Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: PERRY R. BASS

3. ADDRESS OF OPERATOR: P. O. Box 1178 Monahans, Texas 79756

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' FN & WL of Section 23, T20S R32E
At proposed prod. zone: Same

5. LEASE DESIGNATION AND SERIAL NO.: LC 069060

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME: Laguna Plata

8. FARM OR LEASE NAME: Laguna Plata Unit

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 23, T20S R32E

12. COUNTY OR PARISH: Lea

13. STATE: N. Mex.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 28 miles ENE of Carlsbad, New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1980'

16. NO. OF ACRES IN LEASE: 2320

17. NO. OF ACRES ASSIGNED TO THIS WELL: 320

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: First well

19. PROPOSED DEPTH: 13500

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3539' ground level

22. APPROX. DATE WORK WILL START*: 30 days after approval.

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	20"	94 - 133#	1200	Sufficient to fill to surface.
17½"	13 3/8"	54.5 - 61#	2700	"
12¼"	9 5/8"	40-43.4-47#	10900	"
8½"	7 5/8"	33.7#	10700-12540	Sufficient to fill liner annulus
6½"	5"	18#	12350-13500	"

THIS WELL IS TO BE DRILLED IN CONFORMANCE WITH ALL REGULATIONS PERTAINING TO DRILLING IN THE POTASH AREA.

SEE ATTACHED PROGNOSIS FOR COMPLETE DETAILS.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED Jack Lemon TITLE Division Engineer DATE March 23, 1973

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

PROPOSED DRILLING AND COMPLETION PROCEDURE

PERRY R. BASS

Laguna Plata Unit #1
Lea County, New Mexico

PROPOSED DRILLING AND COMPLETION PROCEDURE

Operator: PERRY R. BASS

Lease and Well No: Laguna Plata Unit #1 (13500')

Location: 1980' from the north line and 1980' from the west line of Section 23, T20S, R32E, Lea County, New Mexico.

Surface Casing:

26" surface hole is to be drilled using a fresh water - gel-lime mud to an approximate depth of 1200'. 20" OD casing will be set at approximately 1200'; setting is anticipated as follows:

No. Jts.	Description	Thds. Off Length	From	To
--	Rotary correction	16	0	16
23	20" OD 94#/ft H-40 ST&C casing	880	16	896
7	20" OD 133#/ft K-55 ST&C casing	262	896	1158
--	Baffle collar with plug and seal valve for cementing thru drill pipe	2	1158	1160
1	20# OD 133#/ft K-55 ST&C casing	38	1160	1198
--	Float shoe*	2	1198	1200

*The float shoe is to be equipped with lateral exits for cement as it is intended to rest part of the casing weight on bottom.

This string of casing is to be cemented through drill pipe, that will be in service at the time the 26" hole is made. By inserting a "stinger" into the baffle collar, the cement can be placed through the drill pipe, and enough cement can be mixed to bring clean cement returns to the surface.

The bottom three (3) joints are to be sand blasted to remove mill scale and lacquer and in addition are to be welded and sealed with HOWCO-weld. Positive type centralizers are recommended; one set on each of the bottom three (3) joints. API modified thread lubricant is to be used on the casing threads.

Casing is to be cemented to the surface with API class "C" containing 2% $CaCl_2$ mixed at 14.0 PPG (yield 1.53 CF/sack); an estimated 1210 sacks will be required. A W.O.C. time of 24 hours will be observed after the plug is down.

Surface Casing: (continued)

Prior to drilling the float collar the casing is to be displaced with water (fresh water or brine) and the casing is to be pressure tested to 600 psi for 30 minutes. After drilling the shoe the casing is again to be pressure tested to 600 psi for 30 minutes.

Salt Protection Casing:

17 1/2" hole is to be drilled below the surface casing using a saturated salt water. 13 3/8" OD casing is to be set not less than 100' nor more than 600' below the base of salt; and shall not be set below the top of the highest known oil and/or gas zone. Casing is anticipated to be set about 2700' as follows:

No. Jts.	Description	Thds. Off Length	From	To
--	Rotary correction	15	0	15
53	13 3/8" OD 54.5#/ft K-55 ST&C casing	1981	15	1996
18	13 3/8" OD 61#/ft K-55 ST&C casing	662	1996	2658
--	Float collar	2	2658	2660
1	13 3/8" OD 61#/ft K-55 ST&C casing	38	2660	2698
--	Float shoe*	2	2698	2700

*The float shoe is to be equipped with lateral exits for cement as it is intended to rest part of the casing weight on bottom.

The bottom three (3) joints are to be sand blasted to remove mill scale and lacquer and in addition are to be welded and sealed with HOWCO-weld. Positive type centralizers are to be recommended; one set on each of the bottom three (3) joints. API modified thread lubricant is to be used on the casing threads.

Casing is to be inspected using a combination mechanical-optical and magnetic particle inspection - full length.

No pressure test of the 13 3/8" OD casing is anticipated.

Prior to running the 13 3/8" OD casing a caliper survey is to be run to determine the actual cement volume required.

13 3/8" OD casing is to be cemented to the surface with API class "C" containing 24 1/2# salt/sack and 1% $CaCl_2$ by weight of cement; mixed at a slurry weight of 14.7 PPG, yield of 1.68 CF/sack. An estimated 1675 sacks will be required to circulate cement to the surface. A W.O.C. time of 24 hours will be observed after the plug is down.

Salt Protection Casing: (continued)

Prior to drilling the float collar the casing is to be displaced with fresh water and pressure tested to 1000 psi for 30 minutes. After drilling the shoe the casing is again to be pressure tested to 1000 psi for 30 minutes.

12 1/4" hole is to be drilled below the salt protection casing to an anticipated depth of 10900' (base of Bone Spring or top of Wolfcamp) using fresh water. A partial loss of drilling fluid is expected in the Capitan Reef. It is anticipated that the loss can be controlled using lost circulation additives. 9 5/8" OD casing is to be set in the 12 1/4" hole; setting is anticipated as follows:

No. Jts.	Description	Thds. Off Length	From	To
--	Rotary correction	14	0	14
83	9 5/8" OD 40#/ft N-80 Buttress csg	3128	14	3142
4	9 5/8" OD 40#/ft N-80 LT&C casing	156	3142	3298
--	Halliburton DV tool	2	3298	3300
38	9 5/8" OD 40#/ft N-80 LT&C casing	1444	3300	4744
41	9 5/8" OD 43.5#/ft N-80 LT&C csg	1550	4744	6294
40	9 5/8" OD 47#/ft N-80 LT&C casing	1500	6294	7794
79	9 5/8" OD 47#/ft S-95 LT&C casing	3024	7794	10818
--	Float collar	2	10818	10820
1	9 5/8" OD 47#/ft S-95 LT&C casing	38	10820	10858
--	Float collar	2	10858	10860
1	9 5/8" OD 47#/ft S-95 LT&C casing	38	10860	10898
--	Float shoe*	2	10898	10900

*The float shoe is to be equipped with lateral exits for cement as it is intended to rest part of the casing weight on bottom.

The bottom three (3) joints are to be sealed with HOWCO-weld. API modified thread lubricant is to be used on casing threads. Casing centralizers are recommended to be included over any pay zones in conjuction with sand blasting to remove mill scale and lacquer.

The 9 5/8" OD casing is to be inspected using a combination mechanical optical and magnetic particle inspection - full length.

Prior to running the 9 5/8" OD casing a caliper survey is to be run to determine actual cement volumes required.

Salt Protection Casing: (continued)

Cementing is anticipated to be done in two stages as follow:

First Stage: Cement the lower part of the 9 5/8" OD casing with Trinity "Lite Wate" cement mixed at 12.8 PPG, yield 1.45 CF/sack (est 2150 sacks) followed by 200 sacks class "H" containing 3/4% CFR-2, mixed at 15.8 PPG (yield of 1.10 CF/sack). It may be desirable to include 1/4# "Flocele" per sack.

Second Stage: Cement the upper part of the 9 5/8" OD casing with Trinity "Lite Wate" cement containing 1/4# "Flocele" per sack, yield 1.45 CF per sack (est 990 sacks) followed by 100 sacks class "C" containing 2% $CaCl_2$, mixed at 14.0 PPG, yield of 1.53 CF/sack. Cement is to be circulated to the surface.

Prior to and after drilling the stage cementing collar, the 9 5/8" OD casing is to be pressure tested, using fresh water, to 1000 psi for 30 minutes. Prior to and after drilling the float collar the casing is again to be pressure tested, using fresh water to 1000 psi for 30 minutes.

Protection Liner:

8 1/2" hole is to be drilled below the 9 5/8" OD casing to the top of the Morrow (about 12540') -- abnormal pressures are expected to be encountered in the Wolfcamp. 8 1/2" hole is to be drilled using as light a fluid, initially, as possible 8.8 to 9.0 PPG (fresh water - brine with shale inhibitors). Brine and soda ash may be added for weight if necessary. Other weight materials may be added if higher weights are required. A maximum fluid weight of 11.8 to 12.0 PPG may be necessary.

Prior to drilling the Strawn-potassium chloride is to be added to the drilling fluid; 2% to 4% will be required.

A 7 5/8" OD liner is to be set about 12540' (top of Morrow); setting is anticipated as follows:

Protection Liner: (continued)

No. Jts.	Description	Thds. Off Length	From	To
--	Distance below ORDB	10700	0	10700
--	Burns 9 5/8" x 7 5/8" liner hanger with tie-back sleeve	6	10700	10706
46	7 5/8" OD 33.7#/ft S-95, FL-4S jt, casing	1752	10706	12458
--	Float collar	2	12458	12460
1	7 5/8" OD 33.7#/ft S-95, FL-4S jt, casing	38	12460	12498
--	Float collar	2	12498	12500
1	7 5/8" OD 33.7#/ft S-95 FL-4S jt, casing	38	12500	12538
--	Float shoe*	2	12538	12540

*The float shoe is to be equipped with lateral exits for cement; it is anticipated that the liner will be hung slightly off bottom, however, operational difficulties may make it necessary to set on bottom.

The bottom three (3) joints are to be sealed with HOWCO-weld and in addition are to be sand blasted to remove mill scale and lacquer: in addition, that casing to be placed opposite any potential pay zone is to be sand blasted. No centralizers are anticipated. API modified thread lubricant is to be used on casing threads.

Casing is to be inspected with combination mechanical-optical and magnetic-particle inspection - full length.

Prior to running 7 5/8" OD liner a caliper survey is to be run to assist in computing the volume of cement required. Casing is to be cemented with API class "H" containing 1% CFR-2 (estimated at 200 sacks). Immediately after cementing the liner-the liner setting tools are to be pulled out of the hole -- do not circulate out excess cement. A WOC time of 24 hours is to be observed before drilling-out operations are begun.

Pressure test top of liner to 4000 psi; drill out shoe and pressure test liner to 4000 psi. NOTE: Hole is to be displaced with water prior to conducting casing pressure tests.

Production Liner:

Drill 6 1/2" hole below 7 5/8" OD liner to total depth (anticipated at 13500') using a fresh water flo-sal drilling fluid with 3% to 5% KCl; if required, brine water may be added for increased drilling fluid weight. Drilling fluid weight is to be controlled at 8.6 to 8.7 PPG maximum. 5" OD liner will be set from 12350' to total depth. Liner setting is anticipated as follows:

No. Jts.	Description	Thds. Off Length	From	To
--	Distance below ORDB	12350	0	12350
--	Burns 7 5/8" x 5" liner hanger with tie-back sleeve	5	12350	12355
27	5" OD 18#/ft N-80 LT&C casing	1059	12355	13414
--	Float collar	2	13414	13416
1	5" OD 18#/ft N-80 LT&C casing	40	13416	13456
--	Float collar	2	13456	13458
1	5" OD 18#/ft N-80 LT&C casing	40	13458	13498
--	Float shoe*	2	13498	13500

*The float shoe is to be equipped with lateral exits; it is anticipated that the liner will be hung slightly off bottom; however, operational difficulties may make it necessary to set on bottom.

The bottom three (3) joints are to be sealed with HOWCO-weld and in addition are to be sand blasted to remove mill scale and lacquer; in addition, that casing to be placed opposite any potential pay zone is to be sand blasted. At this time centralizers are not anticipated. API modified thread lubricant is to be used on casing threads.

Casing is to be inspected with combination mechanical-optical and magnetic-particle inspection - full length.

Prior to running the 5" OD liner a caliper survey is to be run to assist in determining the volume of cement required. Casing is to be cemented with API class "H" containing 1% CFR-2 and 3# KCl/sack (estimated at 175 sacks). A WOC time of 24 hours is to be observed.

After the plug is down on the 5" liner the drilling rig is to be released and a well service unit with suitable equipment to drill out cement above the 5" liner and inside the 5" liner is to be moved in.

Production Liner: (continued)

Drill out cement inside the 7 5/8" casing to the top of 5" liner and pressure test top of liner to 4000 psi; pressure test liner again after drilling out below the maximum depth for completion (i. e. below lower most interval to be perforated for production).

Completion:

It is anticipated that the well will be a single (Morrow gas) completion. 2 7/8" OD, 6.50#/ft, N-80, ABC DSS-HT thread tubing is to be used in conjunction with a suitable production packer. Tubing is to be pressure tested externally using Gator-Hawk, to 6500 psi. Tubing is to be inspected with combination mechanical-optical and magnetic-particle -- full length plug end area inspection.

Logging:

A caliper survey is to be made before running each casing string, except the surface casing.

Ind-ES-Laterlog; GR-Acoustic Neutron and Microlog are to be run prior to setting the 9 5/8", 7 5/8" and 5" casing.

Four (4) arm dipmeter is to be run over the bottom 1000' of hole, thru the Morrow, prior to setting the production liner.

A PDC (GR-N) Log is to be run after setting production liner and correlated to open hole logs to assist in perforating.

Mud Logging Unit:

A mud logging unit is to be moved on the well at a depth to be determined by the geological department, anticipated at a depth of 4800' and remain until TD is reached.

Samples:

As required by geological department.

Drill Stem Tests:

Four anticipated ---
One in the Delaware Sand
One in the Atoka
Two in the Morrow

Contract Geological:

Approximately 25 days consultant geological time is anticipated.

Water, Road and Location:

It will be necessary to haul all water used in drilling operations.

Dirt work will be required for the location and approximately 1/4 mile of access road.

Estimated Formation Tops:

Elevation	3539 G.L.
Rustler	995
B/Rustler Dolo.	1230
Salt	1260
B/Salt	2590
Yates	2760
Reef	3170
Delaware Sand	5100
Bone Spring	7800
Wolfcamp	10900
Strawn	11780
Atoka	11995
Morrow	12540
TD	13500

Casing and Tubing Data:

OD	Wt	Grade	Type Joint	Cplg or Jt OD	Min Collapse	Burst at MIY	ID	Drift Dia
20"	133#	K-55	ST&C	21.000	1600	3050	18.730	18.542
13 3/8"	54.5#	K-55	ST&C	14.375	1140	2730	12.615	12.459
	61#	K-55	ST&C	14.375	1670	3090	12.515	12.359
9 5/8"	40#	N-80	Buttress	10.625	3280	5750	8.835	8.679
	40#	N-80	LT&C	10.625	3280	5750	8.835	8.679
	43.5#	N-80	LT&C	10.625	4050	6330	8.755	8.599
	47#	N-80	LT&C	10.625	4760	6870	8.681	8.525
	47#	S-95	LT&C	10.625	7100	8150	8.681	8.525
7 5/8"	33.7#	S-95	FL-4S (Rucker-ABC)	7.625	8800	9380	6.665* *Bored Pin ID	6.640
5"	18#	N-80	LT&C	5.563	9050	10140	4.276	4.151
2 7/8"	6.5#	N-80	DSS-HT (Rucker-ABC)	3.230	11160	10570	2.379* *Bored Pin ID	2.347

NEW › CO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PL

Form C-1[illegible]
Supersedes C-1[illegible]
Effective [illegible]

All distances must be from the outer boundaries of the [illegible]

Operator	Lease	Well No.
PERRY R. BASS	Laguna Plata Unit	1

Unit Letter	Section	Township	Range	County
F	23	20 South	32 East	Lea

Actual Footage Location of Well:
1980 feet from the north line and 1980 feet from the west line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3539		Wildcat	320

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

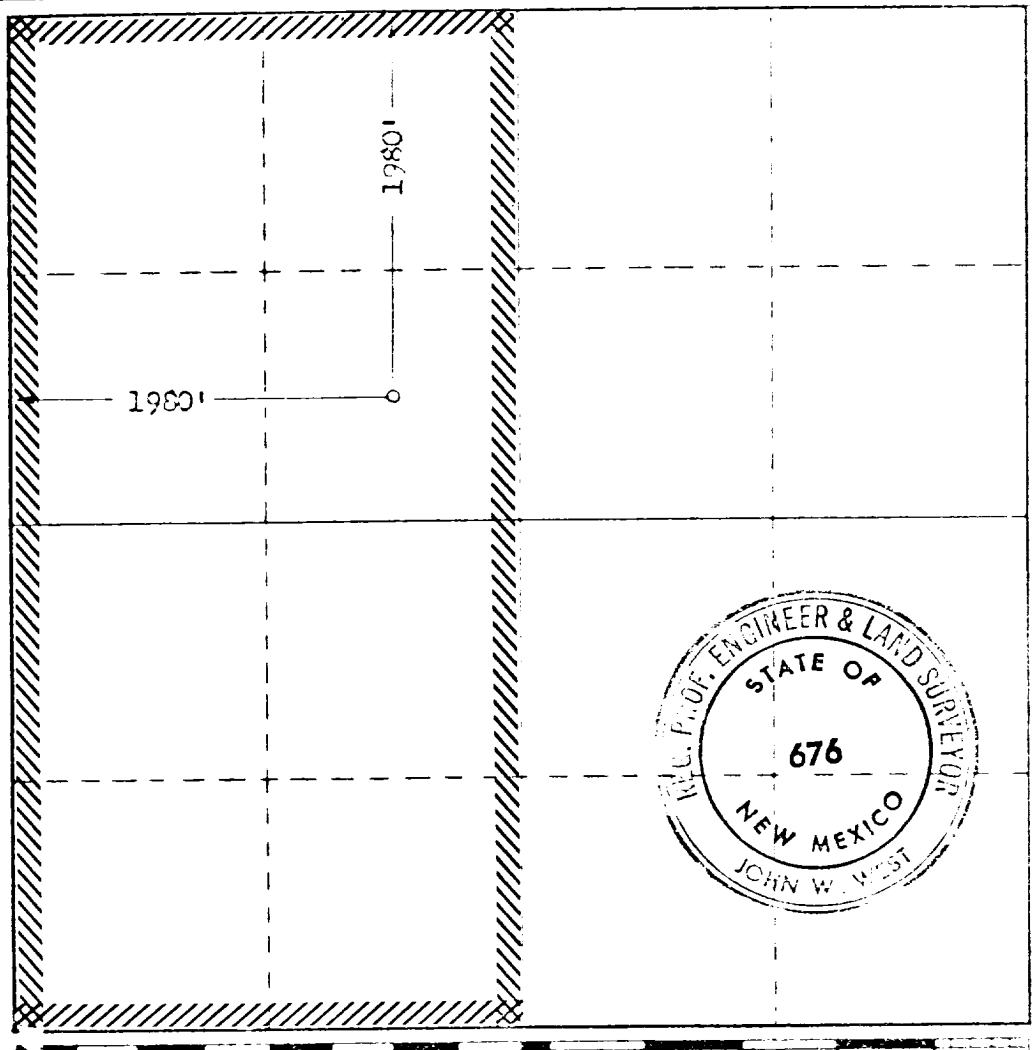
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name: Jack Lemon

Position: Division Engineer

Company: PERRY R. BASS

Date: March 27, 1973

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: Feb. 1, 1973

Registered Professional Engineer and/or Land Surveyor

John W. West

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PERRY R. BASS, INC.
P. O. BOX 1178
MONAHANS, TEXAS

March 27, 1973

D. S. Harroun and Russell Haworth
601 Riverside Drive
Carlsbad, New Mexico 88220

Kerr-McGee Chemical Corporation
P. O. Box 610
Hobbs, New Mexico 88240

Teledyne Potash Company
P. O. Box 101
Carlsbad, New Mexico 88220

Re: Laguna Plata Unit, Well #1, 13,500' Morrow Test

Dear Sir:

Our information indicates that your company holds potash leases or applications within one (1) mile of the proposed drillsite. Please be advised that PERRY R. BASS proposes to drill the above referenced well for the production of oil and/or gas; said well to be located 1980' FN&WL of Section 23, T20S, R32E; Lea County, New Mexico.

PERRY R. BASS proposes to drill the above referenced well in accordance with rules set forth under NMOCC R-111-A. A copy of the application to drill (form 9-331C), which has been submitted to the USGS office, Hobbs, New Mexico, is attached setting forth the proposed drilling program.

Sincerely,

Jack D. Semon
Division Engineer

JDS/blh

REGISTERED NO. 807

Value $ NV	Special Delivery $
Reg. Fee $ 95	Return Receipt $
Handling Charge $	Restricted Delivery $
Postage $ 21	☐ AIRMAIL

POSTMASTER (By) L

POSTMARK OF MONAHANS, TEX. MAR 27 1973 USPO MAILING OFFICE

FROM P.R. Bass Inc
Box 1178
Ada

TO Kerr-McGee Chemical Corp Box 216
Hobbs, NM 88240

☆G.P.O.: 1971-444-957

REGISTERED NO. 806

Value $ NV	Special Delivery $
Reg. Fee $ 95	Return Receipt $
Handling Charge $	Restricted Delivery $
Postage $ 24	☐ AIRMAIL

POSTMASTER (By) L

POSTMARK OF MONAHANS, TEX. MAR 27 1973 USPO MAILING OFFICE

FROM P.R. Bass Inc
Box 1178
Ada

TO Teledyne Potash Co Box 161
Carlsbad NM 88220

☆G.P.O.: 1971-444-957

REGISTERED NO. 805

Value $ NV	Special Delivery $
Reg. Fee $ 95	Return Receipt $
Handling Charge $	Restricted Delivery $
Postage $ 24	☐ AIRMAIL

POSTMASTER (By) L

POSTMARK OF MONAHANS, TEX. MAR 27 1973 USPO MAILING OFFICE

FROM P R Bass Inc
Box 1178
Ada

TO D. S. Harroun & Russell Haworth
601 Riverside, Carlsbad, NM 88220

☆G.P.O.: 1971-444-957