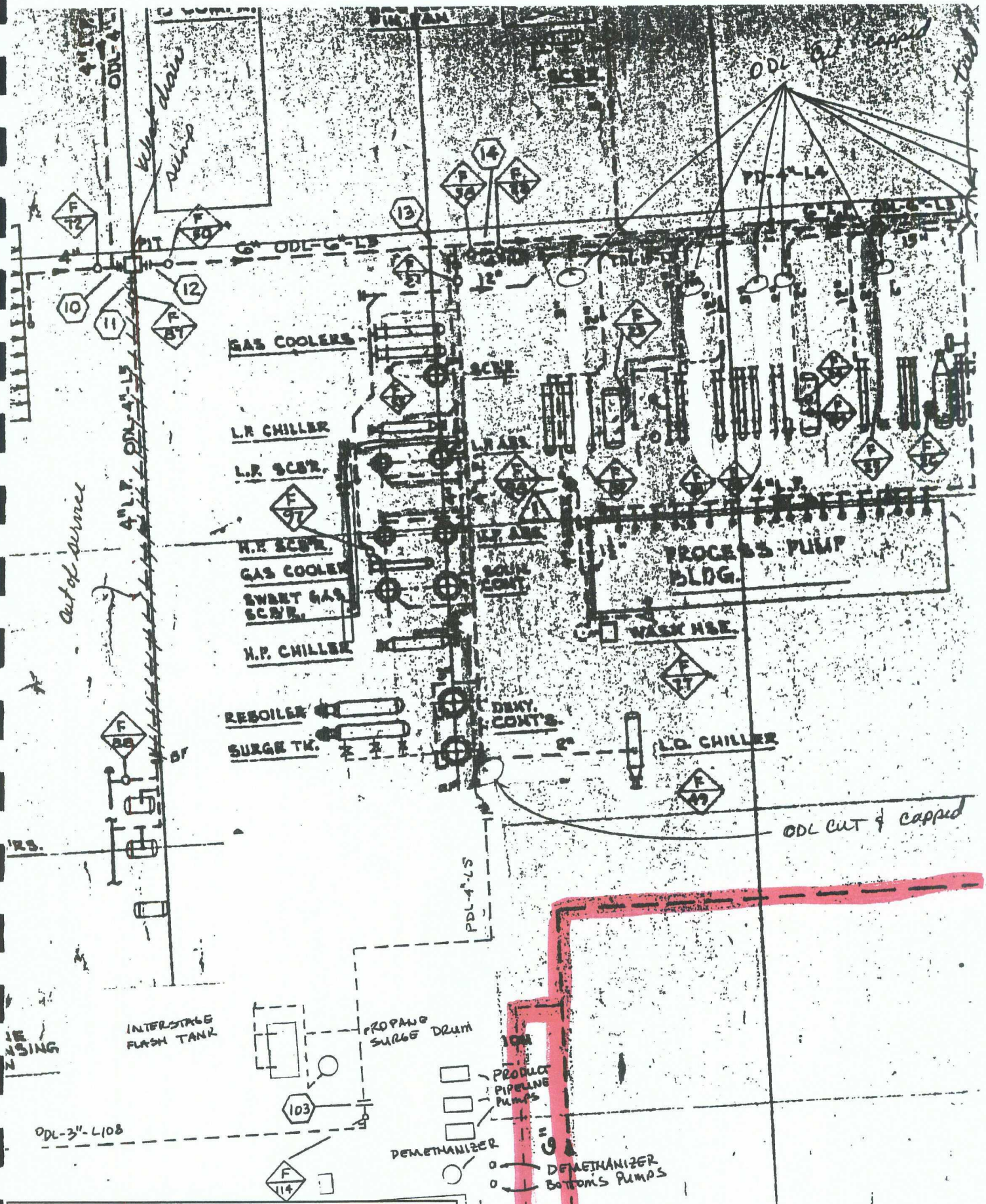


FIGURE 6.3: 3" PD FROM WEST WW DRAIN BLOW-DOWN SUMP TO PD-6"-L7; PD-4"-L7/ PD-2"-L8 TO PD-5"-L6; PD-6"-L6/PD-6"-L7 TO FLANGE JOINT AT LOCATION 26 (6 PAGES)

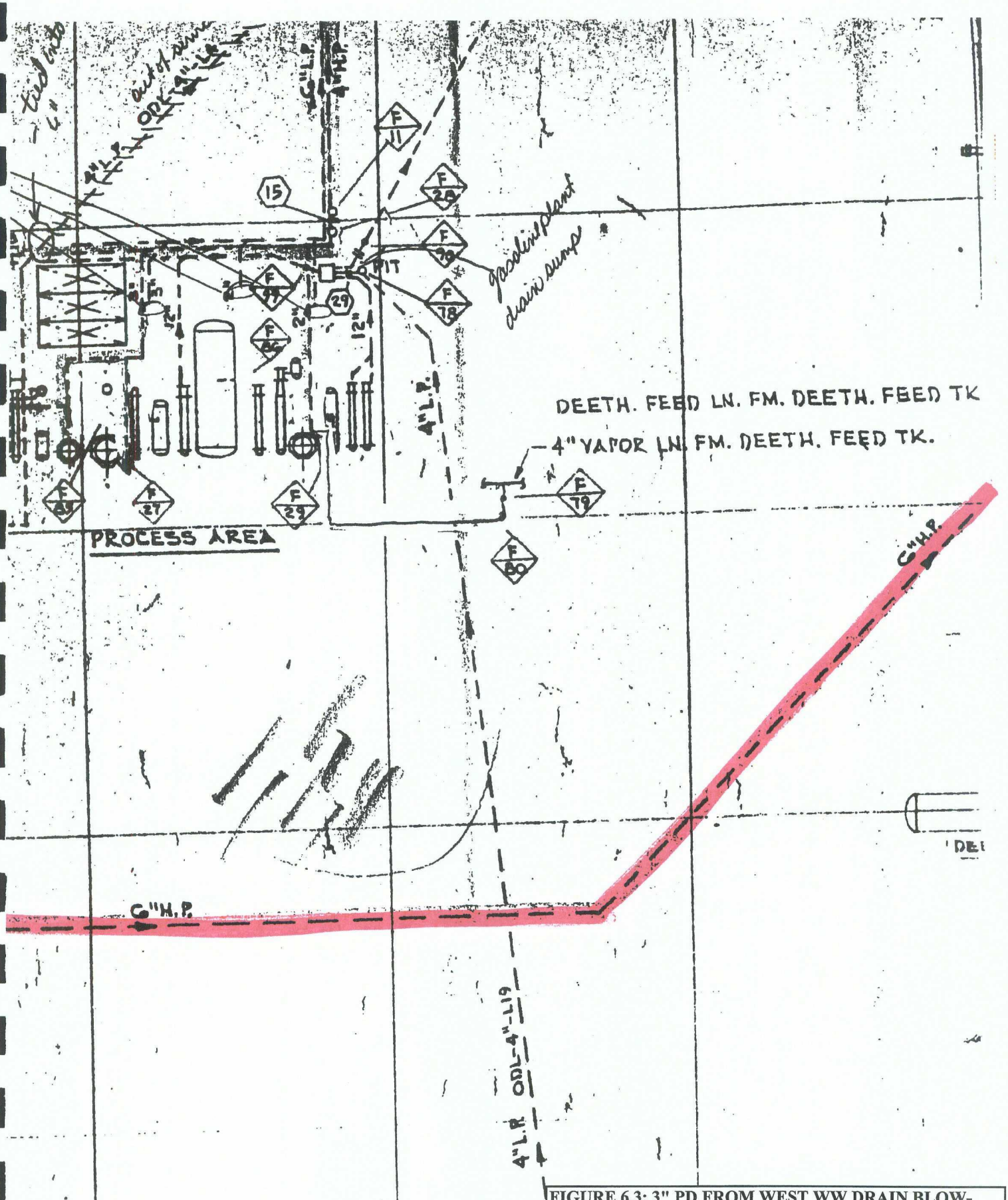


FIGURE 6.3: 3" PD FROM WEST WW DRAIN BLOW-DOWN SUMP TO PD-6"-L7; PD-4"-L7/ PD-2"-L8 TO PD-5"-L6; PD-6"-L6/PD-6"-L7 TO FLANGE JOINT AT LOCATION 26 (6 PAGES)

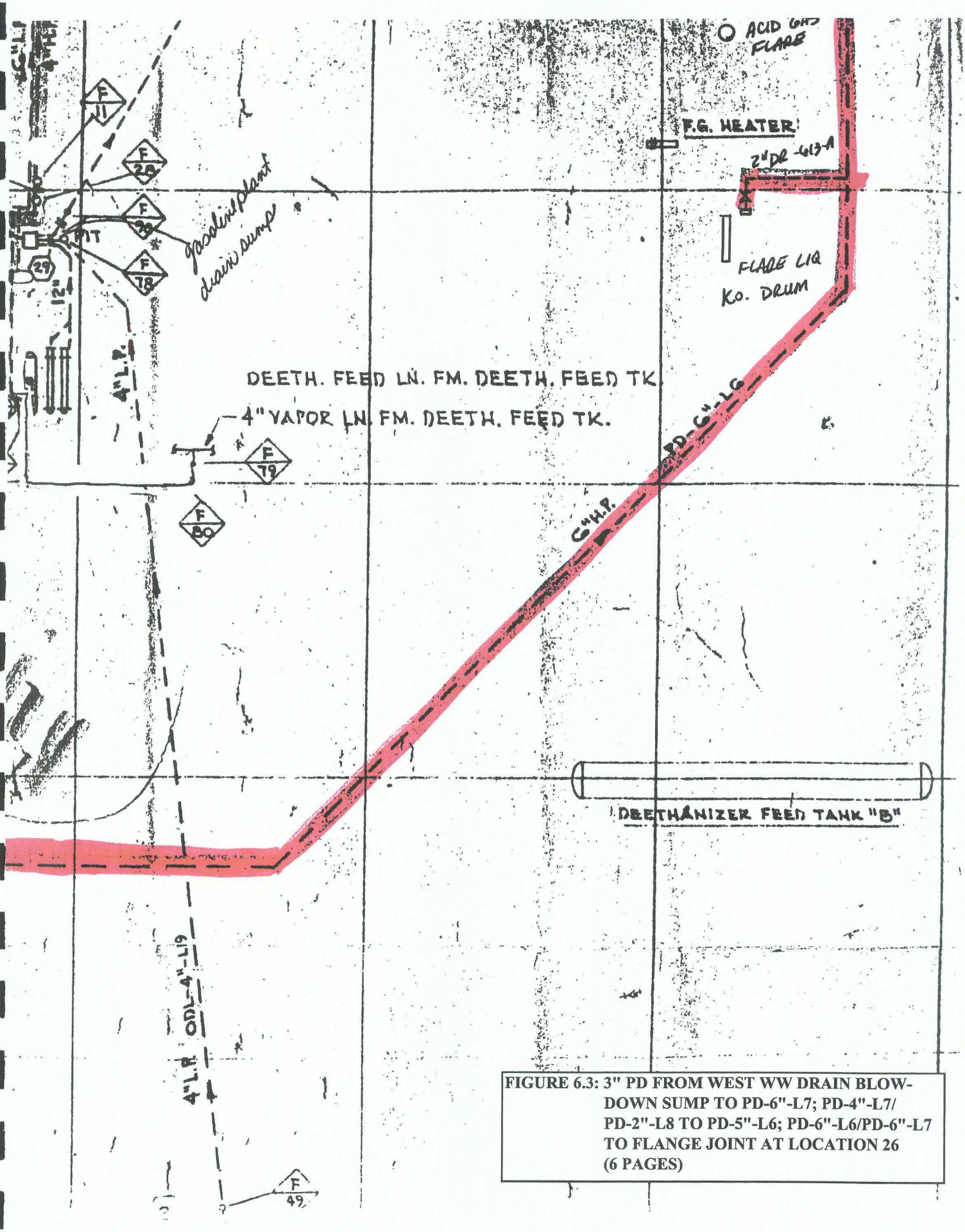


FIGURE 6.3: 3" PD FROM WEST WW DRAIN BLOW-DOWN SUMP TO PD-6"-L7; PD-4"-L7/ PD-2"-L8 TO PD-5"-L6; PD-6"-L6/PD-6"-L7 TO FLANGE JOINT AT LOCATION 26 (6 PAGES)

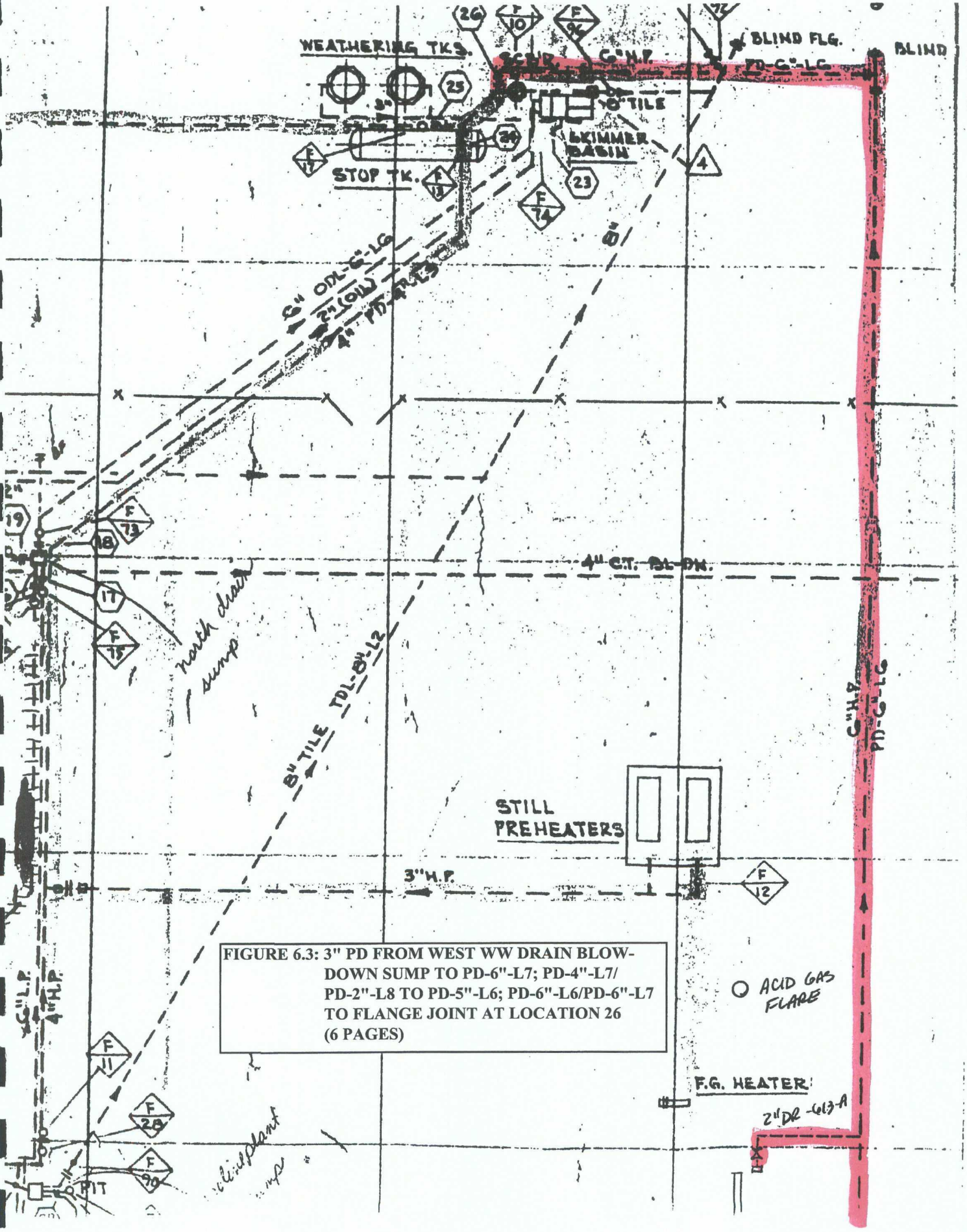


FIGURE 6.3: 3" PD FROM WEST WW DRAIN BLOW-DOWN SUMP TO PD-6"-L7; PD-4"-L7/ PD-2"-L8 TO PD-5"-L6; PD-6"-L6/PD-6"-L7 TO FLANGE JOINT AT LOCATION 26 (6 PAGES)

SECTION 6.4

LINE: PD-2"-L8, AT THE WEST SIDE OF THE "A" PLANT COMPRESSOR BUILDING TO THE CENTAUR TURBINES.

Revised 3/2007

See Plate 1 and Figure 6.4 (two pages) for overall location of this drain line segment and detailed location, respectively. The procedure includes Steps 1 through 20.

1. Close the ball valve at the bottom of the accumulator vessel south of the turbine unit, C-9106.
2. Close the two (2) 1" ball valves, one (1) gate valve and lubricate, in the closed position, one (1) 2" plug valve on the scrubber south of the "A" plant gas cooling fin fans.
3. Lubricate, in the closed position, the 2" plug valves on the drains at the north and south ends of the compressor headers.
4. Lubricate, in the closed position, two (2) 2" plug valves on the gas cooling fin fan header drains.
5. Lubricate, in the closed position, six (6) 2" plug valves on the drains at the intermediate scrubber,
6. Lubricate, in the closed position, the 2" plug valve on the south end of the header at the cooling tower.
7. Install a blind plate at flange connection 7, located at the junction with PD-6"-L7.
8. Open the vent valves at taps F-3, F-2 and F-1.
9. Connect the water supply to the vent valve at tap F-1.
10. Fill the drain line with water, while allowing air to vent through the vent valves at taps F-3 and F-2.
11. When the drain line is filled with water, close the vent valves at taps F-3 and F-2.
12. Install a calibrated 60 PSIG pressure recorder on the tap F-1.
13. Using the water supply, stabilize the pressure the drain system at approximately 50 PSIG.
14. Begin the static test as specified in the General Instructions, Item 8.
15. If the test pressure cannot be maintained on the isolated system as specified, refer to the General Instructions, Item 9.
16. At the end of the test period, the recording chart will be removed and retained for permanent record and will be identified as indicated in the General Instructions, Item 12.
17. Release the pressure and remove the pressure recorder.
18. Remove all of the blinds or vented expandable plugs that may have been installed.

19. Return all valves to their normal operating position.

20. Close and plug all fill and vent lines.

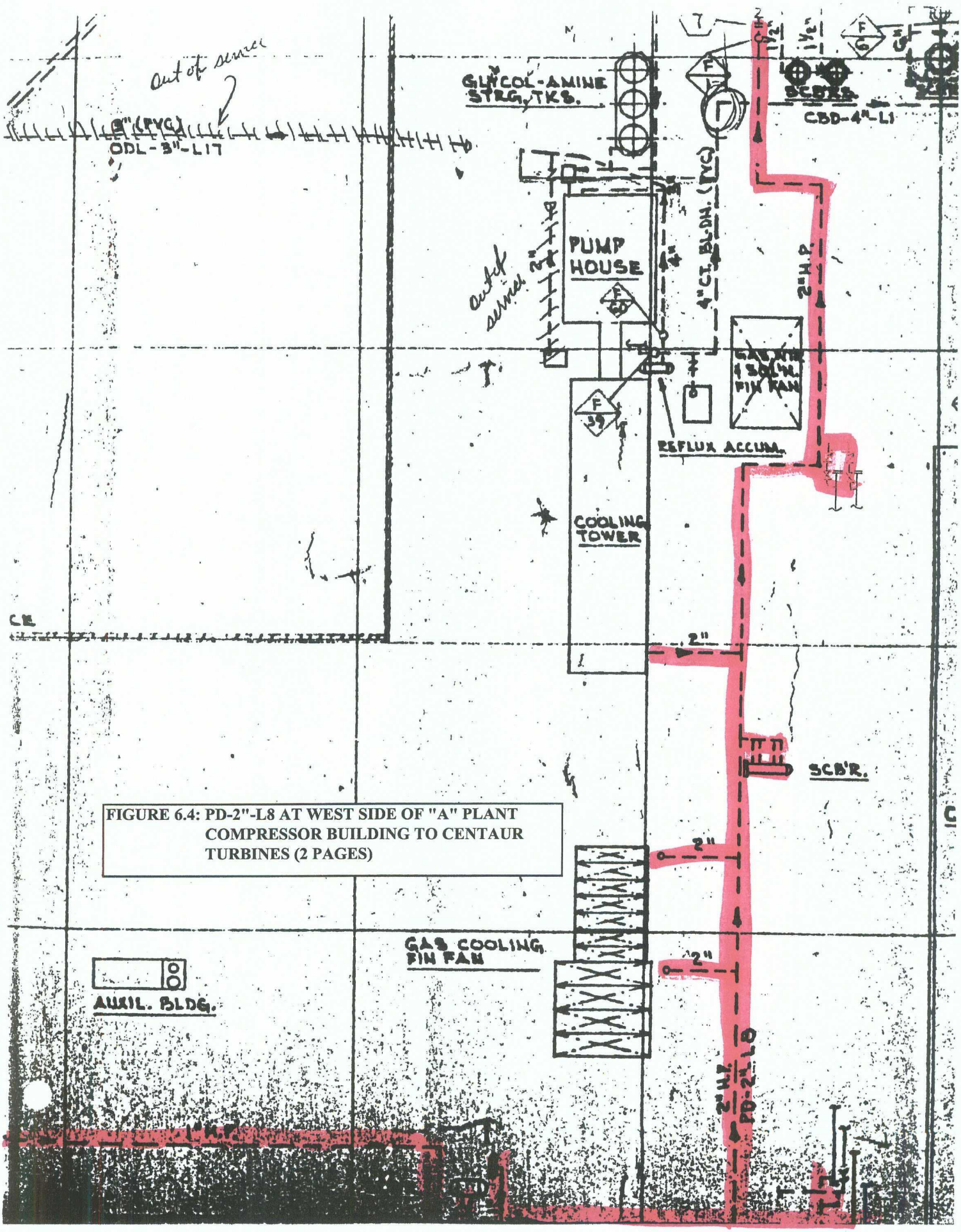


FIGURE 6.4: PD-2"-L8 AT WEST SIDE OF "A" PLANT COMPRESSOR BUILDING TO CENTAUR TURBINES (2 PAGES)

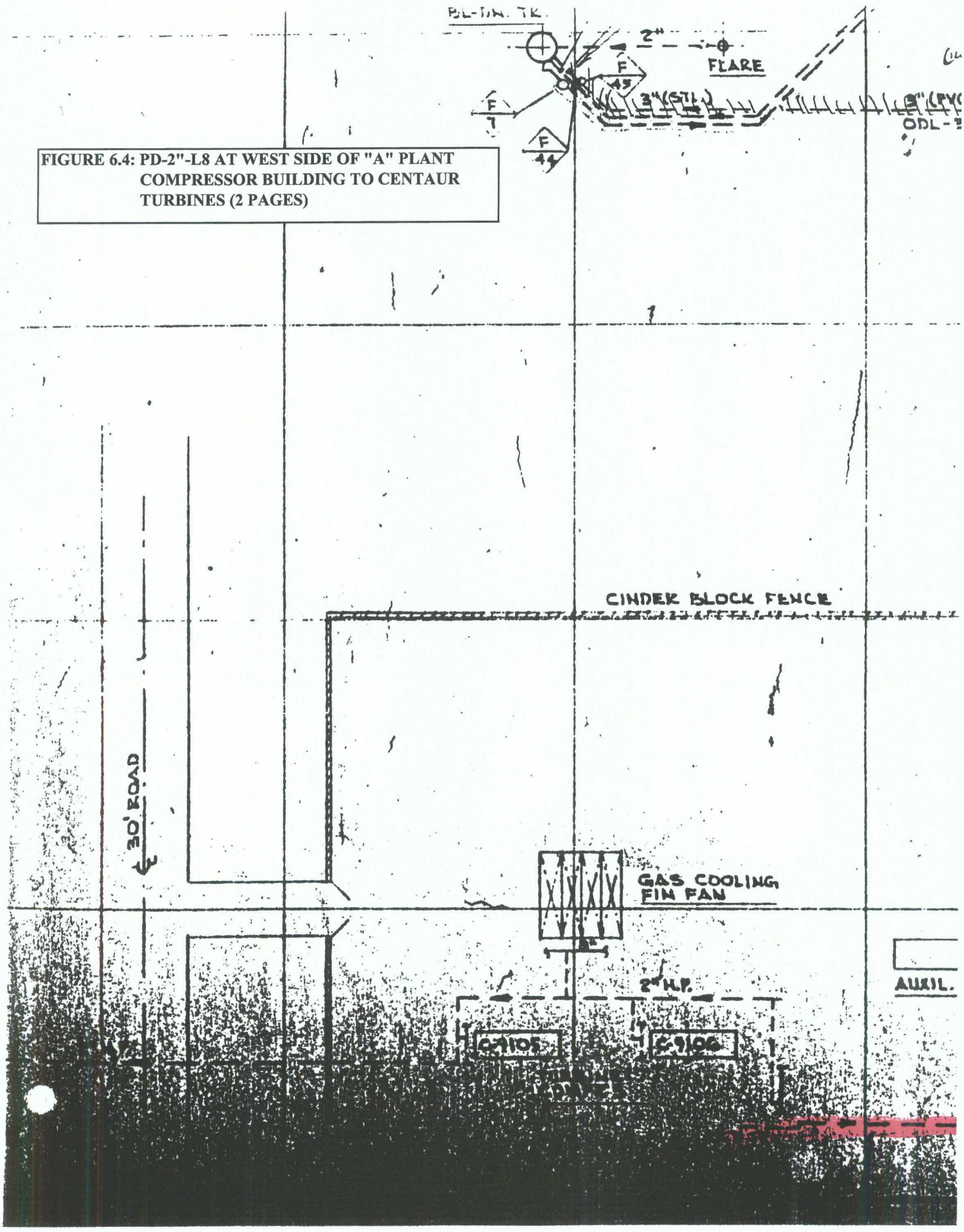


FIGURE 6.4: PD-2"-L8 AT WEST SIDE OF "A" PLANT COMPRESSOR BUILDING TO CENTAUR TURBINES (2 PAGES)

7.0 DETAILED TESTING PROCEDURES FOR CLASSIFIER, CONTINGENCY AND OIL TANKS

This section contains instructions for the annual testing of the above-referenced tanks.

1. The classifier and contingency tanks are intended to be operated at atmospheric pressure. Any pressure or vacuum testing of these tanks can cause damage to the tanks and/or coating system. Therefore, these tanks will be tested by filling the tank with water to a specified level and gauging any drop in level over a 12 or 24-hour period. This test will be performed annually.

2. Pressure or vacuum testing of the oil tank is precluded for the same reason specified for the classifier and contingency tanks. The oil tank will be tested by filling with water to a specified level and gauged to verify the maintenance of a constant level for a 4-hour period. This test will also be performed annually.

PART II

RESULTS OF DRAIN LINE SYSTEMS AND TANK TESTING

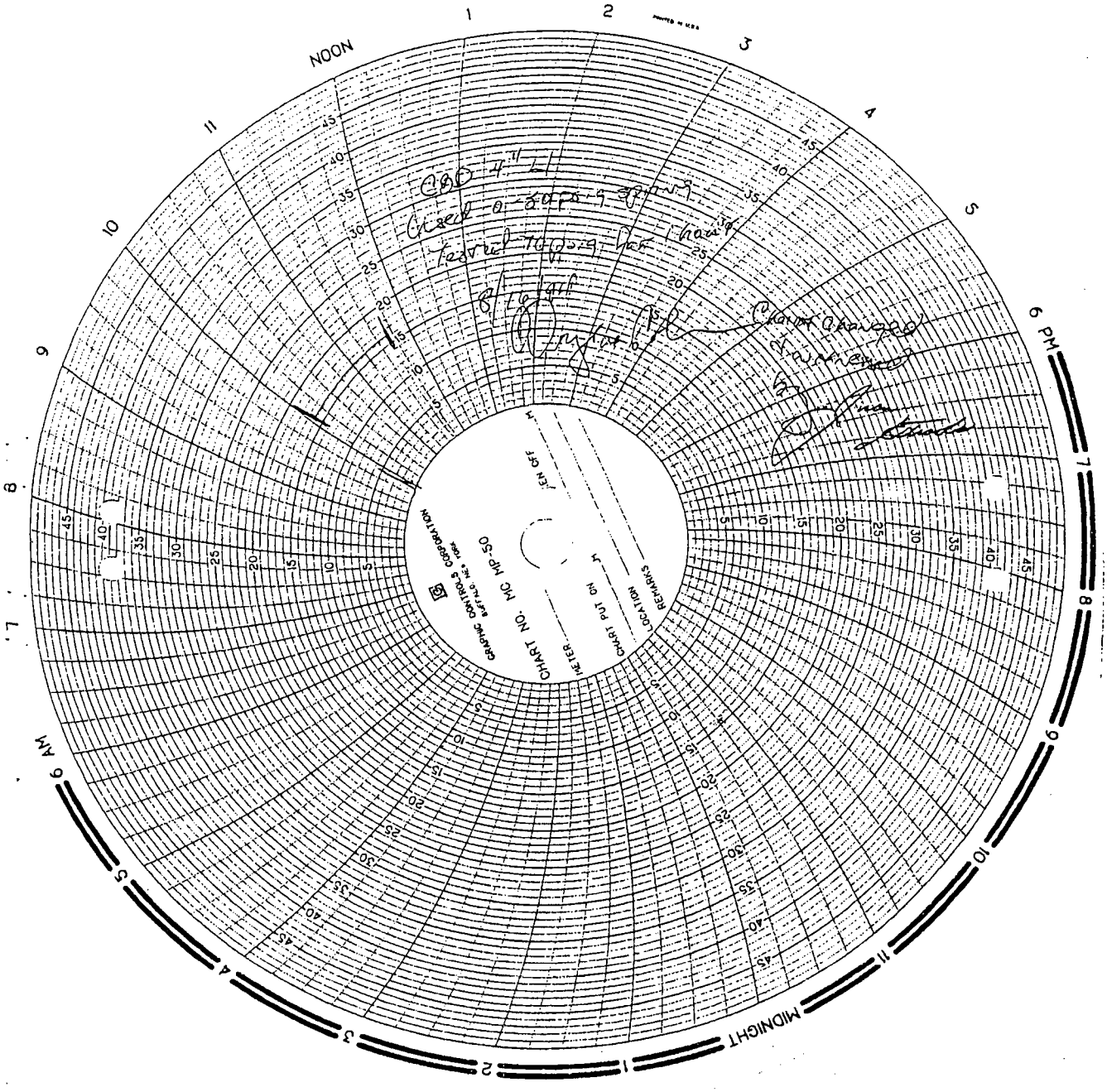
1.0 INTRODUCTION AND ORGANIZATION

Part II of this document contains documentation on the results of the periodic testing of the integrity of underground drain lines at SUGS Jal #3 Gas Processing Plant (Jal #3). All of the drain lines are to be tested on a 5 year interval pursuant to the procedures described in Part I of this document.

The organization of this part of the document is parallel to the organization of the detailed procedures included in Part I of this document. The general recordkeeping instructions applicable to the recording of all drain line testing are included in Section 2.0 of Part II below. The testing results for each of the groups of drain lines at Jal #3 are included in Sections 3 through 6 of Part II. Each of the tabs in this section contain all the results for the testing of the respective drain lines for which the detailed testing procedures are described in the same numbered section of Part I (Procedures for Testing Drain Line Systems and Tanks)

3.0 OPEN DRAIN LINES (OPD) TESTING RESULTS

This section contains the results of testing segments of the open drain lines (OPD), including those cooling tower blowdown (CBD) lines that are part of the OPD system. Each section contains the results of the testing of each line segment pursuant to the detailed procedures included in Part I Sections 3.1 through 3.14 of this document.



Findings:

1. One leak was found as indicated on the drawing.

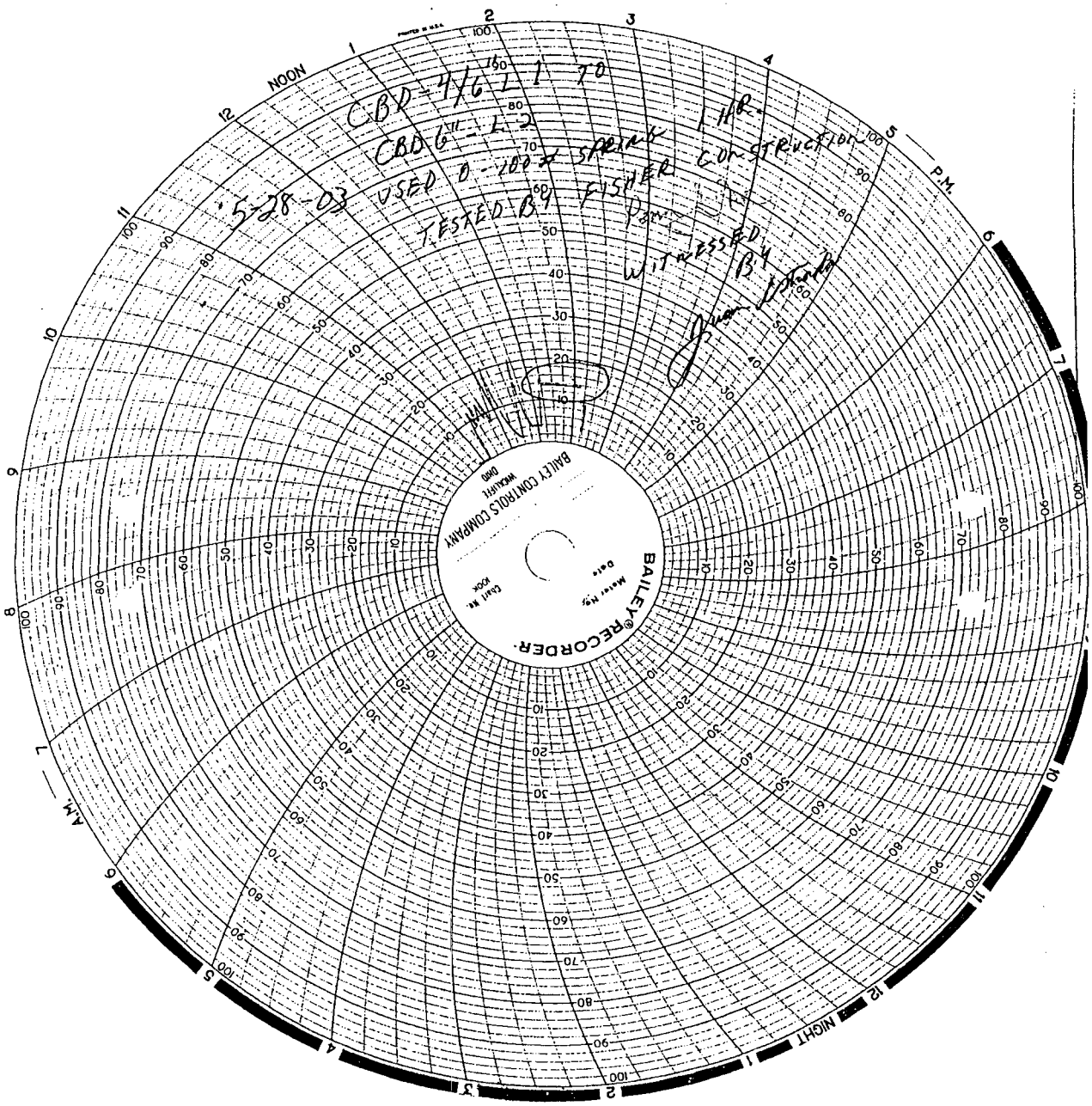
Actions:

1. The leak was dug out and repaired.

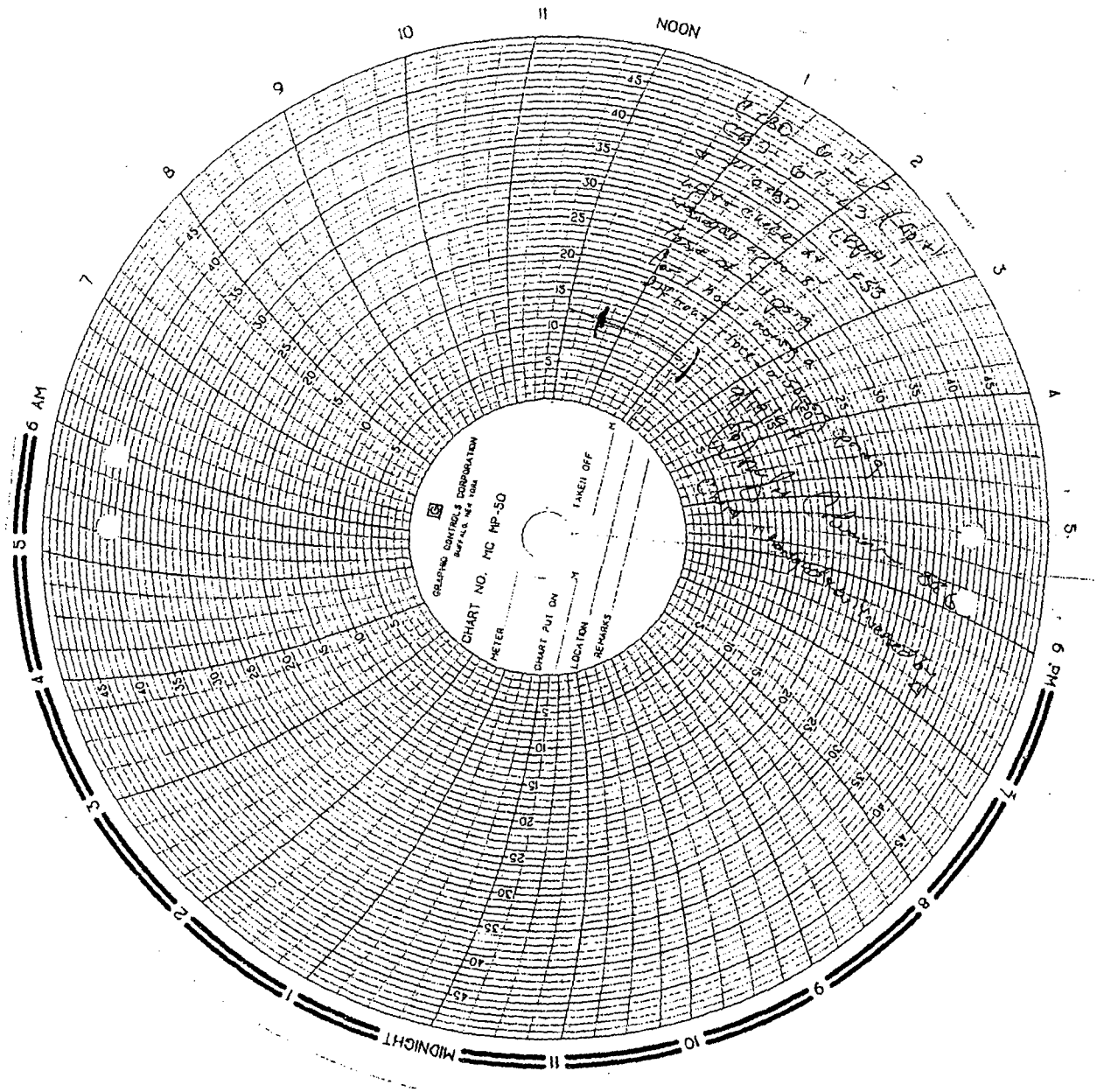
Hydrotest:

The hydrotest was completed on 8-16-94.

SECTION 3.1 1994 TEST



SECTION 3.1 2003 TEST

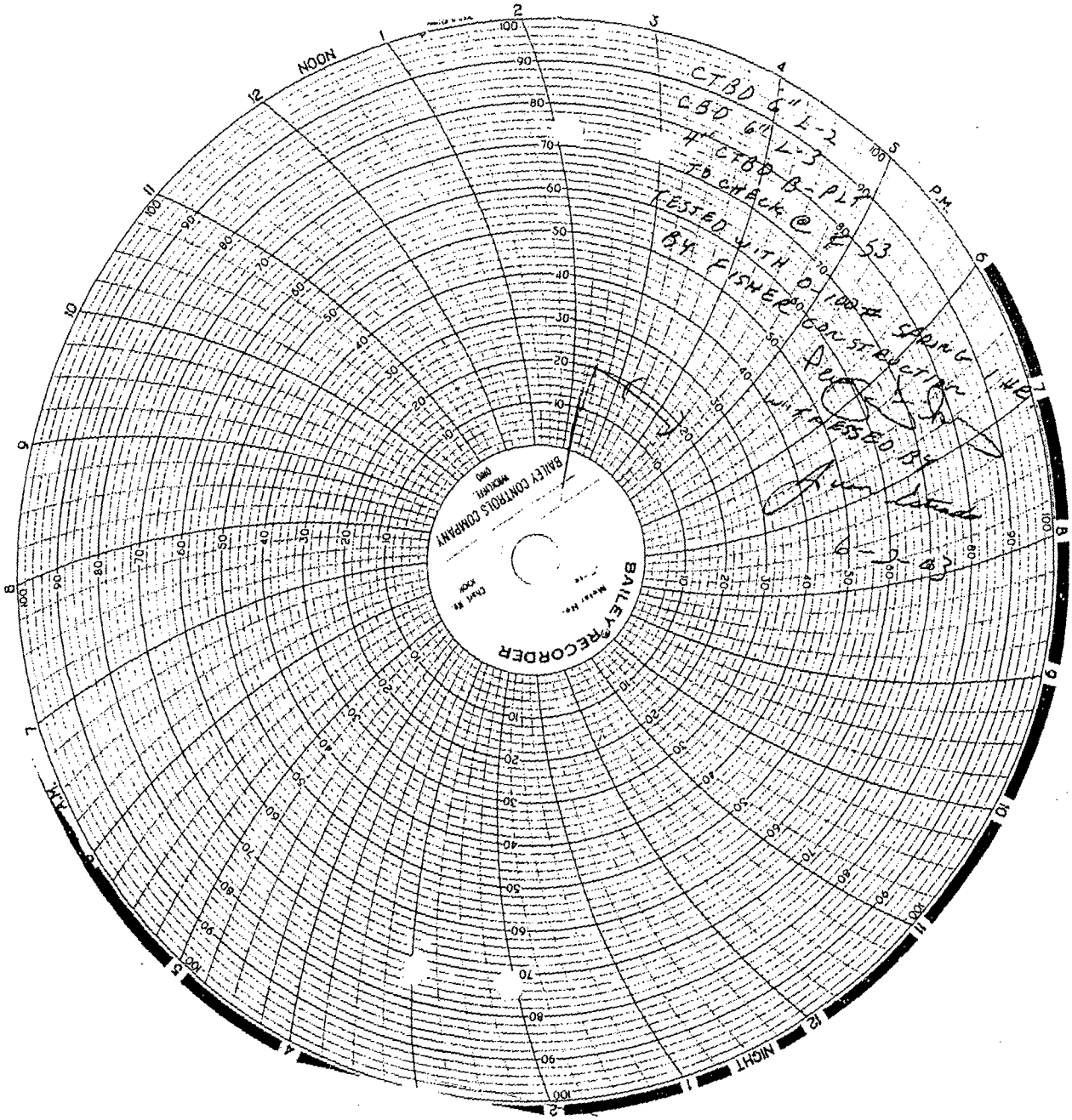


Findings:
1. No leaks were detected.

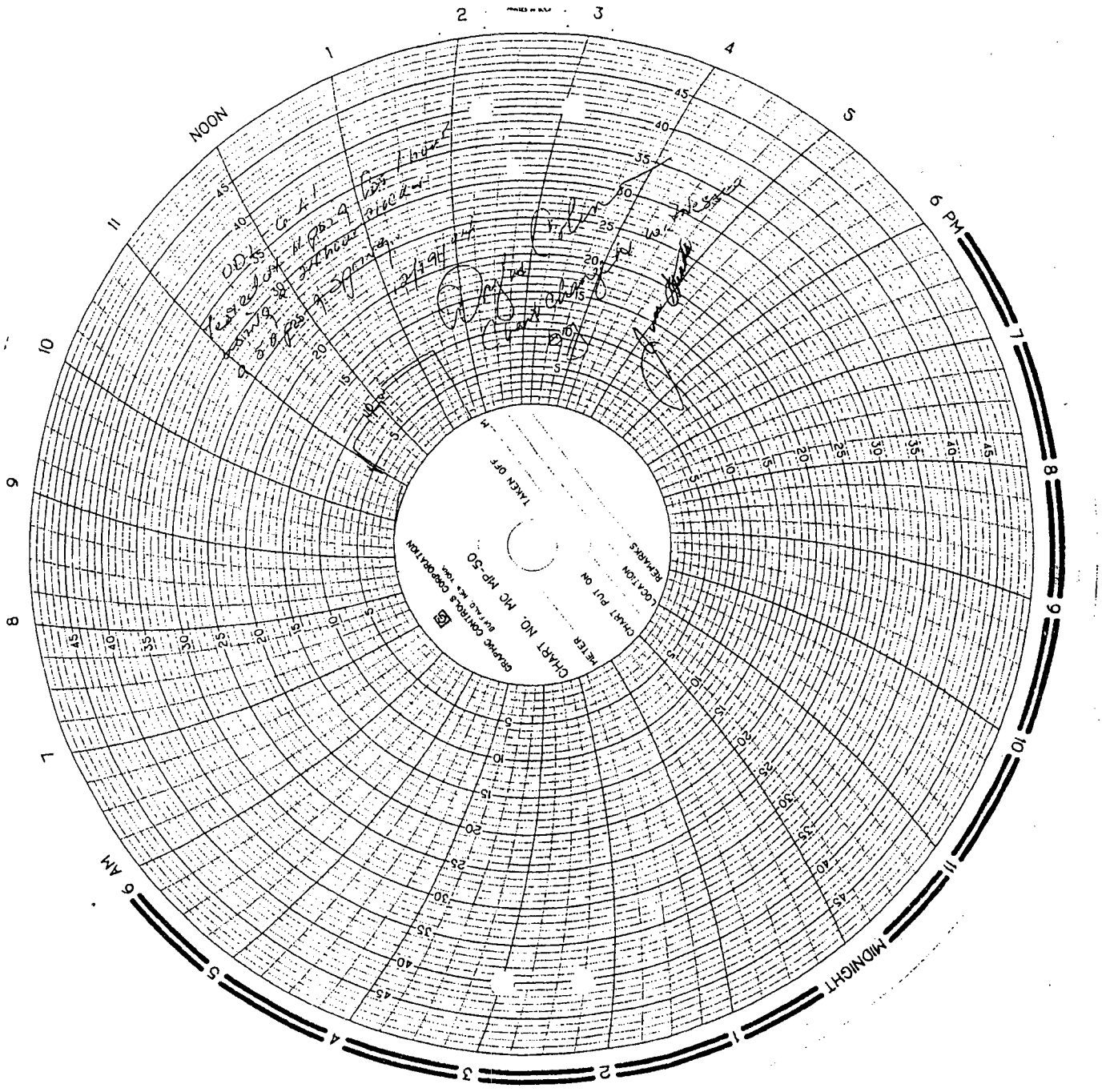
Actions:
1. No actions were required.

Hydrotest:
Hydrotest was completed on 9-19-94.

SECTION 3.2 1994 TEST



SECTION 3.2 2003 TEST

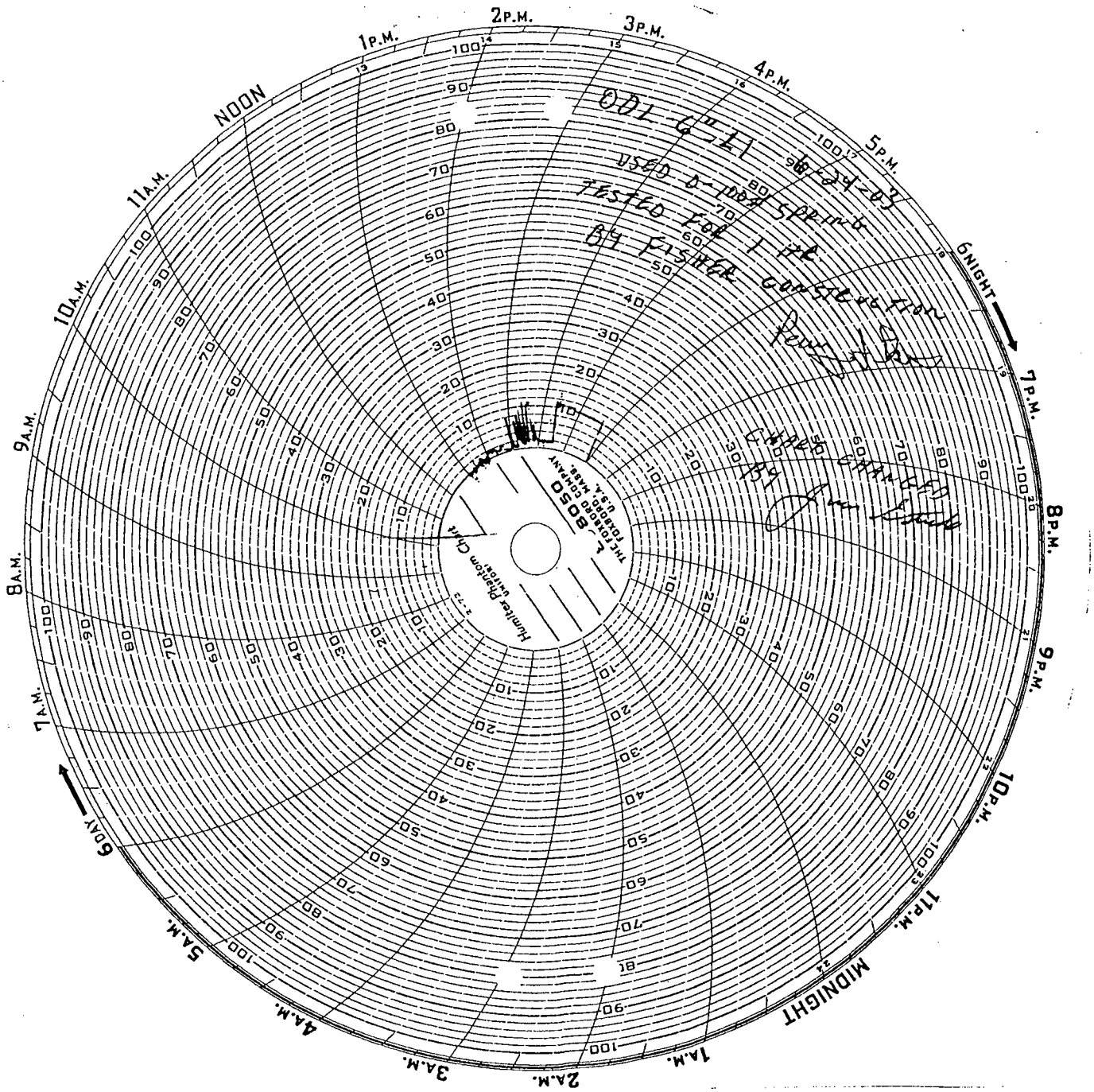


Findings:
1. Three leaks were detected as shown on the drawings.

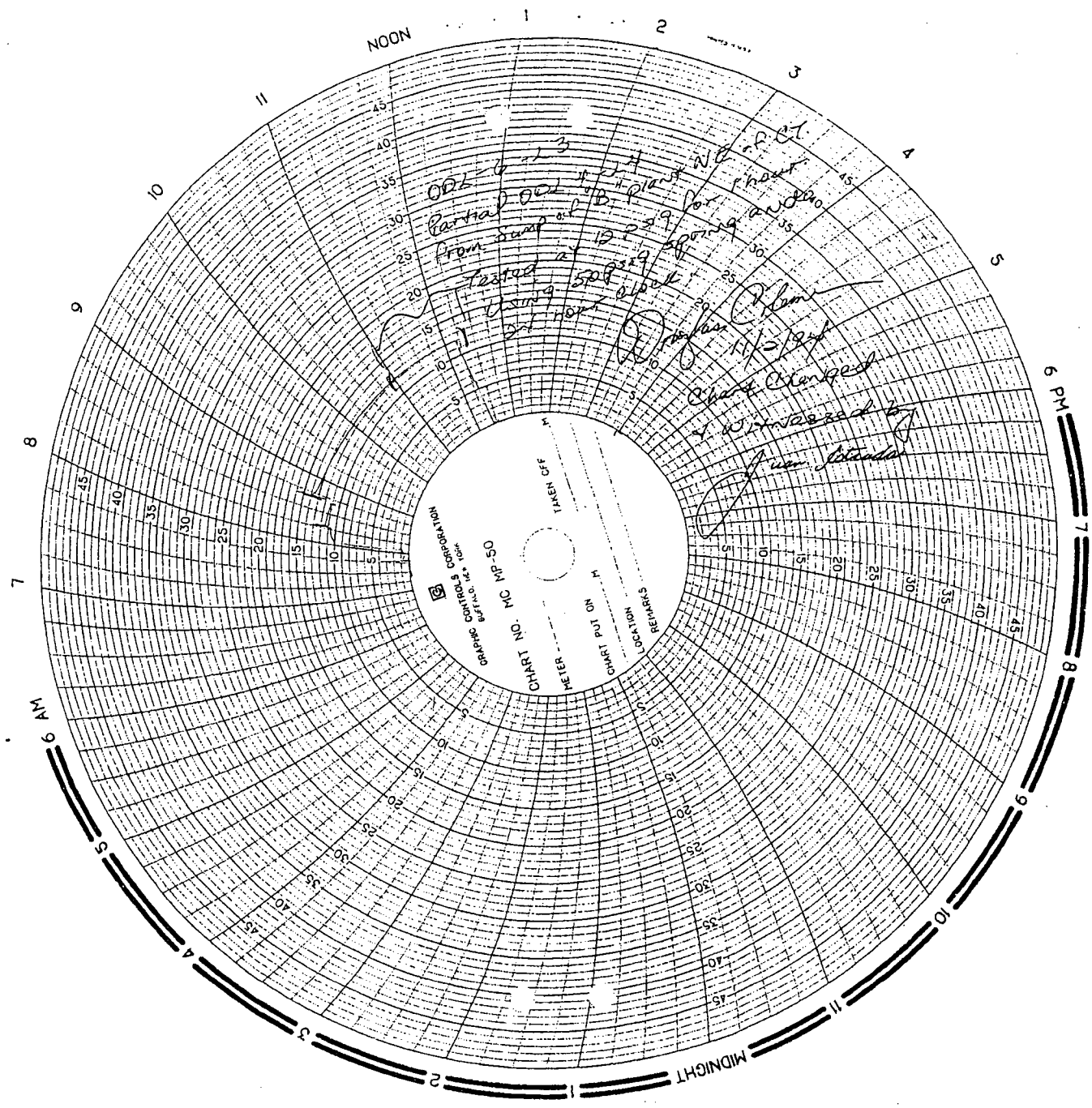
SECTION 3.3 1994 TEST

Actions:
1. The three leaks were repaired.

Hydrotest:
Hydrotest was completed on 12-19-94.



SECTION 3.3 2003 TEST



SECTION 3.4 1994 TEST

Findings:

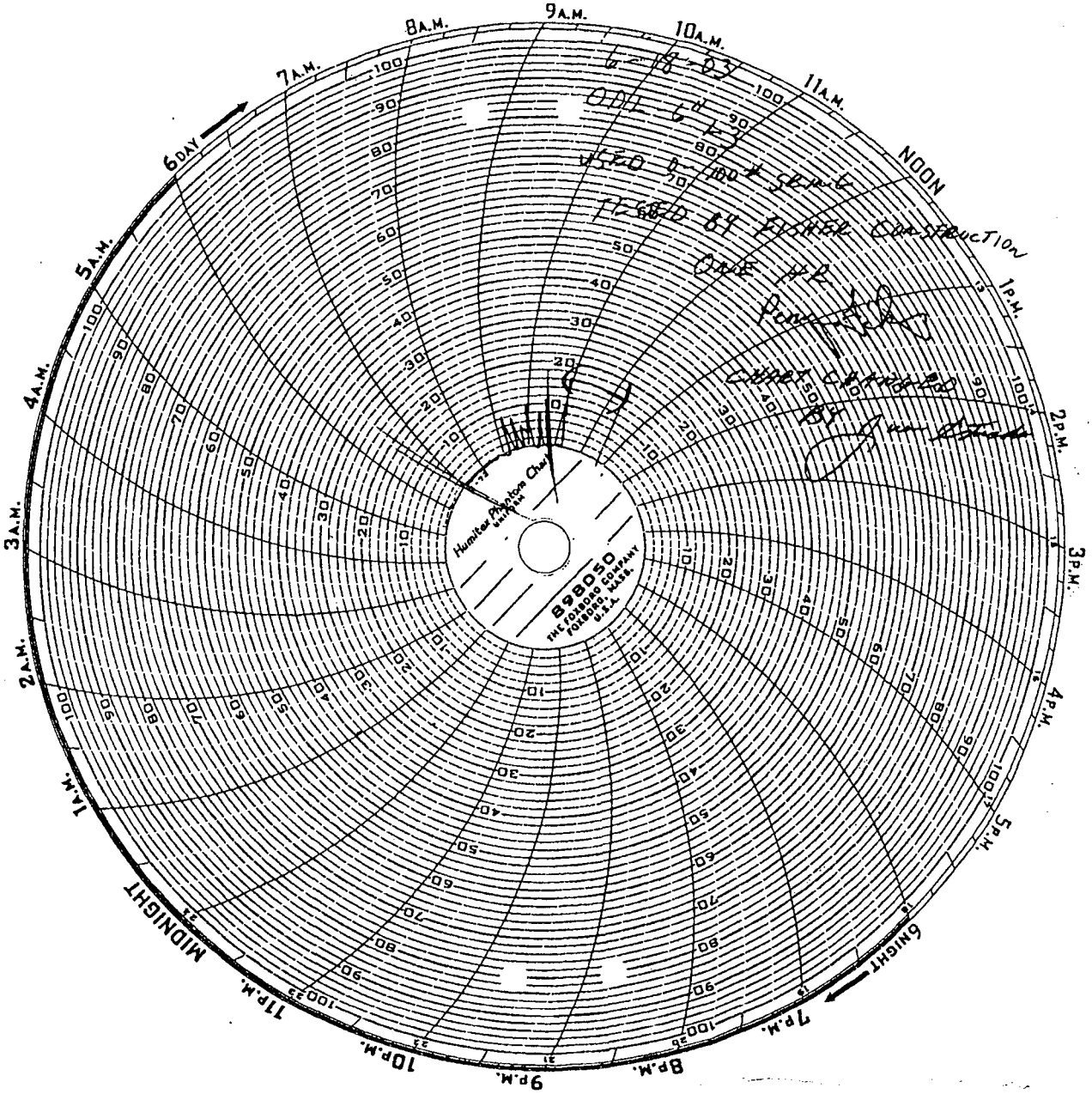
1. No leaks were detected.

Actions:

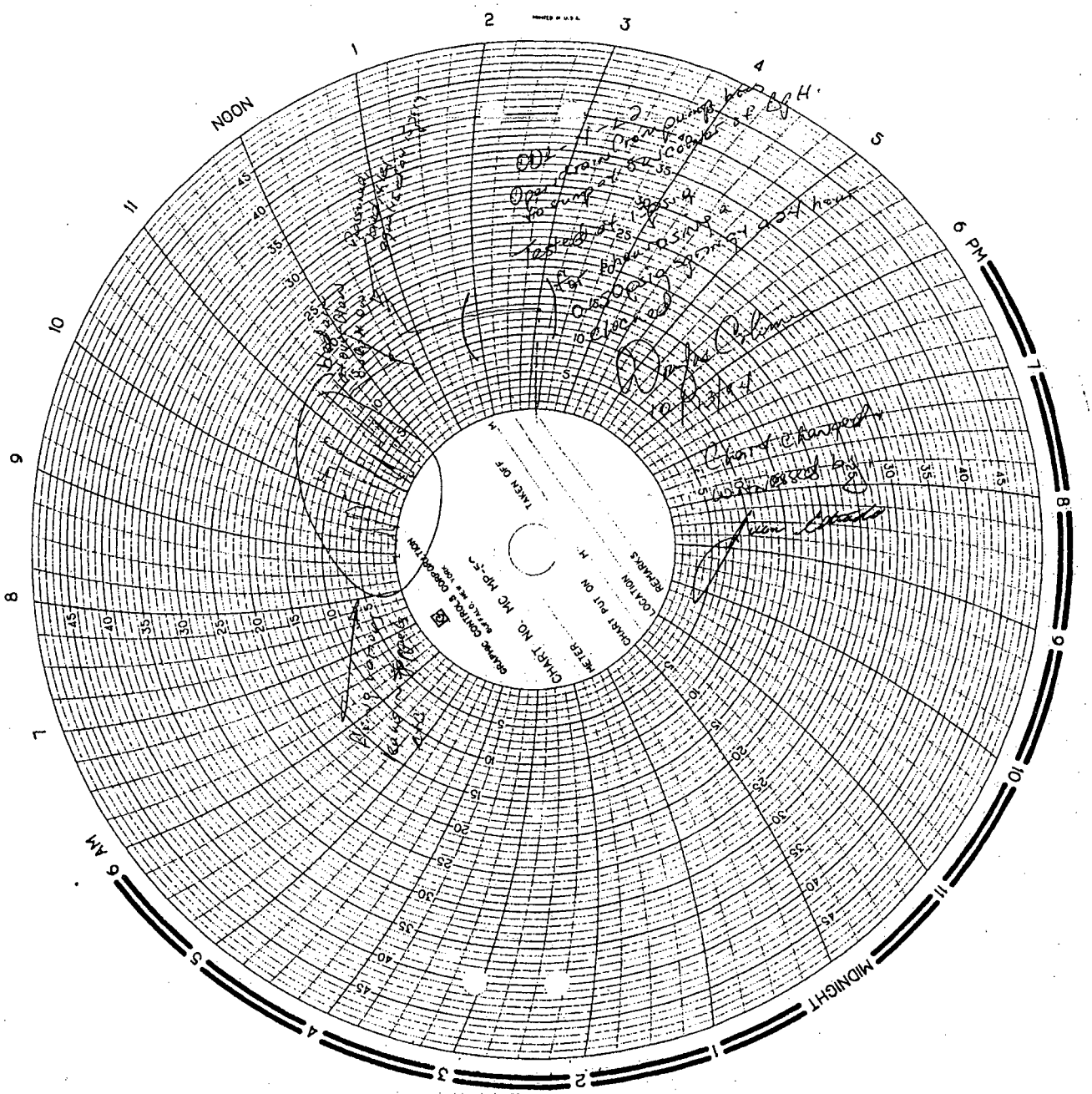
1. The drain line was cut and capped south of the dehy contactors.
2. All of the apron drains in the gasoline plant area were cut and capped.

Hydrotest:

Hydrotest was completed on 11-2-94.



SECTION 3.4 2003 TEST

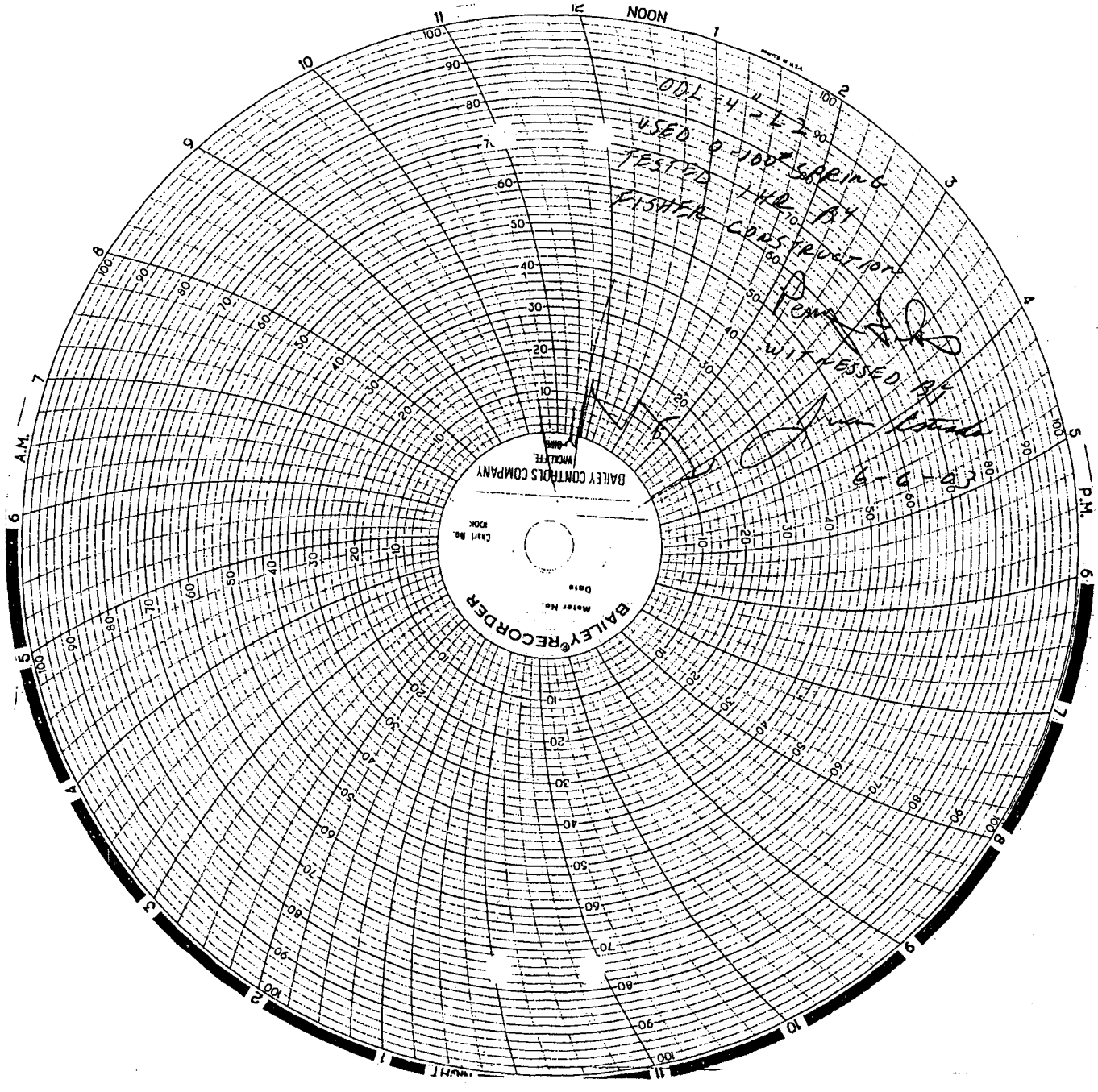


Findings:
1. No leaks were detected.

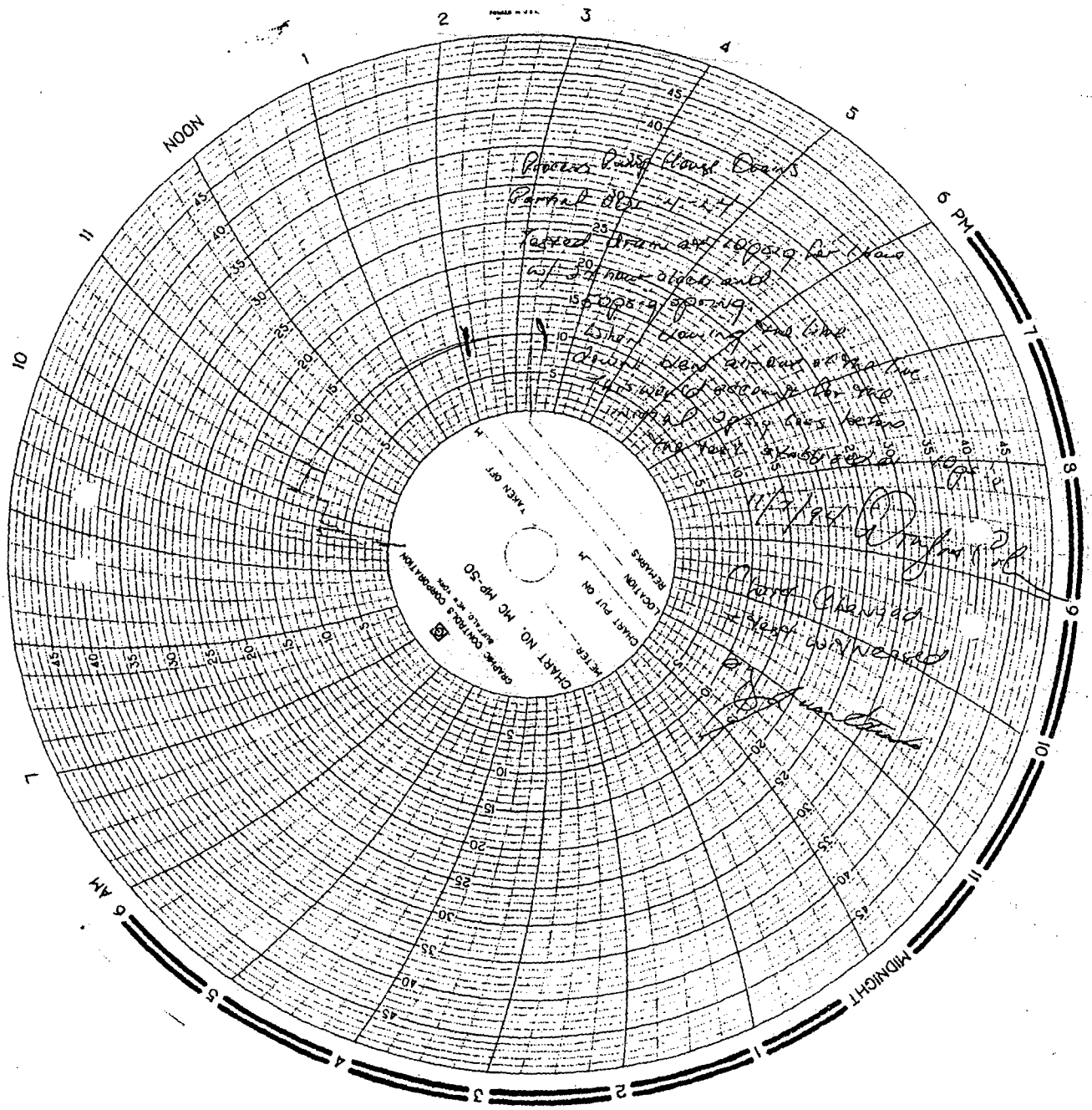
Actions:
1. No actions were required.

Hydrotest:
Hydrotest was completed on 10-13-94.

SECTION 3.5 1994 TEST



SECTION 3.5 2003 TEST



Findings:
1. No leaks were detected.

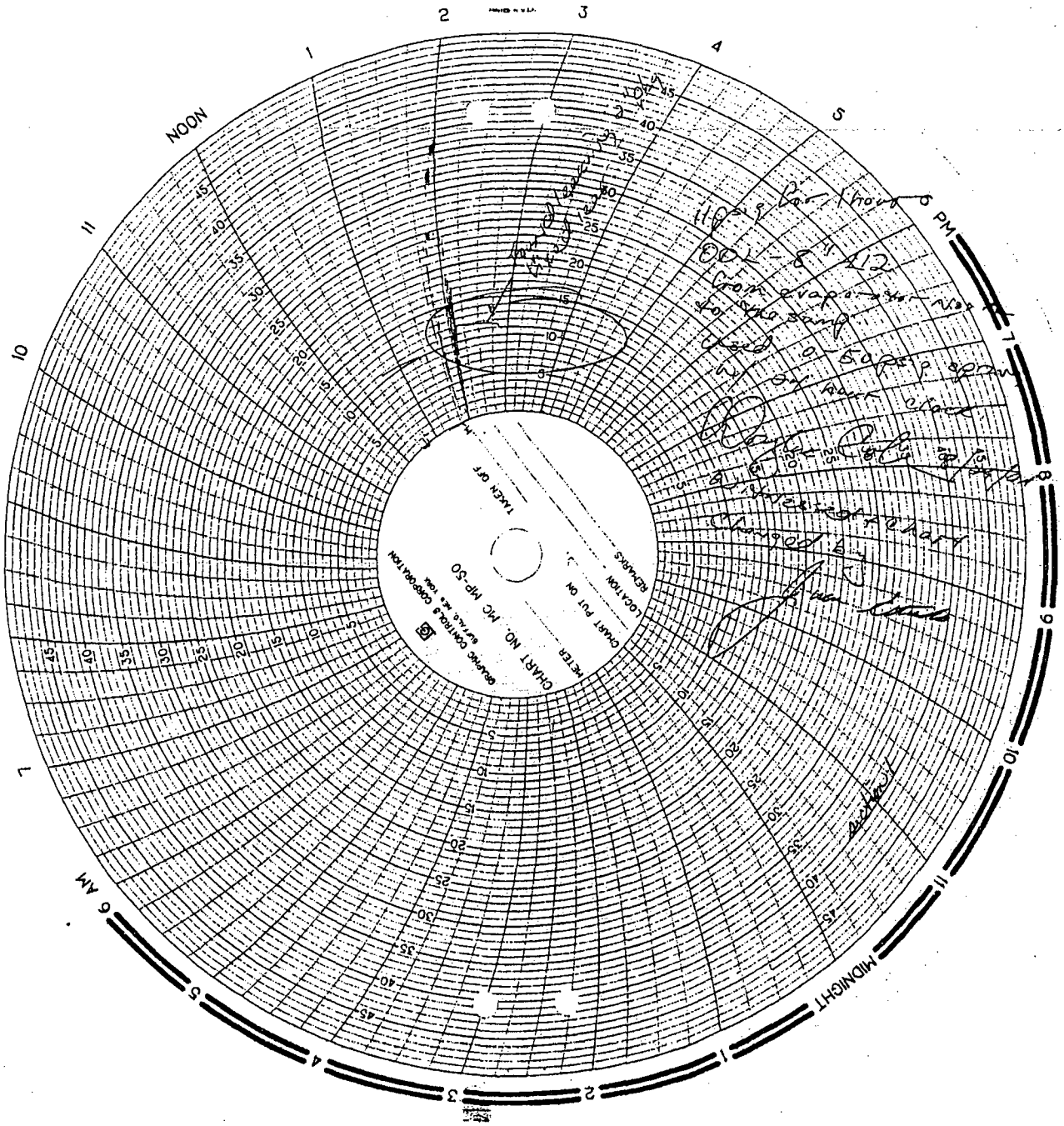
SECTION 3.6 1994 TEST

Actions:
1. The ODL-4"-L4 line was cut loose and tied into the ODL-6"-L3 drain line as shown in the drawing.
2. A permanent blind was installed at flange location 16.

Hydrotest:
Hydrotest was completed on 11-7-94.

SECTION 3.6 2003 TEST NOTE:

Pump building was taken out of service at some point between 1994 and 2003 so there is no 2003 test.

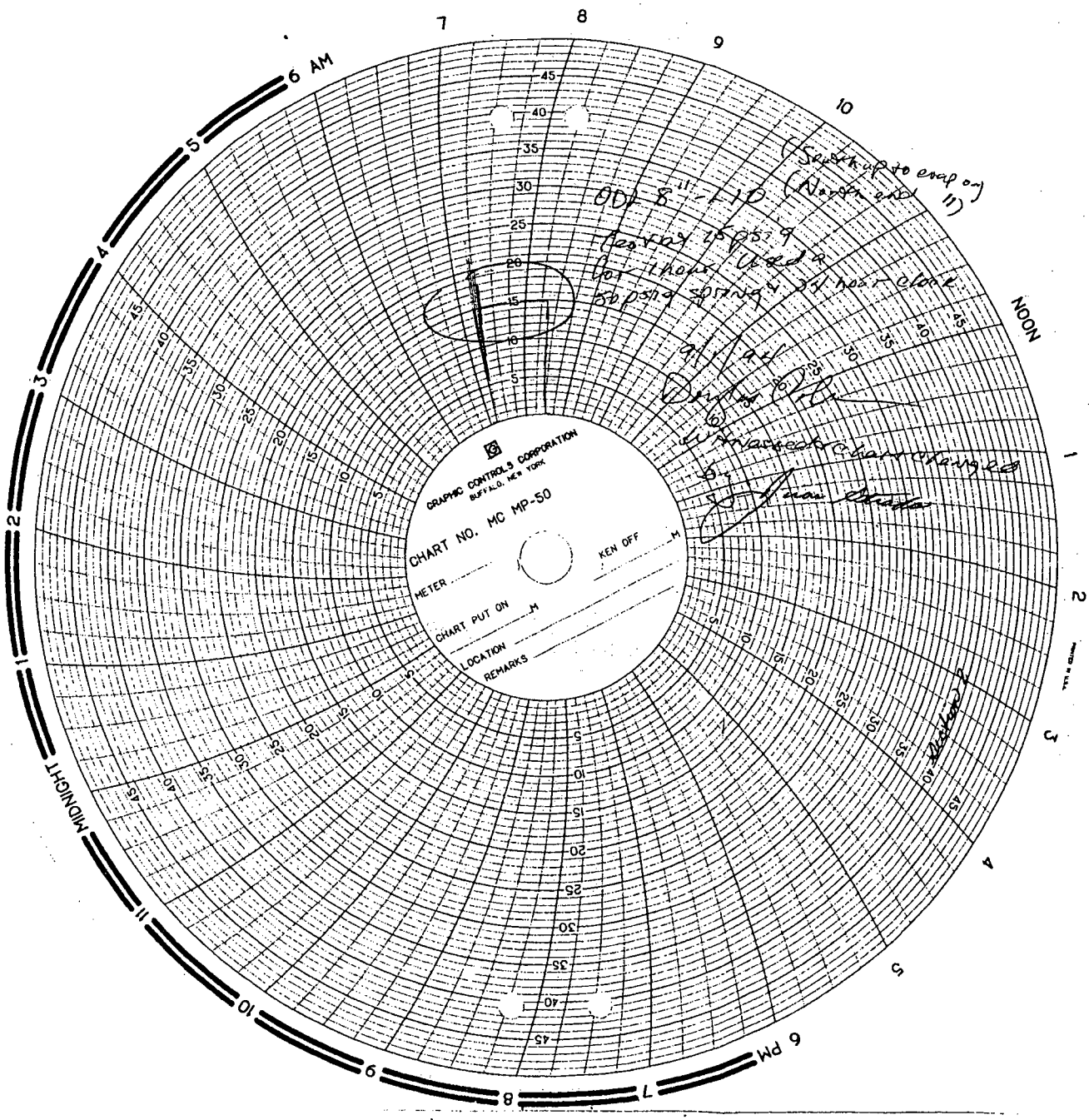


SECTION 3.7 1994 TEST (3 pages)

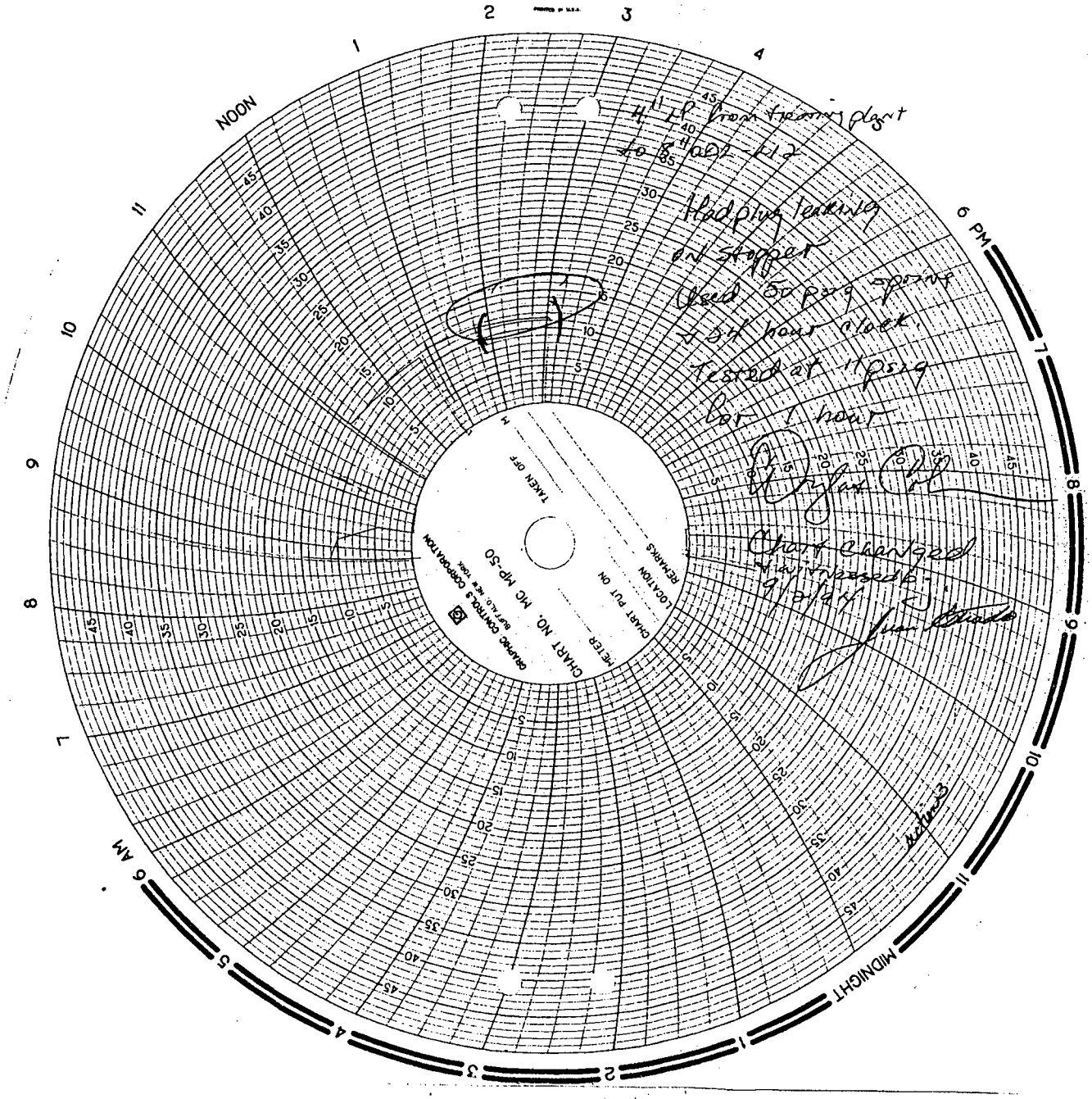
Findings:
1. No leaks were detected.

Actions:
1. This section was broken into three sections to facilitate the testing process.

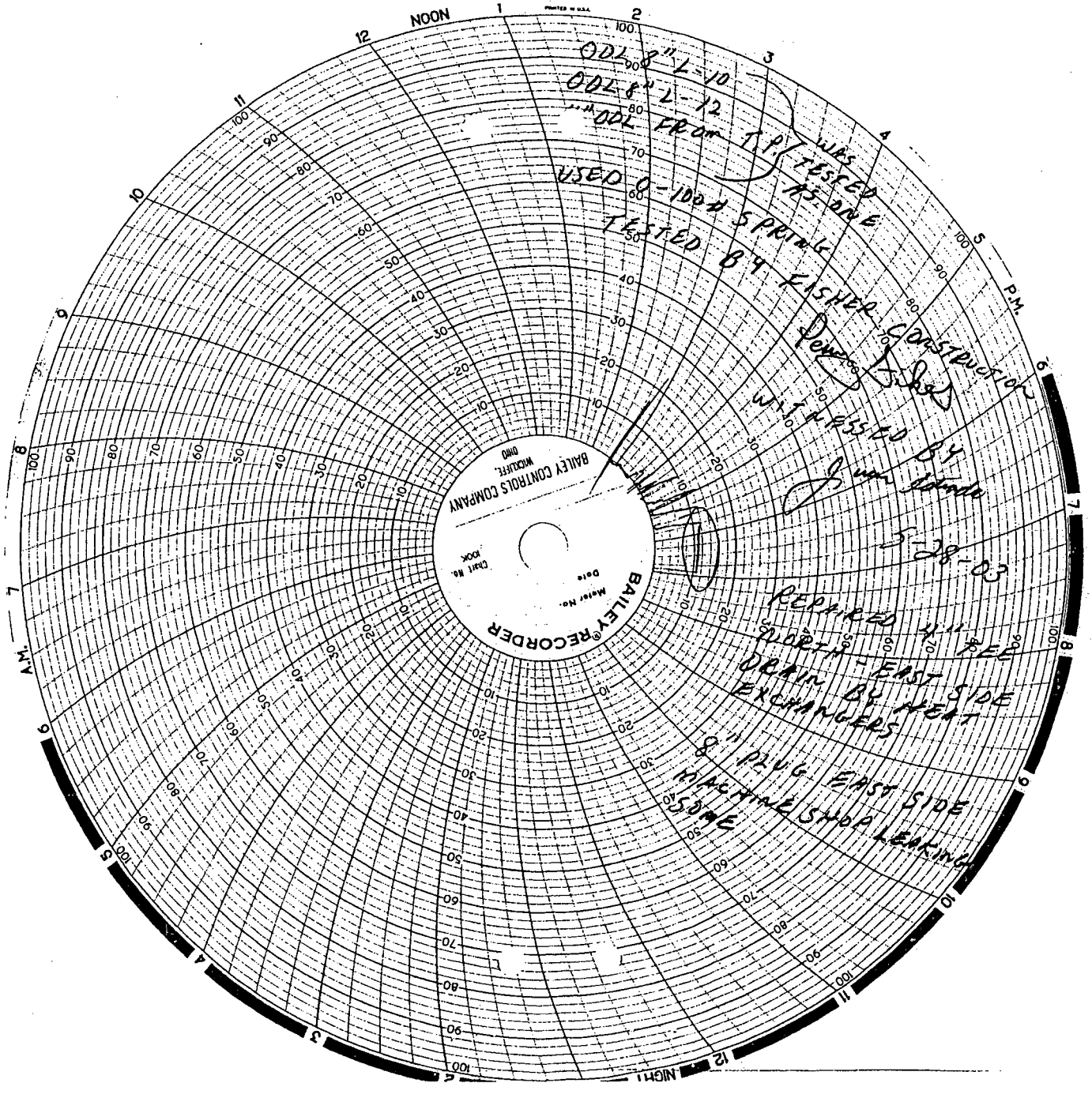
Hydrotest:
1. The hydrotests were completed on 8-21-94, 9-1 -94 and 9-2-94.



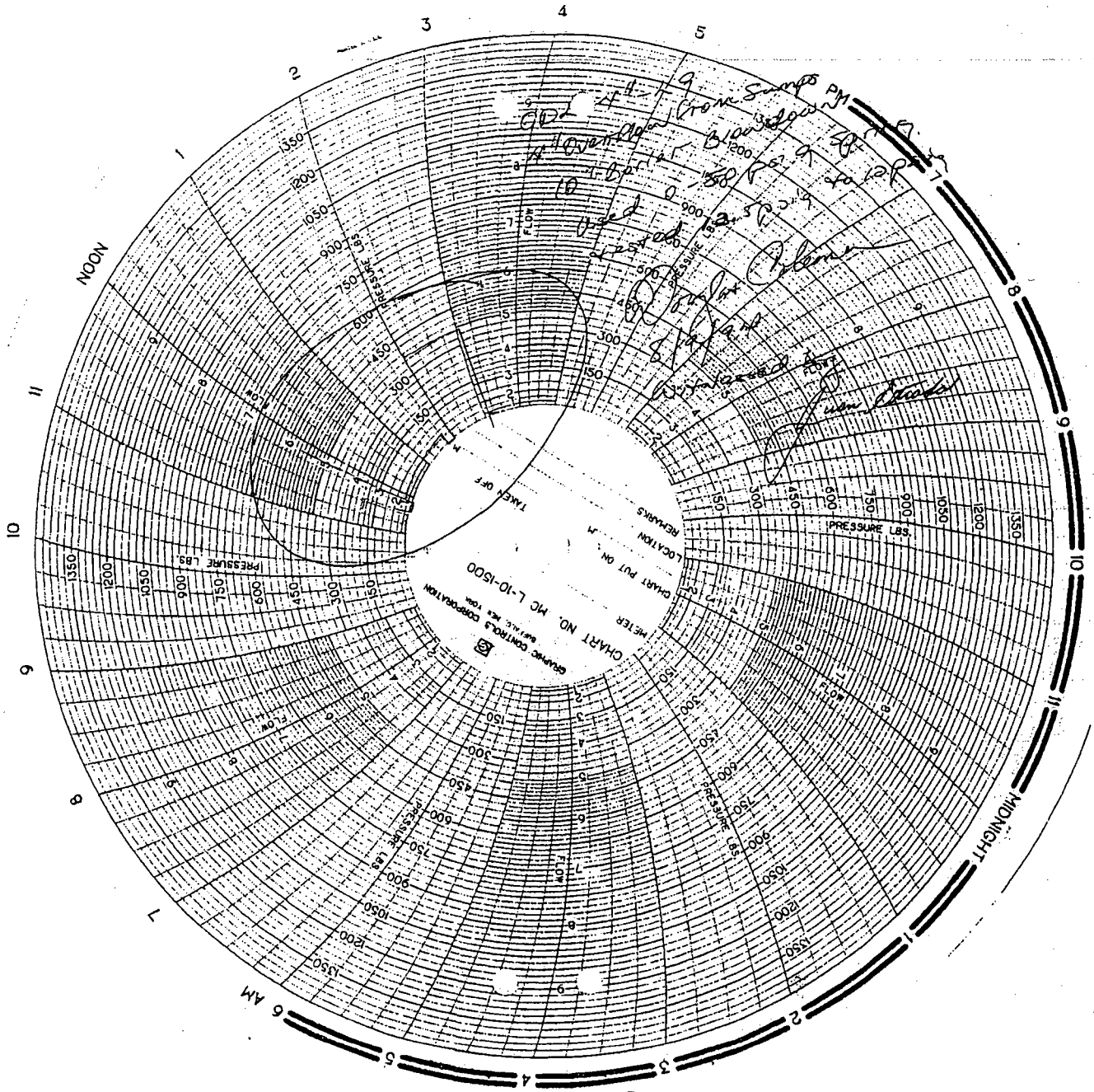
SECTION 3.7 1994 TEST (3 pages)



SECTION 3.7 1994 TEST (3 pages)



SECTION 3.7 2003 TEST



Findings:

1. No leaks were detected.

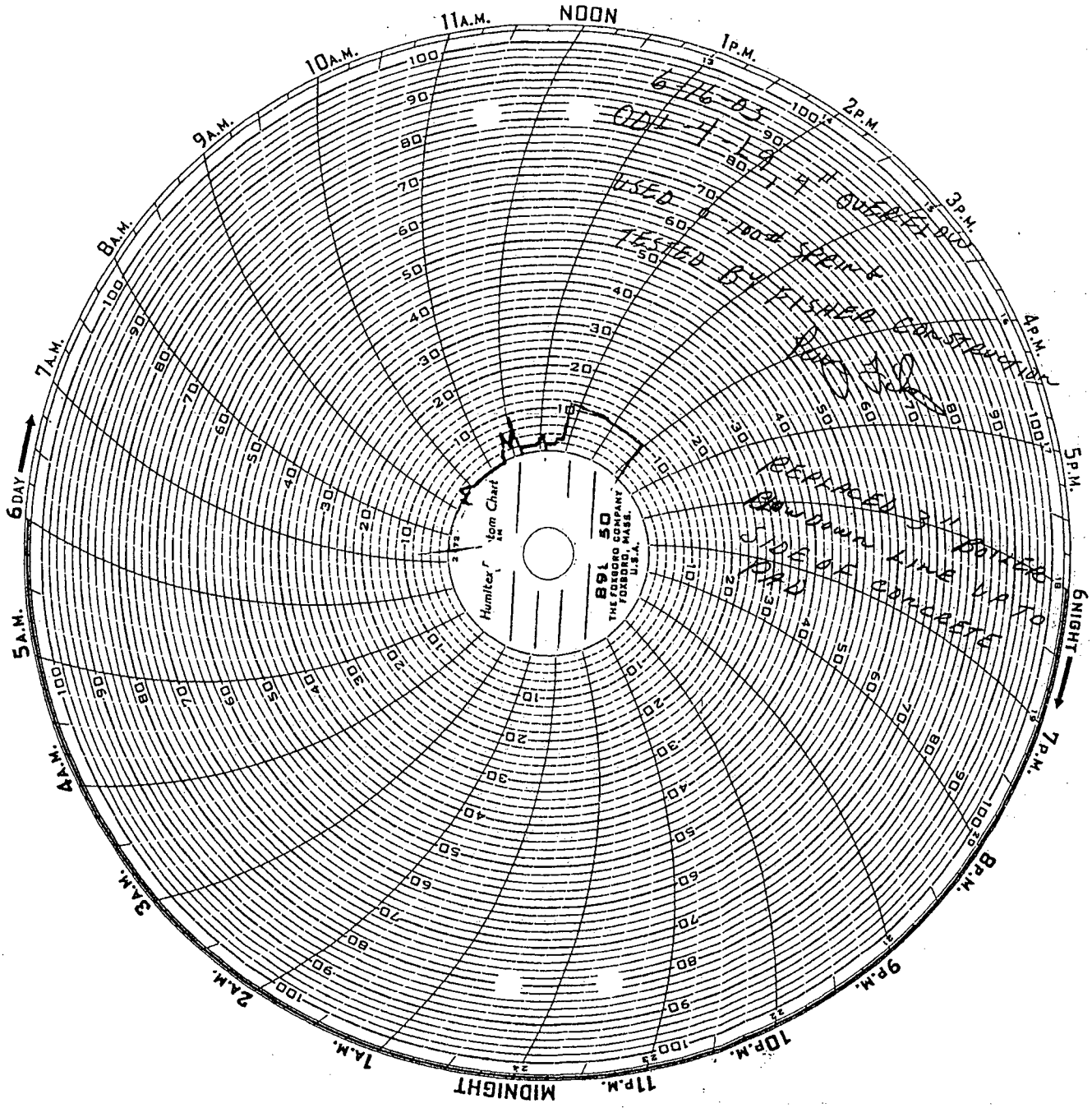
SECTION 3.8 1994 TEST

Actions:

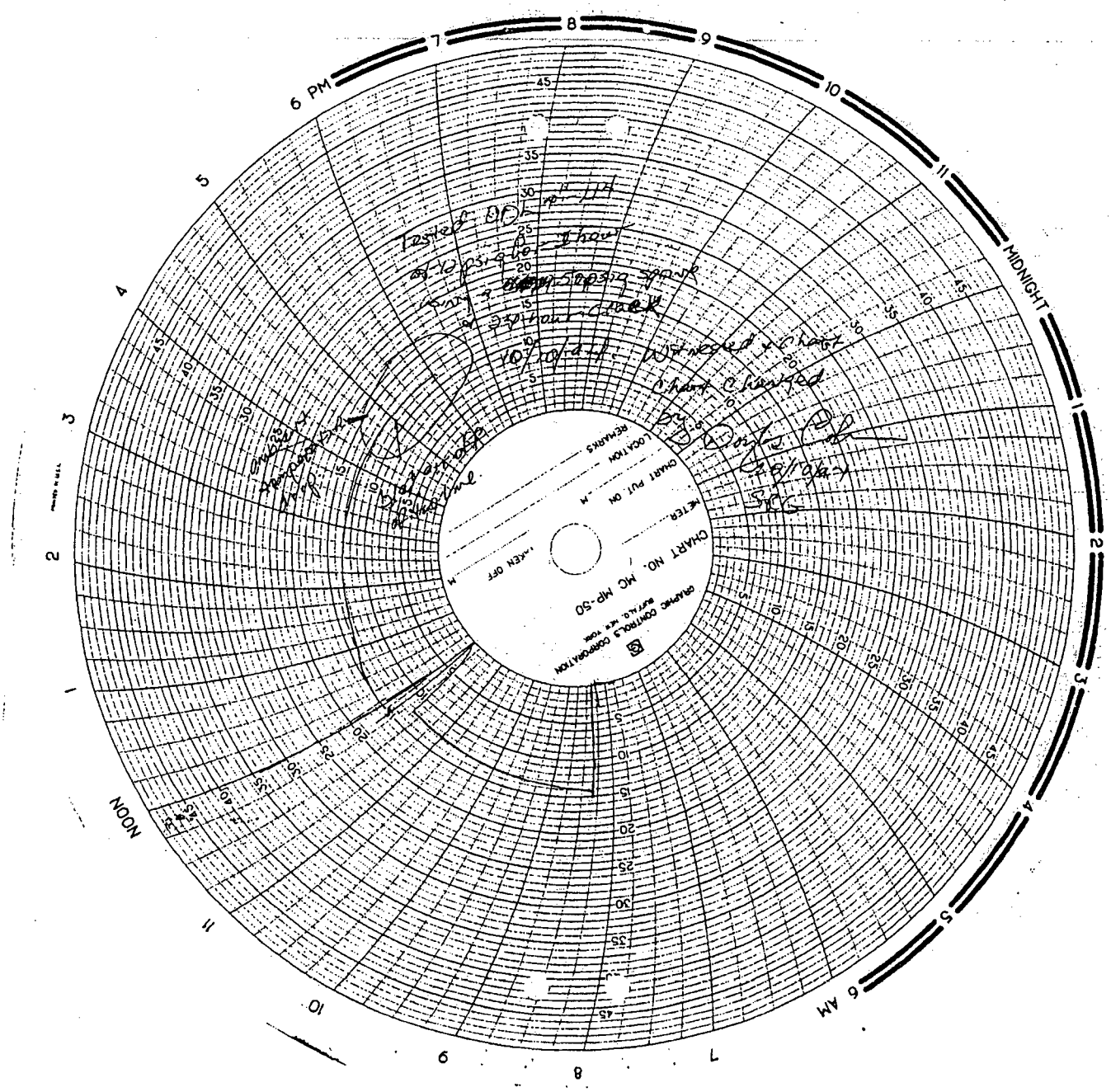
1. No actions were required.

Hydrotest:

The hydrotest was completed on 8-9-94.



SECTION 3.8 2003 TEST



SECTION 3.9 1994 TEST (3 pages)

Findings:

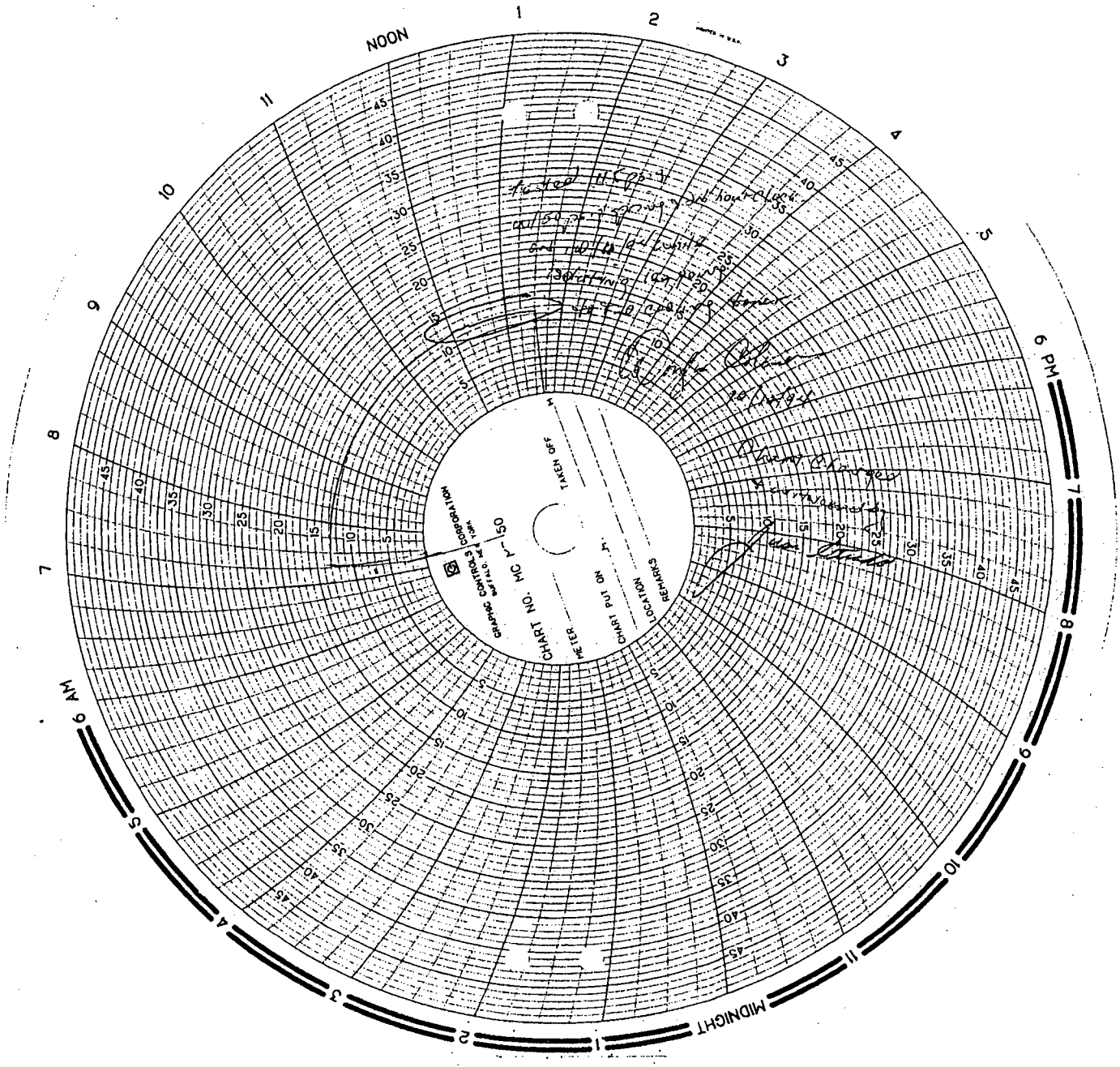
1. No leaks were detected.

Actions:

1. No actions were required.

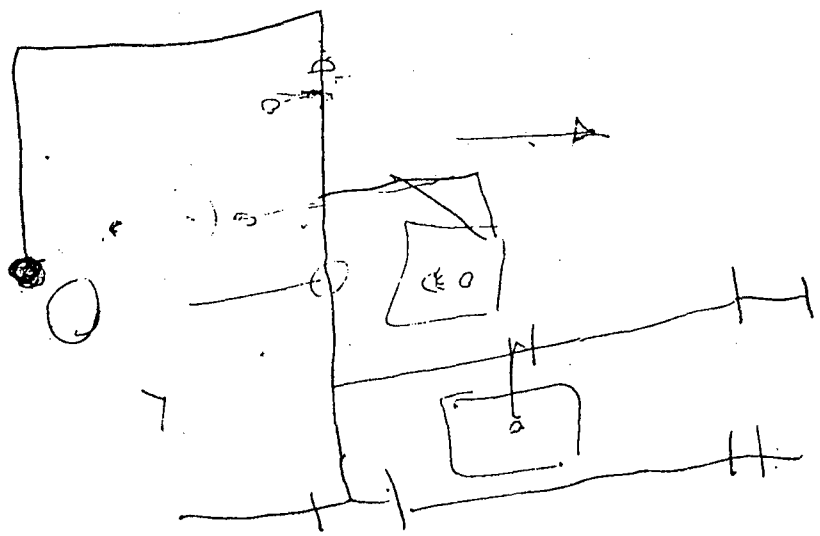
Hydrotest:

The hydrotest was completed on 10-10-94 and 10-12-94.

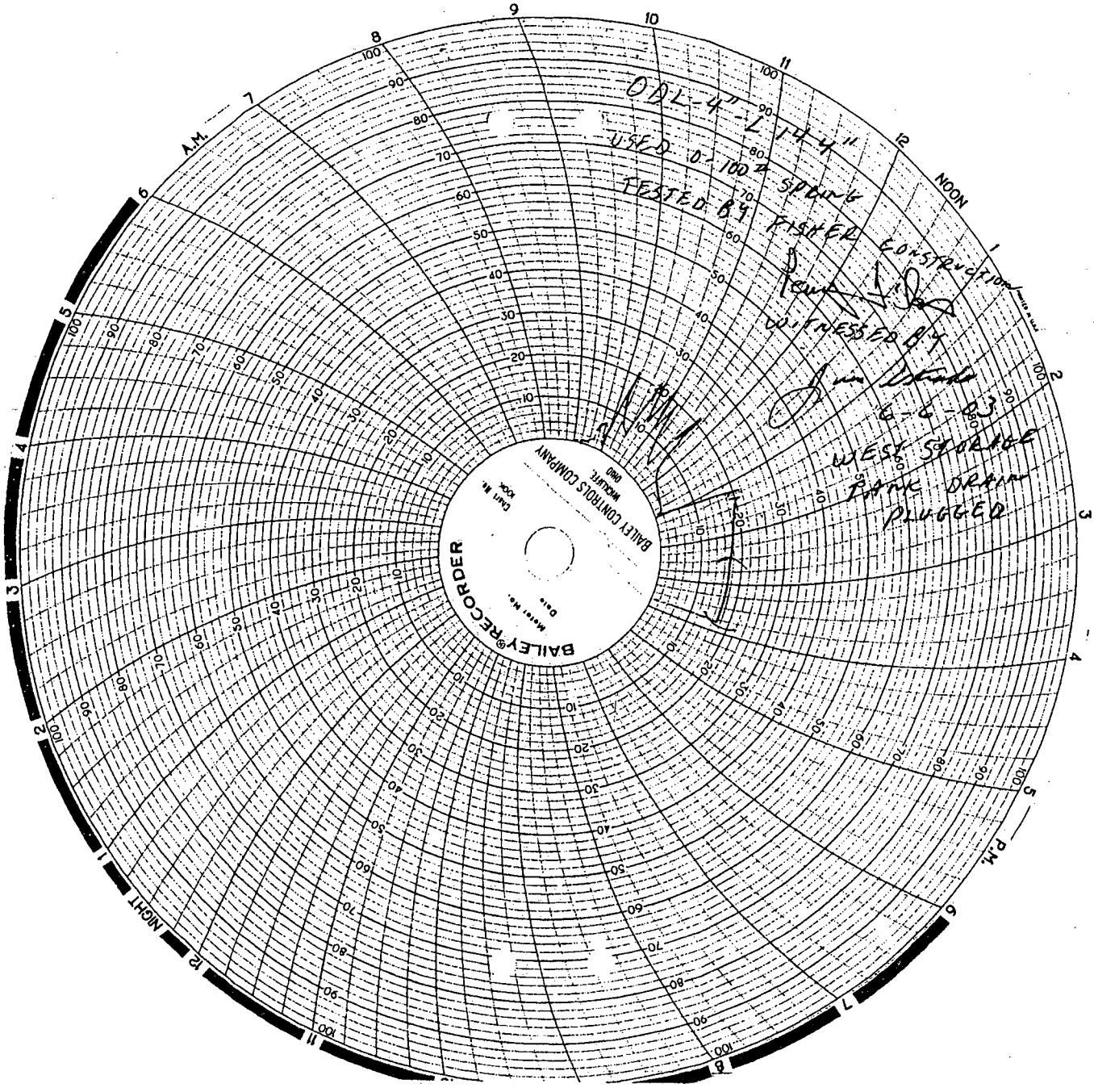


SECTION 3.9 1994 TEST (3 pages)

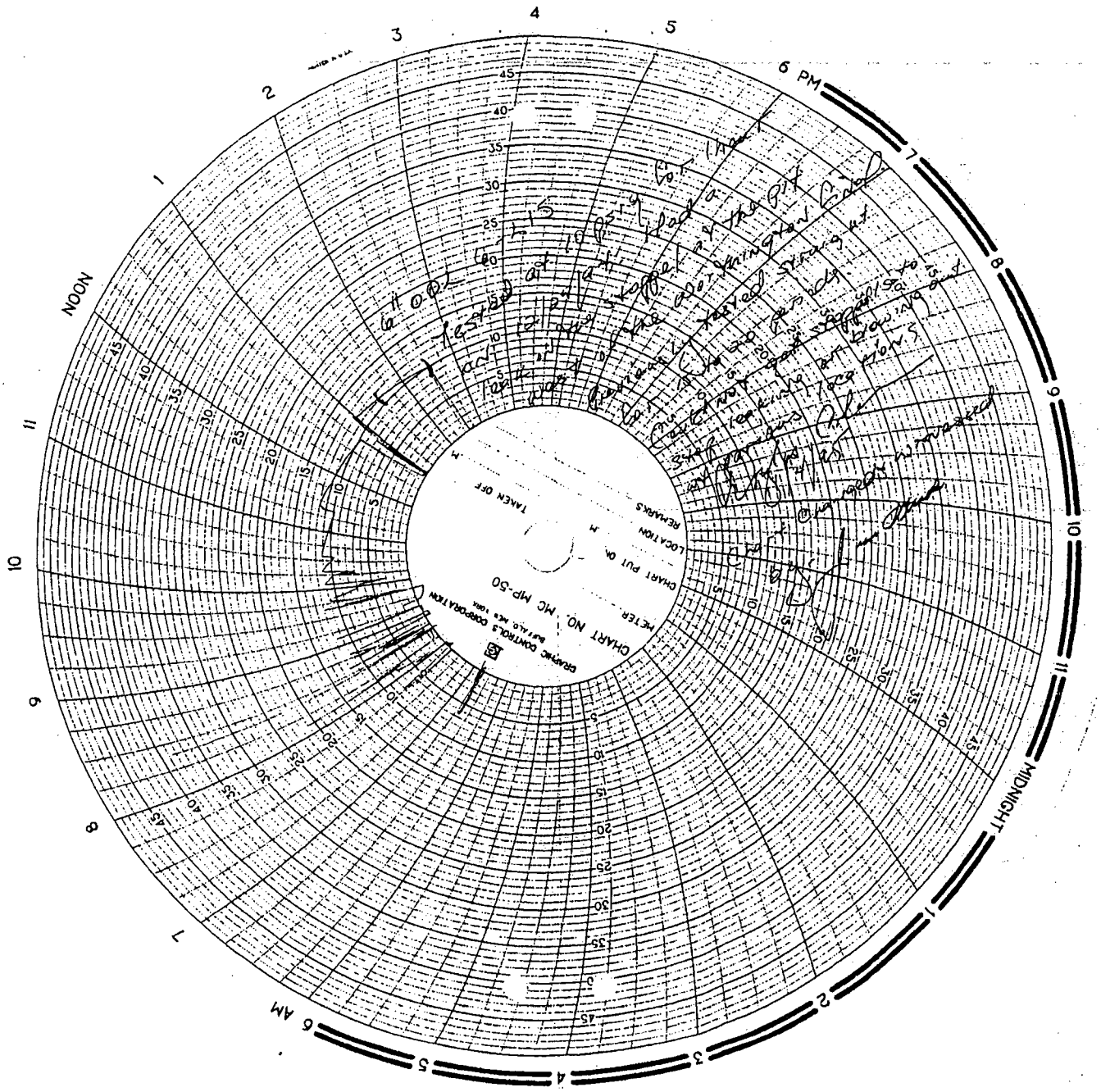
4 (ON BACK OF 10/12/94 TEST)



SECTION 3.9 1994 TEST (3 pages)



SECTION 3.9 2003 TEST



Findings:

1. No leaks were detected.

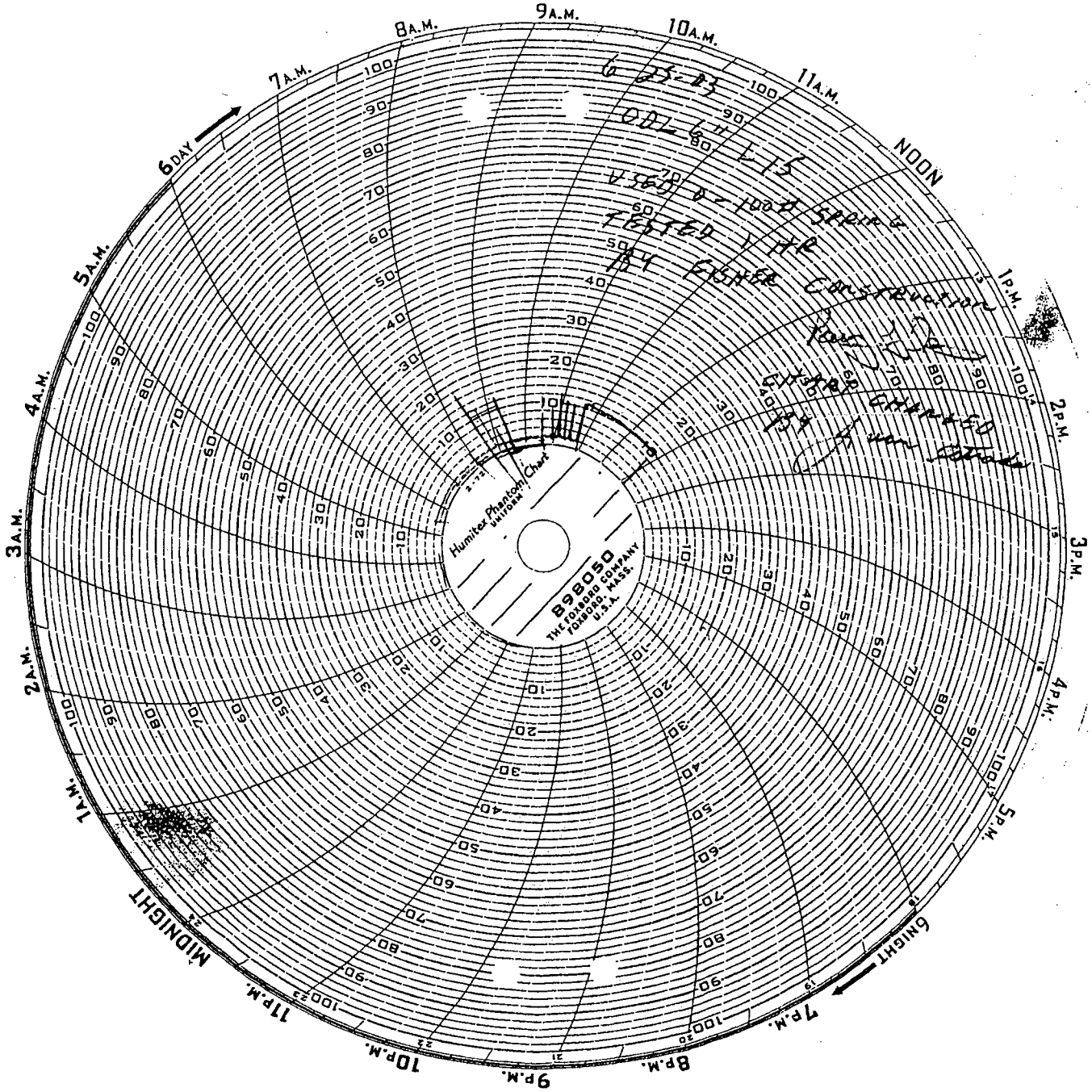
Actions:

1. No actions were required.

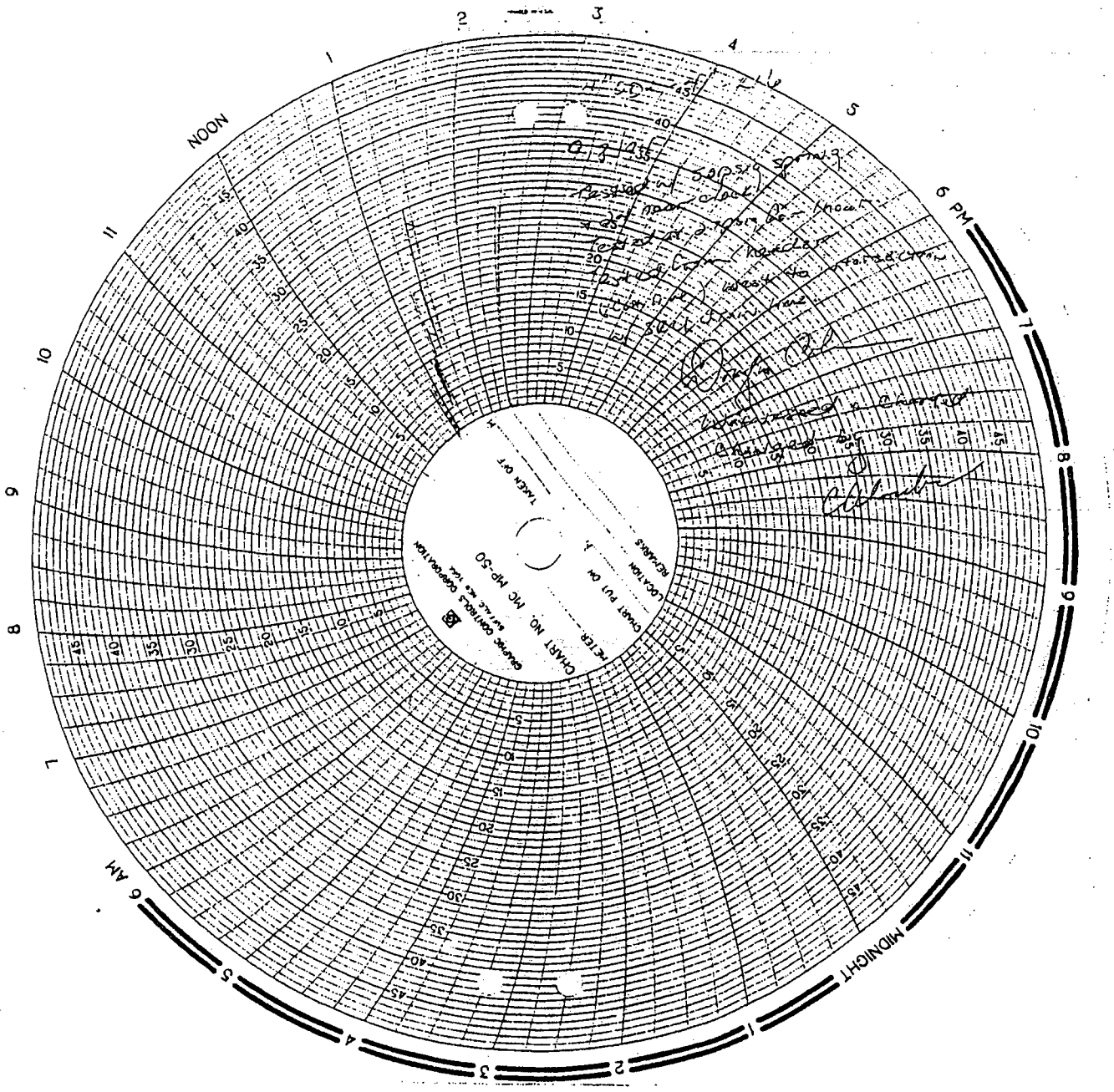
SECTION 3.10 1994 TEST

Hydrotest:

The hydrotest was completed on 1 -4-95.



SECTION 3.10 2003 TEST

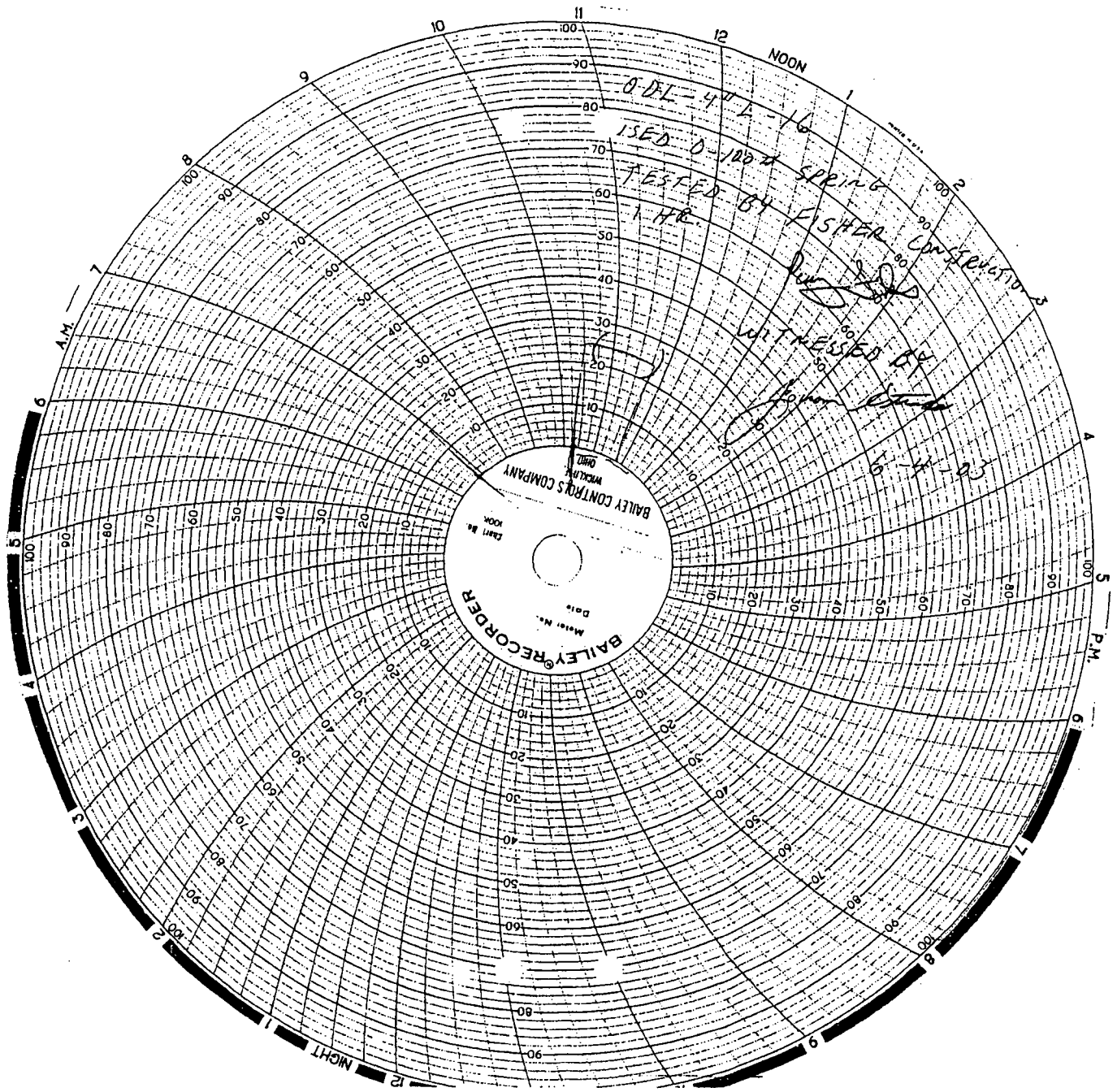


Findings:
1. No leaks were detected.

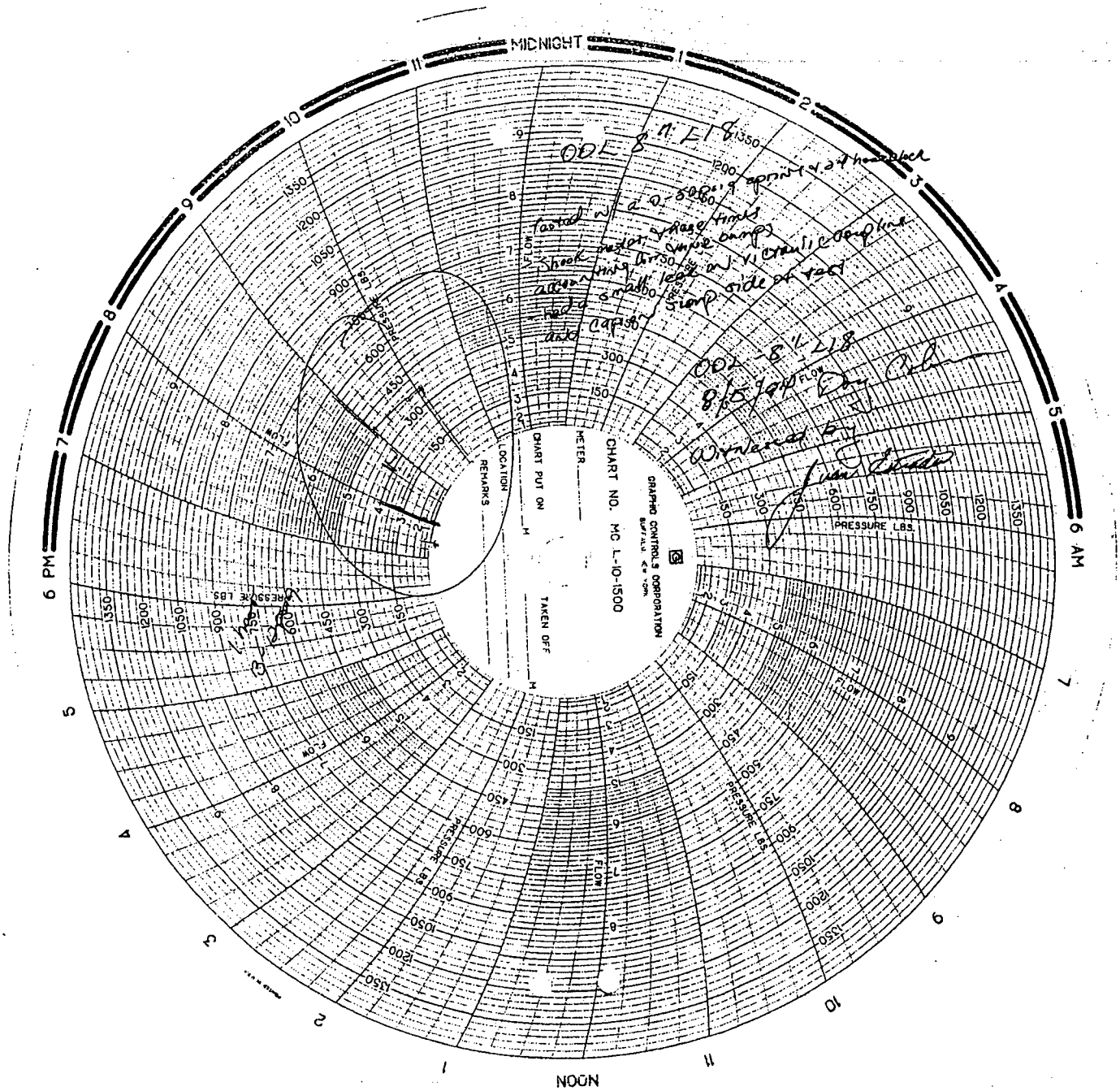
Actions:
1. No actions were required.

Hydrotest:
The hydrotest was completed on 9-8-94.

SECTION 3.11 1994 TEST



SECTION 3.11 2003 TEST

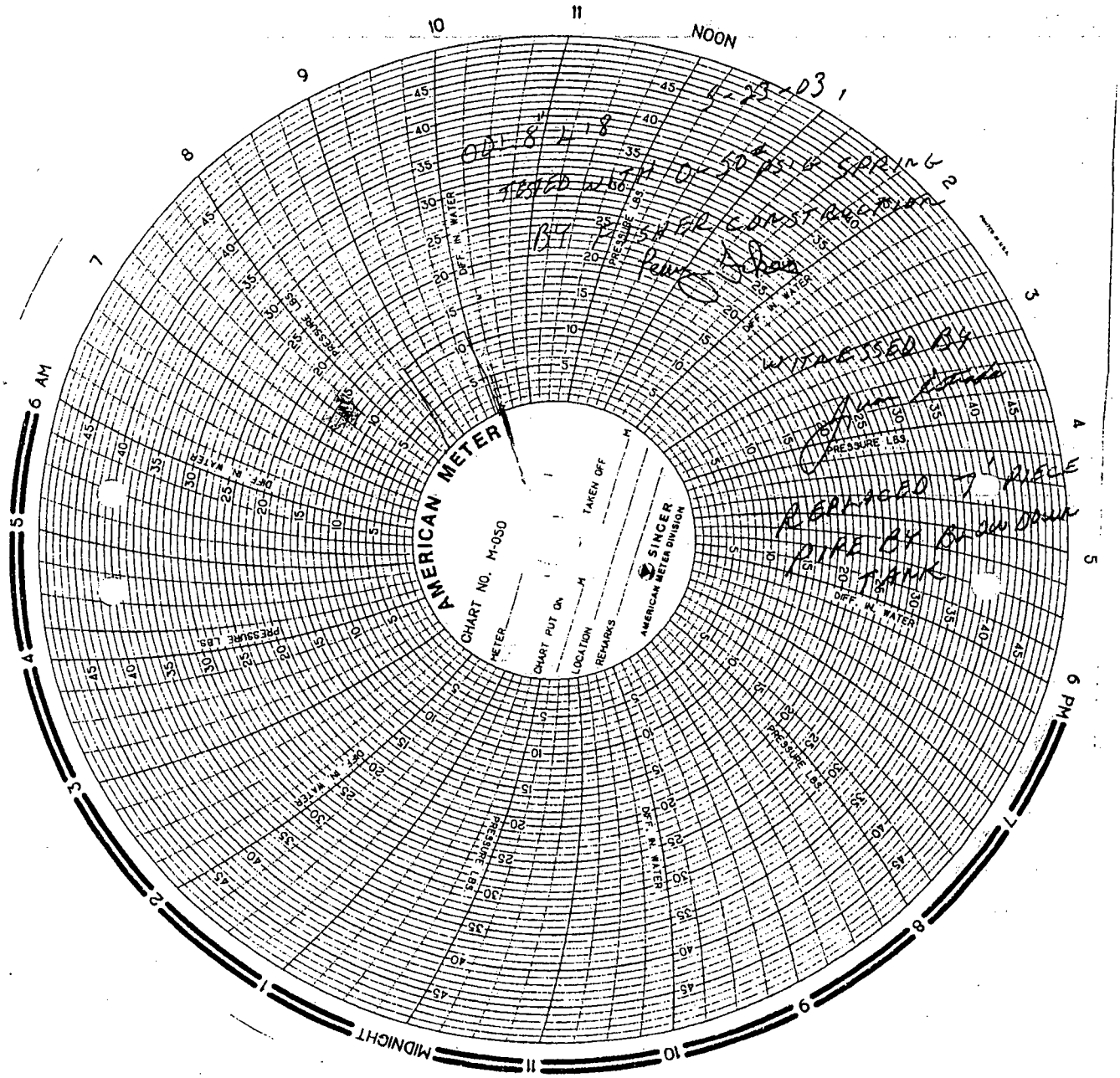


Findings:
1. One leak was detected near the blow down tank.

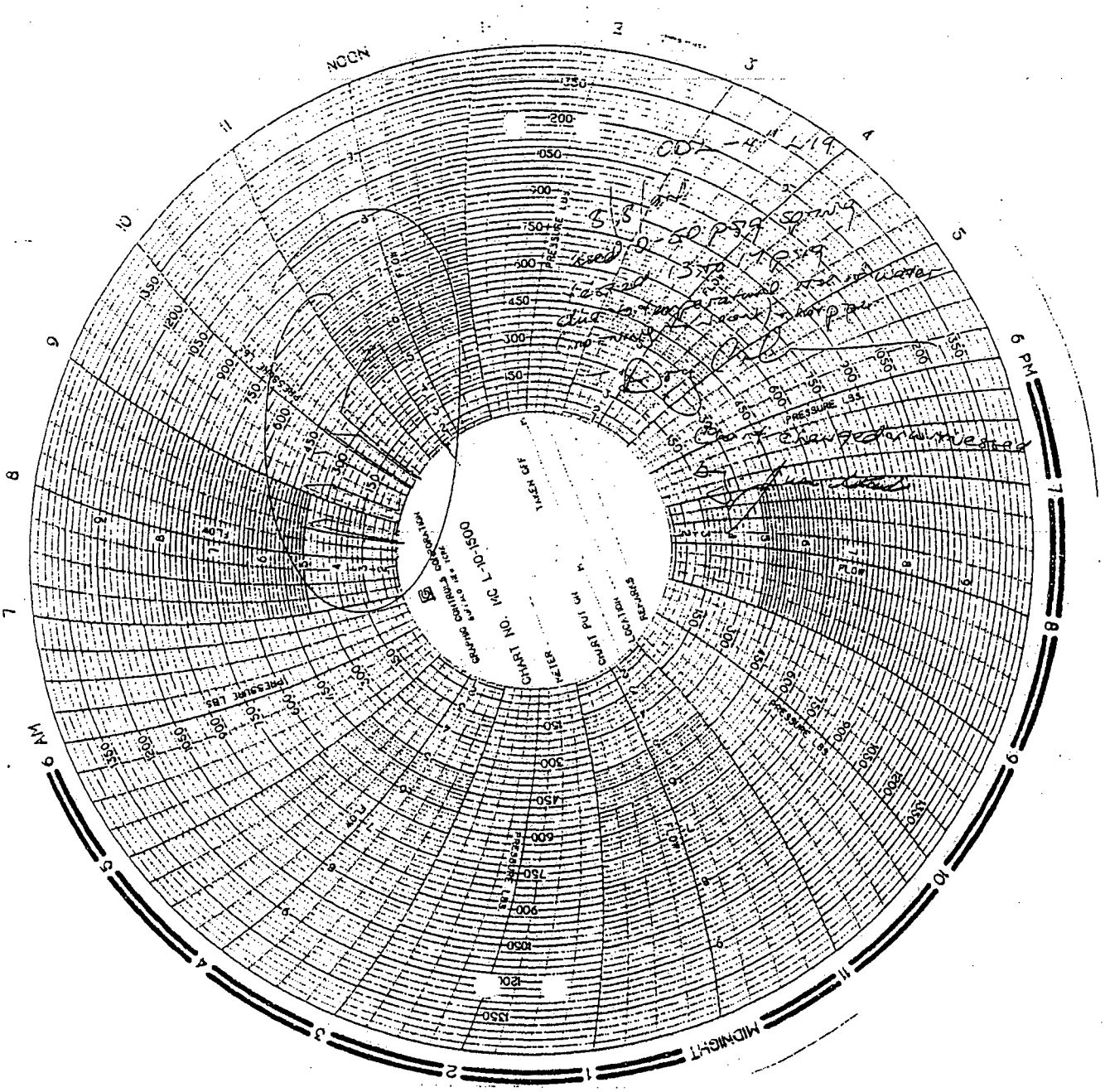
SECTION 3.12 1994 TEST

Actions:
1. A 6' section of pipe was replaced at the blow down tank.

Hydrotest:
The hydrotest was completed on 8-5-94.



SECTION 3.12 2003 TEST



Findings:
1. No leaks were detected.

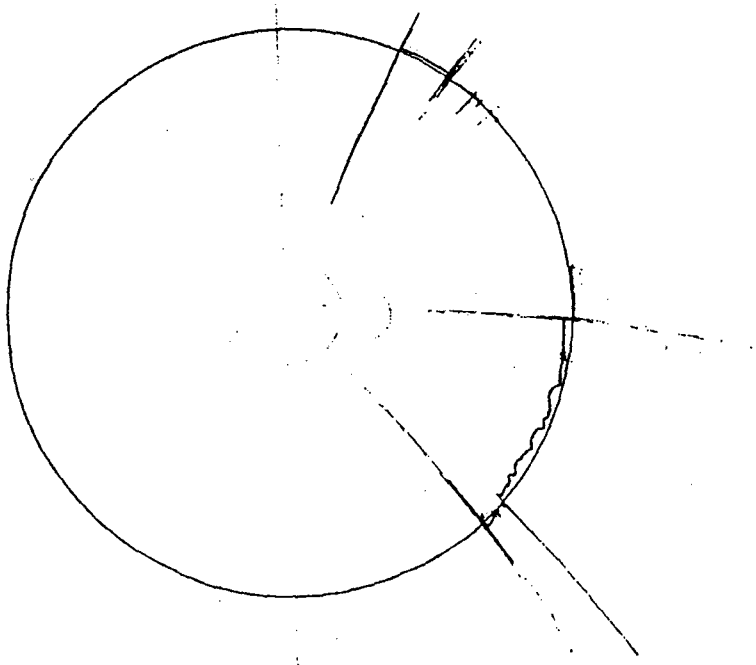
Actions:
1. No actions were required.

Hydrotest:
The hydrotest was completed on 8-8-94.

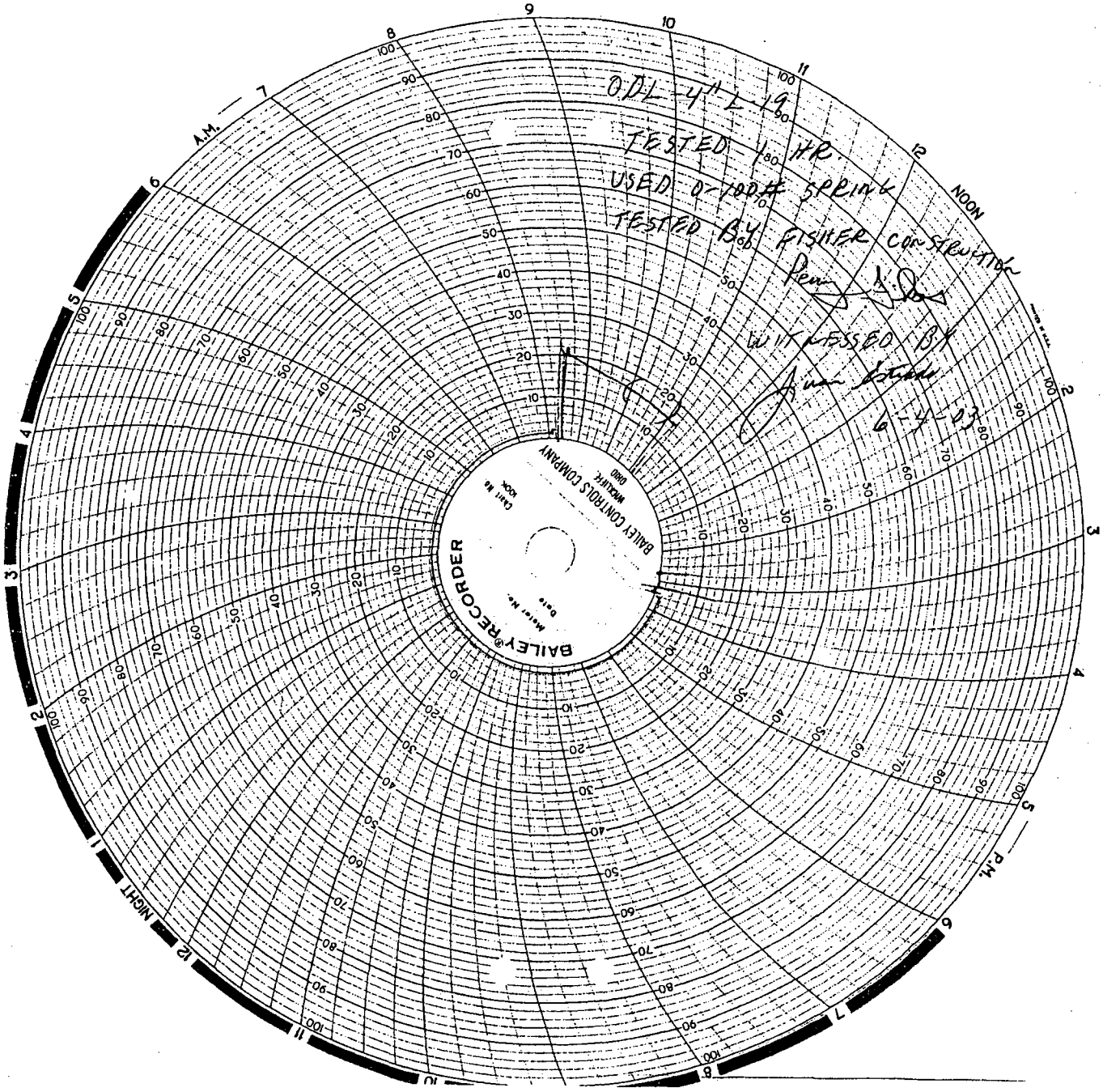
SECTION 3.13 1994 TEST (2 pages)

DOC-9"-619

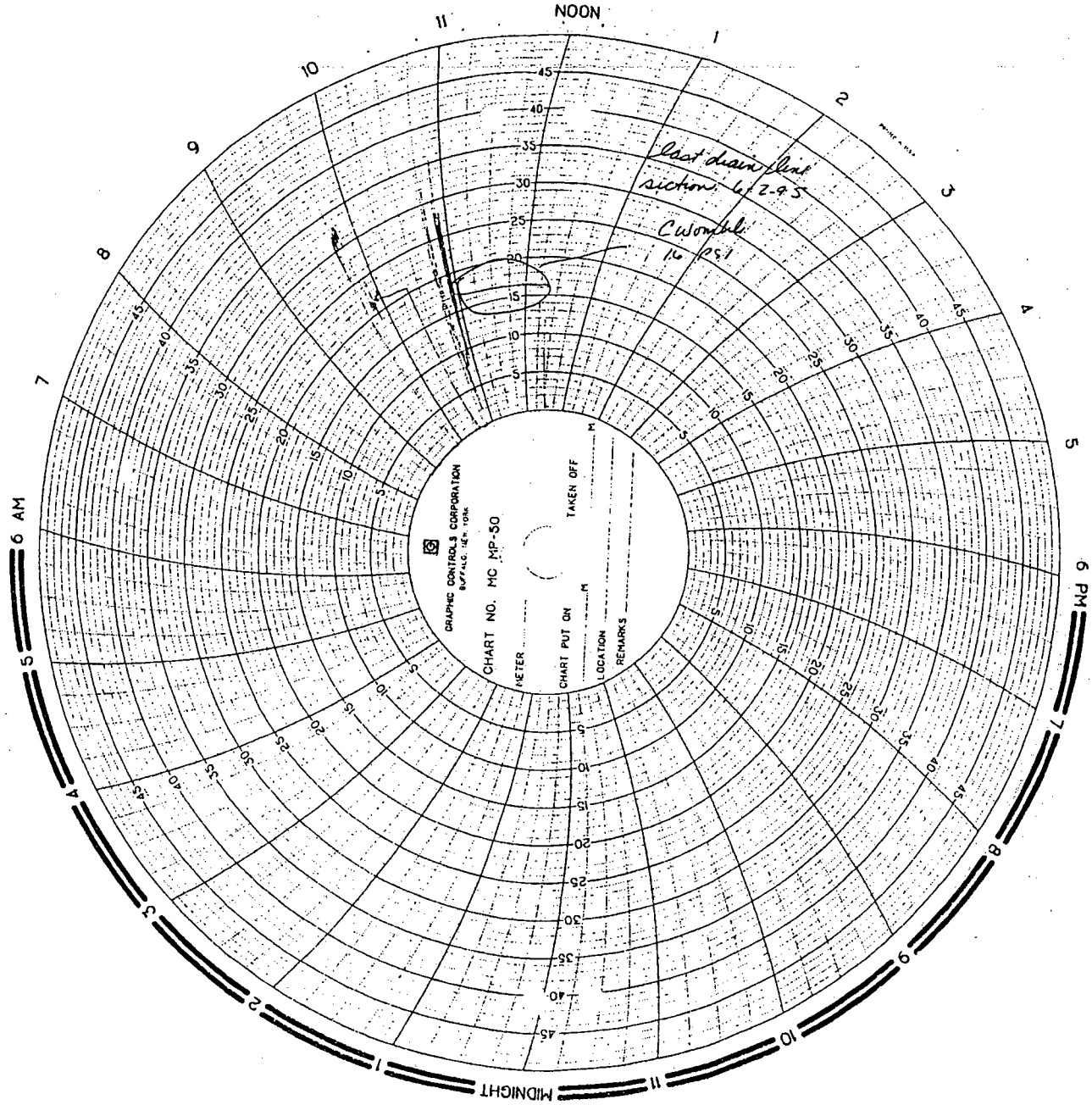
DIAGRAM ON BACK OF 8/8/94 TEST



SECTION 3.13 1994 TEST (2 pages)



SECTION 3.13 2003 TEST

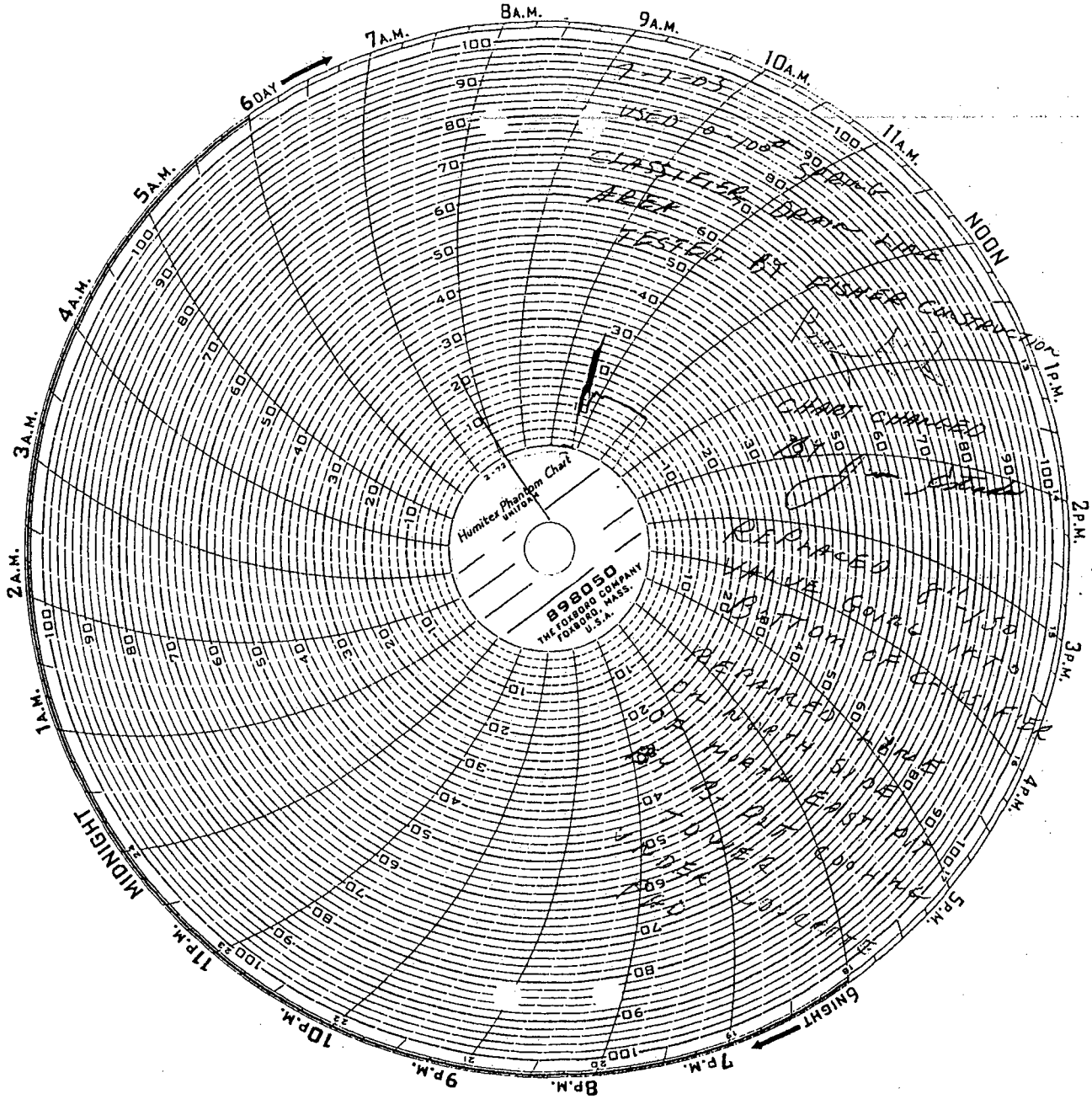


Findings:
1. Three (3) leaks were detected.

Actions:
1. Two dresser sleeves were replaced.
2. The classifier connection leak was repaired.

Hydrotest:
The hydrotest was completed on 6-2-95.

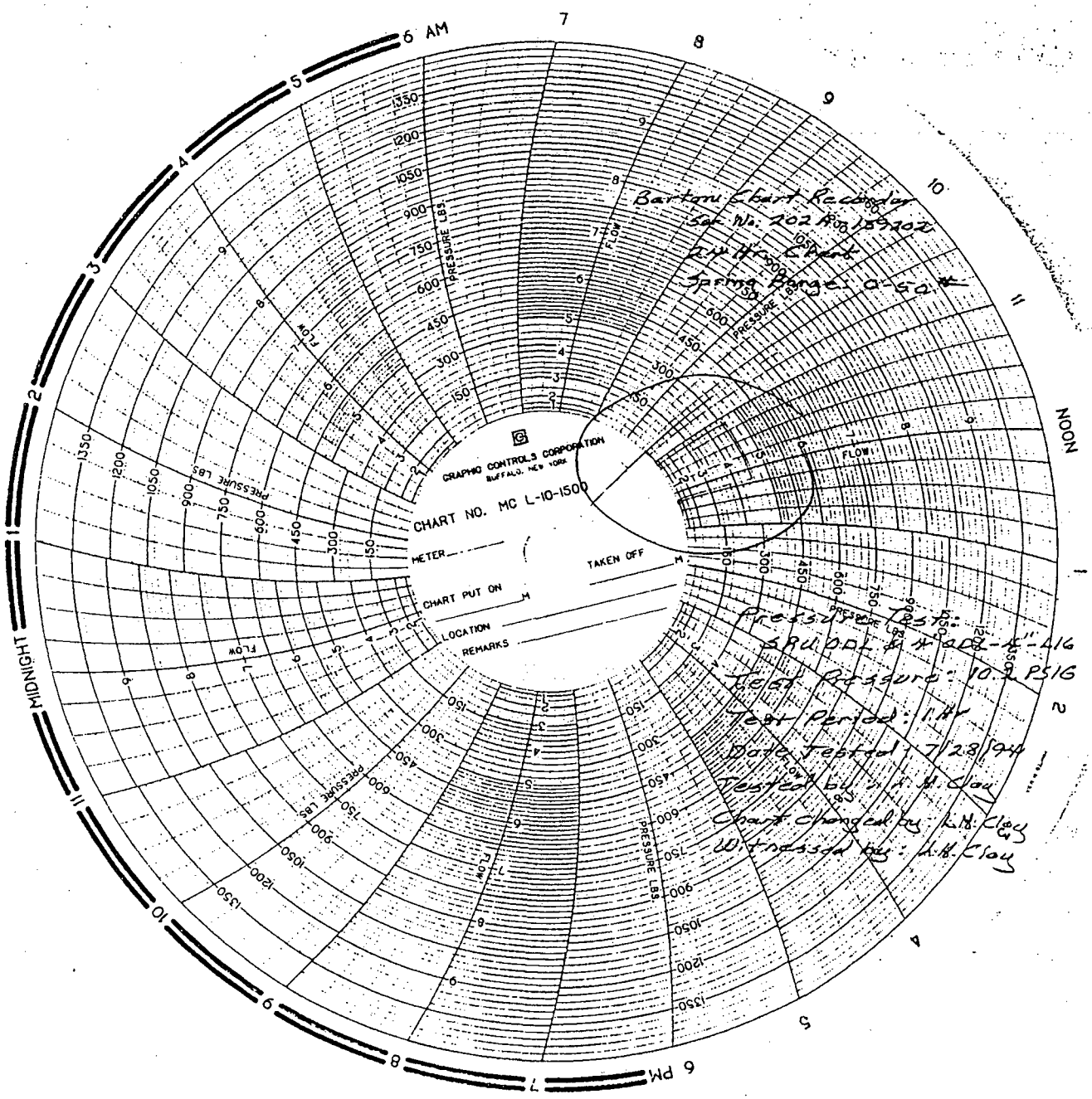
SECTION 3.14 1994 TEST



SECTION 3.14 2003 TEST

4.0 SULFUR REDUCTION UNIT (SRU) OPEN DRAIN SYSTEM TESTING RESULTS

This section contains the results of testing segments of the open drain lines (OPD) which are part of the SRU. Each section contains the results of the testing of each line segment pursuant to the detailed procedures included in Part I Section 4.1 of this document.

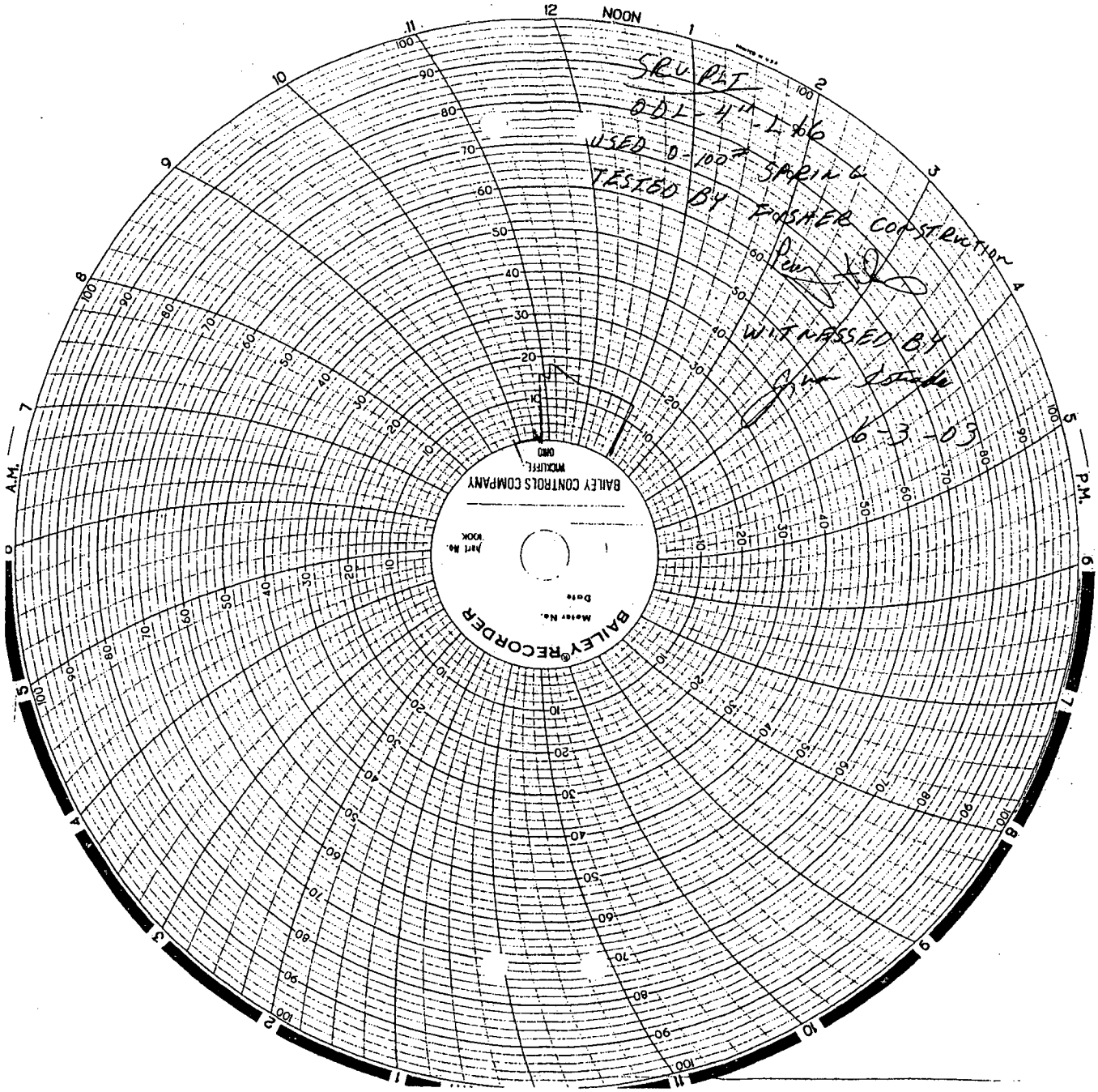


Test Procedure:

1. Plugged 4" inlet to 10' o.d. open top tank.
2. Plugged 19 inlet points w/2" pipe plugs.
3. Filled system with water and purged air out of all risers.
4. Pressure tested (Hydro) at 10.2 PSIG for 1 Hr. as shown on above chart.

Findings:
1. No leaks were detected.
Actions:
1. No actions were required.
Hydrotest:
The hydrotest was completed on 7-28-94.

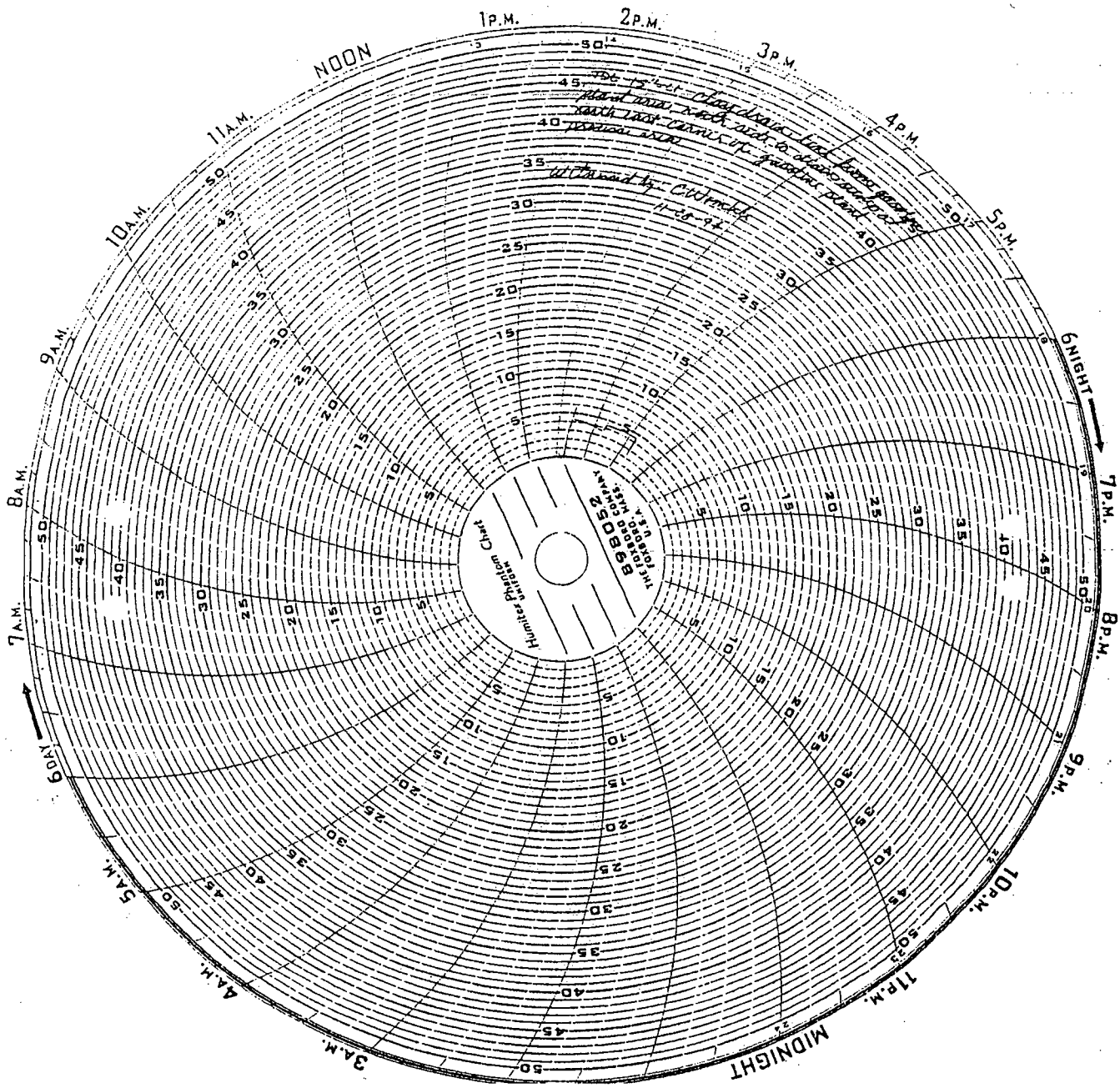
SECTION 4.1 1994 TEST



SECTION 4.1 2003 TEST

5.0 VITRIFIED CLAY OPEN-DRAIN LINES TESTING RESULTS

This section contains the results of testing segments of the vitrified clay (tile) open drain lines (OPD), before those lines were abandoned and replaced Each section contains the results of the testing of each line segment pursuant to the detailed procedures included in Part I Section 5.1 of this document. These results are provided for reference only as these lines have been removed from service. The abandoned tile drain lines are shown on Plate 1.



Findings:
1. No leaks were detected.

Actions:
1. No actions were required.

Hydrotest:
The hydrotest was completed on 11 -28-94.

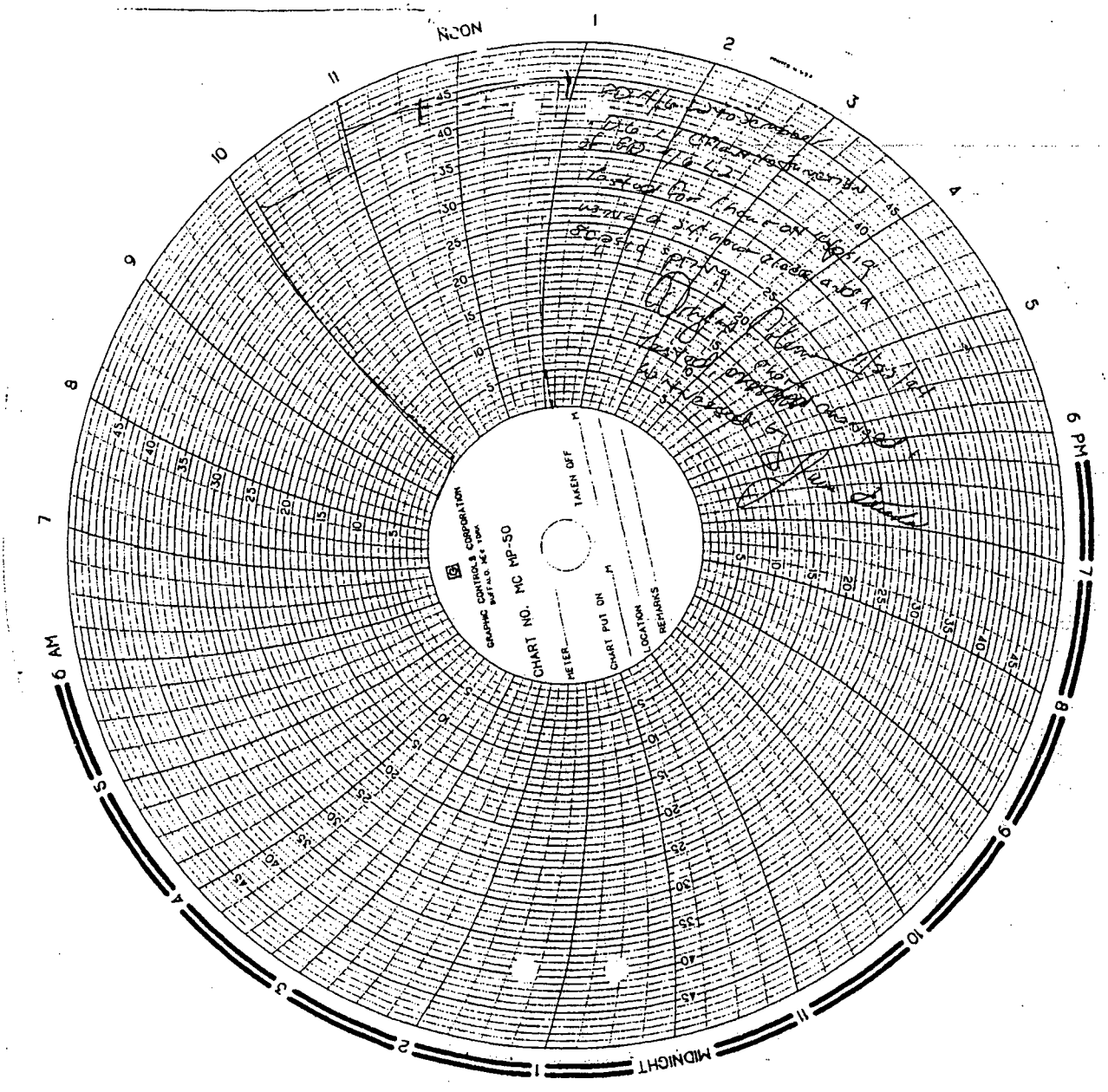
SECTION 5.1 1994 TEST

SECTION 5.1 2003 TEST NOTE:

Drains have been plugged off – this part of plant is not in service.

6.0 CLOSED (PRESSURE) DRAIN SYSTEM TESTING RESULTS

This section contains the results of testing segments of the closed (pressure) drain system, Each section contains the results of the testing of each line segment pursuant to the detailed procedures included in Part I Sections 6.1 through 6.4 of this document.

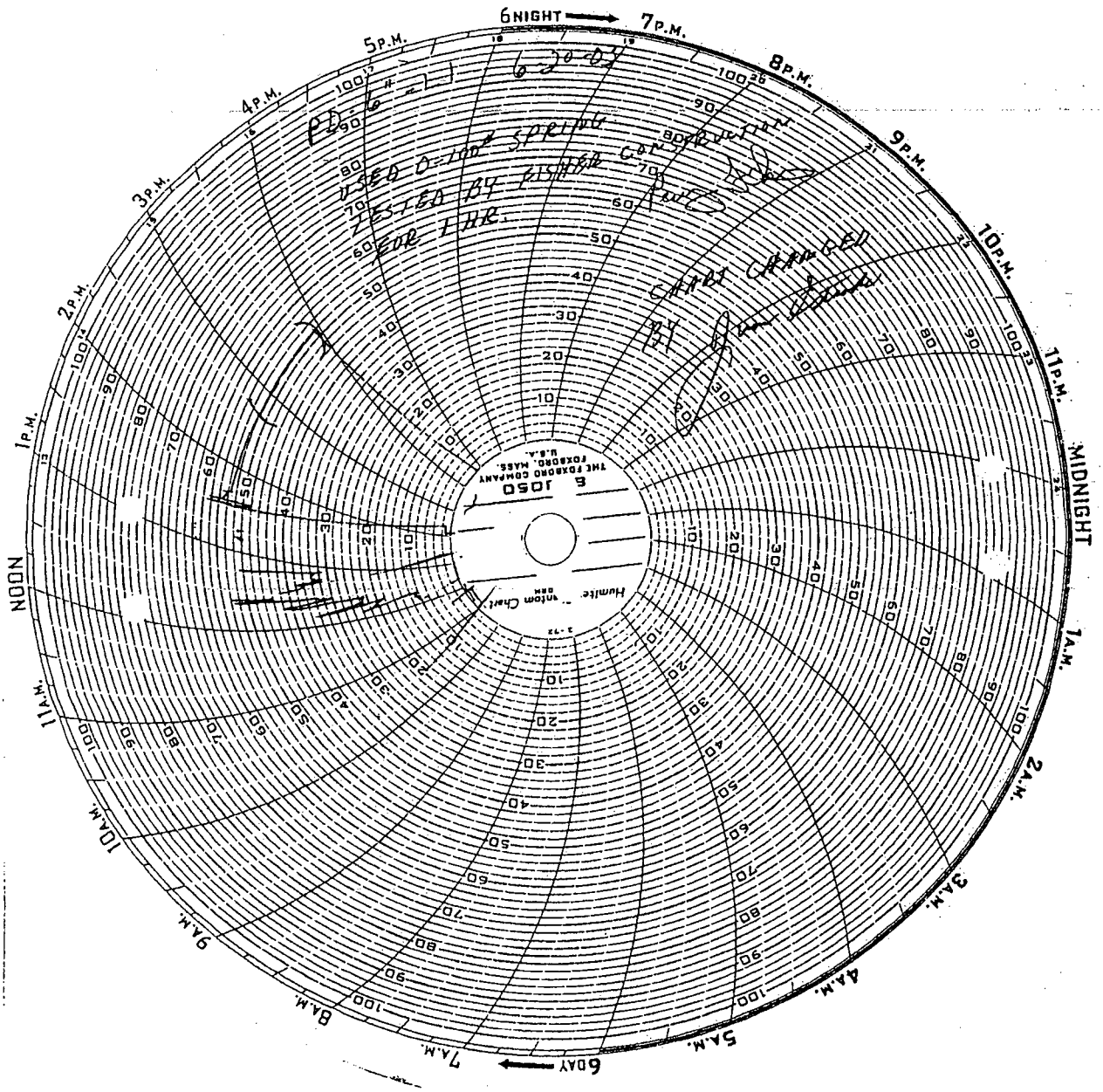


Findings:
1. No leaks were detected.

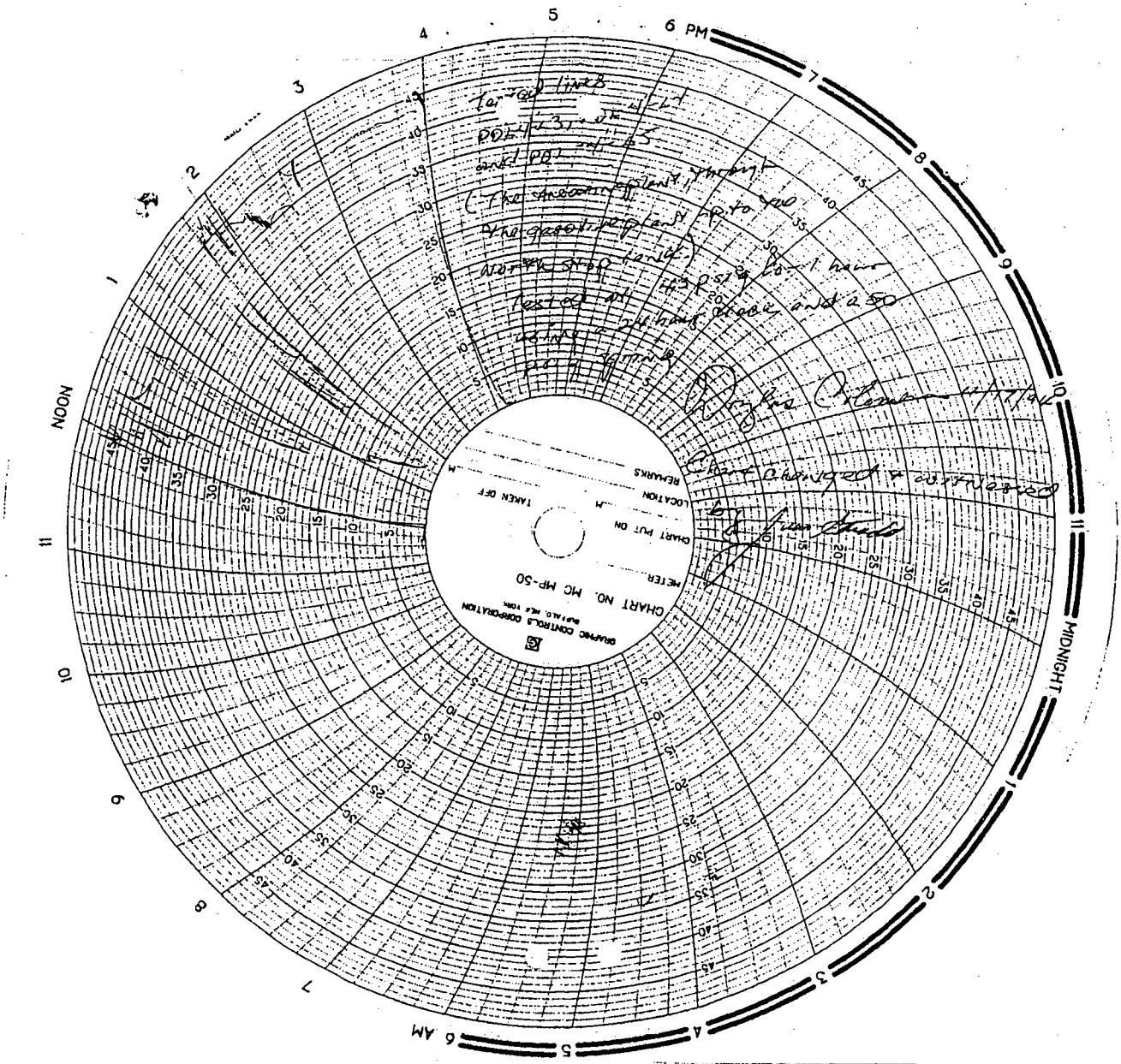
Actions:
1. No actions were required.

Hydrotest:
The hydrotest was completed on 11 -22-94.

SECTION 6.1 1994 TEST



SECTION 6.1 2003 TEST

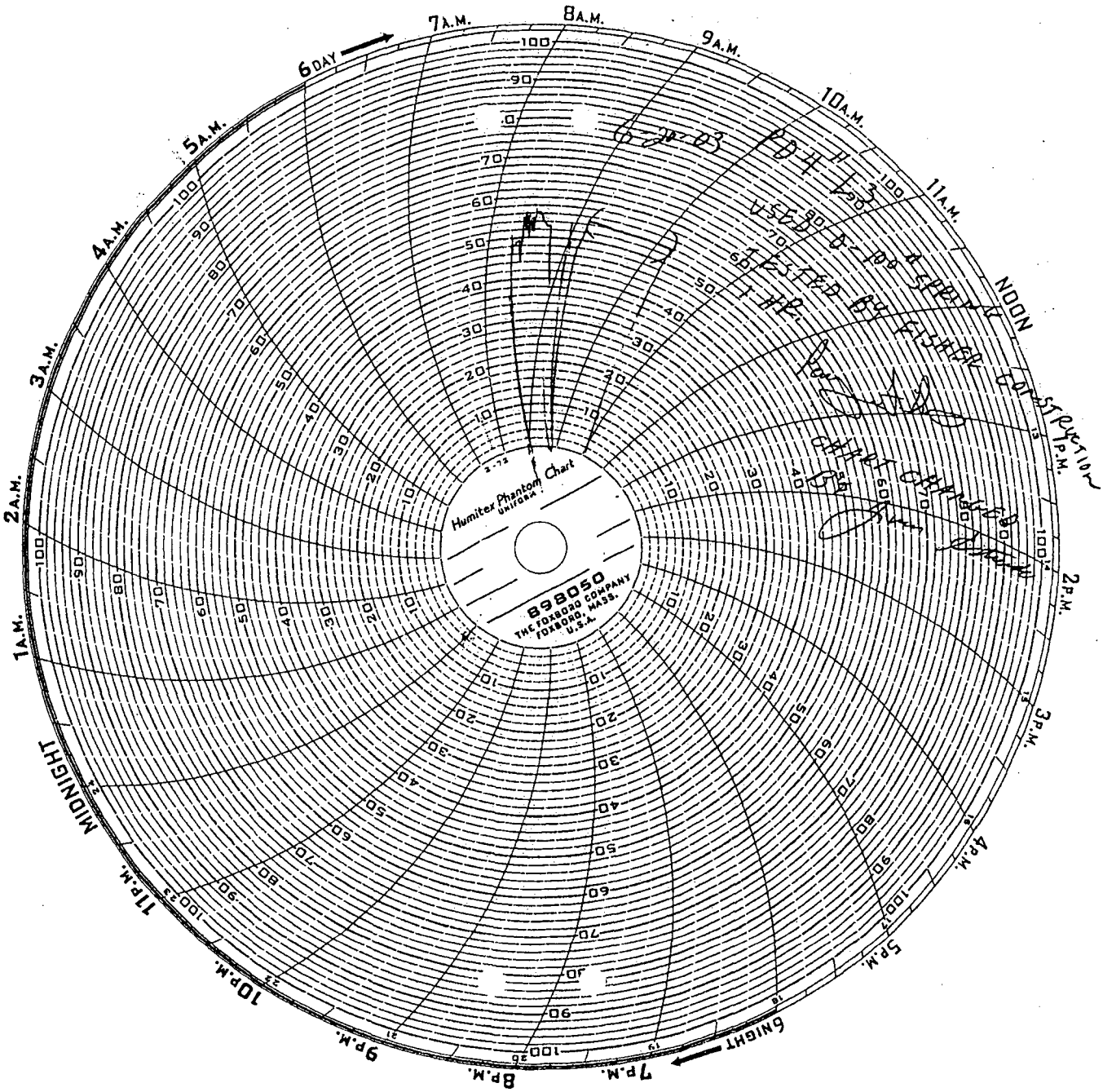


Findings:
1. No leaks were detected.

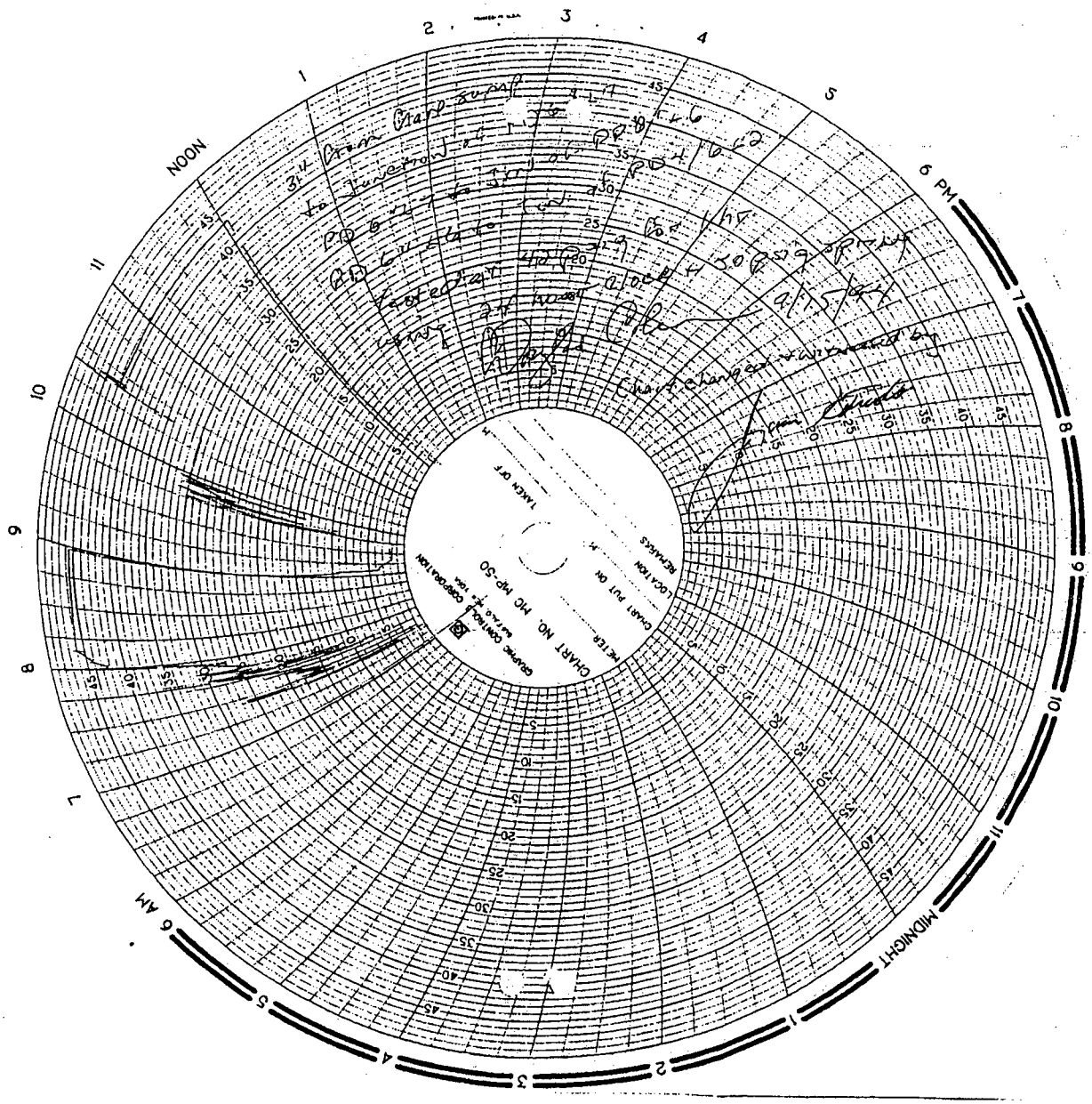
Actions:
1. No actions were required.

Hydrotest:
The hydrotest was completed on 11 -17-94.

SECTION 6.2 1994 TEST



SECTION 6.2 2003 TEST

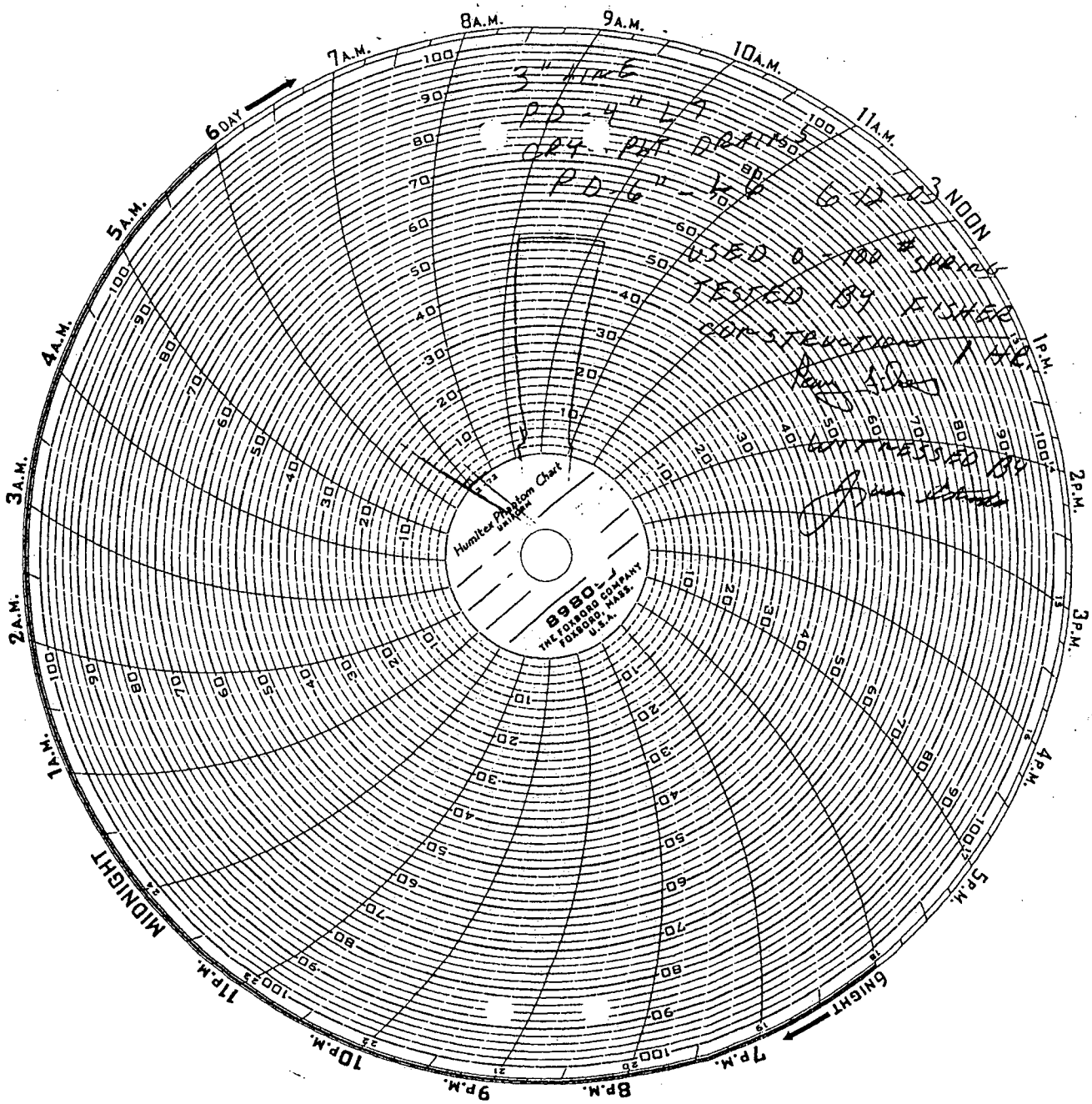


Findings:
1. No leaks were detected.

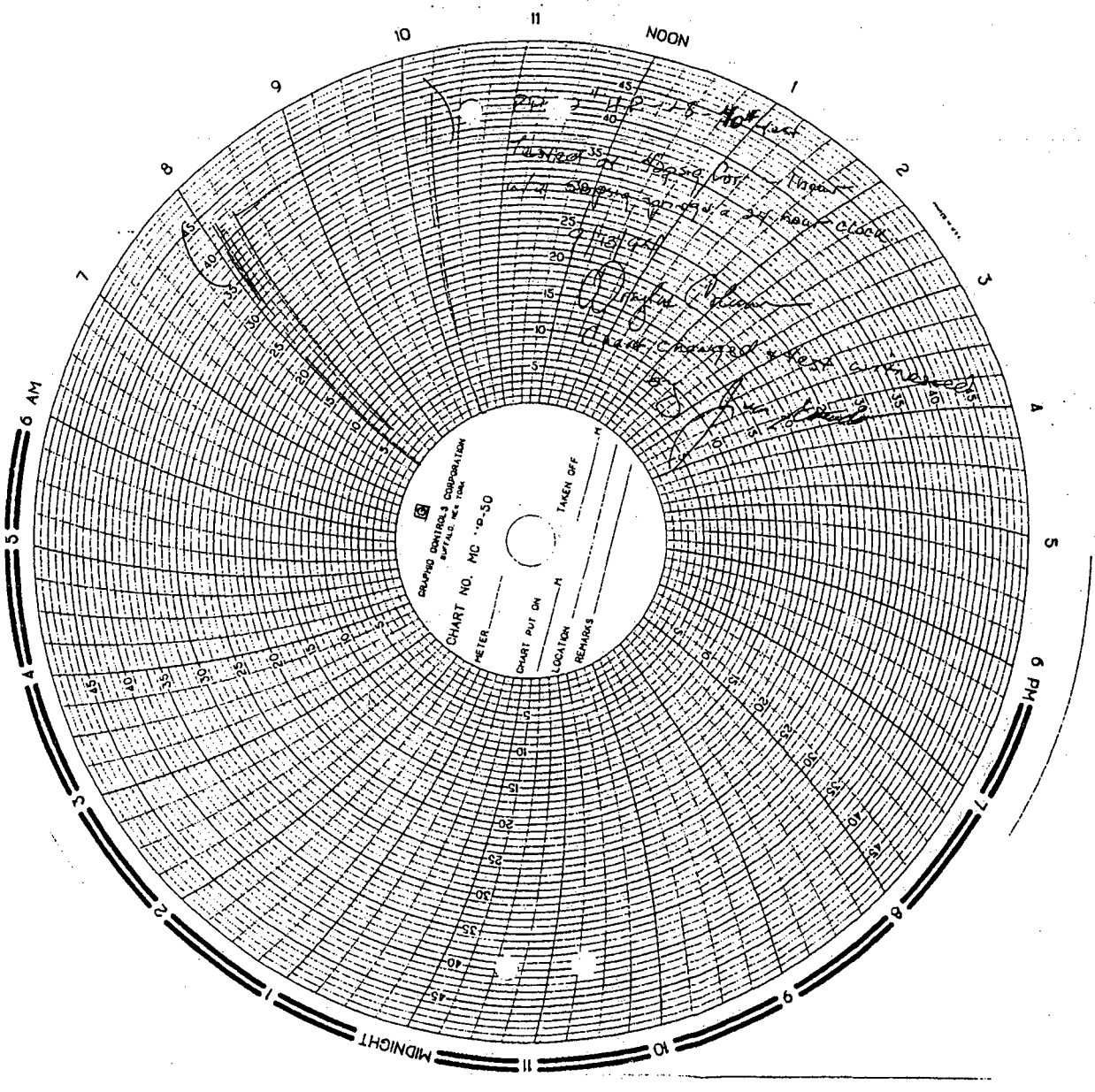
Actions:
1. No actions were required.

Hydrotest:
The hydrotest was completed on 9-15-94.

SECTION 6.3 1994 TEST



SECTION 6.3 2003 TEST

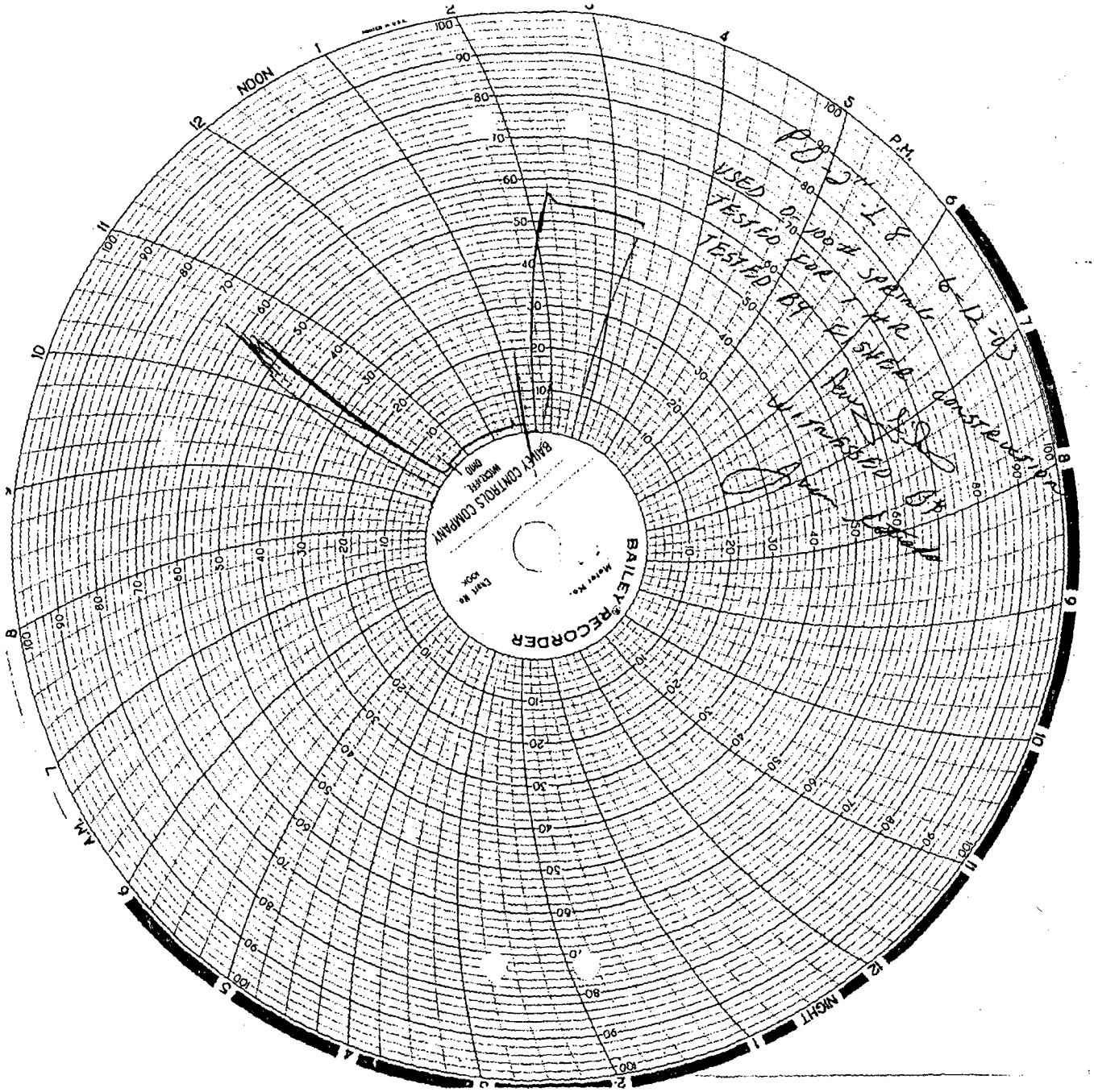


Findings:
1. No leaks were detected.

Actions:
1. No actions were required.

Hydrotest:
The hydrotest was completed on 9-13-94.

SECTION 6.4 1994 TEST



SECTION 6.4 2003 TEST

7.0 CLASSIFIER, CONTINGENCY AND OIL TANK TESTING RESULTS

This section contains the results of testing the above-referenced tanks. The section contains the results of the annual testing of the tanks pursuant to Part I Section 7.0.

SID RICHARDSON GASOLINE COMPANY
Inter-Company Correspondence
Jal #3 Plant

Date: January 13, 1999

To: George Washburn From: Jeff Burnett

Subject: Contingency Tank CC:

George,

During August of 1998 an attempt was made to empty the Contingency Tank and perform an inspection as required by our Discharge Permit. Due to our Classifier not working correctly, there was a large amount of water and hydrocarbons in the Contingency Tank; much of the fluids were transported to the A&O Battery until the Battery became full. An attempt to pump the rest of the fluids to the discharge well failed due to pump failures. The lowest Contingency Tank level obtained was four feet, a visual inspection was performed of all visible surfaces and no defects were found. Work is now in progress to restore proper operation to the Classifier, once that has been completed, the Contingency Tank liquids will be sent to the Classifier and a complete inspection will be performed.

Jeff Burnett
Plant Engineer

SID RICHARDSON GASOLINE COMPANY
Inter-Company Correspondence
Jal #3 Plant

Date: 12-19-95

To: Curtis Clark From: Chuck Womble CW

Subject: Jal 3 Plant Sump Testing File: sumptstr.doc

This is a copy of the list of sumps tested in 1995 at the Jal 3 plant. The original, along with the completed test forms, will be placed on file at the Jal 3 plant.

The following open top sumps were checked for leaks:

1. Basement pit, at the south east corner of the "B" plant compressor building.
2. Amine sump, located north west of the machine shop and the water treating building.
3. Amine sump, east of the NGL plant, north side of the gas plant.
4. Evaporator blow down tank.
5. Acid gas flare tank
6. Amine sump, north east corner of the treating plant pump room.
7. Basement sump, north end of the "A" plant basement.
8. V-250 sump, north east corner of the V-250 basement.
9. Open sump south west of the "B" plant, east of the jacket water and oil cooling water fin fans.
10. North drain sump, north east of the "B" plant cooling tower.
11. [illegible]

The following closed top sumps were checked for leaks:

1. GE suction drain tank, north of the GE inlet gas scrubber.
2. "A" plant cooling tower blow down sump.
   a) A leak was detected in this sump and was repaired.

The following open top sumps were checked for leaks:

1. Basement pit, at the south east corner of the "B" plant compressor building.
   a) The sump was drained.
   b) The sump was cleaned.
   c) The sump was inspected for cracks or deterioration.
   d) No cracks or deterioration were detected.
   e) The sump was placed back in service.

2. Amine sump, located north west of the machine shop and the water treating building.
   a) The sump was drained.
   b) The sump was cleaned.
   c) The sump was inspected for cracks or deterioration.
   d) No cracks or deterioration were detected.
   e) The sump was placed back in service.

3. Amine sump, east of the NGL plant, north side of the gas plant.
   a) The sump was drained.
   b) The sump was cleaned.
   c) The sump was inspected for cracks or deterioration.
   d) No cracks or deterioration were detected.
   e) The sump was placed back in service.

4. Evaporator blow down tank.
   a) The sump was drained.
   b) The sump was cleaned.
   c) The sump was inspected for cracks or deterioration.
   d) No cracks or deterioration were detected.
   e) The sump was placed back in service.

5. Acid gas flare tank
   a) The sump was drained.
   b) The sump was cleaned.
   c) The sump was inspected for cracks or deterioration.
   d) No cracks or deterioration were detected.

e) The sump was placed back in service.

6. Amine sump, north east corner of the treating plant pump room.

a) The sump was drained.

b) The sump was cleaned.

c) The sump was inspected for cracks or deterioration.

d) No cracks or deterioration were detected.

e) The sump was placed back in service.

7. Basement sump, north end of the "A" plant basement.

a) The sump was drained.

b) The sump was cleaned.

2hr VT c) The sump was inspected for cracks or deterioration.

d) No cracks or deterioration were detected.

e) The sump was placed back in service.

✓ 8. V-250 sump, north east corner of the V-250 basement.

1½ hr VT a) The sump was drained.

b) The sump was cleaned.

c) The sump was inspected for cracks or deterioration.

d) No cracks or deterioration were detected.

e) The sump was placed back in service.

9. Open sump south west of the "B" plant, east of the jacket water and oil cooling water fin fans.

a) The sump was drained.

b) The sump was cleaned.

c) The sump was inspected for cracks or deterioration.

2hr VT d) Some small cracks were detected.

e) The sump was filled with water.

f) The water level was monitored for 1 hour.

g) No leaks were detected.

h) The sump was placed back in service.

10. North drain sump, north east of the "B" plant cooling tower.

a) The sump was drained.

Add VT b) The sump was cleaned.

c) The sump was inspected for cracks or deterioration.

d) No cracks or deterioration were detected.

e) The sump was placed back in service.

The following closed top sumps were checked for leaks:

1. GE suction drain tank, north of the GE inlet gas scrubber

   a) The sump was drained.

   b) The sump was filled with water.

   c) The water level was monitored for 1 hour.

   d) No leaks were detected.

   e) The sump was placed back in service.

2. "A" plant cooling tower blow down sump.

   a) The sump was drained.

   b) The sump was filled with water.

   c) The water level was monitored and a dropping level was noticed.

   d) The sump was drained.

   e) The sump was cleaned.

   f) The sump was inspected for cracks or deterioration.

   g) A crack was detected 3" from the bottom of the tank on the north west side.

   h) The leak was repaired externally.

   i) The sump was filled with water.

   j) The water level was monitored for 1 hour.

   k) No additional leaks were detected.

   l) The sump was placed back in service.

GLY B5th Andrews

4809

The following open top sumps were ~~tested~~ checked for leaks

1. Basement pit - at the south east corner of the E plant compressor building

   a. drained — ~~2 IEP~~ 1 IEP -
   b. cleaned
   c. inspected
   d. no cracks or deterioration were detected
   e. the sump was placed back in service

2 amine sump - north west of machine shop and water treating building
(IEP's)

3. amine sump east of the NGL plant - north east side of the gasoline plant.
blinded by tag F-90, flange location 29
2 IEP's

4. Evaporator blowdown tank
~~2 IEP, ...~~ blinds at flg location 1, 2
3 IEPs

5. Acid gas flash tank - west of the treating plant
flng location 8, 9 2 IEPs

6. amine sump - northeast corner of the treating plant pump room
2 IEPs

7. Basement sump - north end of the "A" plant basement
~~2 IEPs~~ 2 IEPs

8. V-250 sump - northeast corner of the V-250 basement
2 IEPS

9. ~~Pit~~ sump south west of the "B" plant east of the jacket water and oil cooling water fin fans.
[illegible] 10, 11

small cracks were detected

the sump was filled and checked for leaks

The following closed top sumps were checked for leaks

1. GE - waste - drain tank - north of the GE inlet scrubber

A. Drained from service
B. ~~All inlets were capped~~ vented expandable plugs were placed in the sump inlets or blinds
C. Filled with water were placed in the plants condition
D. monitor the H_2O level to detect a leak
E. Use a vacuum truck to drain sump
F. Ensure all blinds or expandable plugs installed
G. Place the sump back in service

2. "A" plant cooling tower blowdown sump
Loc 3,4 , 1 IEP

3. Waste drain sump

- a crack was located 3" from the bottom on the northwest side.
- The crack was repaired externally.
- The sump was retested

Loc 20, 21, 22

north drain sump - NE of "B" plant cooling towers

Blind flanges in 16, 17, 18, 19