

Hobbs, NM 88240
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131
2040 S. Pacheco
Santa Fe, NM 87505

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131
14-0621
APPLICATION FOR
WELL WORKOVER PROJECT

Form C-140
Revised 06/99

**SUBMIT ORIGINAL
PLUS 2 COPIES
TO APPROPRIATE
DISTRICT OFFICE**

I. Operator and Well

Operator name & address St. Mary Land & Exploration % Nance Petroleum Corporation PO Box 7168 Billings, MT 59103-7168							OGRID Number 154903	
Contact Party Jenice Fugere							Phone (406) 255-8635	
Property Name Inca Federal					Well Number 12		API Number 30-025-31756	
UL E	Section 17	Township 18S	Range 32E	Feet From The 2310	North/South Line North	Feet From The 330	East/West Line West	County Lea

II. Workover

Date Workover Commenced: 12/07/00	Previous Producing Pool(s) (Prior to Workover): Young Wolfcamp, North
Date Workover Completed: 12/14/00	

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 Montana)

) ss.

County of Yellowstone)

Jenice Fugere, being first duly sworn, upon oath states:

- I am the Operator, or authorized representative of the Operator, of the above-referenced Well.
- I have made, or caused to be made, a diligent search of the production records reasonably available for this Well.
- 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.

Signature Jenice A. Fugere Title Production Assistant Date 8-29-00
SUBSCRIBED AND SWORN TO before me this _____ day of _____

[Signature]
Notary Public

My Commission expires: 6-29-00

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 12-14, 2000.

Signature District Supervisor <u>Paul J. Kautz</u>	OCD District <u>1</u>	Date <u>9/13/2000</u>
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VII. DATE OF NOTIFICATION TO THE SECRETARY OF THE TAXATION AND REVENUE DEPARTMENT: _____

my

Description of Work
Inca Federal #12 – Test and Install
Electrical Submersible Pumping System

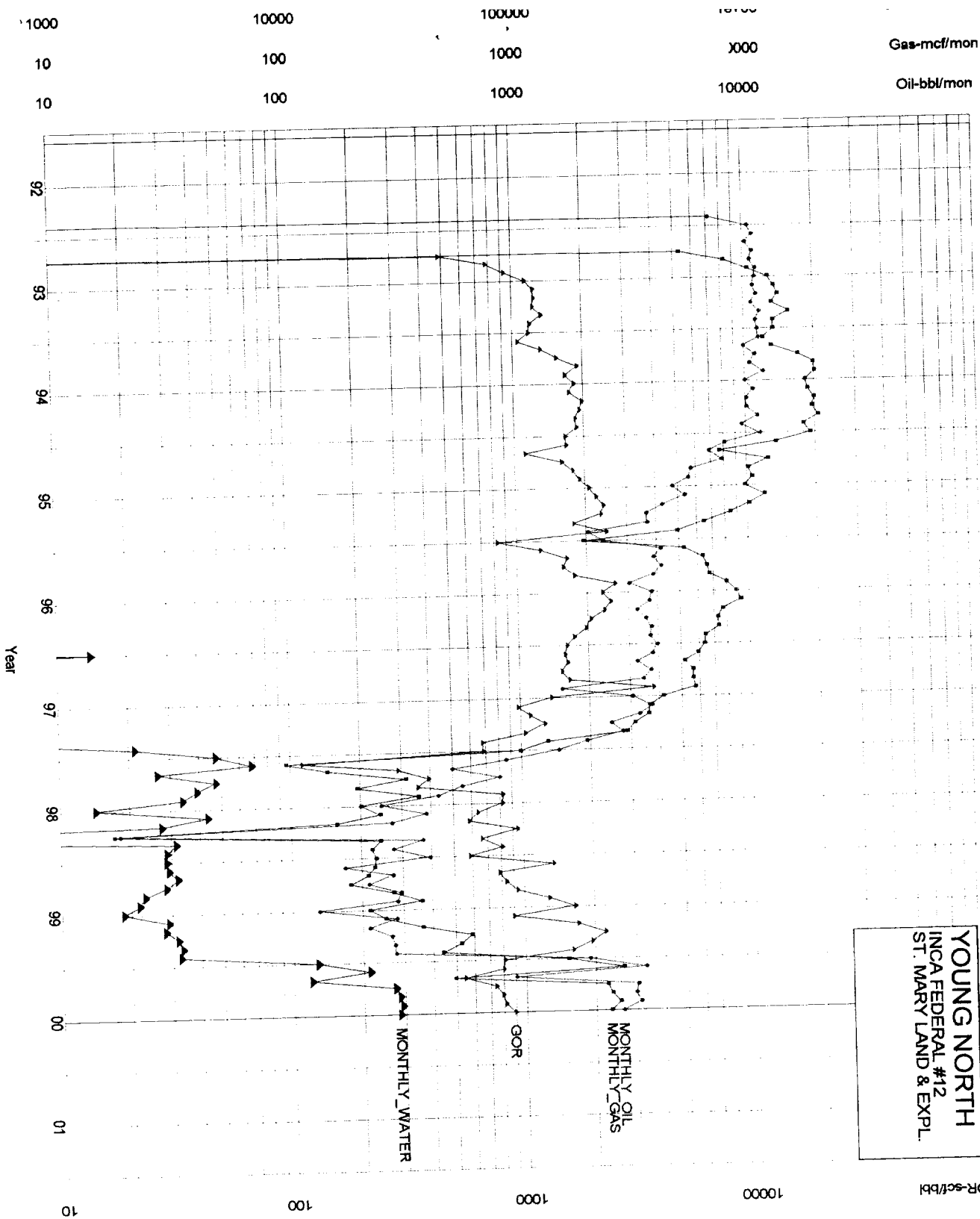
Inca #12 production fell to 8 bopd and 100 bwpd when the Tyke Federal #1, which offsets the Inca Federal #12 1360' to the southeast, was abandoned. We were unable to pump off the well.

A build-up test using down hole gauges was performed to perform Nodal analysis and Material Balance analysis to validate pressure results by comparing Nodal determined rates to historical production and to obtain an estimate of reservoir size. The Nodal analysis indicated that if flowing bottom hole pressure was reduced to 100 psi (Currently 460 psi), oil rate should improve to 100 bpd and water rate 1300 bpd. From the Material Balance analysis total drainage area from the Tyke and Inca wells is 430 acres, original oil in place, OOIP was calculated to be 1.8 MBO. Cumulative oil production from both wells is 826 MBO. Therefore 44% of the OOIP has been produced.

Based on the analysis, an electrical submersible pumping system was tested for 60 days to verify the evaluation and then a larger lift system was permanently installed. The cost of the electrical submersible pumping system test and permanent installation was \$160,000. Stabilized production following the electrical submersible pumping installation is 95 bopd, 950 bwpd and 80 mcfcpd.

Gas-mcf/mon

Oil-bbl/mon



YOUNG NORTH
INCA FEDERAL #12
ST. MARY LAND & EXPL.

GOR-scft/bbl

MONTHLY_OIL ●●●
Ref= 7/2000
Cum= 443250.8
MONTHLY_GAS ■■■
Ref= 7/2000
Cum= 596855.7
MONTHLY_WATER ▲▲▲
Ref= 7/2000
Cum= 258209.8
GOR ———
Ref= 7/2000
Cum= 0.0

Well: INCA FEDERAL No.: 012

Operator: ST. MARY LAND & EXPLORATION COMPANY

API: 3002531756

Township: 18S Range: 32E Section: 17 Unit: E Type: F

County: Le Accumulated Oil: 432652(BBLS) Gas: 584283(MCF) Water: 200703(BBLS) Days Producer

Year:1992

Pool Name NORTH

Month	Oil(BBLS)	Gas(MCF)	Water(BBL)	Days Prod	Accum. Oil	Accum. Gas(MCF)
January	0	0	0	0	0	0
February	0	0	0	0	0	0
March	0	0	0	0	0	0
April	0	0	0	0	0	0
May	0	0	0	0	0	0
June	0	0	0	0	0	0
July	0	0	0	0	0	0
August	0	0	0	0	0	0
September	0	0	0	0	0	0
October	0	0	0	0	0	0
November	7121	0	569	30	7121	0
December	10489	0	432	31	17610	0

Year:1993

Month	Oil(BBLS)	Gas(MCF)	Water(BBL)	Days Prod	Accum. Oil	Accum. Gas(MCF)
January	10960	0	343	31	28570	0
February	10264	0	348	28	38834	0
March	10940	5304	640	31	49774	5304
April	10671	8247	650	30	60445	13551
May	11293	10450	618	31	71738	24001
June	11189	12744	586	30	82927	36745
July	10958	13520	586	99	93885	50265
August	11327	14030	576	31	105212	64295
September	10758	13187	567	30	115970	77482
October	11682	15584	357	31	127652	93066
November	11208	13323	499	30	138860	106389
December	11404	13352	301	31	150264	119741

Year:1994

Month	Oil(BBLS)	Gas(MCF)	Water(BBL)	Days Prod	Accum. Oil	Accum. Gas(MCF)
January	11513	12083	548	31	161777	131824
February	9912	13060	362	28	171689	144884
March	11071	17021	454	31	182760	161905
April	10475	19720	214	30	193235	181625
May	12021	20057	594	31	205256	201682
June	10008	18196	571	30	215264	219878
July	10798	18694	543	31	226062	238572
August	10116	19858	485	31	236178	258430
September	10113	19358	492	30	246291	277788
October	11261	20648	471	31	257552	298436
November	9586	17771	471	30	267138	316207

December	11519	19036	501	31	278657	335243
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Year:1995

Month	Oil(BBLS)	Gas(MCF)	Water(BBL)	Days Prod	Accum. Oil	Accum. Gas(MCF)
January	8074	13469	488	31	286731	348712
February	0	0	0	0	286731	348712
March	7788	12393	438	31	294519	361105
April	5726	10144	422	30	300245	371249
May	5580	10541	248	31	305825	381790
June	4732	9809	506	30	310557	391599
July	5354	11879	392	31	315911	403478
August	4272	10185	417	31	320183	413663
September	3639	8432	424	30	323822	422095
October	3668	6467	461	31	327490	428562
November	2026	4945	383	26	329516	433507
December	2351	1936	298	22	331867	435443

Year:1996

Month	Oil(BBLS)	Gas(MCF)	Water(BBL)	Days Prod	Accum. Oil	Accum. Gas(MCF)
January	4169	5259	501	31	336036	440702
February	3866	6326	478	29	339902	447028
March	4180	6589	389	31	344082	453617
April	3841	6750	332	30	347923	460367
May	3030	7991	504	31	350953	468358
June	3779	8770	615	30	354732	477128
July	3682	9226	46	31	358414	486354
August	3258	7662	28	31	361672	494016
September	3556	7291	18	30	365228	501307
October	3744	7309	17	31	368972	508616
November	3690	6393	44	30	372662	515009
December	3935	6339	1390	31	376597	521348

Year:1997

Month	Oil(BBLS)	Gas(MCF)	Water(BBL)	Days Prod	Accum. Oil	Accum. Gas(MCF)
January	3764	5937	19	31	380361	527285
February	3222	5194	23	28	383583	532479
March	3691	5611	32	31	387274	538090
April	3421	5618	38	30	390695	543708
May	3544	5726	18	0	394239	549434
June	3046	4157	6	30	397285	553591
July	3709	3611	71	31	400994	557202
August	3263	3588	169	31	404257	560790
September	2458	3118	131	30	406715	563908
October	2757	2874	403	31	409472	566782
November	1917	1300	2116	30	411389	568082
December	1448	991	4736	31	412837	569073

Year:1998

Month	Oil(BBLS)	Gas(MCF)	Water(BBL)	Days Prod	Accum. Oil	Accum. Gas(MCF)
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