

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-101
Revised February 10, 199
Instructions on bac
Submit to Appropriate District Office
State Lease - 6 Copie
Fee Lease - 5 Copie
☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address CHEVRON USA INC 15 SMITH ROAD, MIDLAND, TX 79705		² OGRID Number 4323
⁴ Property Code 2683	⁵ Property Name H.T. MATTERN NCT-C	³ API Number 30-025-27529
		⁶ Well No. 15

⁷ Surface Location									
Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
B	18	21S	37E		660'	NORTH	1980'	EAST	LEA

⁸ Proposed Bottom Hole Location If Different From Surface									
Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
⁹ Proposed Pool 1 PENROSE SKELLY GRAYBURG					¹⁰ Proposed Pool 2				

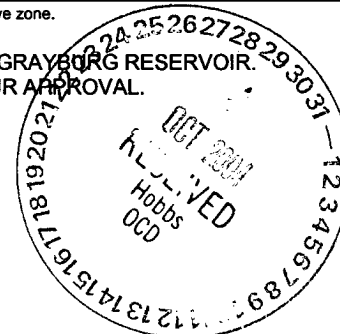
¹¹ Work Type Code P	¹² WellType Code O	¹³ Rotary or C.T. ROTARY	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation
¹⁶ Multiple No	¹⁷ Proposed Depth 6810'	¹⁸ Formation GRAYBURG	¹⁹ Contractor	²⁰ Spud Date 11/10/2004

²¹ Proposed Casing and Cement Program					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
NO CHANGE					

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

CHEVRON U.S.A. INC. INTENDS TO RECOMPLETE THE SUBJECT WELL FROM THE BLINEBRY POOL TO THE GRAYBURG RESERVOIR. THE INTENDED PROCEDURE, CURRENT AND PROPOSED WELLBORE DIAGRAMS ARE ATTACHED FOR YOUR APPROVAL.

Permit Expires 1 Year From Approval
Date Unless Drilling Underway
Plugback



²³ I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief

Signature *Denise Leake*
Printed Name Denise Leake
Title Regulatory Specialist
Date 10/28/2004 Telephone 915-687-7375

OIL CONSERVATION DIVISION

Approved By: *Paul E. King*

Title: NOV 23 2004

Approval Date: Expiration Date:

Conditions of Approval:
Attached ☐

H T Mattern C #15
API #30-025-27529
660' FNL & 1980' FEL
S18, T21S, R37E
Penrose Skelly
Lea County, New Mexico

PROCEDURE

Use 8.6 ppg brine water. Do not exceed surface casing pressure of 350 psi at any point in job due to squeeze perfs @ 2400'.

1. Displace flowline w/ fresh water. Have Field Specialist close valve at header. Pressure test line according to type. All polypipe (SDR7 and SDR11) will be tested to 100 psi. All steel lines will be tested to 500 psi. If a leak is found, contact Larry Williams for repair/replacement. If tests good, bleed off pressure and open valve at header. Document this process in the morning report.
2. MIRU Key PU & Smith RU. Bleed any pressure off well. Use 8.6 ppg brine water to kill well. POOH w/ rods & pump (see Tbg Landing Detail). NDWH NUBOP & EPA equipment. Test BOP when possible. POOH w/ 2-3/8" Tbg (see Tbg Landing Detail).
3. RIH w/ 4-3/4" bit on 2-7/8" WS to 5525". POOH & LD bit.
4. RU WL & RIH w/ 5-1/2" CIBP. Set CIBP @ 5480' & dump 30' cmt on top. POOH. RD WL.
5. RIH w/ 5-1/2" Pkr. Set Pkr @ 5420'. Test CIBP to 1000 psi. Release Pkr & POOH.
6. MIRU Baker Atlas WL. Tag cmt & 5450'. Run Compensated Neutron log with GR/CCL from 2500'-4500'. Fax to Midland for correlation to Welex Compensated Density Dual Spaced Neutron Log (no collars) dated 1/08/1982 for proposed perforation depth shift. Run GR/CBL/CCL log from 4500' to 100' above cement top. Check proposed completion interval for good cement. If cement bond does not look adequate discuss squeezing options with engineer.
7. Perforate with 3-1/8" slick guns loaded w/ 4 JSPF, 120 degree phasing and 23 gram charges as follows: **NOTE: Perf depths may shift after correlation but perf interval lengths will not.**

Top Depth	Bottom Depth	Total Footage	Total Holes
3697	3701	4	16
3710	3722	12	48

3730	3741	11	44
3753	3756	3	12
3768	3772	4	16
3800	3808	8	32
3830	3838	8	32
3845	3850	5	20
3856	3859	3	12
3876	3880	4	16
3900	3905	5	20
3910	3916	6	24
3920	3923	3	12
3933	3936	3	12
3959	3962	3	12
3973	3983	10	40

8. RIH w/ 5-1/2" PPI packer w/ 12' element spacing and SCV. Test 2-7/8" WS to 4500 psi while RIH. Test PPI packer in blank pipe. Mark settings.
9. MIRU DS. Acidize perfs 3697'-3983' 15% NEFE HCl acid at a max rate of 1/2 BPM & 4000 psi surface pressure as follows:

Perfs	Acid Vol	Max Rate	PPI Setting
3697-3701	200 gals	1/2 bpm	3693-3705
3710-3722	200 gals	1/2 bpm	3710-3722
3730-3741	200 gals	1/2 bpm	3730-3742
3753-3756	200 gals	1/2 bpm	3749-3761
3768-3772	200 gals	1/2 bpm	3764-3776
3800-3808	200 gals	1/2 bpm	3798-3810
3830-3838	200 gals	1/2 bpm	3828-3840
3845-3850	200 gals	1/2 bpm	3841-3853
3856-3859	200 gals	1/2 bpm	3853-3865
3876-3880	200 gals	1/2 bpm	3872-3884
3900-3905	200 gals	1/2 bpm	3896-3908
3910-3916	200 gals	1/2 bpm	3907-3919
3920-3923	200 gals	1/2 bpm	3918-3930
3933-3936	200 gals	1/2 bpm	3929-3941
3959-3962	200 gals	1/2 bpm	3955-3967
3973-3983	200 gals	1/2 bpm	3972-3984

Displace acid w/ 8.6# brine to top perf. Record ISIP, 5, and 10 SIP. RD DS. If communication occurs during treatment, attempt to put away stage without exceeding 350 psi csg pressure. If stage can not be completed move to next and combine stage volumes.

10. SI well for 2 hrs for acid to spend. Release PPI & PU above top perf. RU swab and swab back load before SION if possible. Record volumes, pressures, & fluid levels. Discuss results with Engineering. If excessive water is produced, selectively swab perf intervals as discussed w/ engineer.
11. POOH w/ PPI and LD. RIH w/ 5-1/2" frac pkr, on/off tool and profile on 3-1/2" WS testing to 7500 psi while RIH. Set packer @ +/- 3600'. Install frac head. Pressure test BS to 300 psi. Hold 300 psi on BS during frac job and observe for communication. **Do not exceed 350 psi on BS at any point during job due to squeeze perfs.**
12. MIRU DS. Frac well down 3-1/2" tubing at **40 BPM** w/ 66,000 gals of YF135, 138,000 lbs. 16/30 mesh Jordan Sand, and 30,000 lbs **resin-coated** 16/30 mesh CR4000 proppant. Max treating pressure 7000 psi. Pump job as follows:
- Pump 2,000 gals 2% KCl water containing 110 gals Baker SCW-358 Scale Inhibitor
 - Pump 1,000 gal 2% KCl water spacer
 - Pump 25,000 gals YF135 pad containing 5 GPT J451 Fluid Loss Additive
 - Pump 5,000 gals YF135 containing 1.5 PPG 16/30 mesh Jordan Sand
 - Pump 6,000 gals YF135 containing 2.5 PPG 16/30 mesh Jordan Sand
 - Pump 7,000 gals YF135 containing 3.5 PPG 16/30 mesh Jordan Sand
 - Pump 8,000 gals YF135 containing 4.5 PPG 16/30 mesh Jordan Sand
 - Pump 10,000 gals YF135 containing 5.5 PPG 16/30 mesh Jordan Sand
 - Pump 5,000 gals YF135 containing 6 PPG resin-coated 16/30 mesh CR4000 proppant
- Flush to 3697'. **Do not overflush.** SI well and record ISIP, 5, 10, and 15 minute SIP. RD DS. SION.
13. Open well and bleed off any pressure. RU swab and swab well checking for sand inflow. Discuss results w/ engineer. Release packer and POOH. RIH w/ 4-3/4" bit to 3400'. POOH & LD bit.
14. RIH w/ 2-3/8" production tbg & hang off as per ALS recommendation. NDBOP NUWH. RIH w/ rods & pump as per ALS recommendation.
15. RD Key PU & Smith RR. Turn well over to production. Contact Lease Operator and inform them that the well is ready for operation.

Engineer - Keith Lopez
432-687-7120 Office
505-390-2227 Cell
303-949-3021 Home

Well: **H T Mattern C #15**

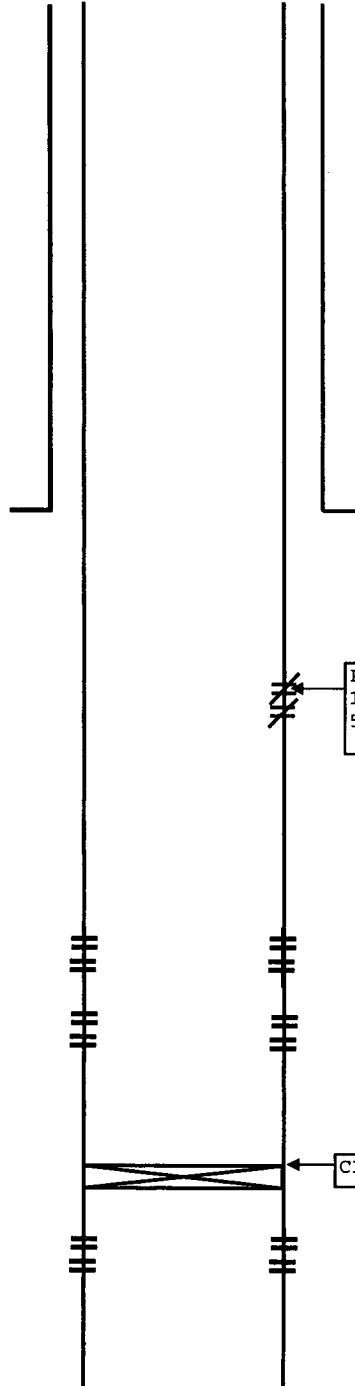
Reservoir: **Blinebry**

Location:
660'-FNL & 1980'-FEL
Section: 18
Township: 21S
Range: 37E
County: LEA, NM.

Elevations:
GL:
DF:
KB: 10'

Current
Wellbore Diagram

Well ID Info:
Refno: EQ6900
API No: 3002527529
L5/L6: UCU466500
Spud Date:
Compl. Date:



Surf. Csg:
Size 8 5/8
Weight 24#
Set: @ 1197'
With: 600 sxs
Hole Size:
Circ: Yes
TOC @ Surface

Blinebry
Perfs: Status
5532'-5908' Open

Prod. Csg:
Size 5 1/2
Weight 15.5#
Set @ 6810'
With: 1200xs
Hole Size:
Circ: No
TOC @ 2425' by TS

Drinkard
Perfs: Status
6686'-6747' Below CIBP

Updated:
By:

PBTD: 6768'
TD: 6810'

Well: **H T Mattern C #15**

Reservoir: **Grayburg**

Location:
660'-FNL & 1980'-FEL
Section: 18
Township: 21S
Range: 37E
County: LEA, NM.

Proposed
Wellbore Diagram

Well ID Info:
Refno: EQ6900
API No: 3002527529
L5/L6: UCU466500
Spud Date:
Compl. Date:

Elevations:
GL:
DF:
KB: 10'

Grayburg
Perfs: **Status**
3697'-3983' Open

Perf @ 2400' cmted
1350 sxs circulated
50 sxs.Cmt surface

Surf. Csg:
Size 8 5/8
Weight 24#
Set @ 1197'
With: 600 sxs
Hole Size:
Circ: Yes
TOC @ Surface

CIBP @ 5480' w/ 30' cmt

Blinbry
Perfs: **Status**
5532'-5908' Below CIBP

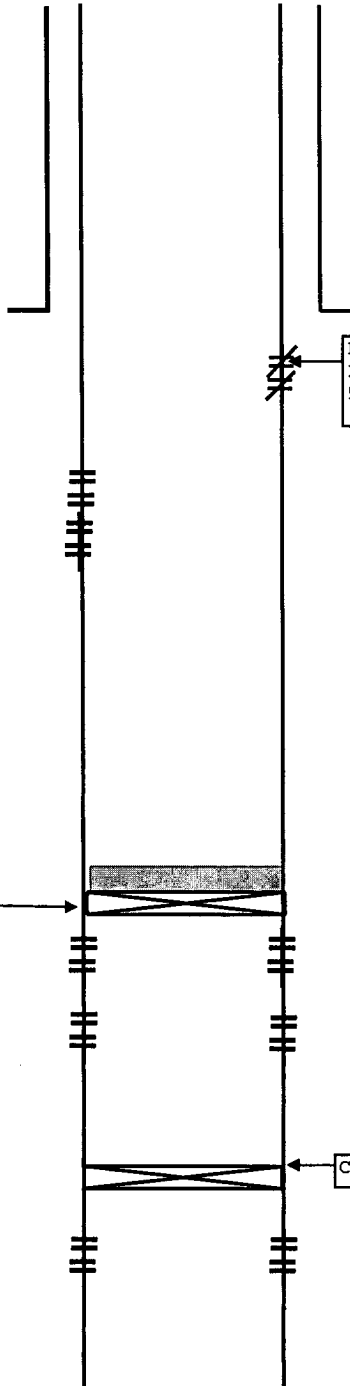
CIBP @ 6600'

Prod. Csg:
Size 5 1/2
Weight 15.5#
Set @ 6810'
With: 1200xs
Hole Size:
Circ: No
TOC @ 2425' by TS

Drinkard
Perfs: **Status**
6686'-6747' Below CIBP

PBTD: 5450'
TD: 6810'

Updated: 24-Sep-04
By: LOPK



~~DISTRICT I~~

P.O. Box 1980, Hobbs, NM 88241-1980

~~DISTRICT II~~

P.O. Box Drawer DD, Artesia, NM 88211-0719

~~DISTRICT III~~

1000 Rio Brazos Rd., Aztec, NM 87410

~~DISTRICT IV~~

P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102

Revised February 10, 199

Instructions on bac

Submit to Appropriate District Office

State Lease - 4 Copie

Fee Lease - 3 Copie

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-27529	² Pool Code 50350	³ Pool Name PENROSE SKELLY GRAYBURG
⁴ Property Code 2683	⁵ Property Name H.T. MATTERN NCT-C	⁶ Well No. 15
⁷ OGRID Number 4323	⁸ Operator Name CHEVRON USA INC	⁹ Elevation

¹⁰ Surface Location

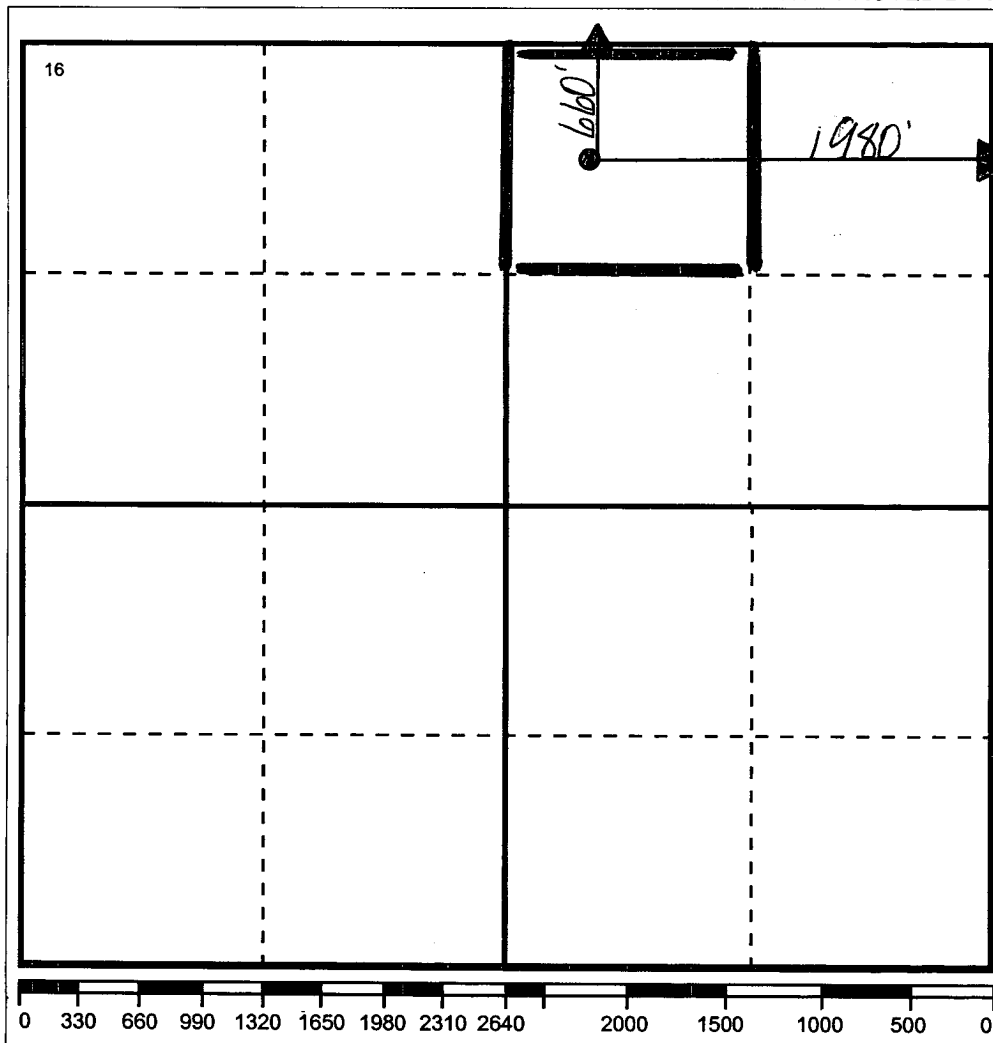
Ul or lot no	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
B	18	21S	37E		660'	NORTH	1980'	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface

Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County

¹² Dedicated Acre 40	¹³ Joint or Infill No	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Signature <i>Denise Leake</i> Printed Name Denise Leake Positio Regulatory Specialist Date 10/28/2004
18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief. Date Surveyed Signature & Seal of Professional Surveyor Certificate No.

Submit 3 copies
to Appropriate
District Office

Energy, Minerals and Natural Resources Department

Form C-103

Revised 1-1-89

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Box Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

WELL API NO.	30-025-27529
5. Indicate Type of Lease	STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil / Gas Lease No.	
7. Lease Name or Unit Agreement Name	H.T. MATTERN NCT-C
8. Well No.	15
9. Pool Name or Wildcat	PENROSE SKELLY GRAYBURG
10. Elevation (Show whether DF, RKB, RT, GR, etc.)	

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT (FORM C-101)" FOR SUCH PROPOSALS.

1. Type of Well: OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. Name of Operator
CHEVRON USA INC

3. Address of Operator
15 SMITH ROAD, MIDLAND, TX 79705

4. Well Location
Unit Letter B : 660' Feet From The NORTH Line and 1980' Feet From The EAST Line
Section 18 Township 21S Range 37E NMPM LEA COUNTY

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐
OTHER: PIT INFORMATION ☒

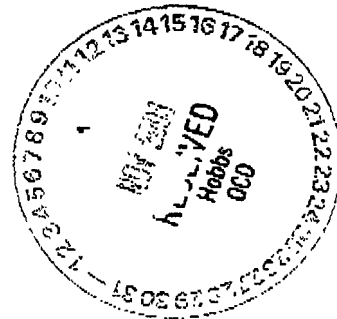
SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPERATION ☐ PLUG AND ABANDONMENT ☐
CASING TEST AND CEMENT JOB ☐
OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

THIS SUBJECT WELL WILL BE RECOMPLETED TO THE GRAYBURG RESERVOIR UPON APPROVAL.

NO PIT WILL BE USED FOR THIS RECOMPLETION, BUT WILL USE A STEEL FRAC TANK.



I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Denise Leake TITLE Regulatory Specialist

DATE 11/8/2004

TYPE OR PRINT NAME Denise Leake

Telephone No. 915-687-7375

(This space for State Use)

APPROVED Larry W. Wink TITLE OC FIELD REPRESENTATIVE II/STAFF MANAGER

CONDITIONS OF APPROVAL IF ANY:

DATE

NOV 23 2004

DeSoto/Nichols 12-93 ver 1.0