District I # (505) 393-6161
1625 N. French Dr, Hobbs, NM 88240
District II # (505) 748-1283
1301 W. Grand Avenue, Artesia, NM 88210
District III # (505) 334-6178
1000 Rio Brazos Road, Aztec, NM 87410
District IV # (505) 476-3440
1220 So. St. Francis Dr., Santa Fe, NM 87505

New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505
(505) 476-3440

4-05-00016

Form C-140
Revised June 10, 2003

SUBMIT ORIGINAL PLUS 2 COPIES TO APPROPRIATE DISTRICT OFFICE

APPLICATION FOR WELL WORKOVER PROJECT

I. Operator and Well

Operator name & address								OGRID Number
HENRY PETORLEUM LP 3525 ANDREWS HIGHWAY, MIDLAND, TX 79703								155453
Contact Party								Phone
SHIRLEY HOUCHINS								(432)694-3000
Property Name					Well Number			API Number
STATE Y					9			30-025-11778 7
UL	Section	Township	Range	Feet From The	North/South Line	Feet From The	East/West Line	County
A	25	25S	37E	990	N	990	E	LEA

II. Workover

Date Workover Commenced:	Previous Producing Pool(s) (Prior to Workover):
07/23/2004	FORMERLY SOUTH JUSTIS UNIT H-230, JUSTIS BLINRBRY, TUBB, DRINKARD WATER INJECTOR
Date Workover Completed:	
08/13/2004	

III. Attach a description of the Workover Procedures performed to increase production.

IV. Attach a production decline curve or table showing at least twelve months of production prior to the workover and at least three months of production following the workover reflecting a positive production increase.

V. AFFIDAVIT:

State of TEXAS)
) ss.
County of MIDLAND)

SHIRLEY HOUCHINS , being first duly sworn, upon oath states:

1. I am the Operator, or authorized representative of the Operator, of the above-referenced Well.
2. I have made, or caused to be made, a diligent search of the production records reasonably available for this Well.
3. To the best of my knowledge, this application and the data used to prepare the production curve and/or table for this Well are complete and accurate.

Received APR 2005 Hobbs OCD

Signature Shirley Houchins Title REGULATORY SPECIALIST Date 4-11-2005

E-mail Address shirley@henrypetroleum.com

SUBSCRIBED AND SWORN TO before me this 11th day of April, 2005.

HEATHER KRISTIN FARRIS
Notary Public, State of Texas
My Commission Expires
October 14, 2006

My Commission Expires:

Notary Public

Heather K. Farris

FOR OIL CONSERVATION DIVISION USE ONLY:

VI. CERTIFICATION OF APPROVAL:

This Application is hereby approved and the above-referenced well is designated a Well Workover Project and the Division hereby verifies the data shows a positive production increase. By copy hereof, the Division notifies the Secretary of the Taxation and Revenue Department of this Approval and certifies that this Well Workover Project was completed on 8/13/, 2005.

Signature District Supervisor	OCD District	Date
	1	4/13/05

VII. DATE OF NOTIFICATION TO THE SECRETARY OF THE TAXATION AND REVENUE DEPARTMENT :

State Y #9, Formerly SJU "H" 230

LOCATION: 990' FNL & 990' FEL (A), SEC. 25, T-25S, R-37E
LEA COUNTY, NEW MEXICO

FORMER OPERATOR: ARCO OIL AND GAS COMPANY

FORMER WELL NAME: State Y #9

BLM TRACT NUMBER: 31 **API NUMBER:** 3002511777

SPUD DATE: 2/10/61

KB: 3081' GL: 3069' TD: 6908' PBTD: 6890'

CASING RECORD:

Size	Wt	Grade	Depth	Cementing Record
9-5/8"	32.3/36#		798'	550 sxs cmt, circ
7"	20/23#		6200'	1800 sxs cmt, TOC 850' by TS.
4-1/2"	11.6#		6905'	70 sxs cmt, (TOL @ 6140' - TS)

LOGS:

Date	Company	Log Name
3/15/61	Welex	GR-N & Caliper
3/23/61	Welex	CCL
1/23/62	Welex	Differential Temp Svy
8/16/62	Welex	CCL

DST's:

1	4880-4925'	Paddock	Op 1 hr, rec'd 70' GCM, FP 75-85, 30" FSIP-125
2	4926-90'	Paddock	Op 1 hr, rec 35' mud, NS, FP 60-65, 30" FSIP-80
3	6730-55'	Fusselman	Op 1 hr 15 min, GTS 3 min, Oil 25 min, Flwd 28 BOPH-180#, rec 90' oil, 500' XW, FP 870-1218, 30" FSIP-2085
4	6753-6805'	Fusselman	Op 2 hr, GTS 4 min, oil 28 min, rec 90' G&WCM, FP 68-1780, 60" FSIP - 2220

INITIAL COMPLETION: Tubb/Drinkard 5816-5921' - 283 BO, 85 BW, TP 1100#
Fusselman 6752-70', 256 BO, 1 BW, Tp 50#

INITIAL COMPLETION DATE: 2/10/61

TREATMENTS AND WORKOVERS

3-61	Perf'd Tubb/Drinkard 5816-5921', Frac'd w/15,000 gals RO + 15,000# sd 134 BPM, MXP 5500#, F 283 BO, 85 BW, CP 1400, TP 1100. Perf'd Fusselman 6752-70' w/4 spf, IP F 256 BO, 1 BW, TP 50#
5-61	Acidized Fusselman w/3500 gals gelled acid. Swabbed 53 BO, 0 BW - 6 hrs.
7-61	Installed Kobe pump IPP 80 BOPD
6-62	Added Fusselman perfs 6774-79', 82-84', 86-93' (4 spf). Acidized 6752-97' w/4000 gals 7-1/2% MCA acid. Pumped 3 BO & 1 BW
8-62	Acidized Fusselman w/1000 gals, Frac'd w/17,382 gals lease oil & 8900# 20/40 sand. 10-11 BPM, TP 5400-5500#. Re-perf'd Fusselman w/3-1/2" casing gun 6752-70' w/2 SPF.
10-62	Tubb/Drinkard IP - F 18 BO, 133 MCF, 4 BW, TP 150#. Fusselman IP - P 14 BO, 6 BW
12-63	Acidized Tubb/Drinkard 5889-5921' w/1000 gals 15% NEA, TP 2450#, 3.6 BPM. ISIP 1400#, 6 min SIP - vac. IP - F 70 BOPD, 834 MCFD, 10 BW - FTP 750#
5-69	Found holes in Fusselman tbg, Tubb/Drinkard - Swbd 12 BO, 4 BW, Fusselman - Pmpd 23 BO, 1 BW
7-71	Set FB pkr at 5726 & RBP @ 6000'. Sqzd Tubb/Drinkard perfs 5816-5921' w/76 sxs Class C cmt. Max pressure 3500#. DO cmt 5784-5919'. Acidized Fusselman perfs 6752-70' w/3000 gals 15% NEA. AIR 1.5 BPM, ATP 300#. ISIP 100# vac - 1/2 min. IP - P 20 BO & 22 BW, Tubb/Drinkard P&A'd.
8-76	CO to 6819', Junk below. Set Cmt ret @ 6669' & pumped 300 sx to repair csg leak & sqz Fusselman perfs. . Pumped into old Tubb/Drinkard perfs 5816-5918' at 3-1/4 BPM 2000#, Sqzd Tubb/Drink perfs w/150 sx, Mx P 2800#, DO cmt 5747-5929' & 6665-6890'. PBD 6890'. Perf'd Montoya 6834-38', 6849-56', 6868-80' w/1 spf (26 holes) communicated w/Fuss perfs 6748-97'. Re-sqzd Fusselman perfs(6748-97) w/175 sxs cmt, MXP 3500#. DO cmt to 6834'& sand covering Montoya perfs to 6890' (6834-80').

State Y #9, Formerly SJU "H" 230

Acidized Montoya perfs 6834-80' w/1000 gals 15% NEA. No communication. Acidized 6834-80' w/1932 gals 15% NEA, MXP 2800#, 2 BPM. Communicated to 6748-97'. Set pkr @ 6684' & ran Kobe hydraulic pump.

9-76 IP P 56 BO, 26 MCF, 79 BW

10-79 Removed hydraulic pump. Ran beam P.U. & rod pump. Acidized w/2000 gals 15% NEA. 2 BPM -1000#.

1-88 Acidized Montoya 6834-80' w/1500 gals 15% NEA down casing. IP P 8 BO, 15 BW, 14 MCF

12-92 WL set CIBP @ 6730', dump 35 sxs cmt on top. PBTD = 6695'

11-93 Ran in hole CIBP to 6100' w/20' cmt on top (PBD = 6080').
Added Blinebry-Tubb/Drinkard perfs 5085'-5945' (71 @ 2 SPF = 142 perfs): 5085', 89', 5115', 20', 24', 42', 46', 59', 64', 73'. 95', 5205', 11', 23', 32', 43', 55', 59', 91', 5311', 18', 33', 63', 80'. 95', 5410', 25', 41', 51', 59', 72'. 94', 5504', 20', 32', 37', 42', 70', 86', 92', 5600', 04', 25', 34', 39', 44', 60', 68', 83', 89', 5733', 40', 47', 63', 68', 81', 5810', 18', 24', 36', 41', 60', 70', 85', 92', 5901', 05', 16', 26', 38', and 45'. Acidized Blinebry-Tubb/Drinkard perfs 5085'-5945' w/14,500 gals 15% HCL acid. Pressure tested 7" casing to 500# for 15 minutes (5018'-surface).

9-97 Set CIBP @ 5560'. Add Blinebry perfs from 5024'-5075' (16 selections @ 2 SPF = 32 holes). New perfs: 5024', 5026', 5032', 5035', 5039', 5045', 5046', 5048', 5054', 5056', 5057', 5058', 5069', 5072', 5073', & 5075'. Acidized new and existing perfs located above CIBP (5024'-5542') with 2650 gallons of 15% NEFE HCL acid using the PPI tool for diversion.

State Y #9, Formerly SJU "H" 230

7-29-2004 Workover Procedure

1. Obtain regulatory C-101 approval to convert this well back to a Fusselman producer from a unit producer. Also, obtain WI owner permission to take wellbore out of the unit for P&A costs. Add this reservoir to State Y commingled battery permit. Also, start this wells regulatory paperwork to downhole commingle the Fusselman and the Montoya.
2. MIRU PU. ND WH. Release injection packer. NU BOP. POOH with tubing. PU & strap in the hole with 2 3/8' tubing, 4 ½" drill collars and 6 1/8" cone buster mill. TIH to 5560' and drill out CIBP. TIH to 6080' and drill out cement and CIBP.
3. POOH with 4 ½" drill collars and 6 1/8" bit, TIH with 3 7/8" bit 3 ½" drill collars and drill out cement and CIBP @ 6695' (watch for pressure since the Montoya was last produced in 1992). TIH to old PBTD of 6890'. Circulate the hole clean and use EC 6106 bactericide on last bottoms up to leave hole protected.
4. (SKIP THIS STEP as the casing here looks in poor shape due to work done already,7-04) POOH with bit and PU scraper, make bit and scraper run to top of liner @ 6140' **this is important** to ensure good scab liner packer setting in old 7" casing. Be sure to reverse circulate the hole clean.
5. POOH with bit and scraper.
6. TIH with tubing and 3 7/8" acidizing packer and set at 6800' and acidize the Montoya perfs with 3000 gal 15% NEFE HCL at 1-2 BPM, flush and do not exceed 1000 psi. Flush acid to top perf with (2 3/8" tubing vol = .00387 bbl/ft, 7" casing vol = .0393 bbl/ft) 26 bbls produced water with bactericide mixed in. Swab load back. Report results on morning report. If time permits, shut down for two one hour long periods to determine fluid entry rates and record them.
7. Place well on pump below a packer (attempt to have bactericide treated packer fluid on the backside to prevent any tubing metal loss problems) with the following rod design for ~ 153 + BFPD using the 456 PU currently next to the SJU F-14, design has rod loading of 95%, PU loading of 94%:

112	7/8" X 25' D rods	2800.00'
160	3/4" X 25' D rods	4000.00'
	2" X 1-3/4" X 20' pump	20.00'
		6820.00'

8. Set 4 1/2" packer with rods and tubing @ ~ 6800'. Production test for 2 weeks reporting results to the office. Obtain Montoya oil, gas and water samples and have analyzed for compatibility testing with Fusselman fluids to comply with downhole commingling regulations. Also, attempt to get a bottomhole pressure on the Montoya zone either by Dyno or fluid levels (possibly a BHP bomb below the RBP during the Fusselman test).
9. RU to test Fusselman zone. POOH with production equipment. TIH with tubing and set a 3 7/8" RBP (BHP bomb below if no pressure information obtained prior to now) in 4 ½" liner @ 6820' to isolate Montoya perfs (6834'-6880'). Pressure test RBP to 500 psi and hold for 10 minutes. POOH with tubing.
10. TIH with wireline perforating guns and perforate 2 JSPF 6752-70, 74-79, 81-93. POOH with wireline.

11. TIH with tubing and 3 7/8" acidizing packer and set at 6700' and acidize the Fusselman perfs with 3000 gal 15% NEFE HCL at 1-2 BPM, flush and do not exceed 1000 psi. Flush acid to top perf with (2 3/8" tubing vol = .00387 bbl/ft, 7" casing vol = .0393 bbl/ft) 26 bbls produced water with bactericide mixed in. Swab load back. Report results on morning report.
12. Release packer & POOH. PU 7" packer and RBP & TIH to 6130' and set RBP. POOH to 6000' and set packer. Pressure test lower scab liner packer seat interval to 500 psi. POOH with RBP & packer to 4990', set packer and test backside to 500 psi for upper packer casing integrity test. POOH with RBP & packer.
13. Place well on pump below a packer with the following rod design for ~ 153 + BFPD using the 456 PU currently next to the SJU F-14, design has rod loading of 95%, PU loading of 94%:

112	7/8" X 25' D rods	2800.00'
159	3/4" X 25' D rods	3975.00'
	2" X 1-1/2" X 20' pump	20.00'
		6795.00'

14. Set 4 1/2" packer @ ~ 6700'. Production test for 2 weeks reporting results to the office. Obtain Fusselman oil, gas and water samples and have analyzed for comparison with the Montoya and attempt to get a bottomhole pressure on the Fusselman zone either by Dyno or fluid levels.
15. RU to run scab liner.
16. PU & strap in the hole with 2 3/8' L-80 tubing (for running liner because of extra weight). PU scab liner packer (SLP) assembly consisting of the following:
    - Muleshoe sub
    - Nickel-plated lower packer with 4-1/2 LTC box looking up
    - ±1200' of 4-1/2" J-55 11.6 ppf LTC scab liner w/ Ryt-wrap on OD (verify Ryt-Wrap has cured @ least 1 week before running)
    - Nickel-plated upper packer with 4-1/2" LTC pin looking down

NOTES:

- Verify both packer assemblies, and muleshoe drift 3.875".
- Drift the 4-1/2" 11.6 ppf LTC J-55 scab liner to 3.875".
- Use Ryt-Wrap touch-up kit to repair any damaged or missing coating on the liner OD.
- Use Best-o-Life 2000 API modified pipe dope on all connections.
- Have proper handling tools on location to reduce the risk of damaging pipe threads and/or pipe body. Have catwalk on location and pipe rack padded to minimize damage to Ryt-Wrapped pipe.
- Calibrate tongs before running liner to ensure proper make-up torque.
- Optimum make-up torque for 4-1/2" 11.6 ppf J-55 is 1620 ft-lbs, Max is 2025 ft-lbs.
- Witness the unloading of the liner from the truck to the pipe racks to insure the liner is properly handled.
- Make sure Weatherford only uses 1 5000# shear pin to make up the packer.

17. PU SLP running tool. Verify with Weatherford representative that the running tool has an O-ring sub to test the top packer after it is set (we are not going to do this because of all the problem we had on the State Y #5 SLP liner run. We think it was differential sticking & rough calculations figure to be about 2200# differential). RIH with SLP assembly, twelve (12) 4-1/2" DC, and 2-3/8" L-80 workstring. Locate top packer at ±4880' and bottom packer at ±6100'. **The bottom packer must be set between 6070' and 6107' between collars using the 3-18-61 Welex "Radioactivity Log". This bottom packer set depth interval should allow the top set depth to be between collars from 4870' and 4898' (See attached log copies).** **NOTE:** Limit running speed (15 seconds per joint of liner) while RIH with SLP assembly as packers set in compression. If the SLP un-Jays at any time going in the hole, PU on the running string and rotate ¼ to ½ turn to the left to re-Jay, being careful not to release the running tool. **NOTE:** Because of the State Y #5 liner setting the first time we ran it, the 2nd day we put ¼ left hand turn in the pipe after each connection to ensure that the J tool stays J'd while running in the hole.
18. Set the packer by rotating the running string to the right 1/4 turn at the packer while in neutral weight to un-Jay the slips. SO to set lower packer. Continue to SO to set upper packer. At least 18 – 20 kips compression are required to fully energize the packing elements. (We won't do this because we chose not to run the O-ring sub to test) Test the backside to 500 psi to verify the top packer is set.
19. After energizing the packers, PU to neutral weight at the top packer. Work left-hand torque to the running tool to release it from the SLP. POOH and LD DC and running tool. **NOTE: Do not pull tension in the SLP system any time after it is set. This could move the packers uphole and roll the packing elements.**
20. Place well on pump with the following rod design for ~ 153 + BFPD using the 456 PU currently next to the SJU F-14, design has rod loading of 95%, PU loading of 94%:

112	7/8" X 25' D rods	2800.00'
162	3/4" X 25' D rods	4050.00'
	2" X 1-3/4" X 20' pump	20.00'
		6870.00'

Set 4 ½" TAC at ~ 6740' in 4 ½" casing with enough tailpipe below it to set SN at ~ 6880'.

21. Place well on production, test, shoot a fap and run a dyno as soon as possible.

DGB 7-29-04

Approvals

Engineering _____

Operations _____

9-20-04

State Y #9, Formerly SJU "H" 230

St Y #9 Liner & Cement Procedure

1. MIRU SU
2. PU 10 - 4 ¾" (2 inch ID) drill collars & 2 7/8" work string & TIH to 4900'. POOH and tally work string and drill collars and stand them back.
3. Wireline set CIBP in top of existing 4 ½" liner at 6155'.
4. Make up Aluminum Alignment Guide & Float Collar (see attached picture) with PL Latch Collar on the first joint of 4 ½" Ryt Wrap liner. And apply thread lock to the connection. Follow proper torque control procedures on this and all subsequent liner connections.
5. Run three to four (3-4) joints of liner. Install pump in sub and valve (if available). Pump mud through the shoe to ensure that the float equipment is functional. Run three to four (3-4) more joints and check that the liner is not filling from the bottom. (Liner should not fill if the float equipment is holding).

Run the remaining liner, filling as necessary to prevent floatation (at least every 1,000 Ft.)

NOTE: Liner should be run at 1-3 min per stand rate to prevent excessive 'surge' or 'piston' forces on the formations.

6. Set slips on last joint of liner and fill liner.
7. Pick up the Model 'CH' liner Hanger assembly and Model 'SD' setting tool. The Hanger assembly and setting tool consists of a Model 'CH' Hanger, mechanical set, with a Model 'CSP-6' packer/releasing tie back sleeve, Model 'RSB' retrievable seal bore cementing pack-off, polish joint with plug launcher, Model 'SD' setting tool with junk screen, handling sub, and packer stomper.
8. Install liner wiper plug on the setting tool. Brass shear screws are supplied with the plug. Do not install additional screws or replace with any other screws. Grease the liner wiper plug with pipe dope or other grease prior to inserting into the liner.
9. Pull the casing slips and lower the liner assembly into the hole until the top of the tie back sleeve is at the rotary table. Drill pipe slips can be placed can be placed around the setting tool handling sub. Install filling sub, fill liner and setting tool. Record the weight of the liner hanging in the drill pipe elevators. (This is the weight that will be 'lost' when the Hanger is set and supporting the weight of the liner).
10. **Pickup 10- 4 ¾ Drill Collars with 2 inch Minimum ID w/ Xovers on Top & Bottom** Continue in the hole with drill pipe. Run at a predetermined rate, not exceeding one to three (1-3) minutes per stand. (An excessively high rate may damage the formations).
11. Run predetermined stands of drill pipe. The stands should be numbered and checked against the tally sheets as they are run. Fill up the drill pipe at specified intervals or every twelve to fourteen (12-14) stands if not specified. Watch the weight indicator and adjust fill interval if required.

12. Make up the cementing manifold on a single joint of drill pipe and set in the vee door before the liner shoe joint reaches the desired depth. If desired circulate 'bottoms up' at this point.
13. Continue into the hole with drill pipe and liner. Pick up the cementing manifold with drill pipe single and wash down (if needed) the last one to two (1-2) joints to bottom or desired depth. Tag bottom at 6140' with aluminum nose guide. At least the top 2' of the existing Brown liner hanger has 5 ¼" ID and the nose guide will slide into this 2' and the liner should rest there with cementing ports above.
14. Before setting liner on bottom, record the weight reading on the weight indicator and mark the drill pipe at TD at the rotary table.
15. Slack-off approximately 5,000 to 10,000 pounds of drill pipe weight on the setting tool, set the drill pipe slips and slack-off remainder of the drill pipe weight. Rotate to the right two to three (2-3) rounds and check for torque return. Continue until sixteen to twenty (16-20) torque free rounds at the setting tool are achieved. Pick up work string, pull the slips, pick up work string and check for 'loss' of the liner weight on the weight indicator.
    (Do not pick up work string over measured distance to keep you in setting sleeve or you will pull packer stomper dogs above setting sleeve. If for any reason you should pull packer stomper dogs above setting sleeve, stay where you are, do not set any weight down until after you have finished cementing. Otherwise you will not be able to circulate with the packer set).
16. Rig up cement company and pump a total of 170 sacks of Class C, 1% CaCl2 cement (1.32 Ft3/sk) which contains 50% excess.

7" 20#	= .0404 bbl/ft	
4 ½" 11.6#	= .0155 bbl/ft	.0872 ft3/sk
2 7/8" 6.5#	= .00579 bbl/ft	
4 ¾", 2" ID DC's	= .0039 bbl/ft	
7" x 4 ½" annulus		.1169 ft3/sk

After cement has been pumped, release the drill pipe wiper plug and begin pumping displacement fluid. Reduce pump rate to one to two (1-2) barrels per minute prior to the drill pipe plug reaching the liner setting tool. This will permit observation of the pump pressure increase when the drill pipe plug latches into and shears the liner wiper plug from the setting tool. Note the pressure increase and the displacement volume at this point. If necessary, correct calculated displacement and continue pumping. When the liner wiper plug latches into the plug-landing collar, increase pump pressure up to approximately 1,000 psi over circulating pressure. Bleed off pressure and check for 'bleed back' to ensure that floats are holding. Drop wiper plug and displace with 46.3 bbls from wellhead. **We do not want to over displace!!!**

17. Packer may now be set. To set packer pick up work string three to four (3-4) feet. This will allow packer stomper dogs to expand to set packer. Slack off a minimum of 20,000 pounds work string weight on to the packer. When set, the pack-off elements are held in expanded position by a ratchet ring in the packer. **(Make sure there is a valve open on the floor to the annular side of the casing when trying to set packer. This will eliminate a possible hydraulic lock when trying to set packer.)** Packer may require more than one transfer of weight to set.
18. Reverse circulate excess cement out of the hole at this time. Pull out of hole with drill pipe and lay down 2 7/8" workstring, 4 ¾" drill collars, and setting tool.
19. Wait on cement over night. Run Temperature survey to determine TOC. Pick up 2 3/8" tubing, 3 7/8" bit and 3" drill collars and TIH to ~ 6098' and drill out float collar, float shoe and CIBP @ 6155'. Assure hole is clean to PBTD of 6890'.
20. Place well on pump **(tubing pump)** with the following rod design for ~ 153 + BFPD using the following design which has rod loading of 95%, PU loading of 94%:

112	7/8" X 25' D rods	2800.00'
162	3/4" X 25' D rods	4050.00'
	2" X 1-3/4" X 20' pump	20.00'
		6870.00'

Set 4 ½" TAC at ~ 6740' in 4 ½" casing with enough tailpipe below it to set SN at ~ 6880'.

21. Place well on production, test, shoot a fap and run a dyno as soon as possible.

DGB 9-20-04

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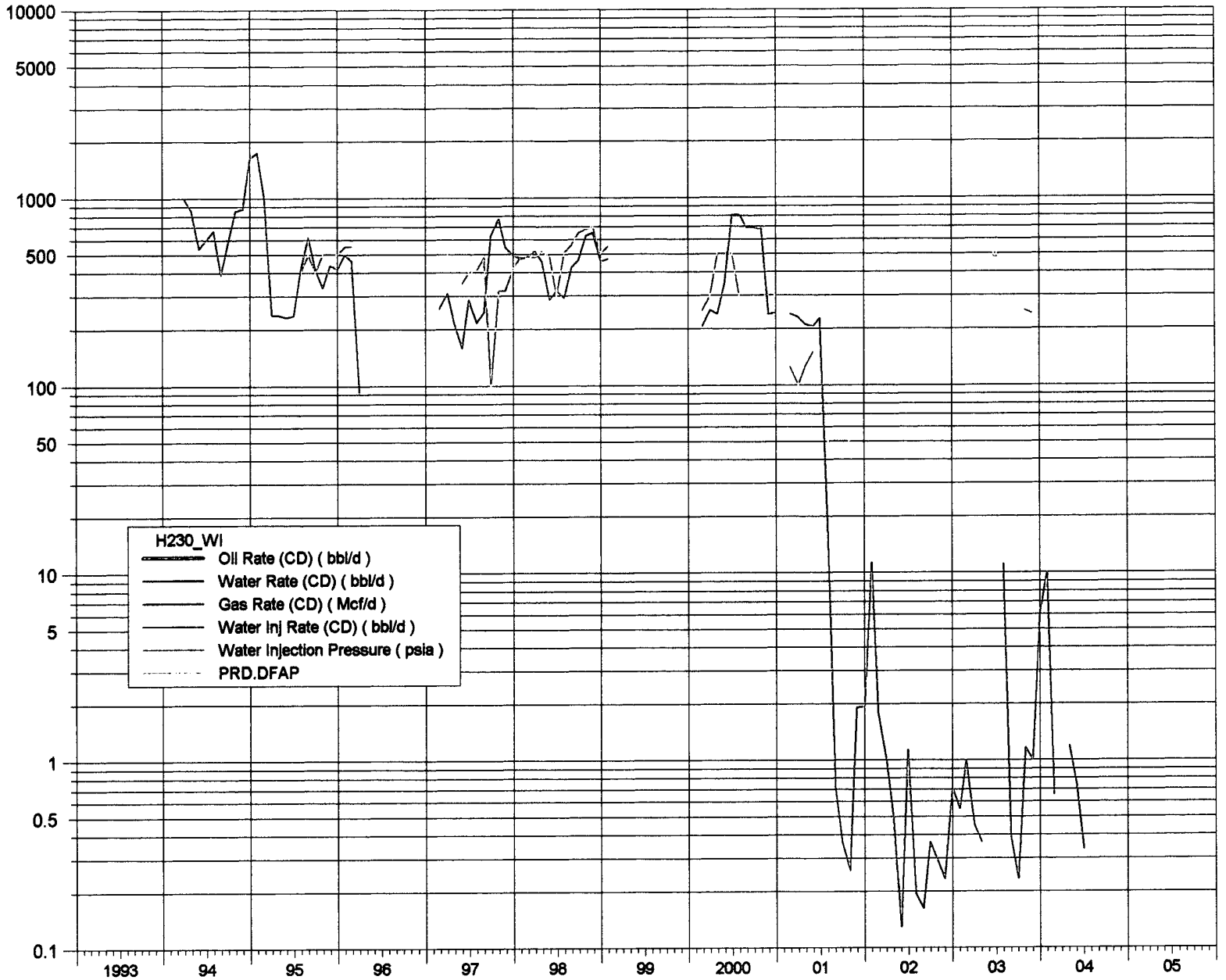
South Justis Unit



South Justis Unit