Form 3160-4
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

OMB NO. 1004-0137
Expires: February 28, 1995

5. LEASE DESIGNATION AND SERIAL NO.
NM-0560

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

NMOCD, Artesia Division
811 S. 1st Street
Artesia, NM 88210-2834

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

7. UNIT AGREEMENT NAME
NM 70964X

8. FARM OR LEASE NAME, WELL NO.
INDIAN HILLS UNIT #28

2. NAME OF OPERATOR
Marathon Oil Company

9. API WELL NO.
30-015-31267

3. ADDRESS AND TELEPHONE NO.
P.O. Box 552 Midland, TX 79702
800-351-1417

10. FIELD AND POOL, OR WILDCAT
INDIAN BASIN UPPER PENN ASSOCIATED GAS POOL

4. LOCATION OF WELL *(Report location clearly and in accordance with any State requirements)**
At surface
UL "P", 218' FSL & 660' FEL, SECTION 16
At top prod. interval reported below
At total depth
UL "B" 687' FNL & 1681' FEL, SEC. 21

RECEIVED
OCD - ARTESIA

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
SECTION 21, T-21-S, R-24-E

14. PERMIT NO. | DATE ISSUED

12. COUNTY OR PARISH: EDDY COUNTY | 13. STATE: NM

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. *(Ready to prod.)*	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
10/10/00	10/30/00	2/18/01	KB-4042'; GL-4014'	

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
8870'MD/8575'TVD	8820'MD/8531'TVD		→	all	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*
Upper Penn, 8010' MD, 7779' TVD = Top, 8556' MD, 8289' TVD = Bottom

25. WAS DIRECTIONAL SURVEY MADE
YES

26. TYPE ELECTRIC AND OTHER LOGS RUN
High Res. Laterolog Array/NGT, 3 Detector Lithodensity CN/NGT, NGR

27. WAS WELL CORED
NO

28. CASING RECORD *(Report all strings set in well)*

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13-3/8", J-55	54	1804'	17.5"	1150 sx, circ. 60 sx	
9-5/8", K-55/L-80	40/43.5	8870'	12.25"	2310 sx, circ. 905 sx	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
3-1/2"	8538'	RBP-8678'

31. PERFORATION RECORD *(Interval, size and number)*
8016'-8028', 8042'-8050', 8058'-8174',
8266'-8346', 1080 total shots

ACCEPTED FOR RECORD
APR 11 2001
(ORIG. SGD.) GARY GOURLEY
PETROLEUM ENGINEER

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
8016'-8346'	22167 gals 15% HCl acid

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD *(Flowing, gas lift, pumping - size and type of pump)*	WELL STATUS *(Producing or shut-in)*
2/18/01	3-K62 Sub pumps w/2-280 HP motors	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL - BBL.	GAS - MCF.	WATER - BBL.	GAS - OIL RATIO
2/26/01	24			382	1977	5270	5175

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL - BBL.	GAS - MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
450	205					42.8

34. DISPOSITION OF GAS *(Sold, used for fuel, vented, etc.)*
sold

TEST WITNESSED BY

35. LIST OF ATTACHMENTS
directional survey, logs

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Ginny Larke TITLE Engineer Technician DATE 3/26/01

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdicton.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Upper Penn	8010'	8556'	Dolomite, shale, limestone; Oil, gas & water

GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Queen	437	437
San Andres	1128	1128
Glorietta	2830	2830
Yeso	2998	2998
Bone Spring	5511	5430
Bone Spring Sand	6996	6823
Wolfcamp	7245	7056
Upper Penn	8010	7779
Strawn	8671	8362

U.S. GOVERNMENT PRINTING OFFICE: 1992-774-672

Form 3160-5
(August 1999)

UN.) STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil C s. Division
811 S. 1st Street
Artesia, NM 88210-2834

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

RECEIVED
OCD - ARTESIA

SUBMIT IN TRIPLICATE - Other instructions on reverse side

5. Lease Serial No.
NM 07260

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or N
Indian Hills Unit
NM 70964

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
Indian Hills Unit #28

2. Name of Operator
Marathon Oil Company

9. API Well No.
30-015-31267

3a. Address
P.O. Box 552 Midland, TX 79702

3b. Phone No. *(include area code)*
800-351-1417

10. Field and Pool, or Exploratory Area
Indian Basin Upper Penn Associated Gas Pool

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Surface: UL "P", 218' FSL & 660' FEL, Section 16
Bottom Hole: UL "B", 946' FNL & 1975' FEL, Section 21
T-21-S, R-24-E

11. County or Parish, State
Eddy NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Off-lease storage & sales, & msmt, & Commingle
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Marathon Oil Company, in accordance with 43 CFR 3162.7-3 and Onshore Oil and Gas Order No. 5, is requesting approval of off-lease measurement, storage and sales, and surface commingling of gas production from this well. Also, in accordance with 43 CFR 3162.7-2 and Onshore Oil and Gas Order No. 4, we are requesting off-lease measurement, storage and sales, alternate measurement method, and surface commingling of liquid hydrocarbon production from this well.

The production from this well is sent from the wellhead to a 3 phase separator located at the satellite facility in UL "N", Section 17, T-21-S, R-24-E. This separator is used to measure only the production from this well at this time. After being measured, the gas production is transported via pipeline to the East Indian Basin Central Facility, Section 19, T-21-S, R-24-E, for compression, and then on to the Indian Basin Gas Plant for processing and sales. The liquid hydrocarbon production from this well will be measured through this separator, using turbine meters as the alternate measurement method per prior approvals, then transported via pipeline to the East Indian Basin Central Facility where it will again be separated, sent to the liquid hydrocarbon storage tanks, and then be metered and sold at the truck loading rack.

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)* Ginny Larke
Signature: Ginny Larke
Title: Engineer Technician
Date: 3/26/01

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
Title
Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Office

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

APPLICATION FOR SURFACE COMMINGLING
OFF-LEASE MEASUREMENT, STORAGE AND ALTERNATE MEASUREMENT APPROVAL

To: **Bureau of Land Management**
P.O. Box 1778
Carlsbad, New Mexico 88220-1778

Marathon Oil Company is requesting approval for Surface Commingling, Off-Lease Storage, Measurement and Sales, and Alternate Measurement of hydrocarbon production from the following formation(s) and well(s) on:

Lease Name: **Indian Hills Unit**

Well No.	UL	Sec	TWP	RNG	Formation	Lease #
28-Surface	P	16	21-S	24-E	Upper Penn	State Lease
28-Bottom Hole	B	21	21-S	24-E	Upper Penn	NM-07260

Marathon would like to commingle the production from this well with the production of the following wells, which is commingled at the East Indian Basin Central Facility, (Order R-11186)

WELL NO.	BOPD	API °	MCFD
1	29	48.2	6227
8	51	35.7	862
9	161	40.7	2075
10	335	46.3	5676
11	122	42.2	2303
12	118	40.6	1903
17	395	41.3	4419
18	264	44.7	3628
19	145	46.3	5763
20	184	46.1	2707
21	364	41.5	7499
22	685	46.0	10868
24	53	48.0	4220
Gas Com 27	46	42.6	14528
Gas Com 14	9	41.2	7244
Gas Com 13	10	44.8	6821
Gas Com 3	4	61.6	3014
IB "32" State 1-Y	2	41.2	5732
IB "32" State #2	3	56.0	10616
IB "32" State #3	93	38.6	301
IB "32" State #4	0	N/A	2855

Liquid hydrocarbon production is measured using turbine meters, per prior approval. These meters are proved on a regular schedule. A map is enclosed showing the lease numbers and location of all leases and wells that will contribute production to the commingled/common storage facility. A schematic diagram of the satellite facility is attached and clearly identifies all equipment that will be utilized.

The Storage and Measurement facility is located at ***UL "P", Sec. 19, T-21-S, R-24-E, Eddy County, New Mexico.*** The satellite facility is located in UL "N", Section 17, T-21-S, R-24-E, Eddy County, NM. The BLM was notified of this satellite facility in a prior application.

The gas, liquid hydrocarbons and water from this well will be sent from the wellhead to the satellite facility where a 3-phase separator will separate the production. After separation, the gas is metered at the satellite facility before being delivered to the compressors at the Storage and Measurement facility in Section 19. After compression, the gas is processed through a dehydrator, metered and delivered to the Indian Basin Gas Plant for further processing. After processing, the gas and NGLs will be metered and sold at the tailgate of the plant.

The liquid hydrocarbons and water, after being metered through the separator at the satellite facility, will be recombined and then flow to a 3-phase separator at the Storage and Measurement facility in Section 19, via liquid pipeline. After separation, the liquid hydrocarbon production will be processed and stored in tanks at the Storage and Measurement facility. Processing may include the use of heat treating or other liquid hydrocarbon processing equipment. The liquid hydrocarbons will then be metered through a LACT unit, per prior approval, and sold at the truck loading rack.

The water production, after being processed through the 3-phase separator at the Storage and Measurement facility, will be sent to the gun barrel tank for further separation. It will then be sent to the water storage tanks prior to being metered and pumped to various wells in the produced water disposal system.

The working interest owners were notified of the original commingling proposal. The proposed commingling of production is in the interest of conservation and will not result in reduced royalty or improper measurement of production. The proposed commingling is necessary for the continued operation of the above referenced Federal Leases.

We understand that the requested approval will not constitute the granting of any right-of-way or construction rights not granted by lease instrument and we will submit, within 30 days, an application for right-of-way to the BLM's Realty Section in your office, if we have not already done so. Additional wells will require additional commingling approvals.

Signature:

Ginny Larke

Name: Ginny Larke
Title: Engineer Technician
March 26, 2001

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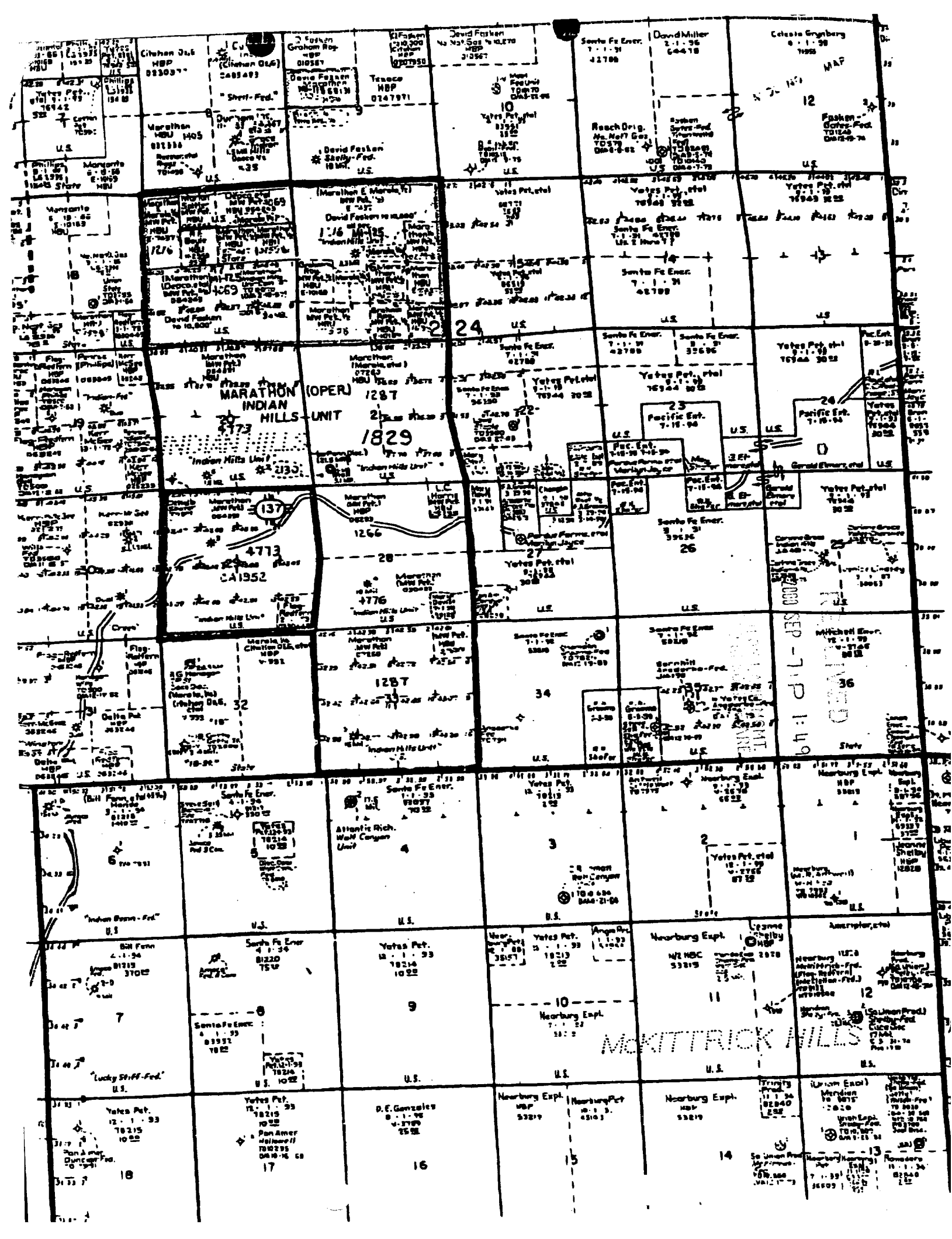
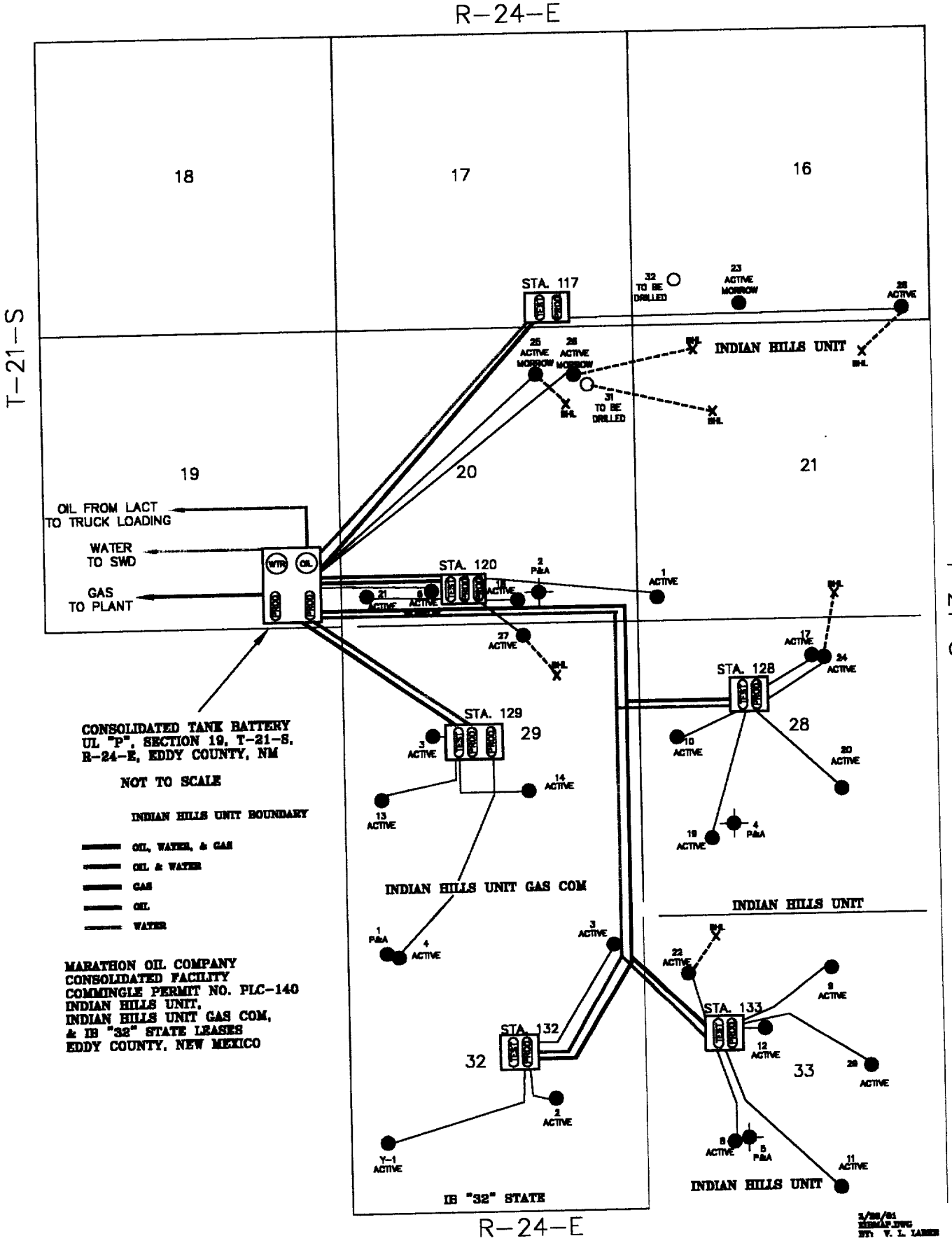
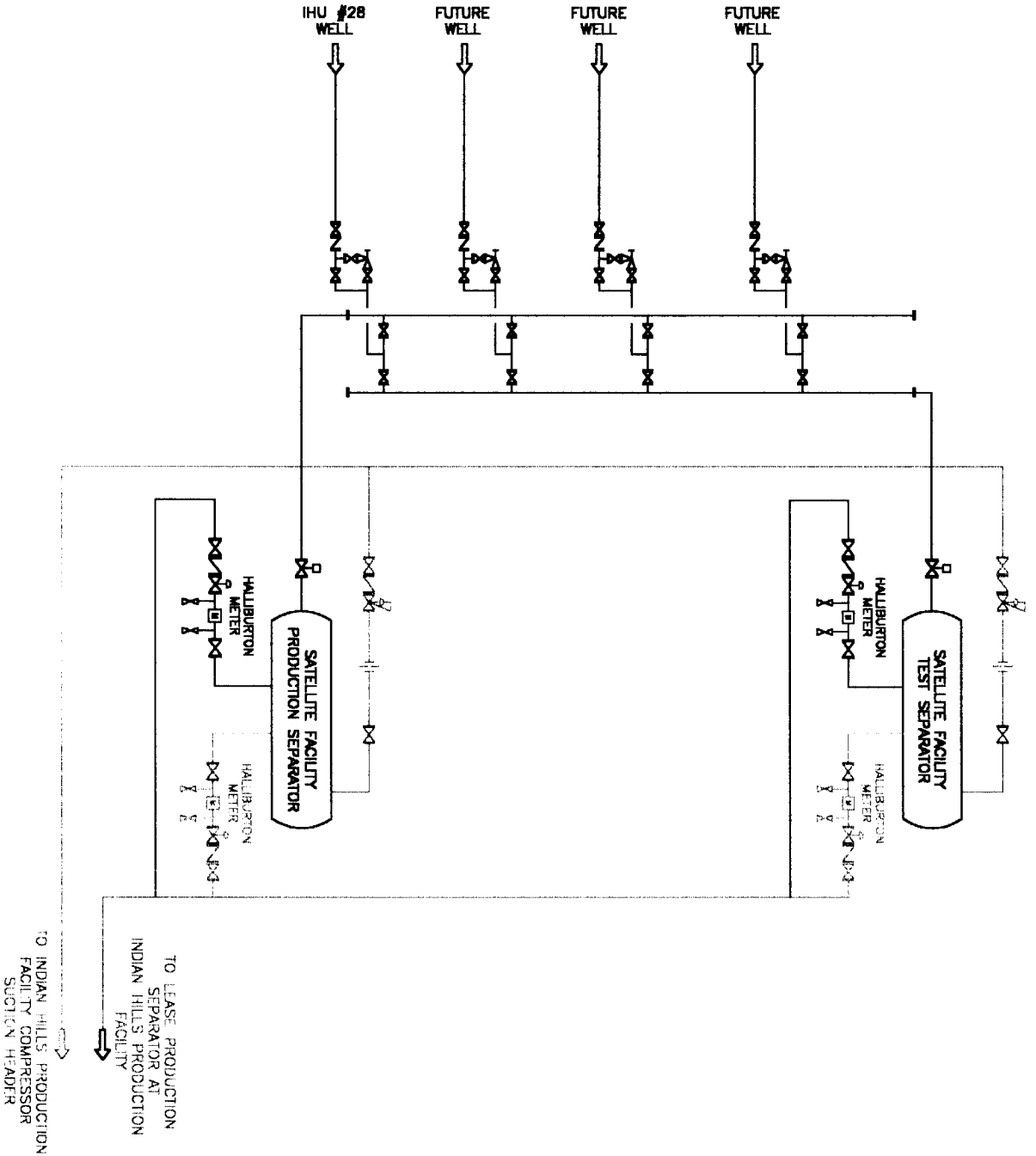
Attachments


MARATHON (OPER.)
INDIAN HILLS UNIT 2
1287
1829
MCKITTRICK HILLS

MARATHON OIL COMPANY
CONSOLIDATED FACILITY
COMMINGLE PERMIT NO. PLC-140
GATHERING SYSTEMS



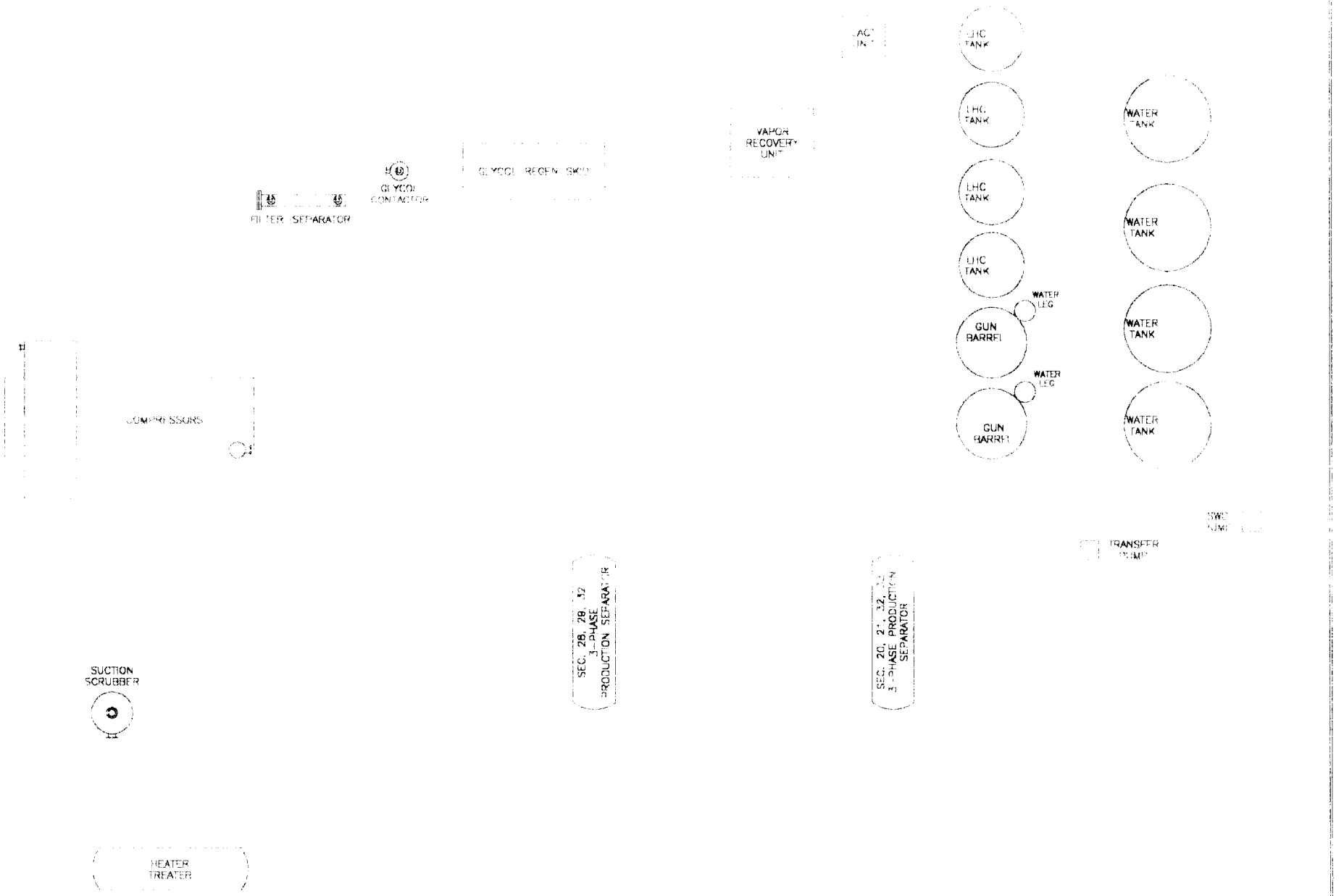


Marathon Oil Company

SECTION 17 SATELLITE SEPARATION FACILITY STATION 117

LEGEND

- LHC–GAS–WATER PIPING
- GAS PIPING
- LHC PIPING
- WATER PIPING
- LHC–WATER PIPING



Marathon Oil Company

INDIAN HILLS UNIT CENTRAL
PRODUCTION FACILITY
UL "P", SECTION 19,
T-21-S, R-24-E, EDDY CO., NM

LEGEND