

**Injection Permit Checklist**

SWD Order Number \_\_\_\_\_ Dates: Division Approved \_\_\_\_\_ District Approved \_\_\_\_\_

Information Request Letter or Email sent \_\_\_\_\_

Well Name/Num: Poka Lake UNIT #188 Y Date Spudded: 10/22/04

API Num: (30-) 015-35716 County: EDDY

Footages 695FWL/180FWL Sec 5 Tsp 245 Rge 30E

Operator Name: BERCO L.P. Contact Cindi Goodman

Operator Address: PO BOX 2760 MIDLAND TX 79702

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface	<u>12 1/4 8 5/8</u>	<u>668</u>	<u>568</u>	
Intermediate	<u>7 7/8 5 1/2</u>	<u>7624</u>	<u>750w/N2</u>	<u>4652' T.S.</u>
Producing				
Last DV Tool				
Open Hole/liner				
Plug Back Depth				

Diagrams Included (Y/N): Before Conversion  After Conversion  7320-7330 GOOD PROD.

Checks (Y/N): Well File Reviewed  ELogs in Imaging  (Potash only)

Intervals:	Depths	Formation	Producing (Yes/No)
<u>Salt/Potash</u>	<u>Potash ≈</u>	<u>1 mile away</u>	
<u>Capitan Reef</u>			
<u>Cliff House, Etc.</u>			
Formation Above	<u>3563</u>	<u>Top Del.</u>	
Top Inj Interval	<u>4780</u>	<u>Del</u>	<u>956</u> PSI Max. WHIP
Bottom Inj Interval	<u>7330</u>	<u>Del</u>	<u>No</u> Open Hole (Y/N)
Formation Below	<u>7416</u>	<u>TOP B.S.</u>	<u>No</u> Deviated Hole (Y/N)

Fresh Water Site Exists (Y/N) in Rooter Analysis Included (Y/N): \_\_\_\_\_

Salt Water Analysis: Injection Zone (Y/N/NA) Some Disposal Waters (Y/N/NA) \_\_\_\_\_ Types: Del.

Affirmative Statement Included (Y/N): \_\_\_\_\_ Newspaper Notice Adequate (Y/N)  Well Table Adequate (Y/N)

Surface Owner BLM Noticed (Y/N) Yes Mineral Owner(s) \_\_\_\_\_

AOR Owners: all Bep co Noticed (Y/N) \_\_\_\_\_

CID/Potash/Etc Owners: \_\_\_\_\_ Noticed (Y/N) NO

AOR Num Active Wells 3 Repairs? \_\_\_\_\_ Producing in Injection Interval in AOR Yes

AOR Num of P&A Wells 1 Repairs? \_\_\_\_\_ Diagrams Included? \_\_\_\_\_

Data to Generate New AOR Table \_\_\_\_\_ New Table Generated? (Y/N) \_\_\_\_\_

	STR	E-W Footages	N-S Footages
Wellsite			
Northeast			
North			
Northwest			
West			
Southwest			
South			
Southeast			
East			

Conditions of Approval:

- NOTICE Nearest Potash
- and CBL
- Run IT Profile with 6 months
- How deep did #188 get?

RBDMS Updated (Y/N) Yes Stollen

UIC Form Completed (Y/N) Yes

This Form completed 12/11/06

1 mile to Notched Potash R-11 area

10/19/06 FIRST  
10/27/06 Letter  
12/11/06 Final  
Reply  
12/6/06 Final  
Notice

(SWD-1065) pwr 50634560970

BEPCO, L.P.  
P. O. Box 2760  
Midland, Texas 79702

September 13, 2006

FAX: 432-687-0329



Re: Notice of Application for  
Authorization to Convert to SWD  
Poker Lake Unit #188Y  
Eddy County, New Mexico  
File: 100-WF: PLU188Y.C108

30-015-33776

Oil Conservation Division  
1220 St. Francis Drive  
Santa Fe, New Mexico 87505

Gentlemen:

Enclosed please find BEPCO, L.P.'s Application for Authorization to Convert for disposal purposes only into the Poker Lake Unit #188Y, located in Section 5, T24S, R30E, Eddy County, New Mexico.

If additional information is required, please contact Michael Lyon at the letterhead address.

Sincerely,

Keith E. Bucy  
Division Production Manager

MLL:cdg  
Attachment

**APPLICATION FOR AUTHORIZATION TO INJECT**

I. PURPOSE : \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance  X  Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval?  X  Yes \_\_\_\_\_ No

II. OPERATOR:  BEPCO, L.P.

ADDRESS :  P.O. BOX 2760 MIDLAND TX 79702-2760

CONTACT PARTY :  CINDI GOODMAN  PHONE :  (432)683-2277

III. WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection.  
Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? \_\_\_\_\_ Yes  X  No  
If yes, give the Division order number authorizing the project \_\_\_\_\_

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

\*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

\*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted.)

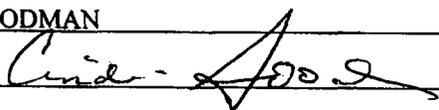
\*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the 'Proof of Notice' section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME:  CINDI GOODMAN  TITLE:  PRODUCTION CLERK

SIGNATURE:    DATE:  07/26/2006

E-MAIL ADDRESS:  cdgoodman@basspet.com

\* If the information required under Sections VI, VII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal: \_\_\_\_\_

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

**III. Well Data**

**A. 1) Lease name: *Poker Lake Unit***

**Well #:** #188Y  
**Section:** 5C  
**Township:** 24S  
**Range:** 30E  
**Footage:** 695' FNL & 1880' FWL

**2) Casing Info.**

Casing size	Set depth	Sacks cmt	Hole size	TOC	Method
8-5/8" 32# J55	665	568	12-1/4"	Surface	1 inch
5-1/2" 15.5# J55, K55, & L80	7,618'	750	7-7/8"	4,652'	Temp Survey

**3) Tubing to be used (size, lining material, setting depth):**

*It is anticipated that a string of 2-7/8" 6.5# J-55 Seal Tite PVC, set to a depth of 4,750', be utilized if all proposed perforations are utilized.*

**4) Name, model, and depth of packer to be used:**

*Baker Lok-Set packer (plasti coated ID & nickel coated OD) @ 4750' if all proposed perforations are utilized.*

**B. 1) Name of the injection formation and, if applicable, the field or pool name:**

*Nash Draw (Delaware/Avalon).*

**2) The injection interval and whether it is perforated or open hole:**

*Currently, the well is perforated in the Lower Brushy Canyon from 7,320' to 7,330'. It is proposed that selected Delaware intervals from 4,780' to 6,580' be perforated and combined with the existing Lower Brushy Canyon perforations to form the overall injection interval.*

**3) State if the well was drilled for injection or, if not, the original purpose of the well:**

*The captioned well was drilled as a producer but its current marginal performance makes it more valuable as an injection / disposal well.*

**4) Give the depths of any other perforated intervals and detail on the sacks of cement or BP's used to seal off such perforations:**

*The captioned wellbore does not, and is not expected to, utilize any bridge plugs.*

**5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any:**

*T/Delaware Mtn. Group: 3,563'. T/Bone Spring Lime: 7,416'.*

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

Well Name	No.	API	Operator	Type	Location	Surface Casing	Intermediate Casing	Construction	Production Casing	Tubing	Spud Date	Comp Date	TD	Perforations	Stimulation
Poker Lake Unit 165	30-015-31334		BEPCO	Producer	560' FSL & 330' FML, s33 T24S-R30E	8-5/8" @ 562'; c/645sx, CTS	None	5-1/2" @ 7150'; c/650sx, TOC 3425' TS	7299'	7299'	4/19/2001	4/19/2001	7550'	7299'-7288'	F/71M gal & 267M# sand
Poker Lake Unit 166	30-015-31695		BEPCO	Producer	660' FML & 660' FML, s5 T24S-R30E	8-5/8" @ 575'; c/325sx, CTS	None	5-1/2" @ 7462'; c/630sx, TOC 3879' TS	7318'	7318'	5/21/2001	6/21/2001	7465'	7280'-7290'	F/52M gal & 225M# sand
Poker Lake Unit 167	30-015-31696		BEPCO	Producer	1980' FML & 660' FML, s5 T-24S-R30E	8-5/8" @ 460'; c/305sx, CTS	None	5-1/2" @ 7459'; c/750sx, TOC 3378' TS	7308'	7308'	4/10/2003	5/21/2003	7460'	6810'-7290'	F/83M gal & 221M# sand in 2 slgs

VII. Attach data on the proposed operation, including:  
 1. Proposed average and maximum daily rate and volume of fluids to be injected: 3,000 BWPD  
 2. Whether the system is open or closed: closed  
 3. Proposed average and maximum injection pressure: 800 psi average, 1000 psi maximum  
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water: water will be produced from same reservoir (Delaware/Avalon).  
 5. If injection is for disposal purposes into a zone not productive of oil & gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water: n/a

VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with TDS of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.  
 Lithologic Detail: Sand, Shale, Lime Sequences  
 Geological Name: Delaware Mountain Group  
 Thickness: 3867'  
 Depth: 3851'-7718'

The Rustler Formation is a known source of fresh water throughout this geographic area. Average depth of Rustler is 200-400'. No sources of fresh water are known to exist below the proposed disposal zone.

IX. Describe the proposed stimulation program, if any:  
 Each of the zones will be perforated and acidized with approximately 50 gallons 7-12% NEFE HCl per foot.  
 X. Attach appropriate logging and test data on the well (if well logs have been filed with the Division, they need not be resubmitted). Logs previously submitted.

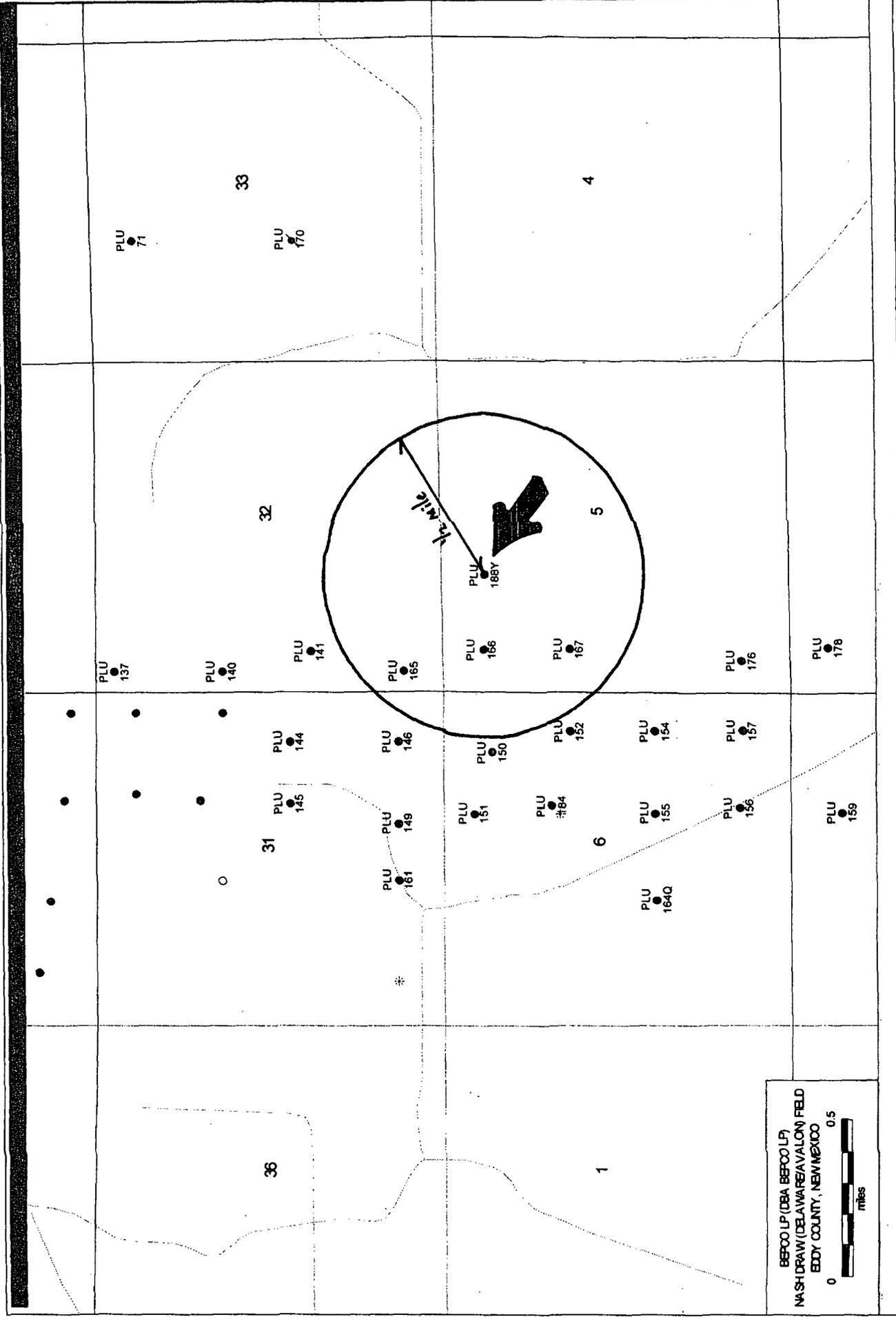
XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.  
 No known fresh water, injection/disposal wells within one mile of proposed well.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrology connection between the disposal zone and any underground sources of drinking water.  
 Applicant hereby affirms that he has examined the available geologic and engineering data and finds no evidence of open faults, or other hydrologic connection between the disposal zone and any underground source of drinking water.

# PowerTools Map

Project: d:\my documents\files\power tools data\new mexico2.mdb

Date: 7/19/2006  
Time: 3:33 PM



BEFCO LP (DBA BEFCO LP)  
NASH DRAW (DELAWARE VALON) FIELD  
EDDY COUNTY, NEW MEXICO  
0 0.5  
miles

LEASE: POKER LAKE UNIT

WELL #: 188Y

FIELD: NASH DRAW DELAWARE

LOCATION: 695' FNL & 1880' FWL, SEC 5, T24S, R30E, UNIT C

COUNTY: EDDY

ST: NM

API: 30-015-33776

KB: 3276'
GL: 3256'
SPUD DATE: 10/22/2004
COMP DATE: 11/20/2004

**SURFACE CASING**

SIZE:	8-5/8"
WT/GRD:	32# J-55
CSA:	665'
SX:	200 PERMIAN
SX:	368 C
CIRC:	Y
TOC:	SURF TOP OUT
HOLE SIZE:	12-1/4" 155-668'

**PRODUCTION CASING**

SIZE:	5-1/2"
WT/GRD:	15.5# K55 0-1201'
WT/GRD:	15.5# J55 1201-5295'
WT/GRD:	15.5# L80 5295-7618'
CSA:	7618'
SX:	750 C
CIRC:	N
TOC:	4652' TS
HOLE SIZE:	7-7/8" 668-7624'

**TUBING DATA**

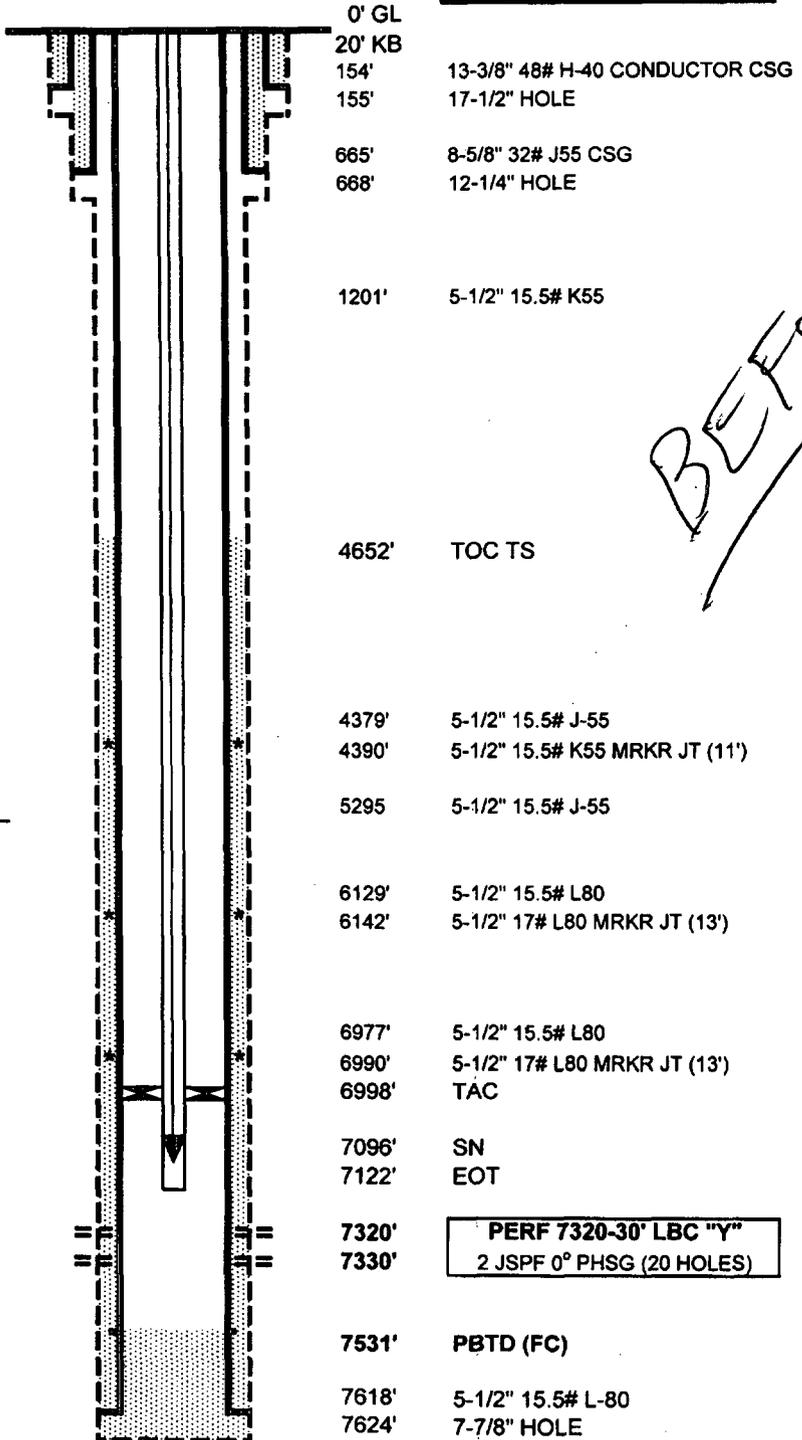
( 222 JTS) 2-7/8" J55
2-7/8" TAC @6998'
( 3 JTS) 2-7/8" J-55 TBG
3' 2-7/8" SS SUB
SN W/ GA @ 7096'
3-1/2" GAS BUSTER W/ BP&C F/ MA [EOT @ 7122']

**RODS & PUMP DATA**

2550' 1" GRADE D RODS
2450' 7/8" GRADE D RODS
2000' 3/4" GRADE D RODS
1-3/4" 3-TUBE PUMP

**PERFORATION DATA**

11/04 PERF 7320-30' LBC "Y" BD PERFS W/ 17 BBLS 2% KCL @ 1209#. F: 20kg 10# BRINE+8k# 14/30 LITE PROP+77.7kg LIGHTNING 2500+211.6 k# 16/30 OTTAWA+72k# 16/30 CR-4000
01/05 Pump "Sand Consolidation" frac LBC "Y" PERFS: 4.6kg FW + 3.9kg Light 25 w/ 17k# 16/30 Super LC. 1323 gls flush, screened out as planned, 3407# prop in csg, 13,905# prop in formation. ISIP 4500#



*BEFORE*

PBTD: ~7531'  
TD: 7624'

Updated:	3/10/2005
Author:	KRA
Engr:	BJC

LEASE: **POKER LAKE UNIT**

WELL #: **188Y**

FIELD: **NASH DRAW DELAWARE**

LOCATION: **695' FNL & 1880' FWL, SEC 5, T24S, R30E, UNIT C**

COUNTY: **EDDY**

ST: **NM**

API: **30-015-33776**

**KB: 3276'**  
**GL: 3256'**  
**SPUD DATE: 10/22/2004**  
**COMP DATE: 11/20/2004**

**SURFACE CASING**

SIZE:	8-5/8"
WT/GRD:	32# J-55
CSA:	665'
SX:	200 PERMIAN
SX:	368 C
CIRC:	Y
TOC:	SURF TOP OUT
HOLE SIZE:	12-1/4" 155-668'

**PRODUCTION CASING**

SIZE:	5-1/2"
WT/GRD:	15.5# K55 0-1201'
WT/GRD:	15.5# J55 1201-5295'
WT/GRD:	15.5# L80 5295-7618'
CSA:	7618'
SX:	750 C
CIRC:	N
TOC:	4652' TS
HOLE SIZE:	7-7/8" 688-7624'

**TUBING DATA**

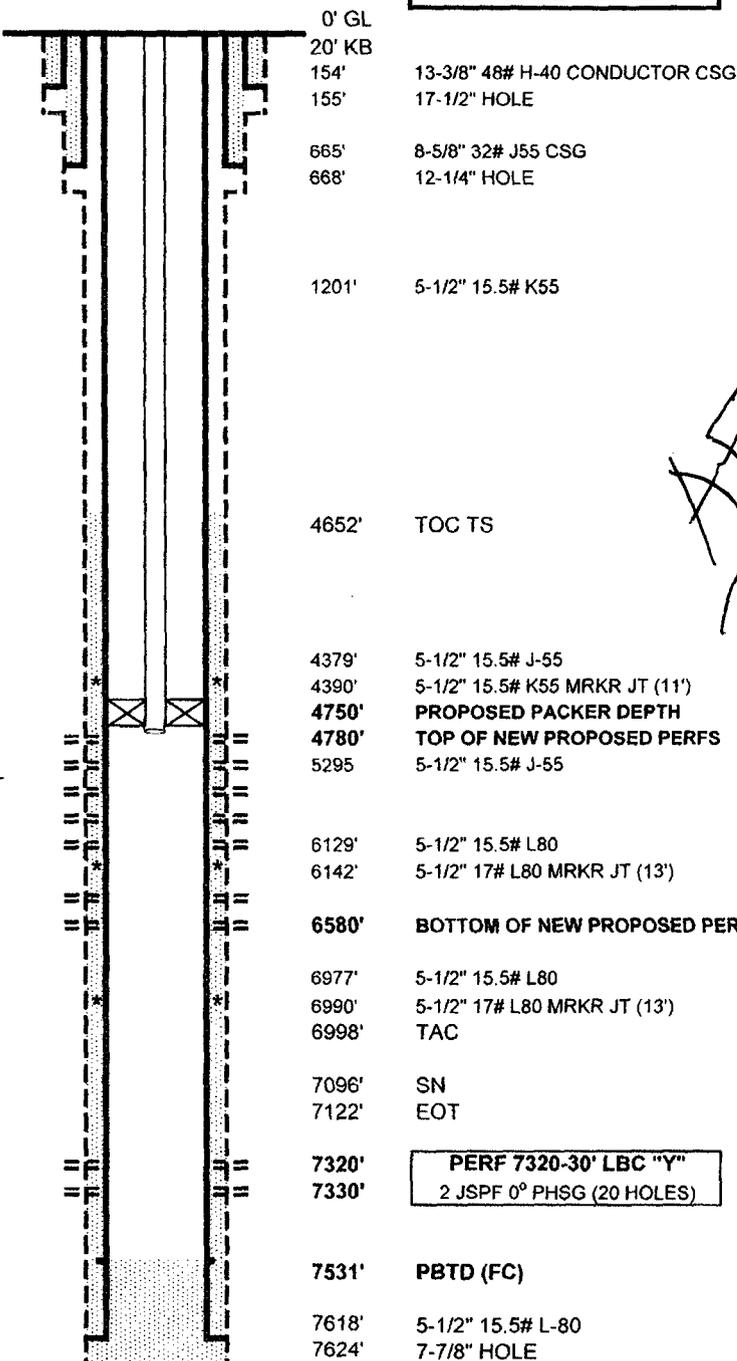
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3' 2-7/8" SS SUB
SN W/ GA @ 7096'
3-1/2" GAS BUSTER W/ BP&C F/ MA [EOT @ 7122']

**RODS & PUMP DATA**

2550' 1" GRADE D RODS
2450' 7/8" GRADE D RODS
2000' 3/4" GRADE D RODS
1-3/4" 3-TUBE PUMP

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*ALTER*

PBTD: ~7531'  
 TD: 7624'

**PERF 7320-30' LBC "Y"**  
 2 JSPF 0" PHSG (20 HOLES)

Updated: 3/10/2005  
 Author: KRA  
 Engr: BJC

**BEPCO, L.P.**  
P. O. Box 2760  
Midland, Texas 79702

432-683-2277

July 27, 2006

FAX: 432-687-0329

Re: Notice of Application for  
Authorization to Convert to SWD  
Poker Lake Unit #188Y  
Eddy County, New Mexico  
File: 100-WF: PLU188Y.C108

Bureau of Land Management  
Department of Interior  
620 E. Greene Street  
Carlsbad, New Mexico 88220-6292  
Attn: Mr. Craig Cranston

Gentlemen:

Enclosed please find BEPCO, L.P.'s Application for Authorization to Convert for disposal purposes only into the Poker Lake Unit #188Y, located in Section 5, T24S, R30E, Eddy County, New Mexico.

If additional information is required, please contact Michael Lyon at the letterhead address.

Sincerely,



Keith E. Bucy  
Division Production Manager

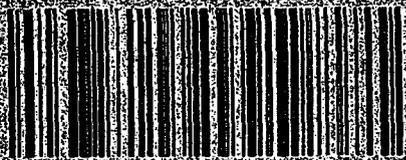
MLL:cdg  
Attachment

7160 3901 9842 9824 7709

US Postal Service	Postage	\$	Postmark Here
<b>Certified Mail Receipt</b>	Certified Fee		
Domestic Mail Only No Insurance Coverage Provided	Return Receipt Fee (Endorsement Required)		
	Restricted Delivery Fee (Endorsement Required)		
	<b>Total Postage &amp; Fees</b>	\$	

Sent To:  
 BLM  
 attn: Craig Cranston

Notice of Application  
 to convert to  
 SWD  
 PLU #1884  
 (BLM is landowner)

2. Article Number	COMPLETE THIS SECTION ON DELIVERY	
	A. Received by (Please Print Clearly) <i>Somer</i>	B. Date of Delivery 8-2
7160 3901 9842 9824 7709	C. Signature <i>[Signature]</i>	<input type="checkbox"/> Agent <input type="checkbox"/> Addressee
3. Service Type <b>CERTIFIED MAIL</b>	D. Is delivery address different from item 1? If YES, enter delivery address below:	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	1. Article Addressed to:  ATTN: Craig Cranston BUREAU OF LAND MANAGEMENT 620 E. GREENE STREET CARLSBAD, NM 88220-6292	
PS Form 3811, January 2005	Domestic Return Receipt <i>CDG</i>	



**Additional Operator Remarks:**

Surface casing to be set - 100' above the salt.  
Producing casing cement will be brought up at least 500' above the upmost hydrocarbon bearing zone.  
Drilling Procedure, BOPE Diagram, Anticipated Formation Tops and Surface Use Plans attached.

This well is located inside the R-111 Potash Area and inside the Secretary's Potash Order, but in the barren area for potash.

There are no potash leases within 1 mile of this location.

From well # 188 FJoz

▪ **Additional Operator Remarks:**

This location replaces Bass' Poker Lake Unit #188 well that was located 660' FNL & 1880' FWL & Plugged and Abandoned.

**EIGHT POINT DRILLING PROGRAM  
BASS ENTERPRISES PRODUCTION CO.**

**NAME OF WELL: POKER LAKE UNIT #188**

**LEGAL DESCRIPTION - SURFACE: 660' FNL & 1880' FWL, Section 5, T-24-S, R-30-E, Eddy County, New Mexico.**

**POINT 1: ESTIMATED FORMATION TOPS**

(See No. 2 Below)

**POINT 2: WATER, OIL, GAS AND/OR MINERAL BEARING FORMATIONS**

Anticipated Formation Tops: KB 3269' (est) GL 3256'

<u>FORMATION</u>	<u>ESTIMATED TOP FROM KB</u>	<u>ESTIMATED SUBSEA TOP</u>	<u>BEARING</u>
T/Salt	664'	+2605'	Barren
B/Salt	3369'	- 100'	Barren
T/Lamar Lime	3573'	- 304'	Barren
T/Ramsey Sand	3813'	- 344'	Oil/Gas
T/ Lower Brushy Canyon U Sand	7149'	-3880'	Oil/Gas
T/ Lower Brushy Canyon Y Sand	7289'	-4020'	Oil/Gas
T/Bone Spring Lime	7424'	-4155'	Oil/Gas
TD	7680'	-4411'	

**POINT 3: CASING PROGRAM**

<u>TYPE</u>	<u>INTERVALS</u>	<u>PURPOSE</u>	<u>CONDITION</u>
14"	0 - 40'	Conductor	New
8-5/8", 24#, WC-50, STC	0 - 610'	Surface	New
5-1/2", 15.5#, K-55, LTC	0 - 6500'	Production	New
5-1/2", 17#, K-55, LT&C	6500 - 7680'	Production	New

**POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAMS)**

Bass Enterprises recognizes that the minimum BOP requirements is a double 3000 psi WP BOP equivalent to Diagram 1 of this package. However, the actual BOP's used will likely exceed the minimum requirements depending on the rig the operator employs. Bass Enterprises requests a waiver to the testing requirements per Onshore Order 2. This well is located in an area Bass is familiar with and we have chosen to set only a surface casing string at 610' and drill into the low permeability rock of the Bone Spring. 70% of the interval yield of 8-5/8", 24#, WC50, ST&C is 1750 psi. The Delaware in this area is normally pressured (8.3 ppg MVE) and is not capable of flowing with a full column of fresh water. If for some reason the well does flow, we can not and will not shut the well in due to the low frac gradient at the shoe. The surface casing will only be used as a diverter. Therefore, a BOP test to indicate the BOP's are operating correctly and seal at lower rates is all that is necessary. We intend to hydrotest the BOP stack, the choke and kill lines, kelly cock, inside BOP, etc to 200 psi (low) and 1000 psi (high) with clear water using the rig pump. These tests will be performed:

- a) Upon installation
- b) After any component changes
- c) Fifteen days after a previous test
- d) As required by well conditions

**Jones, William V., EMNRD**

---

**From:** Jones, William V., EMNRD  
**Sent:** Friday, October 27, 2006 11:13 AM  
**To:** 'CINDI D. GOODMAN'  
**Cc:** Ezeanyim, Richard, EMNRD; Arrant, Bryan, EMNRD  
**Subject:** SWD Application: Poker Lake Unit #188Y 30-015-33776

Hello Ms. Goodman:

After examining your application, we have the following questions:

- 1) Since the Delaware oil production is likely spaced at 40 acres per unit and there are few producing wells near #188Y, are there any other Lessee's within 1/2 mile of this well in undrilled spacing units other than BEPCO? If so, please send them notice also as our Notice Rules have changed for C-108's (See Rule 701).
- 2) Your application states the original well #188 was plugged but there is no record in the well file that this well was ever drilled. Please send a wellbore diagram of this nearby well showing depths and how it was plugged or abandoned.
- 3) You are applying for an SWD well in an existing production interval. Please have a reservoir engineer send a short evaluation of this production in this well and in offset wells and what effect injection into this well will have on that production. The evaluation should include an examination with reservoir engineering parameters, and be signed by the engineer.
- 4) Your application says that using this well as an SWD is more cost effective than continued production. Please send more about this, specifically a short cost comparison of injection vs pumping this high water cut well and also send an estimate of oil production potential of the additional intervals to be added up hole.
- 5) This well is much closer to the R-111 area and does not have an additional protective string of casing over the Salt/Potash. Your primary cementing job included nitrogen and has a cement top only 130 feet above your proposed upper perforation. For these reasons,
  - (i) please notice the nearest Potash leaseholder, and send a copy of your cover letter to that entity,

Also, FYI

- (ii) we will require a cement bond log prior to beginning injection,
- (iii) we will require an injection profile log within 6 months of beginning injection to be run and sent to the engineering bureau in Santa Fe.

Thank You,

William V. Jones PE

Engineering Bureau

Oil Conservation Division

Santa Fe

10/27/2006

**ADDITIONAL INFORMATION NEEDED FOR SWD APPLICATION FOR  
POKER LAKE UNIT #188Y**

1) Since the Delaware oil production is likely spaced at 40 acres per unit and there are 56 few producing wells near #188Y, are there any other Lessee's within 1/2 mile of this well in undrilled spacing units other than BEPCO? If so, please send them notice also as our Notice Rules have changed for C-108's (See Rule 701).  
There are no other leases operated by anyone other than BEPCO located within a 1/2 mile of the PLU 188Y. ✓

2) Your application states the original well #188 was plugged but there is no record in the well file that this well was ever drilled. Please send a wellbore diagram of this nearby well showing depths and how it was plugged or abandoned.  
Please see attached wellbore diagram. ✓

3) You are applying for an SWD well in an existing production interval. Please have a reservoir engineer send a short evaluation of this production in this well and in offset wells and what effect injection into this well will have on that production. The evaluation should include an examination with reservoir engineering parameters, and be signed by the engineer.  
Please see attached Projected Oil Response from Injection. ✓

4) Your application says that using this well as an SWD is more cost effective than continued production. Please send more about this, specifically a short cost comparison of injection vs pumping this high water cut well and also send an estimate of oil production potential of the additional intervals to be added up hole.  
The PLU 188Y is currently making 7 BOPD, 53 BWPD, and 45 MCFD. Using a product price of \$70.00/BO and \$6.00/MCF and an operating cost of \$3,500/mo the well generates approximately (NRI 84.7%) \$16,068/month of net income. Currently, however, BEPCO lacks sufficient disposal capacity forcing 2 to 6 loads of water to be trucked each day. Assuming 4 loads of water per day are trucked to a commercial disposal site at a cost of \$3.00/BW (combined trucking and SWD charge) the net monthly expense to BEPCO is \$47,424/month. Converting the PLU 188Y would result in a net savings of \$31,356/month. The PLU 188Y is down dip to the current field making up hole zones calculate a high water saturation. BEPCO has not identified any up hole pay within the captioned wellbore at this time. ✓

5) This well is much closer to the R-111 area and does not have an additional protective string of casing over the Salt/Potash. Your primary cementing job included nitrogen and has a cement top only 130 feet above your proposed upper perforation. For these reasons,

(i) please notice the nearest Potash leaseholder, and send a copy of your cover letter to that entity

Please see attached copy of letter and Certified Mail notice to the potash lease holder. ✓

on 12/6/06

Also, FYI

- (ii) we will require a cement bond log prior to beginning injection.  
BEPCO will run CBL prior to converting well to SWD.
  
- (iii) we will require an injection profile log within 6 months of beginning injection to be run and sent to the engineering bureau in Santa Fe.

BEPCO will run injection profile log as required.

Thanks,  
  
Cindi Goodman  
Production Clerk  
64325683-2277

**BEPCO, L.P.**  
P. O. Box 2760  
Midland, Texas 79702

432-683-2277

December 6, 2006

FAX: 432-687-0329

Re: Saltwater Disposal Application  
Poker Lake Unit #188Y  
Eddy County, NM  
File: 100-WF: PLU188Y.LTR

Mosaic Potash Carlsbad Inc.  
P.O. Box 71  
1361 Potash Mines Road  
Carlsbad, NM 88221-0071  
Attn: Mr. Dan Morehouse

Dear Potash Leaseholder:

Please find attached a copy of BEPCO L.P.'s Application for Authorization to Convert for disposal purposes only into the Poker Lake Unit #188Y, located in Section 5, T24S, R30E, Eddy County, New Mexico.

If you should have any questions, please contact Cindi Goodman at the above letterhead address.

Sincerely,



Cindi Goodman  
Production Clerk

cdg  
Attachment

7160 3901 9842 9824 9598

US Postal Service

# Certified Mail Receipt

Domestic Mail Only  
No Insurance  
Coverage Provided

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark Here

Sent To:

Mosaic Potash Carlsbad, Inc.  
PO Box 71  
Carlsbad, NM, 88221-0071

<sup>COPY</sup>  
SUD application  
for PLL #1884  
w/cover LTR.

PS Form 3800, January 2005

US Postal Service

**Certified Mail Receipt**

COG 12/6/06 2

Projected Oil Response from Injection into Poker Lake Unit #188Y and #227

In order to estimate the benefit of injection into the Poker Lake Unit #188Y and the Poker Lake Unit #227, an evaluation of the analogous injection by Maralo Inc. into the Charger 29 Federal #1 was performed. The Charger 29 Federal #1 is located approximately 1 mile to the north of BEPCo L.P.'s Nash Draw Field development. A map of the area is presented in attachment 1. Injection into the Lower Brushy Canyon began in June 1997. At the commencement of injection, the Gold Rush 30 Federal #3 and the Gold Rush 30 Federal #4 directly offset the Charger 29 Federal #1. Production curves for these two wells are presented in attachments 2 and 3. Both wells observed secondary oil response from the offset injection, which is plotted in attachment 4. Plots of oil production rate versus cumulative oil production were created (attachments 5, 6, 7, & 8) to evaluate the additional reserves recovered as a result of injection into the Charger 29 Federal #1. The Gold Rush 30 Federal #3 had projected reserves of 52 MBO prior to injection into the Charger #1 and 62 MBO after injection began giving reserves attributed to secondary recovery of 10 MBO and a secondary to primary ratio (S/P) of 0.2. The Gold Rush 30 Federal #4 had projected reserves of 56 MBO prior to injection and 81 MBO after injection for secondary reserves of 25 MBO and an S/P ratio of 0.45.

Attachments 9 and 12 show a map of the area immediately surrounding each proposed conversion. A conservative S/P ratio of 0.2, derived from the analog, was applied to production from wells immediately offsetting the Poker Lake Unit #188Y and the Poker Lake Unit #227. A lag time of 2 years to first response was also assumed in order to account for the advanced depletion offsetting the PLU #188Y relative to the stage of depletion when the Charger 29 Federal #1 was converted to injection. Historical and projected oil production offsetting each proposed injection well is presented in attachments 10 and 11 for the Poker Lake Unit #188Y and attachments 13 and 14 for the Poker Lake Unit #227. Total secondary recovery expected from the conversions is estimated at 30 MBO. Assuming an oil price of \$30/bbl net of expenses and royalty, secondary reserves are valued at \$900,000. Remaining oil reserves from the two proposed conversions is estimated to be less than 5 MBO total.

  
Kent A. Adams  
Division Engineer  
BEPCO, L.P.



# Rate/Time Graph

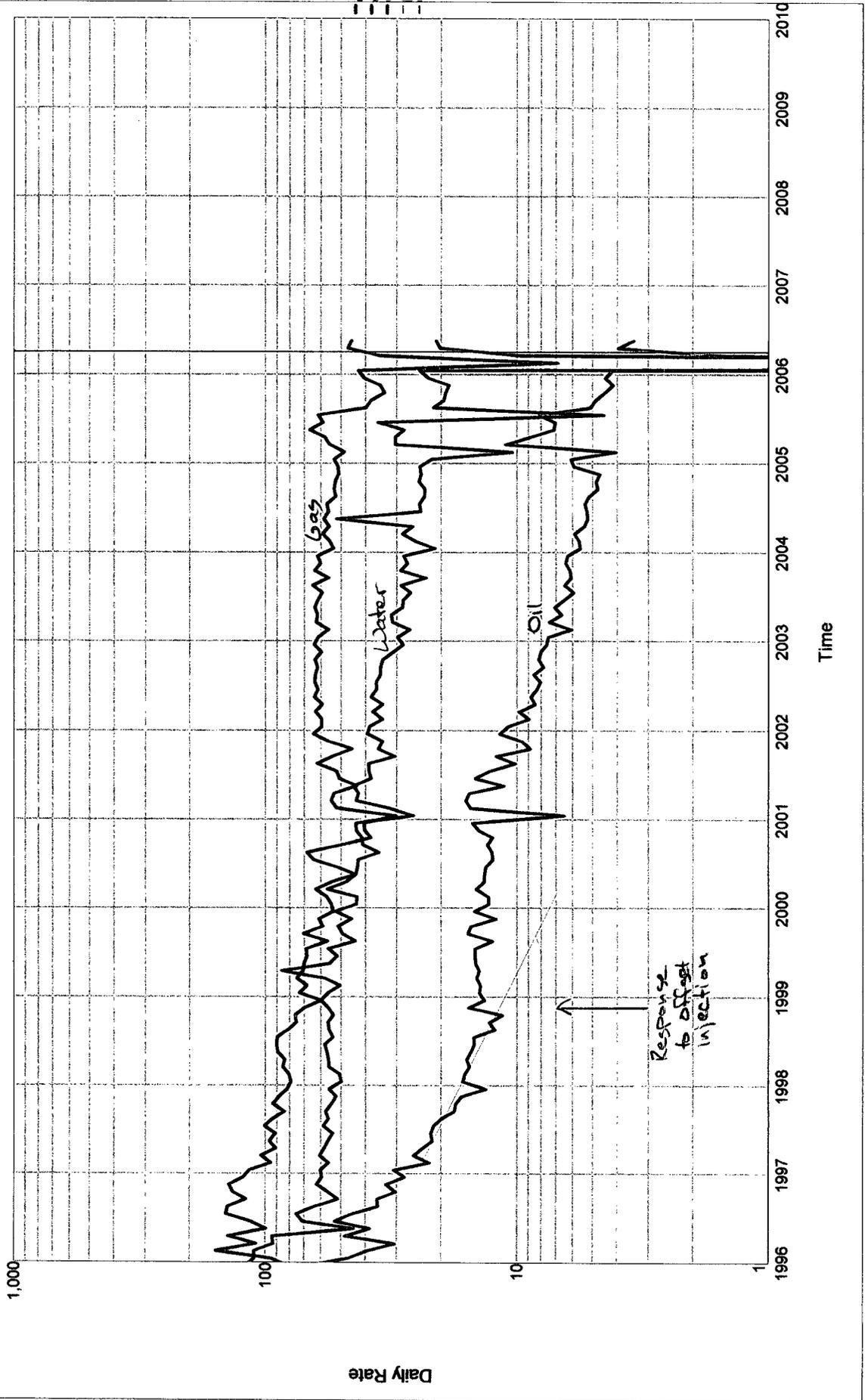
Project: d:\powerools v8.0\pluwf.mdb

Date: 11/17/2006  
Time: 3:35 PM

Lease Name: GOLD RUSH 30 FEDERAL (3)  
County, ST: EDDY, NM  
Location: 30H 23S 30E

Operator: COG OPERATING LIMITED LIABILITY CORP  
Field Name: NASH DRAW

## Gold Rush 30 Federal #3



# Rate/Time Graph

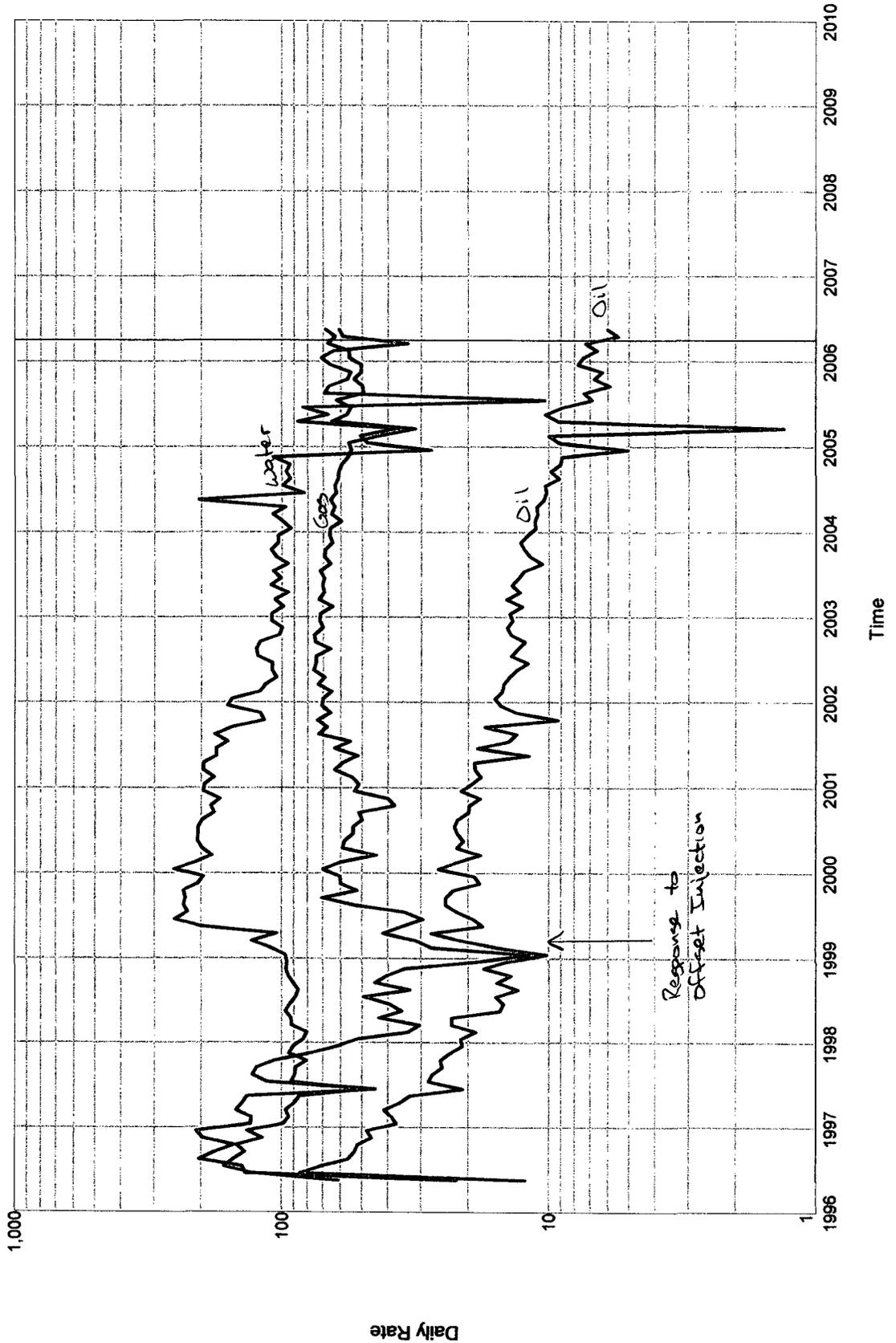
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Date: 11/17/2006  
Time: 3:33 PM

Lease Name: GOLD RUSH 30 FEDERAL (4)  
County, ST: EDDY, NM  
Location: 30I 23S 30E

Operator: COG OPERATING LIMITED LIABILITY CORP  
Field Name: NASH DRAW

## Gold Rush 30 Federal #4



# Rate/Time Graph

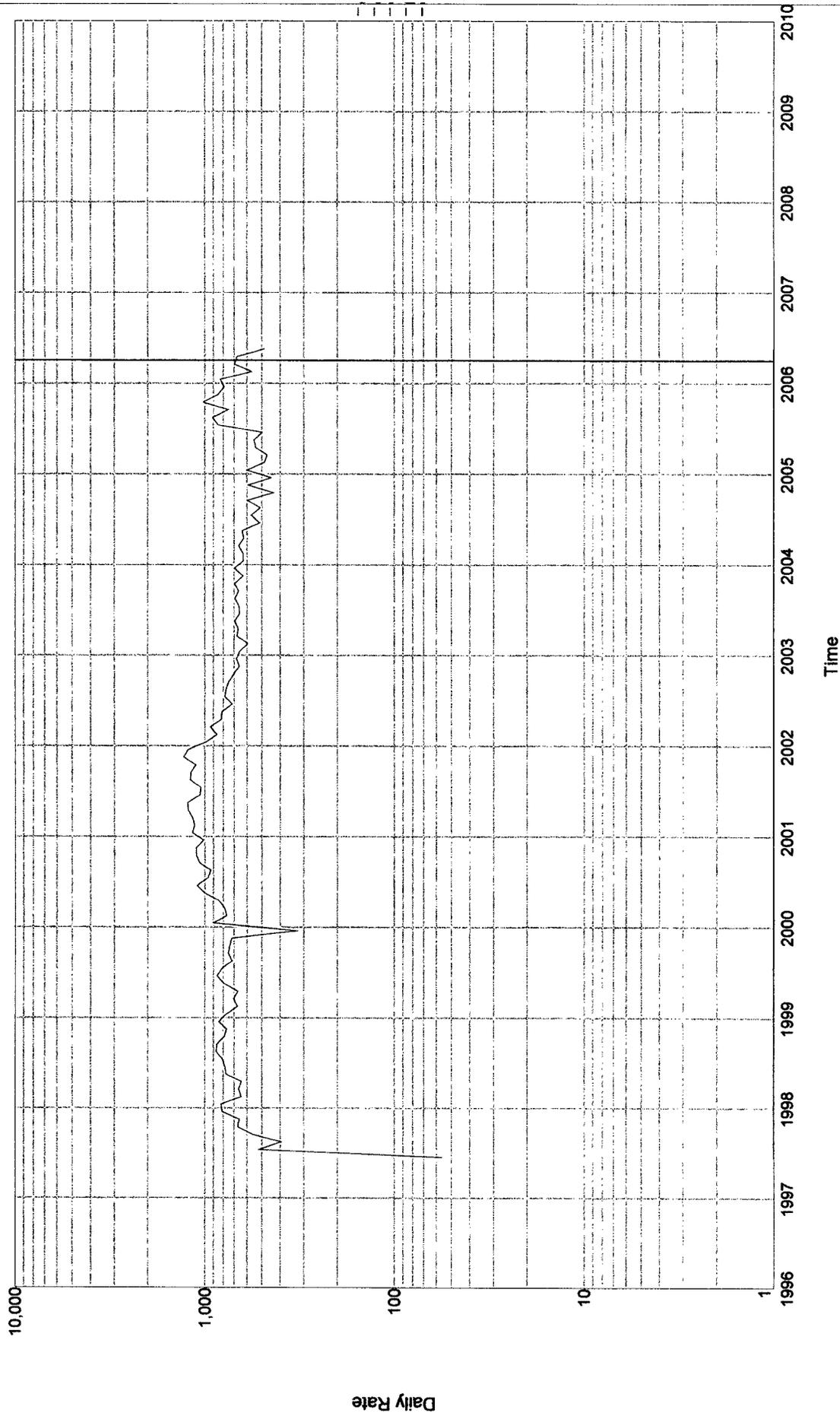
Project: d:\powertools v8.0\plwf.mdb

Date: 11/17/2006  
Time: 3:35 PM

Lease Name: CHARGER 29 FEDERAL (1)  
County, ST: EDDY, NM  
Location: 29E 23S 30E

Operator: COG OPERATING LIMITED LIABILITY CORP  
Field Name: SWD

## CHARGER 29 FEDERAL - SWD



# Rate/Cum Graph

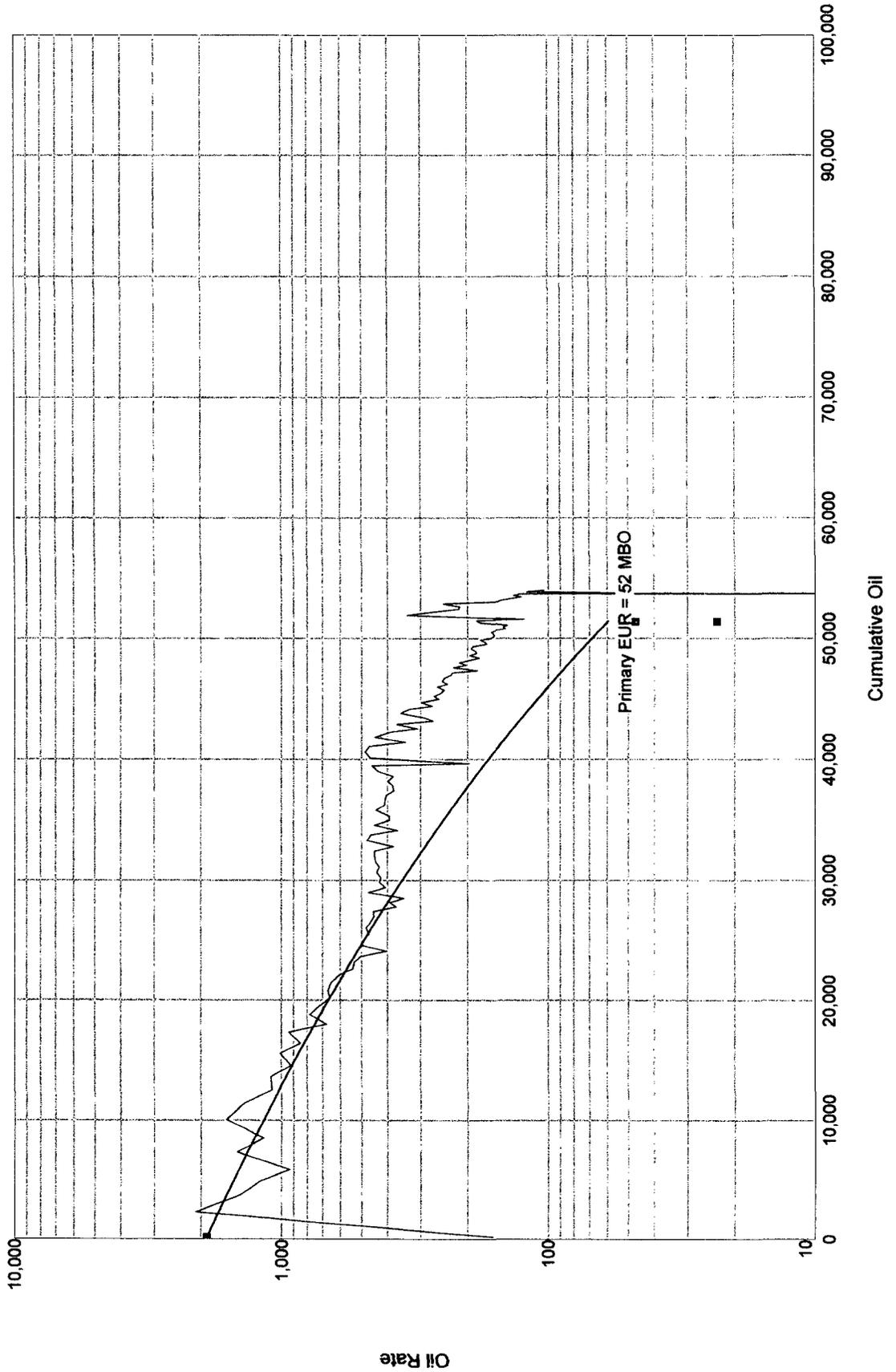
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Date: 11/17/2006  
Time: 3:21 PM

Lease Name: GOLD RUSH 30 FEDERAL (3)  
County, ST: EDDY, NM  
Location: 30H 23S 30E

Operator: COG OPERATING LIMITED LIABILITY CORP  
Field Name: NASH DRAW

## Gold Rush 30 Federal #3



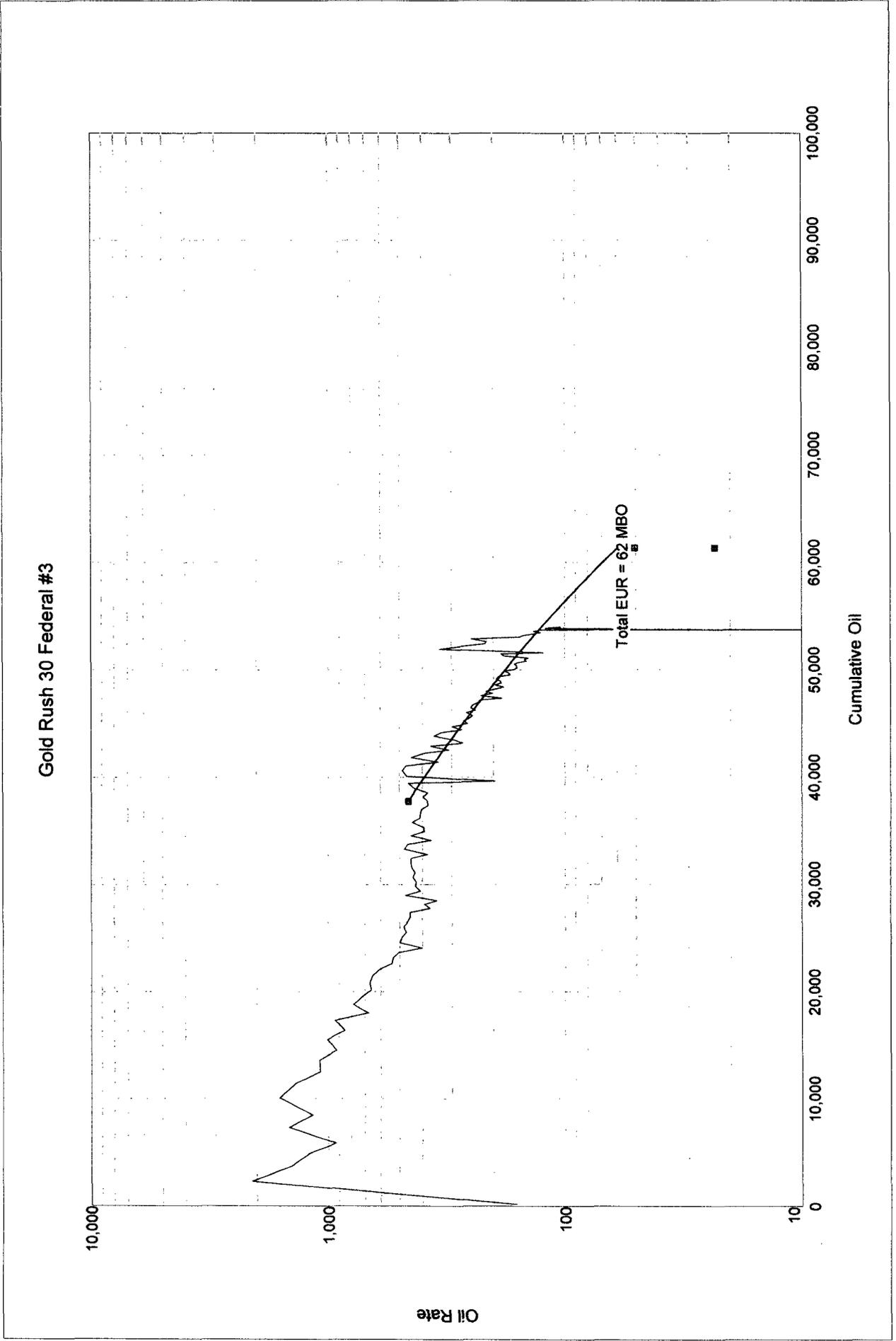
Date: 11/17/2006  
Time: 3:20 PM

Project: d:\powerertools v8.0\pluwf.mdb

### Rate/Cum Graph

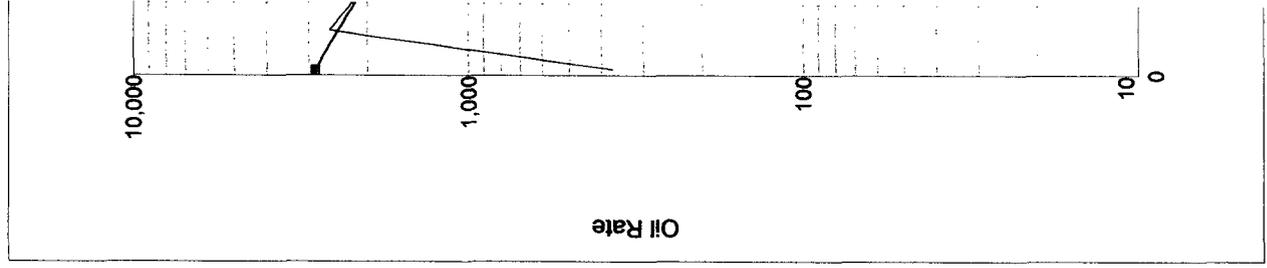
Lease Name: GOLD RUSH 30 FEDERAL (3)  
County, ST: EDDY, NM  
Location: 30H 23S 30E

Operator: COG OPERATING LIMITED LIABILITY CORP  
Field Name: NASH DRAW



### Rate/Cum Gr

Lease Name: GOLD RI  
County, ST: EDDY, NM  
Location: 30I 23S 30E



### Rate/C

Lease Nam  
County, ST:  
Location: 30



# Rate/Cum Graph

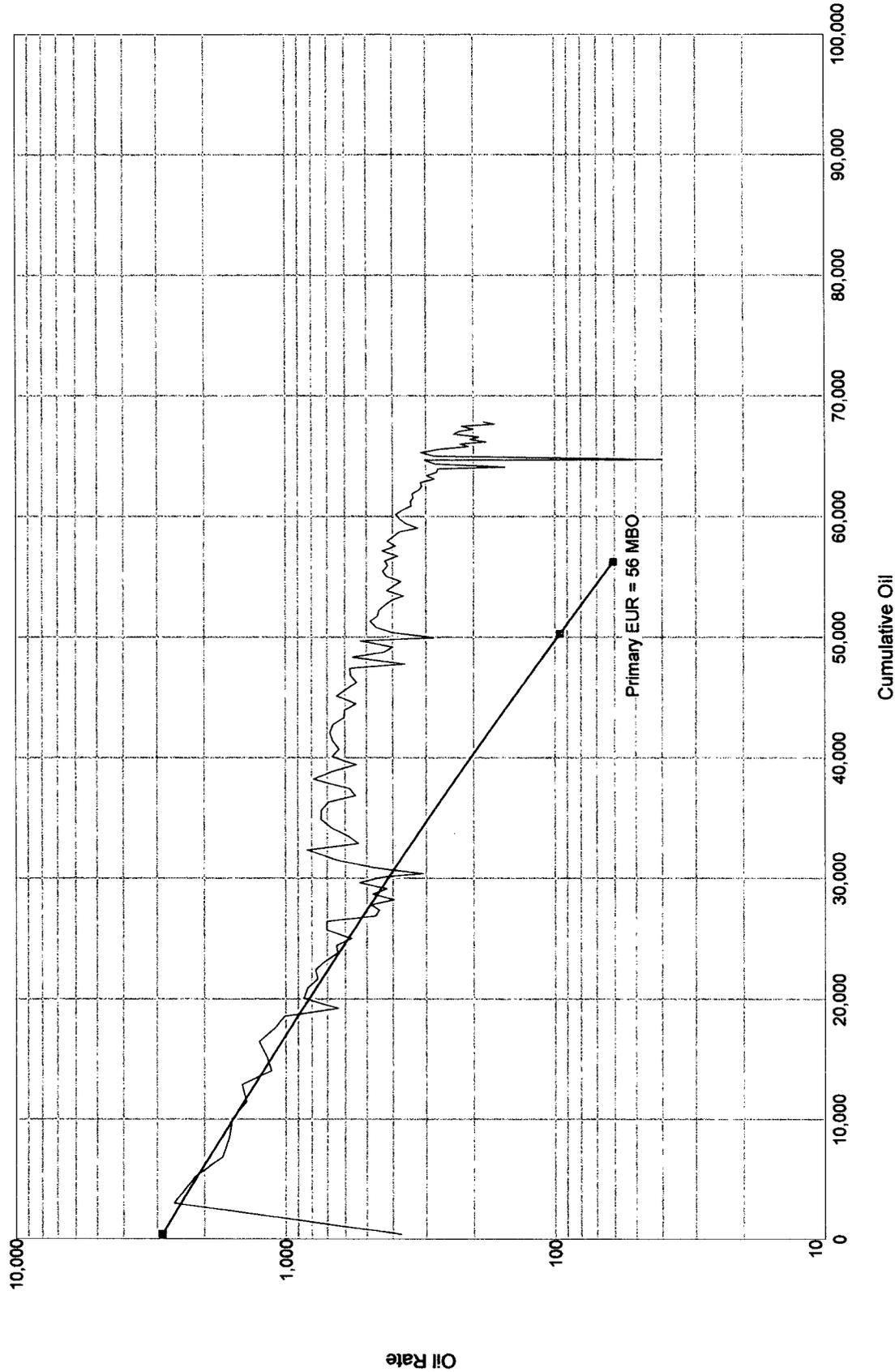
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Date: 11/17/2006  
Time: 3:26 PM

Lease Name: GOLD RUSH 30 FEDERAL (4)  
County, ST: EDDY, NM  
Location: 30I 23S 30E

Operator: COG OPERATING LIMITED LIABILITY CORP  
Field Name: NASH DRAW

## Gold Rush 30 Federal #4



# Rate/Cum Graph

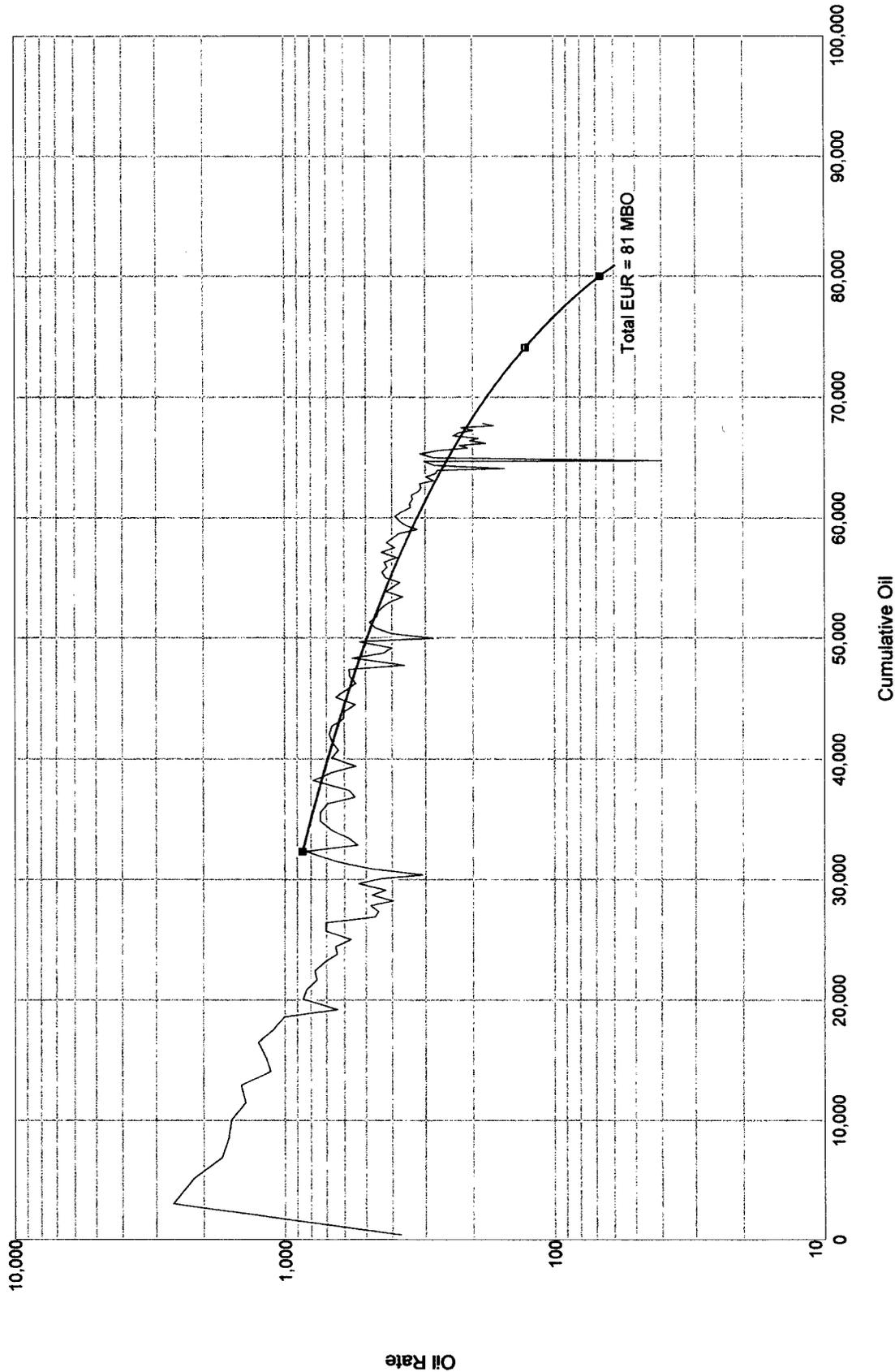
Project: d:\powertools v8.0\pluwf.mdb

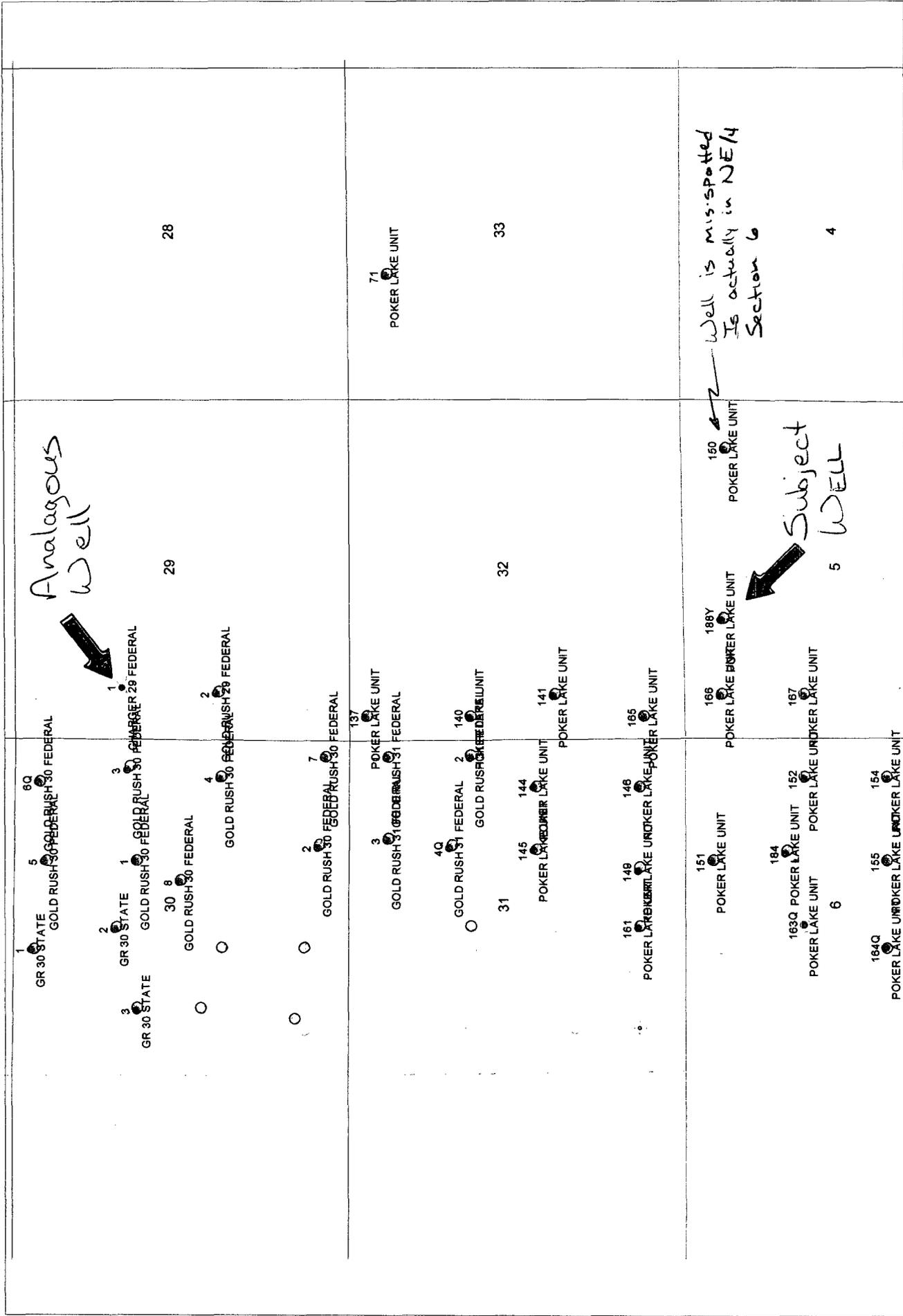
Date: 11/17/2006  
Time: 3:29 PM

Lease Name: GOLD RUSH 30 FEDERAL (4)  
County, ST: EDDY, NM  
Location: 30| 23S 30E

Operator: COG OPERATING LIMITED LIABILITY CORP  
Field Name: NASH DRAW

## Gold Rush 30 Federal #4





# Rate/Time Graph

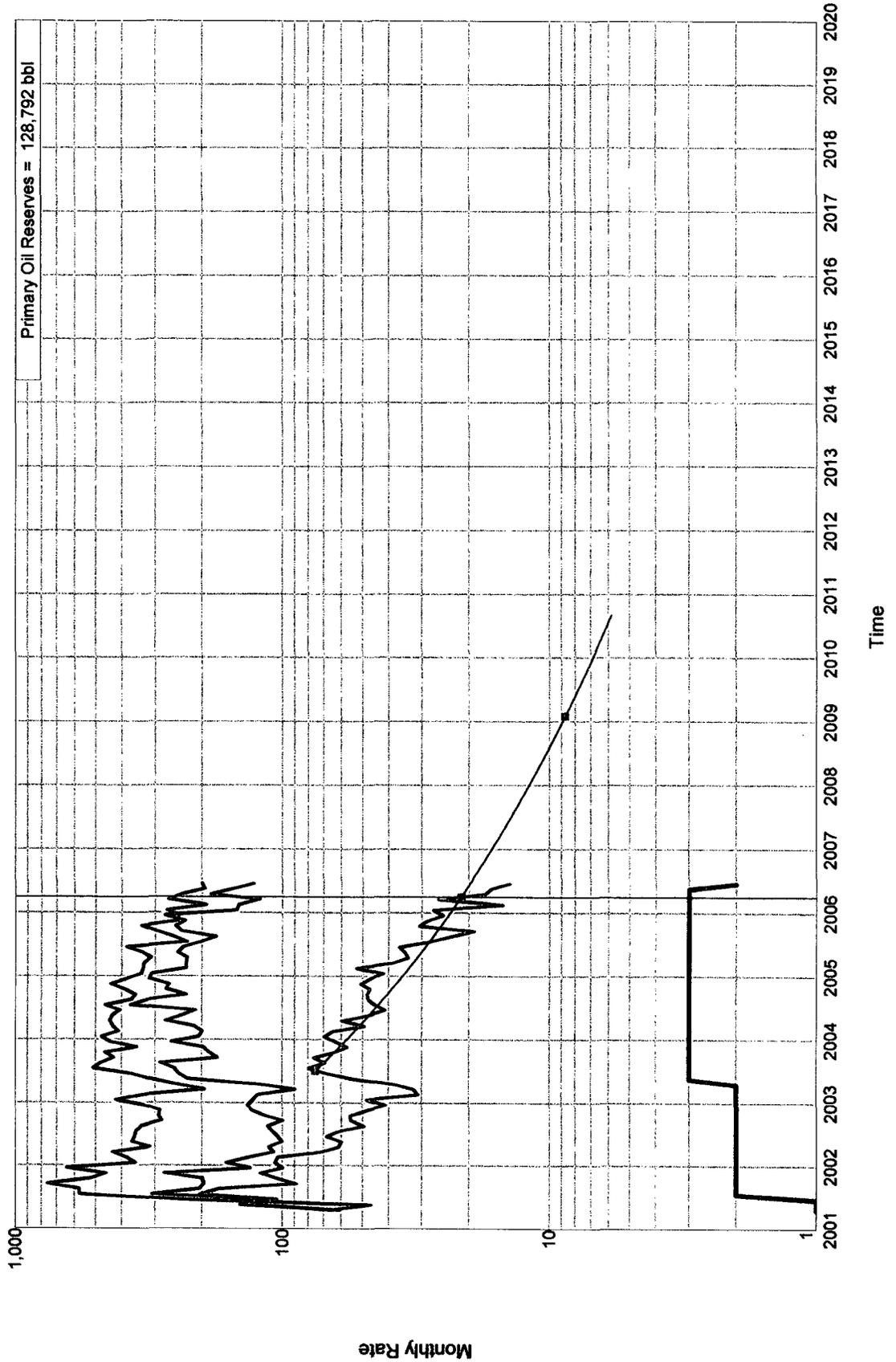
Project: d:\powerools v8.0\pluwf.mdb

Date: 11/20/2006  
Time: 2:04 PM

Lease Name: plu 188Y offsets ()  
County, ST: ,  
Location: 0-0-0

Operator:  
Field Name:

Poker Lake Unit #188Y Offsets (#165, #166, #167)



# Rate/Time Graph

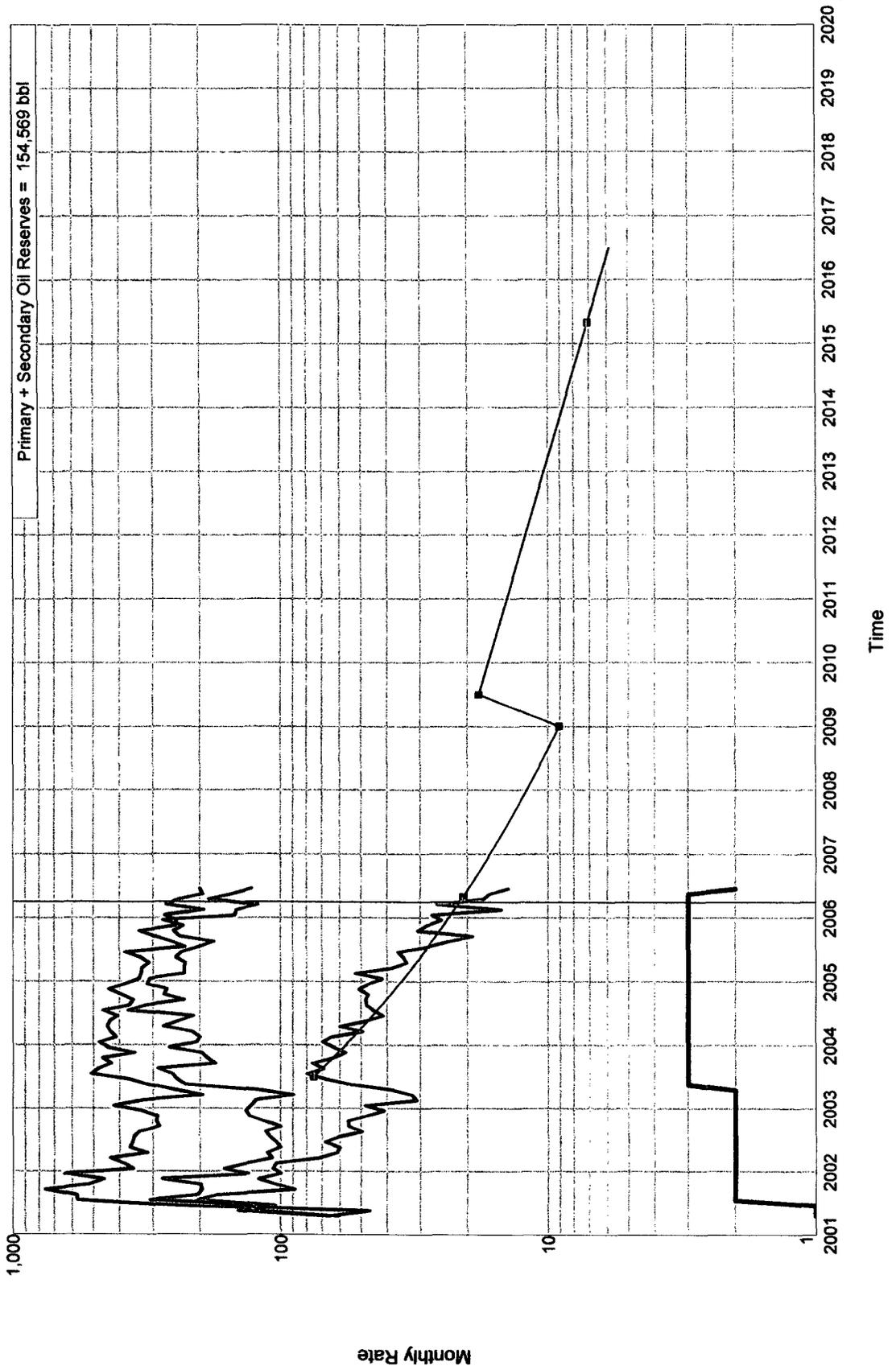
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Date: 11/20/2006  
Time: 2:09 PM

Lease Name: plu 188Y offsets ()  
County, ST: ,  
Location: 0-0-0

Operator:  
Field Name:

Poker Lake Unit #188Y Offsets (#165, #166, #167)





# Rate/Time Graph

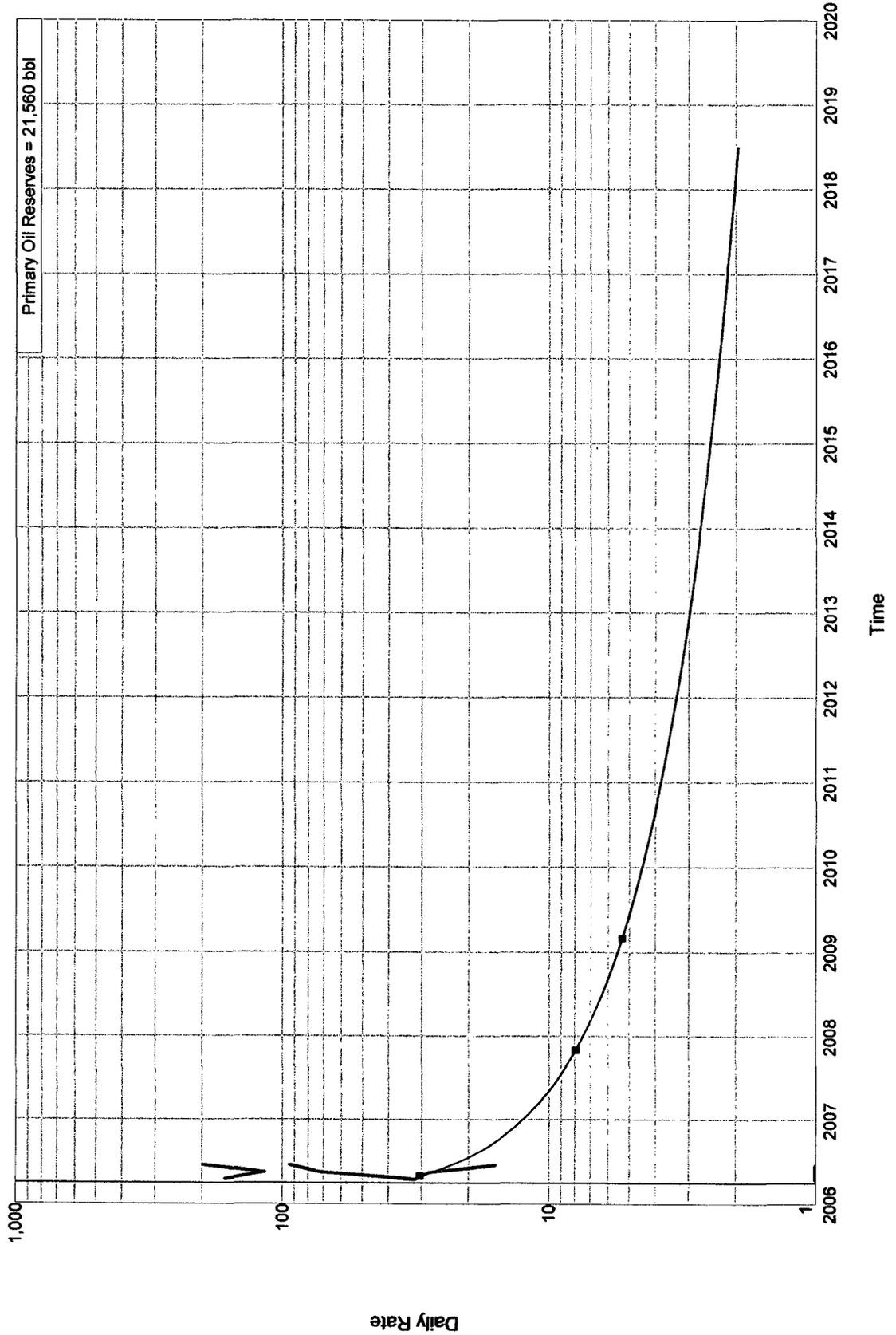
Project: d:\powertools v8.0\pluwf.mdb

Date: 11/20/2006  
Time: 2:00 PM

Lease Name: POKER LAKE UNIT (241)  
County, ST: EDDY, NM  
Location: 30O 24S 30E NW SW SE

Operator: BASS ENTERPRISES PRODUCTION COMPANY  
Field Name: NASH DRAW

### Poker Lake Unit #227 Offsets (#241)



Date: 11/20/2006  
Time: 2:03 PM

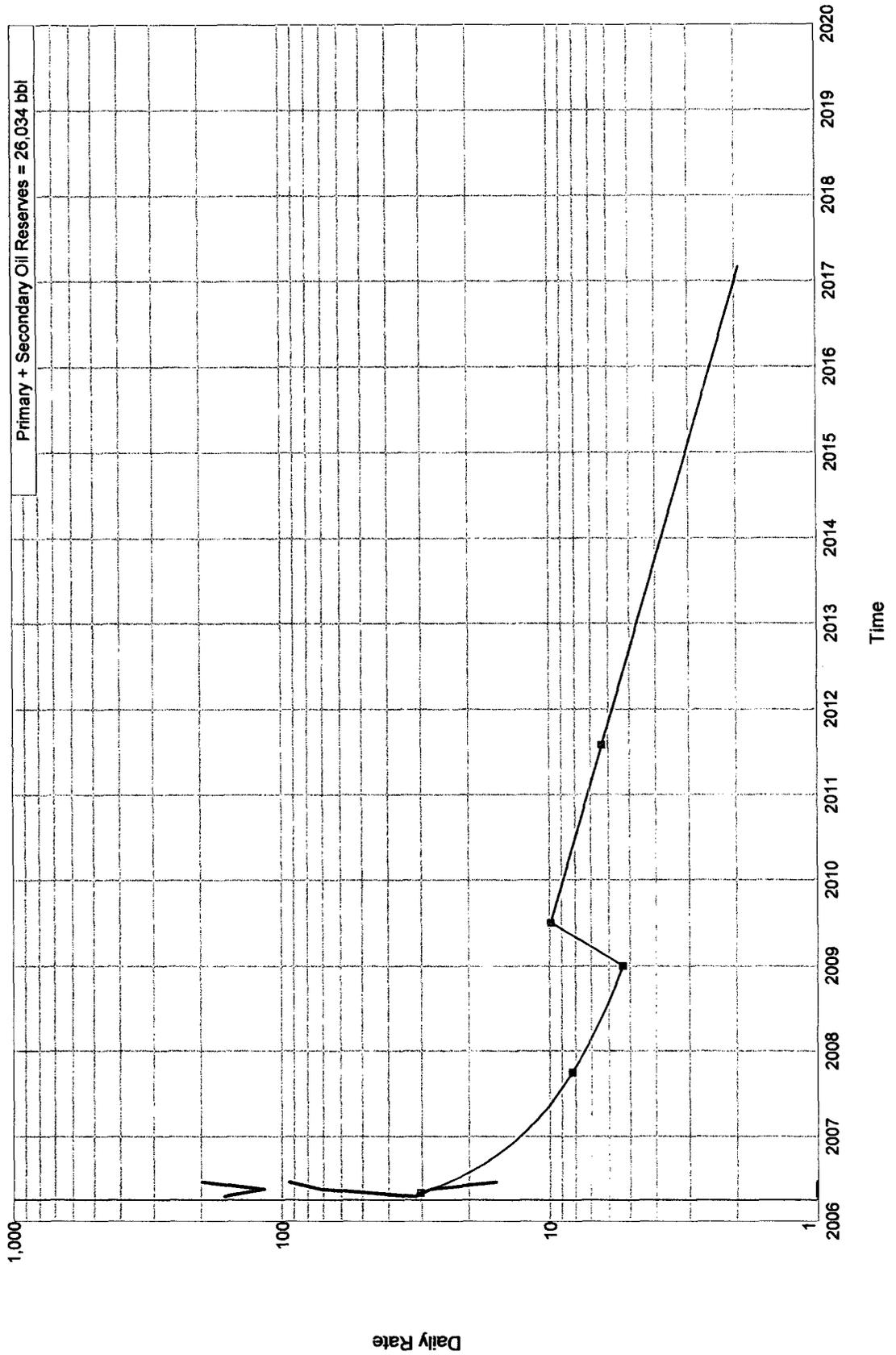
Project: d:\powerools v8.0\pluwf.mdb

Operator: BASS ENTERPRISES PRODUCTION COMPANY  
Field Name: NASH DRAW

# Rate/Time Graph

Lease Name: POKER LAKE UNIT (241)  
County, ST: EDDY, NM  
Location: 30O 24S 30E NW SW SE

Poker Lake Unit #227 Offsets (#241)



## Inactive Well List

Total Well Count:316 Inactive Well Count:1 Since:9/17/2005

Printed On: Monday, December 11 2006

District	API	Well	ULSTR	OCD Unit	OGRID	Operator	Lease Type	Well Type	Last Production	Formation/Notes	Status	Days in TA
2	30-015-29509	POKER LAKE UNIT #091	D-12-25S-30E	D	1801	BEPCO, LP	F	O	12/1999	DELAWARE		

WHERE Ogrid:1801, County:All, District:All, Township:All, Range:All, Section:All, Production(months):15