

N.M. Oil Cons. DIV-Dist. 2

FORM APPROVED OMB No. 1004-0136 Expires January 31, 2004

UNITED STATES 1301 W. Grand Avenue Expires January 31

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEME ATTESIA, NM 88210

MM - 67402 2 4/60

APPLICATION FOR PERMIT TO E	RILL OR RE	ENTER		6. If Indian, Allottee or T	ribe Name	
la. Type of Work: DRILL REENT	of Work: DRILL REENTER					
				Parkway Delaware Unit		
1b. Type of Well: Oil Well Gas Well Other	Oil Well Gas Well Other Single Zone Multiple Zone				8. Lease Name and Well No.	
2. Name of Operator	U	gie Zone La Widiti	pic Zolic			
	Drugas			9. API Well No.	73710	
St Mary Land an & Exploration Company 3a. Address	RETARY	(include area code)			<u>-33714</u>	
		`		10. Field and Pool, or Expl	oratory	
580 Westlake Park Blvd., #600, Houston, TX 77079	281-677-280			Parkway Delaware	- 10	
4. Location of Well (Report location clearly and in accordance with	h any State requir	ements. *)		11. Sec., T., R., M., or Blk.	and Survey or Area	
At surface 1700' FSL, 2630' FEL, UL: J				,		
At proposed prod. zone UNORTHODO	04 211	ATION		SEC. 35, T19S, R29E		
14. Distance in miles and direction from nearest town or post office*				12. County or Parish	13. State	
17 Miles NE of Carlsbad				Eddy	NM	
15. Distance from proposed*	16. No. of Ac	res in lease	17. Spacin	g Unit dedicated to this well		
location to nearest property or lease line, ft.			' '	y		
(Also to nearest drig, unit line, if any) 1700		20				
18. Distance from proposed location*	19. Proposed			20. BLM/BIA Bond No. on file		
to nearest well, drilling, completed, applied for, on this lease, ft.						
708	4600'		6041872			
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	1	nate date work will s	tart*	23. Estimated duration		
3313' GL	Early October		15 Days			
	24. Attacl	nments				
The following, completed in accordance with the requirements of Onsl	nore Oil and Gas (order No.1, shall be at	tached to this	s form:		
1. Well plat certified by a registered surveyor.	1	4 Rond to cover th	e operation	s unless covered by an exist	ing hand on file (see	
2. A Drilling Plan.		Item 20 above).	e operation	s unioss covered by an exist	ing bond on the (see	
3. A Surface Use Plan (if the location is on National Forest System	n Lands, the	5. Operator certific				
SUPO shall be filed with the appropriate Forest Service Office).		6. Such other site s authorized office		rmation and/or plans as ma	y be required by the	
25. Signature	Name (Printed/Typed)		Date	•	
Comme Vanne	Dennis	L. Goins		9-7-	04	
Title						
Operations Engineer						
Approved by (Signature)		Printed/Typed)		Date	OCT 2 2 2004	
15/ DANICE L. GAM	BY L	5/ JAWCC	51,0	FAMBY		
TIKON STATE DIRECTOR	Office	NM	STATE	OFFICE		
Application approval does not warrant or certify that the applicant hold	s legal or equitabl	e title to those rights in	n the subject	lease which would entitle the	applicant to conduct	
operations thereon.			APE	PROVAL FOR	1 VEAD	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

*(Instructions on reverse)

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Capitan Controlled Water Bestin

RECEIVED OCT 2 9 2004 OCP-ARTESIA <u>District</u> 1625 N. French Dr., Hobbs, NM 88240 District III

1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-144

June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

	de Tank Registration or Clo	
	k covered by a "general plan"? Yes	
Type of action: Registration of a pit of	or below-grade tank 🔀 Closure of a pit or below	r-grade tank
Address: 580 Westlake Park Blvd., Suite 600, Houston, TX 77079	<u>800</u> e-mail address: <u>dgoins@stmaryland.com</u> ptr/Qtr J Sec <u>35</u> T <u>19-S</u> R <u>29-E</u> NAD: 1927 <u>X</u> 1983 □ Surface Owner Federal <u>}</u>	Ķ State □ Private □ Indian □
<u>Pir</u>	Below-grade tank	
Type: Drilling X Production Disposal D	Volume:bbl Type of fluid:	
Workover Emergency	Construction material:	
Lined X Unlined \(\begin{align*} \] The state of the X Thickness 10 with a Class \(\begin{align*} \text{Thickness 10 with a Class \(\begin{align*} Thickness 10 with a Class \(\begin{ali	Double-walled, with leak detection? Yes 🔲 I	t not, explain why not.
Liner type: Synthetic X Thickness 12 mil Clay		
Pit Volume 3500 bbl	I all of the state	1 (20 1)
Depth to ground water (vertical distance from bottom of pit to seasonal high	Less than 50 feet 50 feet or more, but less than 100 feet	(20 points)
water elevation of ground water.)	X 100 feet or more	(10 points)
	V 100 test of more	(0 points)
Wellhead protection area: (Less than 200 feet from a private domestic	Yes	(20 points)
water source, or less than 1000 feet from all other water sources.)	X No	(0 points)
	Less than 200 feet	(20 points)
Distance to surface water: (horizontal distance to all wetlands, playas,	200 feet or more, but less than 1000 feet	(10 points)
irrigation canals, ditches, and perennial and ephemeral watercourses.)	1000 feet or more	(0 points)
	Ranking Score (Total Points)	0
If this is a pit closure: (1) attach a diagram of the facility showing the pit's	relationship to other equipment and tanks. (2) In	dicate disposal location: (check the onsite box if
your are burying in place) onsite O offsite I If offsite, name of facility N		
date. (4) Groundwater encountered: No Yes If yes, show depth belo		
diamona of seconds to estimate and expensations 4/4		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Additional Comments:		
Traditional Communica		
I hereby certify that the information above is true and complete to the best of been/will be constructed or closed according to NMOCD guidelines [X], Date: 10/25/04	f my knowledge and belief. I further certify that a general permit , or an (attached) alternative	t the above-described pit or below-grade tank has ve OCD-approved plan .
Printed Name/Title Dennis L. Goins / Production Engineer	Signature	and the same of th
Your certification and NMOCD approval of this application/closure does no otherwise endanger public health or the environment. Nor does it relieve the regulations.	t relieve the operator of liability should the conter	nts of the pit or tank contaminate ground water or h any other federal, state, or local laws and/or
Approval: Printed Name/Title Signa	ature	Date: 0.C.T. 2.9.2004
	- XX	DECEMBED TO
	<i>UCO</i> \	HELEIVED

NOTICE OF STAKING (Not to be used in place of Application for Perm	6. Lease Number NM - 24160				
1. Oil Well X Gas Well Oth (Sp	7. If Indian, Allottee or Tribe Name:				
2. Name of Operator: St Mary Land & Explor	8. Unit Agreement Name Parkway Delaware Unit				
3. Name of Specific Contact Person: Dennis Go	oins	9. Farm or Lease Name Federal			
4. Address & Phone Number of Operator 580 Westlake Park Blvd., Suite 600 Houston, TX 77079 Phone 281-677-2800		10. Well Name PDU 513			
5. Surface Location of Well: 1700' FSL, 2630'	11. Field or Wildcat Name Parkway Delaware				
Attach: a) Sketch showing road entry or reserve pit. b) Topographical or other accep access road, and lease boundaries	table map showing location,	12. Sec., T., R., M., or Blk and Survey or Area Sec. 35, T19S – R29E			
15. Production Objective(s) Delaware Sands	16. Estimated Well Depth 4600'	13. County, Parish, or Borough Eddy	14. State NM		
17. Additional Information (as appropriate; shall include surface owner's name): Federal surface lands administered by Bureau of Land Management, Carlsbad, NM Field office Surveyed wellsite plats and maps are attached.					

18. Signed Kinnin Form

Title Operations Engineer

Date September 7, 2004

MON SEP 9 AM 11 55

State of New Mexico

DISTRICT I 1625 N. FRENCH DR., HOHRS, NM 88240

Rnergy, Minerals and Natural Resources Department

DISTRICT II

DISTRICT IV

1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505 Form C-102 Revised JUNE 10, 2003 Submit to Appropriate District Office

State Lease — 4 Copies Fee Lease — 3 Copies

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name	Well Number
	PARKWAY	513
OGRID No.	Operator Name	Elevation
	ST. MARY LAND & EXPLORATION COMPA	NY 3313'

Surface Location

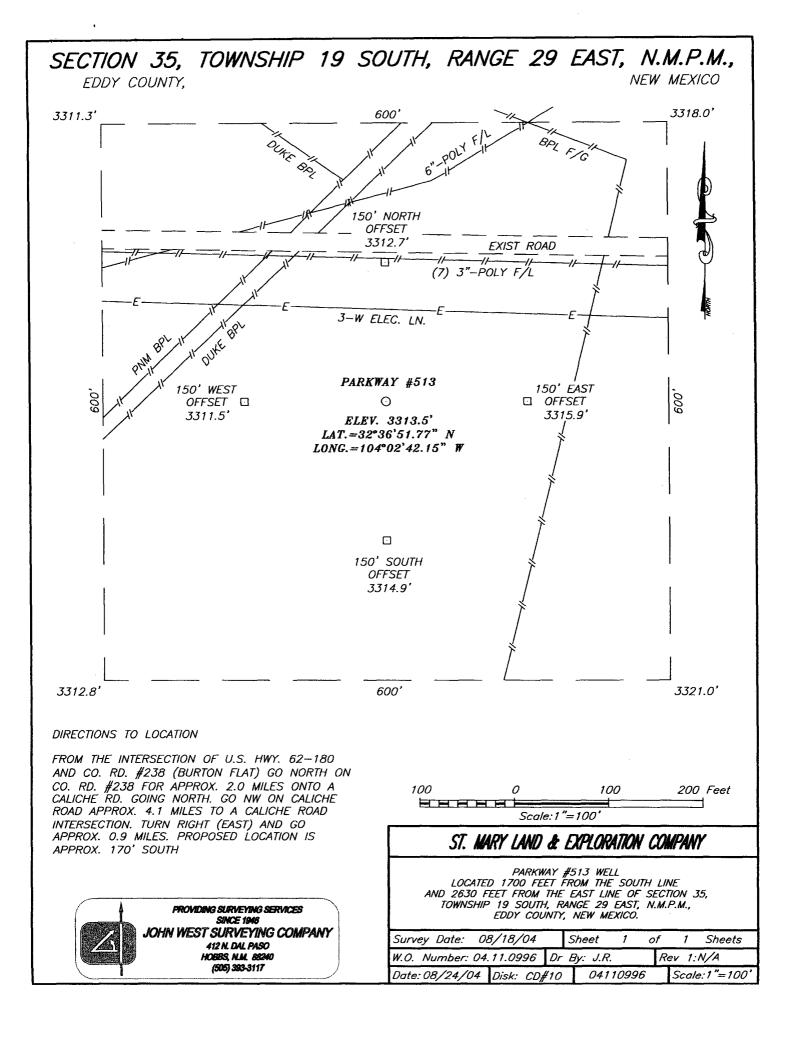
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	Rast/West line	County
J	35	19-S	29-E		1700	SOUTH	2630	EAST	EDDY

Bottom Hole Location If Different From Surface

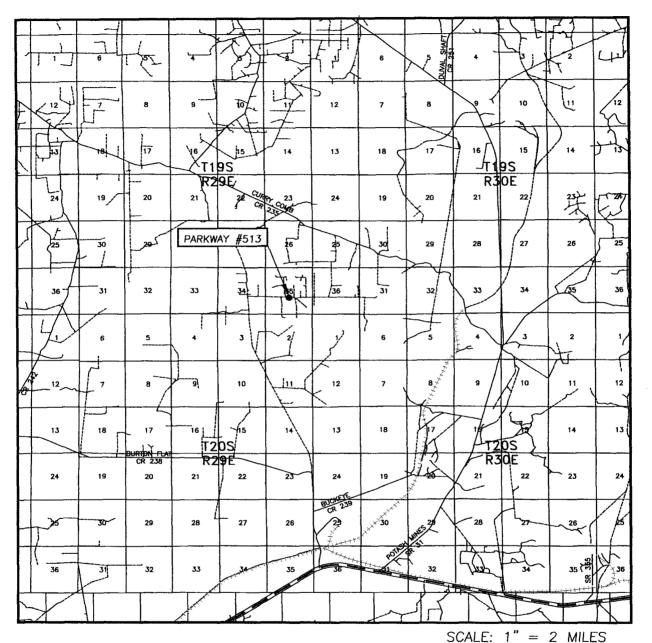
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint o	r Infili Co	nsolidation (Code Or	der No.				
40	1]					

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

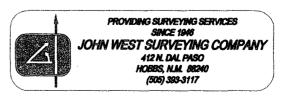
ON A NON-STANDARD ONLI INS BEEN AFFIXVED BI IN	, bividion
GEODETIC COORDINATES NAD 27 NME Y=587343.5 N X=588767.9 E LAT.=32'36'51.77" N	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and bettef.
LONG.=104*02'42.15" W	Signature DENNIS L. GOINS Printed Name OPERATIONS ENGINEER
	Title G-7-04 Date SURVEYOR CERTIFICATION
3311.3' 3318.0'	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 supervison, and that the same is true and correct to the best of my belief.
	AUGUST 18, 2004 Date Surveyed IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
	Certificate, No. GARY EIDSON 12641



VICINITY MAP

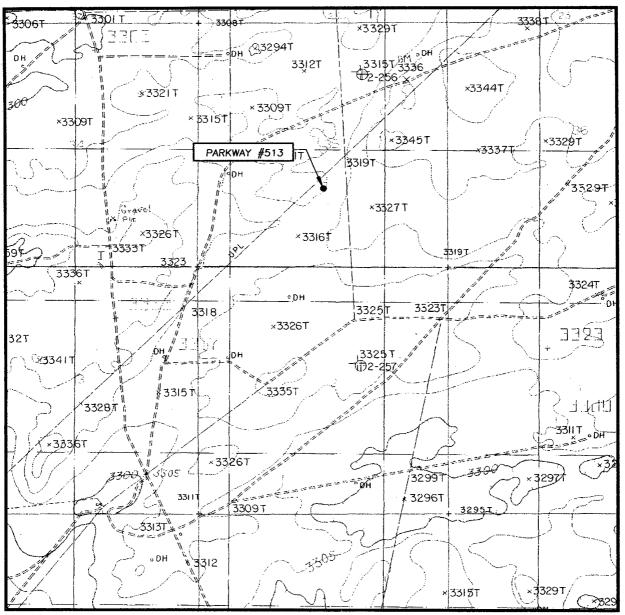


SEC. 35	TWP. 19-S RGE. 29-E
SURVEY	N.M.P.M.
COUNTY	EDDY
DESCRIPTION	N <u>1700' FSL & 2630' FEL</u>
	3308'
_	ST. MARY LAND & EXPLORATION COMPANY
	PARKWAY





LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: ILLINOIS CAMP SE, N.M. - 10'

SEC. 35 TW	/P. <u>19-S</u> RGE. <u>29-E</u>
SURVEY	N.M.P.M.
COUNTY	EDDY
DESCRIPTION_	1700' FSL & 2630' FEL
ELEVATION	3313'
OPERATOR E	ST. MARY LAND & XPLORATION COMPANY
LEASE	PARKWAY
U.S.G.S. TOPO	OGRAPHIC MAP P SE, N.M.



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117



Nine Point Drilling Plan (Supplement to BLM 3160-3)

St. Mary Land and Exploration Co.

PDU #513

1700' FSL, 2630' FeL; Sec 35, TI9S, R29E

Parkway Delaware Unit

Parkway (Delaware) Field

Eddy Co., NM

NM-24160

1. Name and estimated tops of geologic horizons

Rustler 127'
Slado 332'
Tansill 1242'
Yates 1494'
Capitan Reef 1700'
Delaware 3698'

- 2. Protection of possible useable water will be achieved by setting 13.375" surface casing @ 405'+/- and cementing it to surface. Isolation of the productive Delaware-Brushy Canyon will be achieved by setting 5.5" casing @ 4600' +/-, and cementing back to surface.
- 3. The well control equipment to be employed during the drilling of this well is illustrated on attached EXHIBIT A. This equipment includes a two ram BOP, annular BOP and choke manifold of comparable pressure rating. Equipment will be rated for 3000 PSI and will be tested to 80% of that pressure prior to drilling out of the 13 3/8" surface casing. A hydraulic closing unit will be a part of this equipment and will be function tested daily.
- 4. The casing strings will consist of the following:

Surface:

13 3/8" OD, 48#/ft, H40, STC, new pipe @ 405'+/- in 17 ½" hole.

Intermediate:

8.625" OD, 24 &32#/ft, J55, STC, new pipe @ 3200'+/- in 12.25" hole.

Production:

5.50" OD, 15.5#/ft, J55, LTC, new pipe @ 4600'+/- in 7.875" hole

5. Cementing programs for the above casing strings are:

Surface:

360 sx Premium Plus w/ 2% CaC12, .25#/sk celloflake mixed at 14.8 ppg, and having a yield of 1.34 cu ft/sk

The above volume represents 100% excess over calculated hole volume, and will be adjusted to actual setting depth of casing. The slurries will be preceded by a fresh water spacer, and displaced with brine water.

Intermediate: Stage 1

- (a) 500 sx 50/50 Poz: Class C mixed @ 11.6 PPG and having a yield of 2.47 cuft/sx. Additives will be 5% D44(salt), 10% D20(gel), 0.25#/sx D29 (celloflake) and 0.2% D46(antifoamer).
- (b) 200 sx Class C neat mixed @ 14.8 PPG w/a yield of 1.32 cuft/sx

Stage 2(w/Stage Tool @ 1500+/-)

- (a) 350 sx 50/50 Poz: Class C cement w/ 5% D44, 10% D20, 0.2% D46 and 0. 25#/sx D29 mixed @ 11.6 PPG, and having a yield of 2.47 cuft/sx
- (b) 55 sx Class C neat mixed @ 14.8 PPG and having a yield of 1.32 cuft/sx.

The above are Schlumberger products with 50% excess volume - actual volumes will be adjusted to the open hole caliper of this wellbore. The cement slurries will be preceded by 12 bbls cement wash for mud removal and displaced with fresh water. Equivalent products from another vendor may be substituted for Schlumberger depending on price/availability.

- **Production:** (a) 345 sx 35/65 Poz: Class H w/ 5% D44 + 6% D20 + 0.25 #/D29 + 0.2%D46 mixed @ 12.4 PPG and having a yield of 2.03 cuft/sx.
 - (b) 160 sx 50/50 Poz: Class H w/55 D44 + 2% D20 + 0.25#/sx D29 + 0.2%D46 mixed @ 14.2 PPG and having a yield of 1.33 cuft/sx.

The above are Schlumberger products with 25% excess volume - actual volumes will be adjusted to the open hole caliper of this wellbore. Equivalent products from another vendor may be substituted for Schlumberger depending on price/availability.

6. It is anticipated that this well will be drilled to TD utilizing the fluids shown below:

0-400':

Gel/Lime "spud mud" 8.6-9.0 PPG. Utilize native solids to maintain sufficient viscosity to clean hole. Mix paper as required to control seepage loss.

300-1800": Brine 9.9 - 10.0 PPG. Circulate thru reserve pit for gravitational solids solids removal. Add paper as required to control seepage loss while

maintaining pH at 10.0 - 10.5 using Lime. Brine water will minimize hole wash out in the salt.

1800-3200': Fresh Water 8.3 - 8.5 PPG Loss of circulation is anticipated in the

Capitan Reef which will require switching to fresh water and dry drilling

to casing point.

3200-3800': Cut Brine 8.5 - 8.9 PPG Pump high-vis sweeps to clean hole.

3800-4600': Cut Brine/Starch 8.7 – 8.9 PPG Maintain water loss @ 10-15 cc.

Sweep with high-vis pill to clean hole for logging operations.

7. Auxiliary equipment will include an upper kelly cock valve, safety valve to fit drill pipe and pressure gauges.

- 8. No drill stem testing, mud logging or coring is planned for this wellbore. A Platform Express Triple Combo electric log suite will be run at TD.
- 9. The estimated BHP at TD is not expected to exceed 1500 psi, and a BHT of 105 F is anticipated. There is no H2S present in the hydrocarbons being produced from the other wells in this section. Should such unexpected circumstances be encountered the operator and drilling contractor are prepared to take necessary steps to ensure safety of all personnel, and environment. Lost circulation could occur but is not expected to be a serious problem in this area, and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid.

It is estimated that this well will be drilled and cased in 10-11 days. Drilling will commence as soon after approval is received and services can be contracted.

Thirteen Point Plan for Surface Use (Additional data for form 3160-3)

St. Mary Land and Exploration Company

PDU #513

1700' FSL, 2630' FEL; Sec 35, TI9S, R29E

Parkway Delaware Unit

Parkway (Delaware)

Eddy Co., NM

NM-24160

1. EXISTING ROADS - A "VICINITY MAP" and a "LOCATION VERIFCATION

MAP" by John West Surveying are attached which show the location of existing roads and the area topography.

The road log to the location is as follows:

- a) From the Pecos River bridge in Carlsbad, proceed East on US Highway 62-180 for 13.5 miles.
- b) Turn north on County Road 238 and proceed for 2.0 miles onto a caliche road going north.
- c) Go northwest on caliche road for 4.1 miles to a caliche road intersection.
- d) Turn east and proceed for 0.9 miles.
- e) Proposed location is approx. 170' South.
- 2. PLANNED ACCESS ROAD —Approximately 170' of new N-S access road will be built from the existing E-W main caliche road to the east.
- 3. LOCATION OF EXISTING WELLS EXHIBIT B shows the location of other wells within a mile radius of the proposed location.
- 4. LOCATION OF EXISTING OR PROPOSED FACILITIES This production well will be tied into existing PDU facilities.
- 5. LOCATION AND TYPE OF WATER SUPPLY All water (fresh or otherwise) needed for the drilling and completion of this well will be purchased from a commercial source and trucked to the location via the existing and proposed access road. No water source wells will be drilled, and no surface water will be utilized.
- 6. SOURCE OF CONSTRUCTION MATERIALS Construction material (caliche) required for the preparation of the drill site is available from a local source 3 ½ miles

away. It is not anticipated that a significant amount of material will be required as the terrain is relatively flat. Transportation will be over the existing roads.

7. METHODS FOR HANDLING WASTE DISPOSAL -

- Drill cuttings will be disposed into drilling pits after fluids have evaporated.
- The drilling pits will be lined with a biodegradable plastic liner, and buried as per regulatory requirements. The pits will be located on the #513 drill site.
- Receptacles for solid wastes (paper, plastic, etc) will be provided and equipped to prevent scattering by wind, animals, etc. This waste will be hauled to an approved landfill site.
- Any other waste generated by the drilling, completion, testing of this well will be removed from the site within 30 days of the completion of drilling or testing operations.
- A Porta-John will be provided for the crews. This will be properly maintained during the drilling operations and removed upon completion of the well.
- 8. ANCILLARY FACILITIES The drilling, completion, and/or testing of this well will require no ancillary facilities.
- 9. WELLSITE LAYOUT Attached, as EXHIBITS C & D are plats showing the anticipated orientation of the drilling rig and the pad. A similar rig may have to be substituted for United Drilling Rig #24 if it is no longer available when approval is granted for this application. Material moved to create the drilling pits will be utilized in the dike around the pits so as to facilitate restoration of the area when operations are completed.
- 10. PLANS FOR SURFACE RESTORATION Reclamation of the surface location will be in accordance with the requirements set forth by the BLM. As stated earlier all waste generated by this operation will be disposed of in an approved manner, and the site restored as closely as possible to its pre-operation appearance. Due to the topography of the area no problems are anticipated in achieving this status and no erosion or other detrimental effects are expected as a result of this operation.
- 11. OTHER INFORMATION The surface ownership of the drill site and the access routes are under the control/ownership of:

Bureau of Land Management

P. O. Box 1778

Carlsbad, New Mexico 88221-1778

505-234-5972

The BLM representative for this area is Barry Hunt who can be reached at the above number, or 505-361-4078.

The site was archaeologically surveyed in September 2004. Danny Boone, the registered archeological surveyor, should forward a copy of that report to the BLM.

12. OPERATORS REPRESENTATIVE - St. Mary Land and Exploration is covered by Nationwide Bond No. 6041872. St. Mary Land and Exploration is represented by:

Charles M. Jones, Operations Manager

Dennis Goins, Operations Engineer

580 Westlake Park Blvd., Suite 600

Houston, Texas 77079

281-677-2800 Office

281-677-2774 Direct

918-408-8025 Cell

Jackie Herron, Contract Pumper Hagerman, NM

505-746-7601 Cell

505-752-2701 Home

13. OPERATORS CERTIFICATION

I hereby certify that I, Dennis L. Goins-Operations Engineer, have inspected the proposed drill site and access route and that I am familiar with the conditions that currently exist; that the statements made in the APD package are to the best of my knowledge true and correct; and that the work associated with operations herein will be performed by ST. MARY LAND & EXPLORATION COMPANY and it's contractors and subcontractors in conformity with the terms and conditions of this APD package. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application with bond coverage being provided under a BLM nationwide bond.

This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Name and title: Dennis L Goins, Operations Engineer for St. Mary Land & Exploration Company

Signature:

Date:

9-7-04

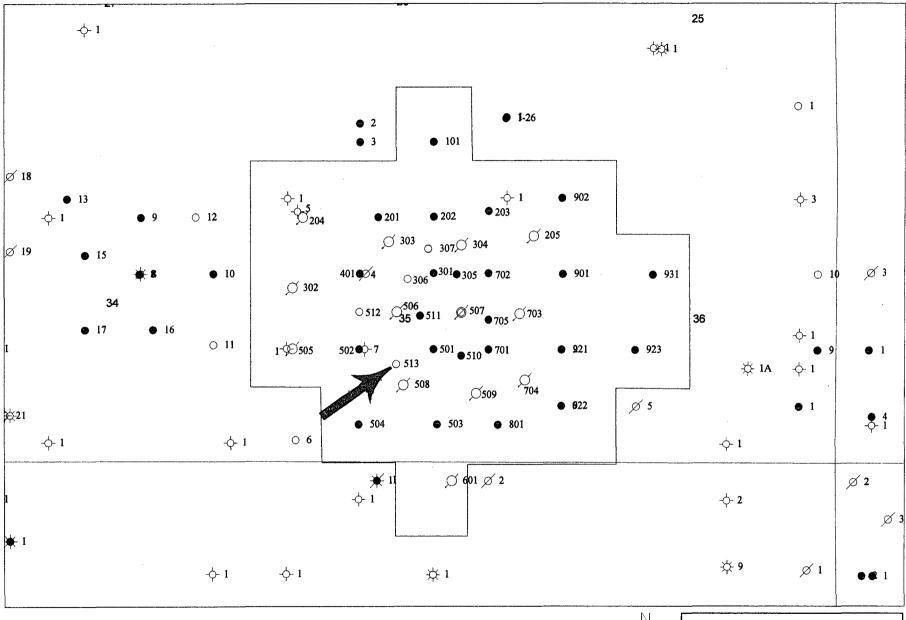


EXHIBIT B 2004 PDU INFILL DRILLING PROGRAM

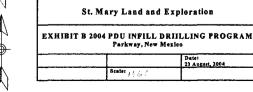
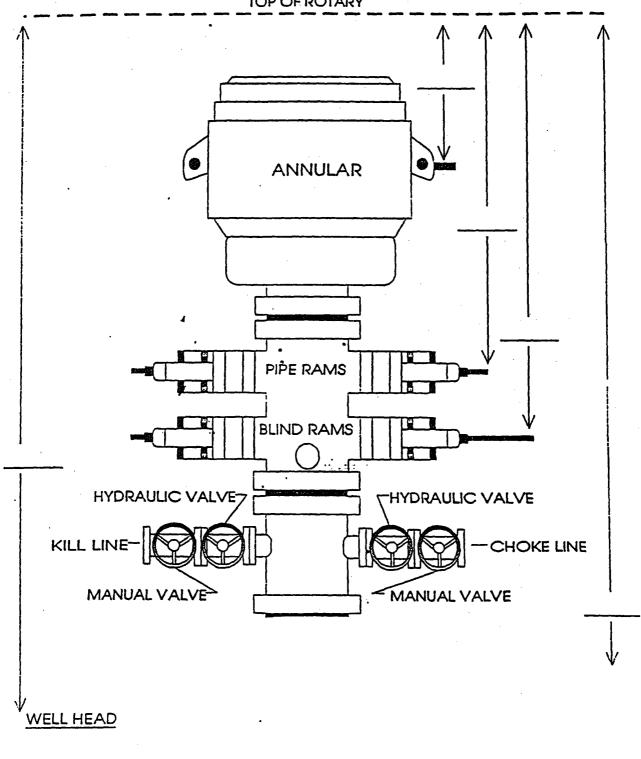


EXHIBIT A

B.O.P. STACK SPACING SIZE: 11" 3000#

TOP OF ROTARY

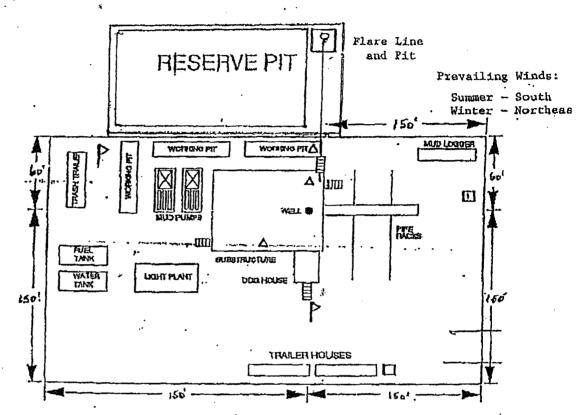


CONTRACTOR

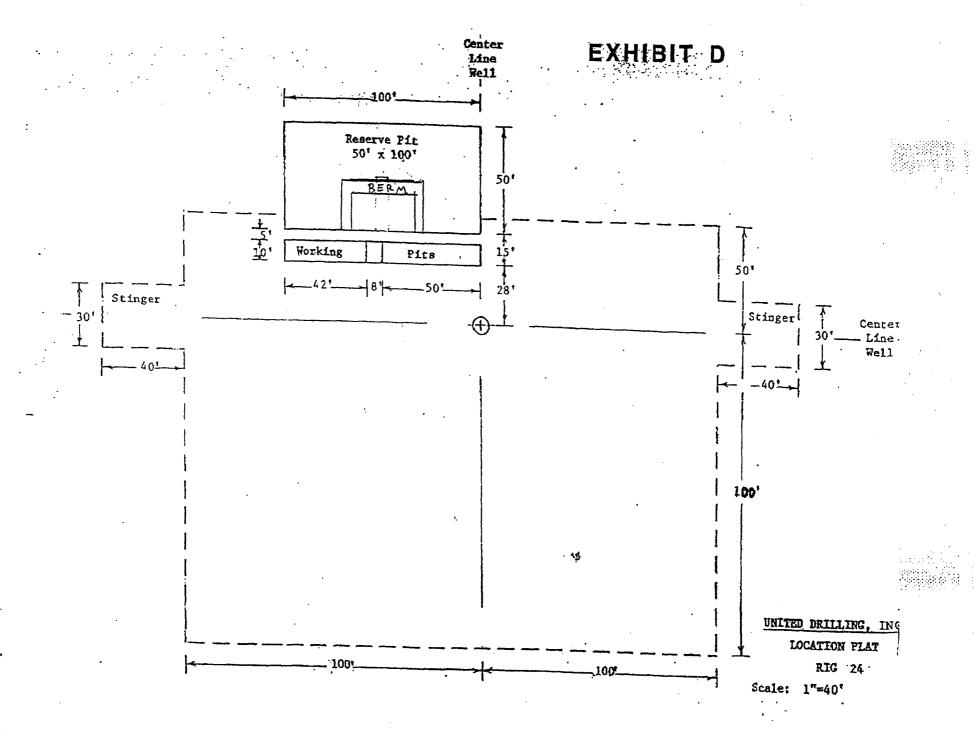
WELL _

EXHIBIT C

Typical United Drilling Rig Layout



- △ H2S Monitors with alarms at the bell nipple and shale shaker.
- > Wind Direction Indicators
- Safe Briefing areas with caution signs and protective breathing equipment. Minimum 150 feet from wellhead. I designates primary area.



580 WESTLAKE PARK BLVD., SUITE 600

HOUSTON, TEXAS 77079

281/677-2800

FAX 281/677-2810



September 7, 2004, 2004

Bureau of Land Management 2909 West 2nd Street Roswell, New Mexico 88201-2019

Re:

Notice of Staking and Application for Permit to Drill

Parkway Delaware Unit (PDU) # 513

Gentlemen:

Attached to this submittal letter are an original and one copy of the Notice of Staking (with attached location plat), along with the original and six copies of the complete Application for Permit to Drill (APD) the Parkway Delaware Unit #513 well operated by St. Mary Exploration and Land Company. The APD package also includes the appropriate location plat, maps, nine point drilling plan, thirteen point surface use plan, offset wells map, drilling location schematics and a plat showing the well location. The drilling location has had an archeological survey performed and is being forwarded to you by Boon Archeological Services, LLC. Mr. Barry Hunt with the BLM has already made a pre-plating onsite inspection of this location, and found no problems.

Thank you for your consideration for approval to drill the subject well. Please contact me at 281-677-2774 or e-mail at dgoins@stmaryland.com should you have any questions or require additional information regarding this submittal.

Yours truly.

Dennis L. Goins

Operations Engineer