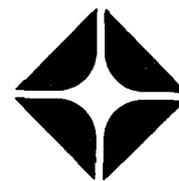


North American Producing Division  
Rocky Mountain District  
1860 Lincoln St. — Suite 501  
Denver, Colorado 80203  
Telephone 303 573-4049

W. A. Walther, Jr.  
Operations Manager



RECEIVED  
JUN - 9 1976  
OIL CONSERVATION COMM.  
Santa Fe

June 7, 1976

Mr. Joe D. Ramey, Secretary-Director  
Oil Conservation Commission, State of New Mexico  
P. O. Box 2088  
Santa Fe, New Mexico 87501

*NSL - 776*

Re: Horseshoe Gallup Unit  
San Juan County, New Mexico

*Due upon receipt of  
approval from Office*

Dear Mr. Ramey:

*Rule 11, R-2210-A*

Atlantic Richfield Company, Operator of the Horseshoe Gallup Unit, and pursuant Case No. 5236, Order No. R-2210-A, hereby requests administrative approval to drill seven (7) infill Gallup formation producing wells at unorthodox locations. As set forth in Order No. R-2210-A, the following are enclosed:

1. (a) Copy of Certified Location Plat, each well.  
(b) Copy of Application for Permit to Drill, each well.  
(c) Map showing the Unit boundary, all existing wells, and location of the seven (7) proposed wells.
2. Schematic drawing for each well, based on current information.

Atlantic Richfield Company is the Operator of all offset locations, therefore, notification to offset operators is not required.

Your administrative approval is respectfully requested.

Very truly yours,

*W. A. Walther, Jr.*  
W. A. Walther, Jr.

Encls. *HGU*

291	50' FNL & 50' FEL	Sec 23	} T31N, R17W
292	2474' FSL & 2463' FEL	Sec 24	
293	1260' FNL & 1470' FWL	Sec 30	} T31N, R16W
294	1378' FSL & 1330' FEL	Sec. 30	
295	50' FNL & 50' FEL	Sec. 31	
296	1350' FSL & 1250' FEL	Sec 32	
297	1550' FSL & 1250' FEL	Sec 4, T30N, R16W	

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER



2. NAME OF OPERATOR  
Atlantic Richfield Company

3. ADDRESS OF OPERATOR  
501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface  
Unit A - 50' f/North & 50' f/East lines Sec. 23  
 At proposed prod. zone  
Approx. Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
See attached maps

16. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
2590' f/Tr. 13 line

15. NO. OF ACRES IN LEASE  
Tr. 13, 1442.28 Ac.  
Unit 13, 527.80 Ac.

17. NO. OF ACRES ASSIGNED TO THIS WELL  
N/A Unit

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
812' f/#84 in NE NE Sec. 23

19. PROPOSED DEPTH  
1650'

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5873' GL, Ungr.

22. APPROX. DATE WORK WILL START\*  
When appls rec'd.

23. PROPOSED CASING AND CEMENTING PROGRAM  
Est. 7/1/76

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	120'	120 sx (Cmt to surface)
7-7/8"	5-1/2"	14#	T.D.	225 sx

Propose to drill well to depth sufficient to test the Gallup Formation. Est. tops: Upper Gallup 1424', Lower Gallup 1534'. Will set 8-5/8" surface casing at approx. 120' and cement to surface; drill 7-7/8" hole to T.D.; log; if productive, set 5-1/2" casing with sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary, and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 & R-2210-A

Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use w/ att.  
 Archaeological Clearance Report

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 W. A. Walther, Jr. TITLE Operations Manager DATE 6/1/76  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator <b>Atlantic Richfield Company</b>		Lease			Well No. <b>291</b>
Unit Letter <b>A</b>	Section <b>23</b>	Township <b>31</b>	Range <b>17</b>	County <b>San Juan</b>	

Actual Footage Location of Well:  
**50** feet from the **North** line and **50** feet from the **East** line

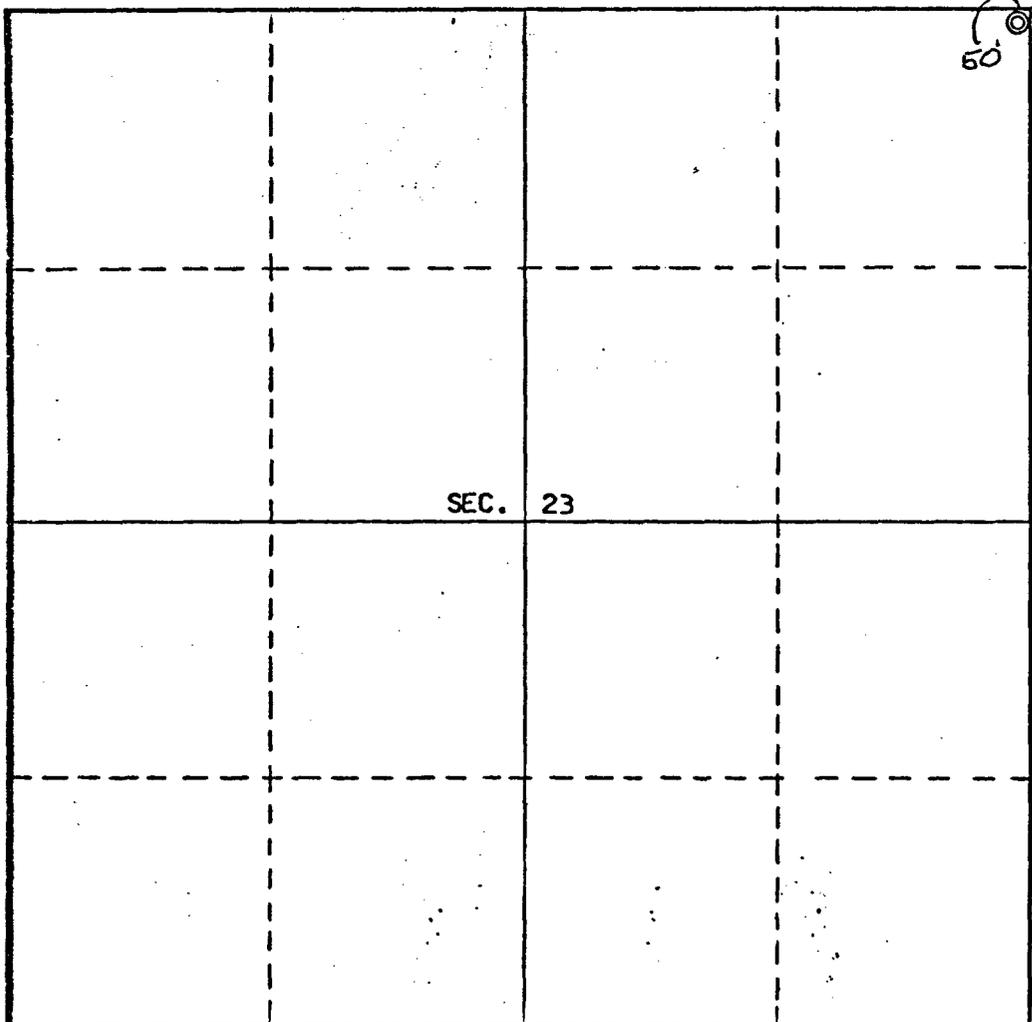
Ground Level Elev. <b>5873</b>	Producing Formation <b>Gallup</b>	Pool <b>Horseshoe Gallup</b>	Dedicated Acreage: <b>NA - Unitized</b> Acres
-----------------------------------	--------------------------------------	---------------------------------	--

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 Unitization

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.



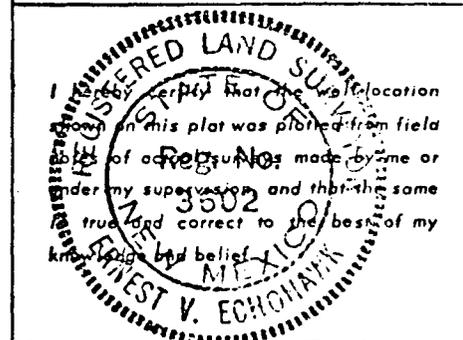
50'    CERTIFICATION

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

Name W. A. Walther Jr.  
Position W. A. Walther, Jr.  
Operations Manager

Company  
**ATLANTIC RICHFIELD COMPANY**

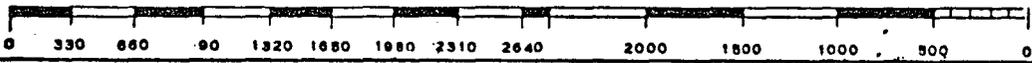
Date



Date Surveyed  
**May 21, 1976**

Registered Professional Engineer and/or Land Surveyor  
E. V. Echomawk

Certificate No. **3602**  
**E. V. Echomawk LS**



Elevation 5873' - GL, Ungraded



8-5/8" OD Casing set at 120' and cemented to surface

2-3/8" OD EUE tubing

Upper Gallup - Perforated as indicated from logs.

Lower Gallup - Perforated as indicated from logs.

5-1/2" OD casing set at total depth with sufficient cement to protect all zones.

1650' Estimated total depth.

HORSESHOE GALLUP UNIT, Well No. 291  
Unit "A" - 50' f/North & 50' f/East lines  
Section 23-31N-17W  
San Juan County, New Mexico

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 Atlantic Richfield Company

3. ADDRESS OF OPERATOR  
 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface  
 Unit "J" - 2474' f/South & 2463' f/East lines Sec. 24  
 At proposed prod. zone  
 Approx. same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See attached maps

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 166' f/Tr. 15 line

16. NO. OF ACRES IN LEASE TO THIS WELL  
 Tr. 15 - 880.00 Ac.  
 Unit - 13,527.80 Ac.

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A Unit

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 822' f/#99 in NW SE Sec. 24

19. PROPOSED DEPTH  
 1530'

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5707' GL, Ungr.

22. APPROX. DATE WORK WILL START\*  
 When appls rec'd.

23. PROPOSED CASING AND CEMENTING PROGRAM

Rd & loc est 7/1/76.  
 Drlg after #291

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	120'	128 sx (Cmt to surface)
7-7/8"	5-1/2"	14#	T.D.	225 sx

Propose to drill well to depth sufficient to test the Gallup Formation. Est tops: Upper Gallup 1305', Lower Gallup 1415'. Will set 8-5/8" OF surface casing at approx. 120' and cement to surface; drill 7-7/8" hole to T.D.; log; if productive, set 5-1/2" OD casing w/ sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary, and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 and R-2210-A

Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use w/ att.  
 Archaeological Clearance Report

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 W. A. Walther, Jr. TITLE Operations Manager DATE 6/4/76  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator <b>Atlantic Richfield Company</b>			Lease		Well No. <b>292</b>
Unit Letter <b>J</b>	Section <b>24</b>	Township <b>31</b>	Range <b>17</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>2474</b> feet from the <b>South</b> line and <b>2463</b> feet from the <b>East</b> line					
Ground Level Elev. <b>5707</b>	Producing Formation <b>Gallup</b>		Pool <b>Horseshoe Gallup</b>	Dedicated Acreage: <b>NA - Unitized</b> Acres	

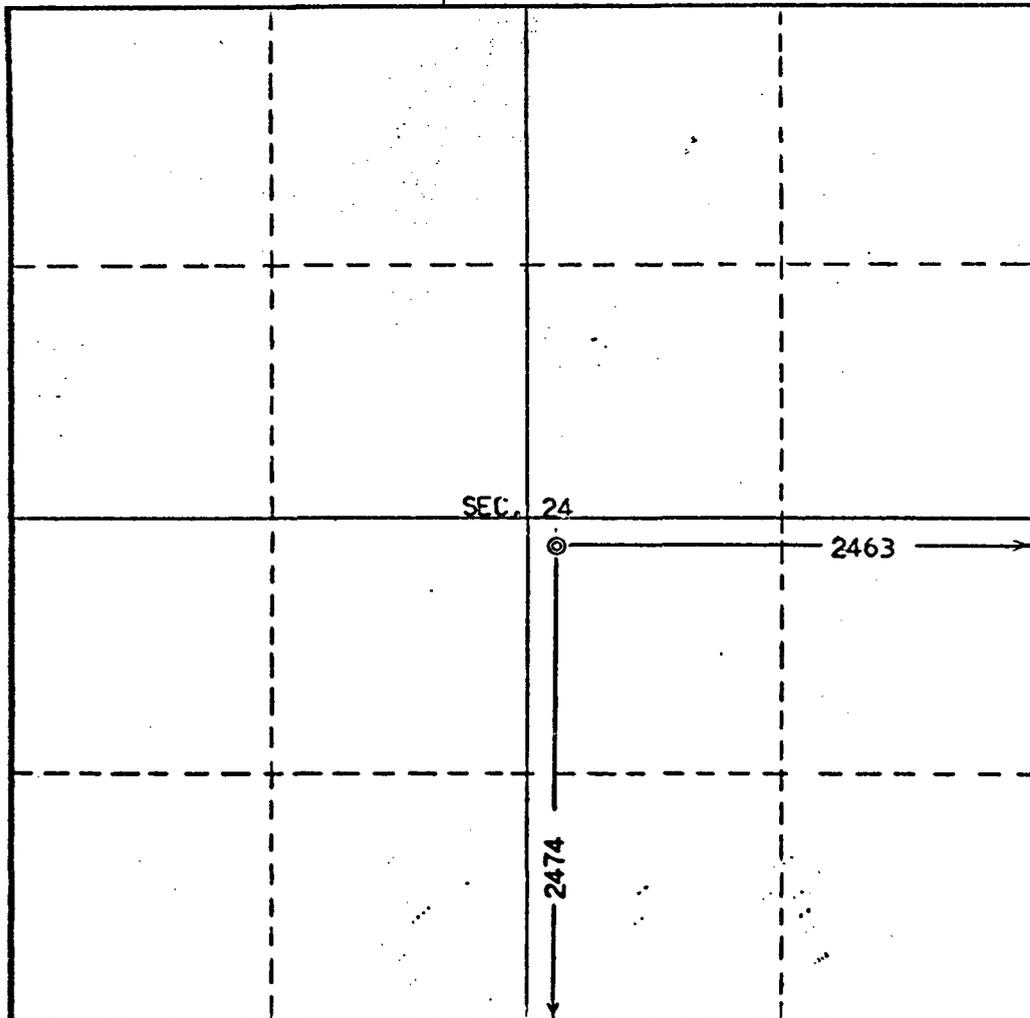
Re: Order No. R-2210

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 Unitization

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

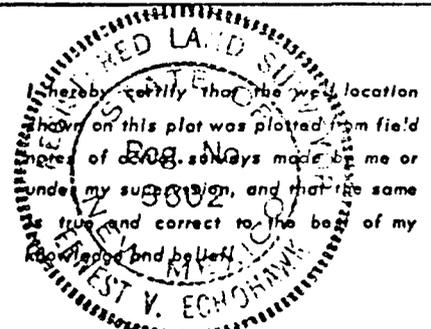
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



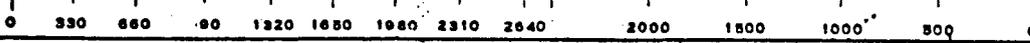
**CERTIFICATION**

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

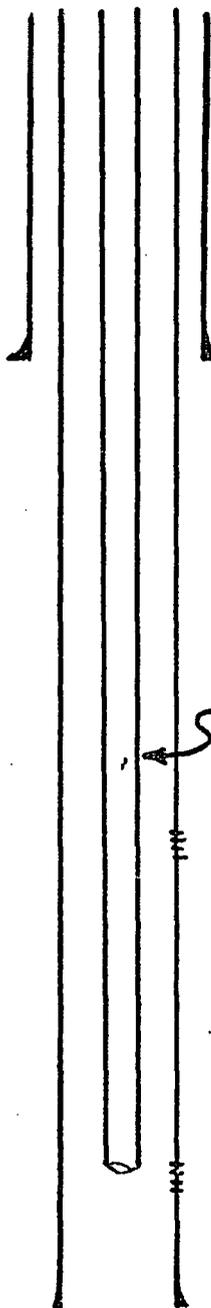
Name  
*W.A. Walther, Jr.*  
Position **W. A. Walther, Jr.**  
**Operations Manager**  
Company  
**ATLANTIC RICHFIELD COMPANY**  
Date



Date Surveyed  
**May 21, 1976**  
Registered Professional Engineer  
and/or Land Surveyor  
*E.V. Echohawk*  
Certificate No. **3602**  
**E.V. Echohawk LS**



Elevation 5707' - GL, Ungraded



8-5/8" OD Casing set at 120' and cemented to surface

2-3/8" OD EUE tubing

Upper Gallup - Perforated as indicated from logs.

Lower Gallup - Perforated as indicated from logs.

5-1/2" OD casing set at total depth with sufficient cement to protect all zones.

1530' Estimated total depth.

HORSESHOE GALLUP UNIT, Well No. 292  
Unit "J" - 2474' f/South & 2463' f/East lines  
Section 24-31N-17W  
San Juan County, New Mexico

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK   
 2. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER   
 3. NAME OF OPERATOR  
 Atlantic Richfield Company  
 4. ADDRESS OF OPERATOR  
 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203  
 5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 Unit "C" - 1260' f/North & 1470' f/West lines Sec. 30  
 At proposed prod. zone  
 Approx. same

JUN - 9 1976  
 OIL CONSERVATION  
 STATE OF NEW MEXICO

6. LEASE DENIGATION AND SERIAL NO.  
 14-20-603-734  
 7. IF INDIAN ALLOTTEE OR TRIBE NAME  
 Navajo  
 8. UNIT AGREEMENT NAME  
 Horseshoe Gallup Unit  
 9. FARM OR LEASE NAME  
 Horseshoe Gallup Unit  
 10. WELL NO.  
 293  
 11. FIELD AND POOL, OR WILDCAT  
 Horseshoe Gallup  
 12. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 30-31N-16W  
 13. COUNTY OR PARISH  
 San Juan  
 14. STATE  
 New Mexico

15. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See attached maps  
 16. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 1260' f/Tr.12 line  
 17. NO. OF ACRES IN LEASE  
 Tr.12 - 2644.14 Ac  
 18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. in NE NW Sec.30  
 814' f/#48  
 19. PROPOSED DEPTH  
 1510'  
 20. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A - Unit  
 21. ROTARY OR CABLE TOOLS  
 Rotary tools  
 22. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5625' GL, Ungr.  
 23. APPROX. DATE WORK WILL START\*  
 When appl rec'd.  
 Ad & loc est 7/1/76.  
 Drlg after #292

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	120'	120 sx (Omt to surface)
7-7/8"	5-1/2"	14#	T.D.	225 sx

Propose to drill well to depth sufficient to test the Gallup Formation. Est. tops: Upper Gallup 1300', Lower Gallup 1400'. Will set 8-5/8" surface casing at approx 120' and cement to surface; drill 7-7/8" hole to T.D.; log; if productive, set 5-1/2" OD casing with sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary, and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 & R-2210-A

Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use w/ att.  
 Archaeological Clearance Report

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 W A Walther, Jr. TITLE Operations Manager DATE 6/4/76  
 W. A. Walther, Jr.  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

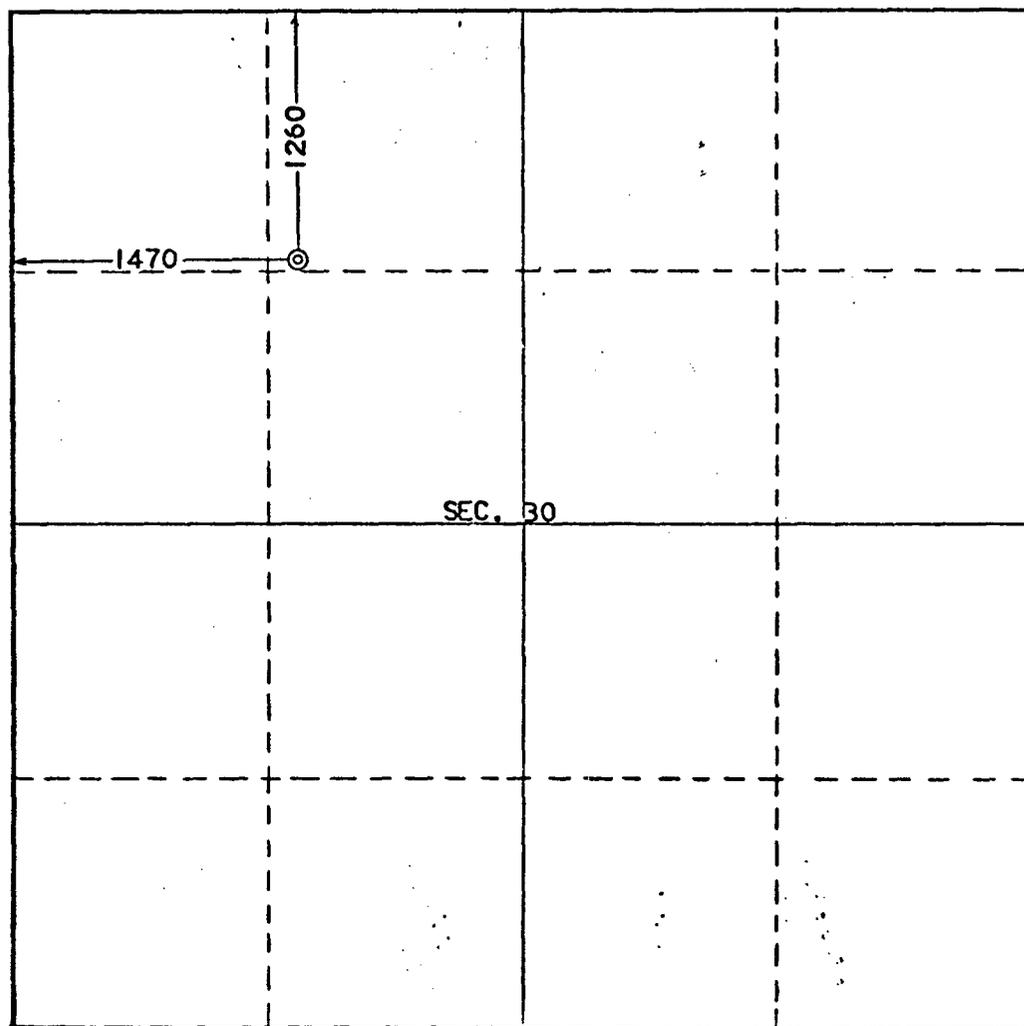
Operator <b>Atlantic Richfield Company</b>			Lease		Well No. <b>293</b>
Unit Letter <b>C</b>	Section <b>30</b>	Township <b>31</b>	Range <b>16</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>1260</b> feet from the <b>North</b> line and <b>1470</b> feet from the <b>West</b> line					
Ground Level Elev. <b>5625</b>	Producing Formation <b>Gallup</b>		Pool <b>Horseshoe Gallup</b>		Dedicated Acreage: <b>NA - Unitized</b>

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 Unitization

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  
*W. A. Walther, Jr.*  
Position **W. A. Walther, Jr.**  
**Operations Manager**

Company  
**ATLANTIC RICHFIELD COMPANY**

Date

*I hereby certify that the well location shown on this plat was plotted from field notes of ~~drop~~ surveys made by me or under my supervision, and that the same are true and correct to the best of my knowledge and belief.*

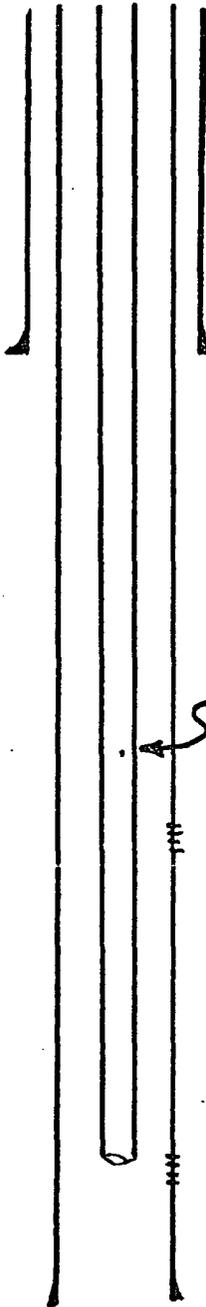
Date Surveyed  
**May 20, 1976**

Registered Professional Engineer  
and/or Land Surveyor

*E. V. Echhawk*  
Certificate No. **3602**  
**E. V. Echhawk LS**



Elevation 5625' GL - Ungraded



8-5/8" OD Casing set at 120' and cemented to surface

2-3/8" OD EUE tubing

Upper Gallup - Perforated as indicated from logs.

Lower Gallup - Perforated as indicated from logs.

5-1/2" OD casing set at total depth with sufficient  
cement to protect all zones.

1510' Estimated total depth.

HORSESHOE GALLUP UNIT, Well No. 293  
Unit "C" - 1260' f/North & 1470' f/West lines  
Section 30-31N-16W  
San Juan County, New Mexico

UNITED STATES  
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK   
 b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER   
 SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 Atlantic Richfield Company

3. ADDRESS OF OPERATOR  
 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface  
 Unit "J" - 1378' f/South & 1325' f/East lines Sec. 30  
 At proposed prod. zone  
 Approx same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See attached maps

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 3902' f/Tr.12 line

16. NO. OF ACRES IN LEASE  
 Tr.12 - 2644.14 Ac  
 Unit - 13,527.80 Ac

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A - Unit

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 890' f/#6 in NW SE Sec.30

19. PROPOSED DEPTH  
 1390'

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5477' GL, Ungr.

22. APPROX. DATE WORK WILL START\*  
 When appl rec'd.  
 Est 7/1/76 - rd & loc

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	120	120 sx (Cmt to surface)
7-7/8"	5-1/2"	14#	T.D.	225 sx

Drlg after #293

Propose to drill well to depth sufficient to test the Gallup Formation. Est. tops: Upper Gallup 1180', Lower Gallup 1290'. Will set 8-5/8"OD surface casing at approx 120' and cement to surface; drill 7-7/8" hole to T.D.; log; if productive, set 5-1/2"OD casing w/ sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 & R-2210-A

Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use w/ att.  
 Archaeological Clearance Report

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 W. A. Walther, Jr. TITLE Operations Manager DATE 6/17/76  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

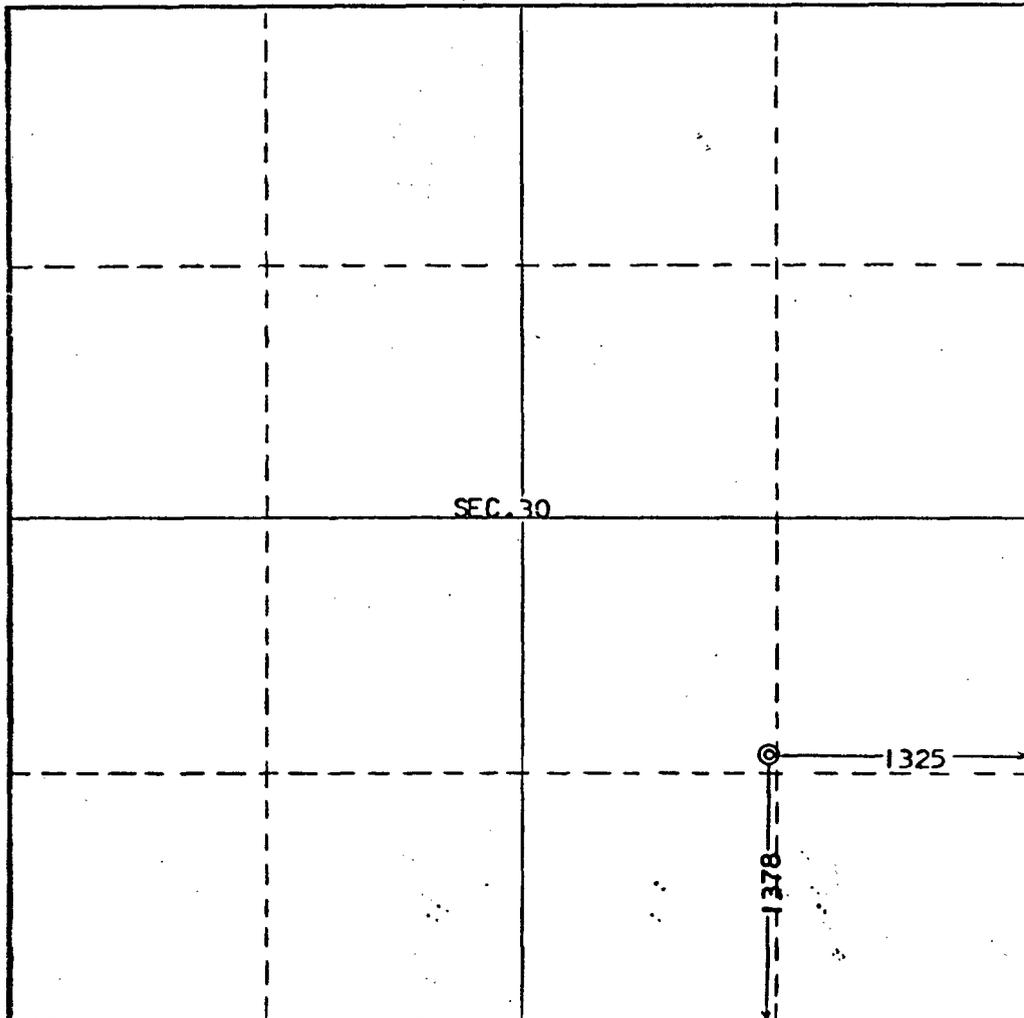
Operator <b>Atlantic Richfield Company</b>			Lease		Well No. <b>294</b>
Grid Letter <b>J</b>	Section <b>30</b>	Township <b>31</b>	Range <b>16</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>1378</b> feet from the <b>South</b> line and <b>1330</b> feet from the <b>East</b> line					
Ground Level Elev. <b>5477</b>	Producing Formation <b>Gallup</b>		Pool <b>Horseshoe Gallup</b>		Dedicated Acreage: <b>NA - Unitized</b>

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 Unitization

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.



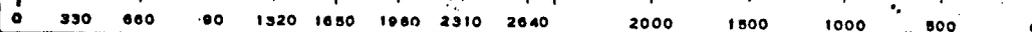
CERTIFICATION

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

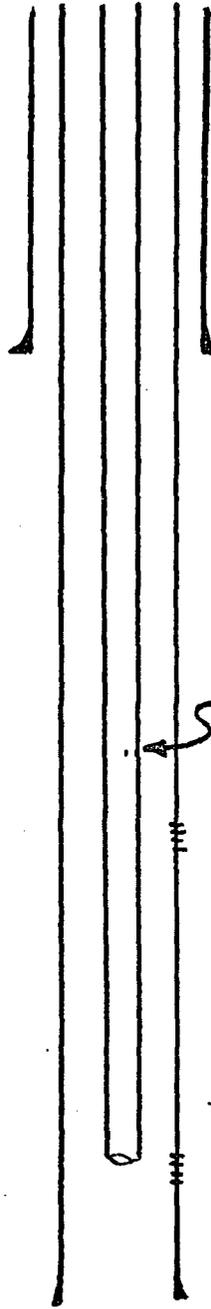
Name  
*W. A. Walther, Jr.*  
Position **W. A. Walther, Jr.**  
**Operations Manager**  
Company  
**ATLANTIC RICHFIELD COMPANY**  
Date

REGISTERED LAND SURVEYOR  
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 are true and correct to the best of my knowledge and belief.  
E. V. ECHOHAWK

Date Surveyed  
**May 20, 1976**  
Registered Professional Engineer and/or Land Surveyor  
*E. V. Echohawk*  
Certificate No. **3602**  
**E. V. Echohawk LS**



Elevation 5477' GL - Ungraded



8-5/8" OD Casing set at 120' and cemented to surface

2-3/8" OD EUE tubing

Upper Gallup - Perforated as indicated from logs.

Lower Gallup - Perforated as indicated from logs.

5-1/2" OD casing set at total depth with sufficient cement to protect all zones.

1390' Estimated total depth.

HORSESHOE GALLUP UNIT, Well No. 294  
Unit "J" - 1378' f/South & 1325' f/East lines  
Section 30-31N-16W  
San Juan County, New Mexico

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK   
 b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER   
 2. NAME OF OPERATOR  
 Atlantic Richfield Company  
 3. ADDRESS OF OPERATOR  
 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203  
 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface  
 Unit "A" - 50' f/North & 50' f/East lines Sec. 31  
 At proposed prod. zone  
 Approx same

5. LEASE DESIGNATION AND SERIAL NO.  
 14-20-603-734  
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 Navajo  
 7. UNIT AGREEMENT NAME  
 Horseshoe Gallup Unit  
 8. FARM OR LEASE NAME  
 Horseshoe Gallup Unit  
 9. WELL NO.  
 295  
 10. FIELD AND POOL, OR WILDCAT  
 Horseshoe Gallup Unit  
 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 31-31N-16W  
 12. COUNTY OR PARISH  
 San Juan  
 13. STATE  
 New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See attached maps  
 15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 5230' f/Tr. 12 line  
 16. NO. OF ACRES IN LEASE  
 Tr. 12 - 2644.14 Ac  
 Unit - 13,527.80 Ac  
 17. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A - Unit  
 18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 862' f/#52 in NE NE Sec. 31  
 19. PROPOSED DEPTH  
 1370'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5430' GL, Ungr.

20. ROTARY OR CABLE TOOLS  
 Rotary  
 22. APPROX. DATE WORK WILL START\*  
 When appl rec'd.  
 Est 7/1/76 - Ad & loc.  
 Drlg after #294

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	120'	120 Sx (Cmt to surface)
7-7/8"	5-1/2"	14#	T.D.	225 sx

Propose to drill well to depth sufficient to test the Gallup Formation. Est. tops: Upper Gallup 1155', Lower Gallup 1265'. Will set 8-5/8"OD surface casing at approx 120' and cement to surface; drill 7-7/8" hole to TD; log; if productive, set 5-1/2"OD casing w/ sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary, and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 & R-2210-A

- Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use  
 Archaeological Clearance Report

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 W. A. Walther, Jr. TITLE Operations Manager DATE 6/1/76  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-12B  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator <b>Atlantic Richfield Company</b>			Lease		Well No. <b>295</b>
Unit Letter <b>A</b>	Section <b>31</b>	Township <b>31</b>	Range <b>16</b>	County <b>San Juan</b>	

Actual Footage Location of Well:  
**50** feet from the **North** line and **50** feet from the **East** line

Ground Level Elev. <b>5430</b>	Producing Formation <b>Gallup</b>	Pool <b>Horseshoe Gallup</b>	Dedicated Acreage <b>NA - Unitized</b>
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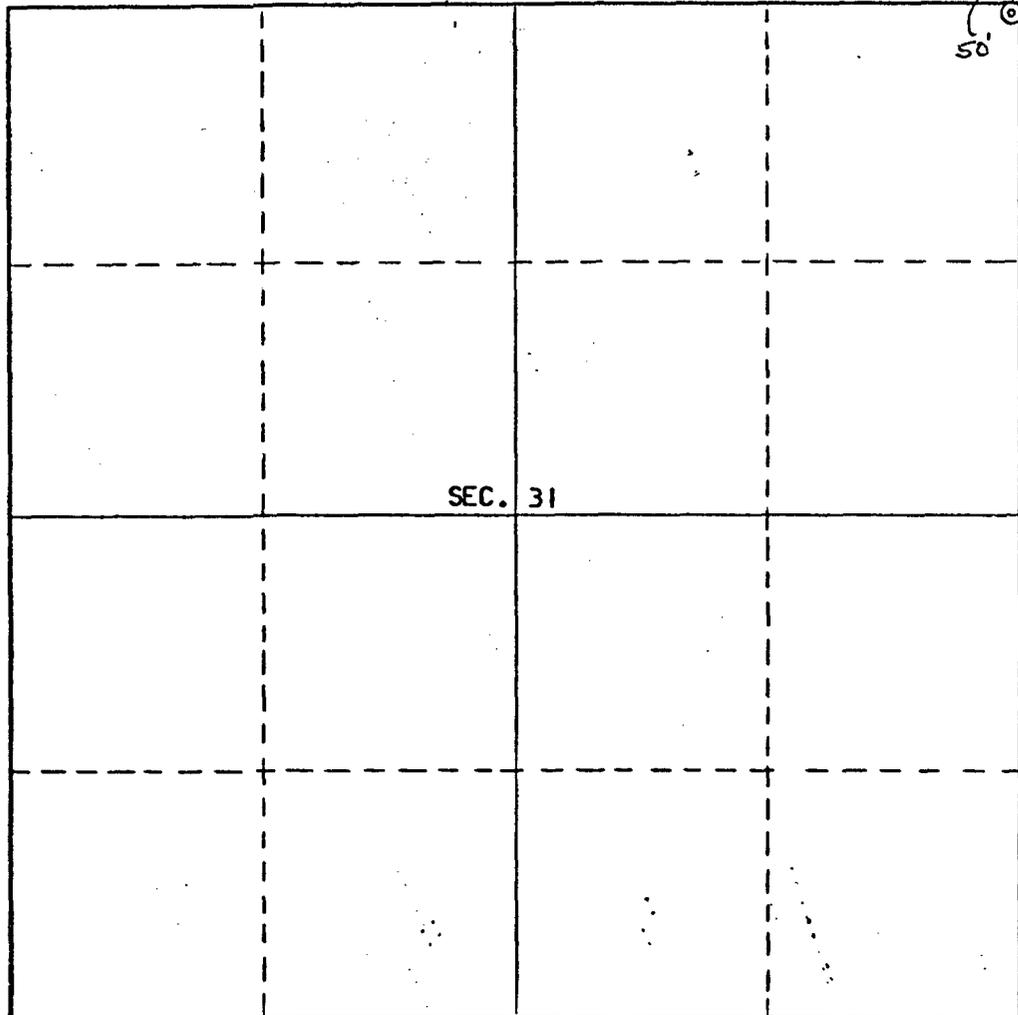
Re: Order No. R-2210

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 Unitization

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**

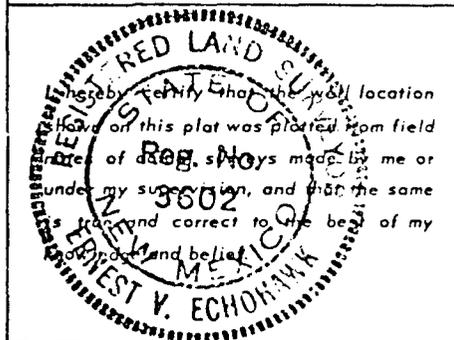
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name  
*W. A. Walther, Jr.*

Position **W. A. Walther, Jr.  
Operations Manager**

Company  
**ATLANTIC RICHFIELD COMPANY**

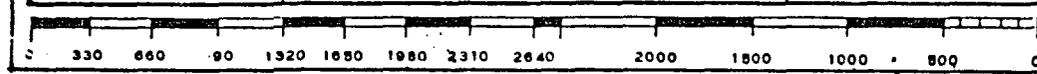
Date



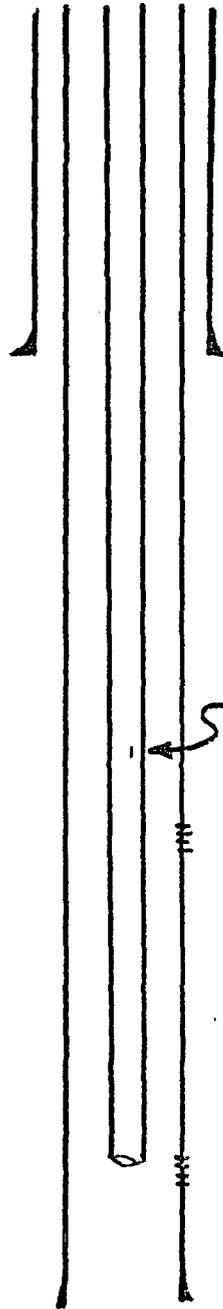
Date Surveyed  
**May 20, 1976**

Registered Professional Engineer and/or Land Surveyor  
*E. V. Echohawk*

Certificate No. **3602**  
**E.V. Echohawk LS**



Elevation 5430' GL - Ungraded



8-5/8"OD Casing set at 120' and cemented to surface

2-3/8"OD EUE tubing

Upper Gallup - Perforated as indicated from logs.

Lower Gallup - Perforated as indicated from logs.

5-1/2"OD casing set at total depth with sufficient cement to protect all zones.

1370' Estimated total depth.

HORSESHOE GALLUP UNIT, Well No. 295  
Unit "A" - 50' f/North & 50' f/East lines  
Section 31-31N-16W  
San Juan County, New Mexico

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

2. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER

3. NAME OF OPERATOR  
 Atlantic Richfield Company

4. ADDRESS OF OPERATOR  
 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 Unit I - 1350' f/South & 1250' f/East lines Sec. 32  
 At proposed prod. zone  
 Approx same

5. LEASE DESIGNATION AND SERIAL NO.  
 14-20-603-734

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 Navajo

7. UNIT AGREEMENT NAME  
 Horseshoe Gallup Unit

8. FARM OR LEASE NAME  
 Horseshoe Gallup Unit

9. WELL NO.  
 296

10. FIELD AND POOL, OR WILDCAT  
 Horseshoe Gallup

11. SEC. T. R. M., OR BLD. AND SURVEY OR AREA  
 Sec. 32-31N-16W

12. COUNTY OR PARISH  
 San Juan

13. STATE  
 New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See attached maps

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 1350' f/Tr. 12 line

16. NO. OF ACRES IN LEASE TO THIS WELL  
 Tr. 12 - 2644.14 Ac  
 Unit - 13,527.80 Ac

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A - Unit

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 1011' f/#2 in NW SE & #49 in SW SE, Sec. 32

19. PROPOSED DEPTH  
 1350'

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5336' GL, Ungr.

22. APPROX. DATE WORK WILL START\*  
 When appl rec'd  
 Est. 7/1/76 - Rd & loc.  
 Drlg after #295

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	120'	120 sx (Cnt to surface)
7-7/8"	5-1/2"	14#	T.D.	225 sx

Propose to drill well to depth sufficient to test the Gallup Formation. Est. tops: Upper Gallup 1090', Lower Gallup 1200'. Will set 8-5/8"OD surface casing at approx. 120' and cement to surface; drill 7-7/8" hole to TD; log; if productive, set 5-1/2"OD casing w/ sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary, and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 & R-2210-A

- Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use  
 Archaeological Clearance Report

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 W. A. Walther, Jr. TITLE Operations Manager DATE 6/4/76  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator <b>Atlantic Richfield Company</b>			Lease		Well No. <b>296</b>
Unit Letter <b>1</b>	Section <b>32</b>	Township <b>31</b>	Range <b>16</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>1350</b> feet from the <b>South</b> line and <b>1250</b> feet from the <b>East</b> line.					
Ground Level Elev. <b>5336</b>	Producing Formation <b>Gallup</b>		Pool <b>Horseshoe Gallup</b>	Dedicated Acreage <b>NA - Unitized</b>	

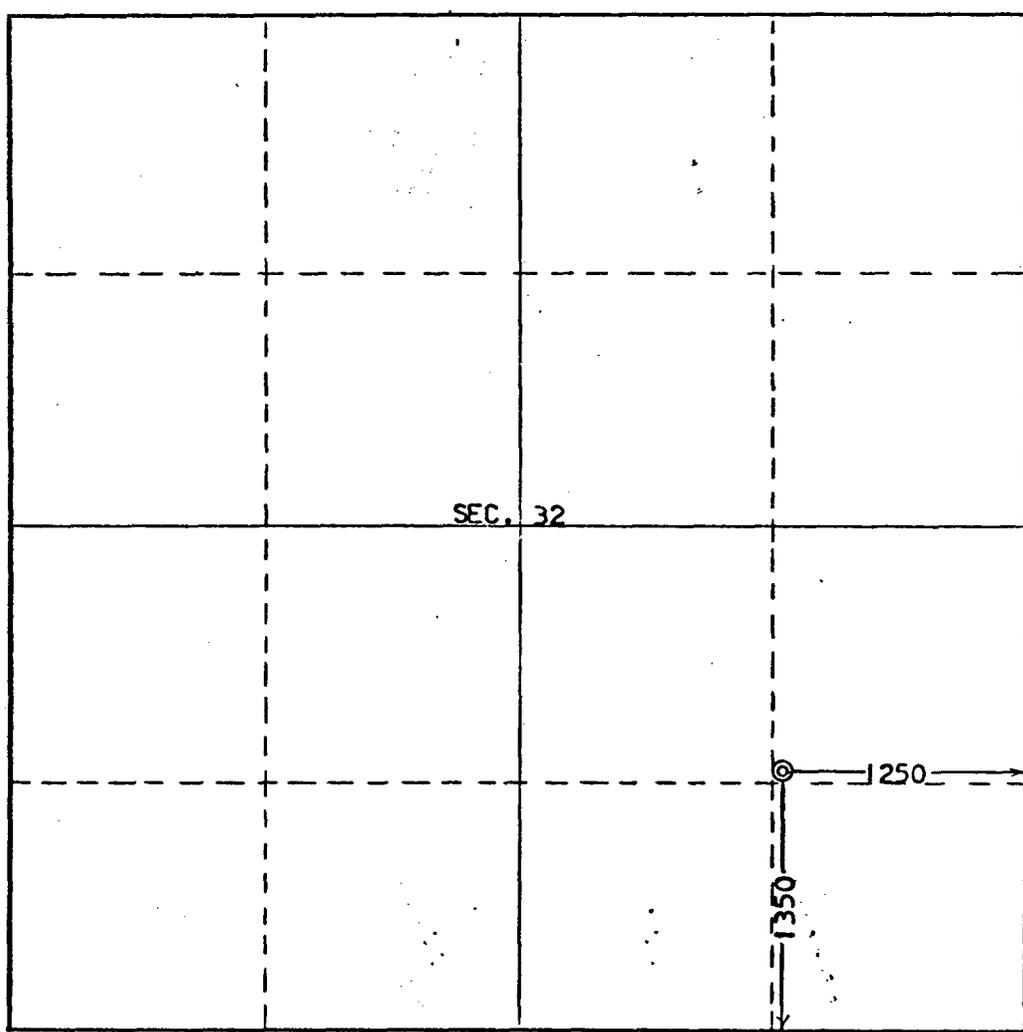
Re: Order No. R-2210-

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 Unitization

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.

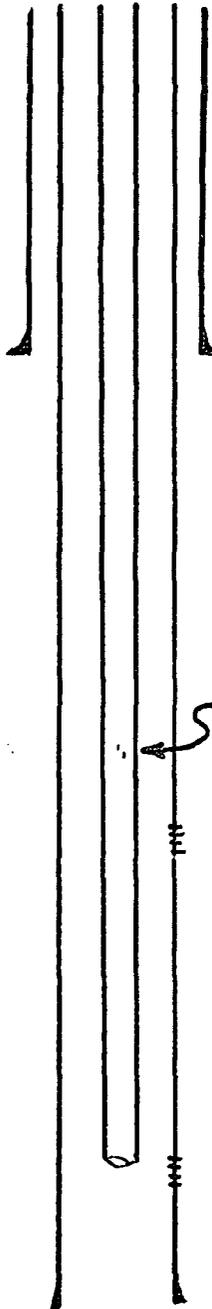
Name W. A. Walther, Jr.  
Position W. A. Walther, Jr.  
Operations Manager  
Company ATLANTIC RICHFIELD COMPANY  
Date \_\_\_\_\_

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.

**REGISTERED LAND SURVEYOR**  
**E. V. ECHOHAWK**  
MEXICO

Date Surveyed May 20, 1976  
Registered Professional Engineer and/or Land Surveyor  
E. V. Echohawk  
Certificate No. 3602  
**E. V. Echohawk LS**

Elevation 5336' GL, Ungraded



8-5/8"OD Casing set at 120' and cemented to surface

2-3/8"OD EUE tubing

Upper Gallup - Perforated as indicated from logs.

Lower Gallup - Perforated as indicated from logs.

5-1/2"OD casing set at total depth with sufficient cement to protect all zones.

1350' Estimated total depth.

HORSESHOE GALLUP UNIT, Well No. 296  
Unit "I" - 1350' f/South & 1250' f/East lines  
Section 32-31N-16W  
San Juan County, New Mexico

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK   
 JUN - 9 1976  
 SINGLE ZONE  MULTIPLE ZONE

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
 Atlantic Richfield Company  
 OIL CONSERVATION COMMISSION  
 Santa Fe

3. ADDRESS OF OPERATOR  
 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface  
 Unit I - 1550' f/South & 1250' f/East lines Sec. 4  
 At proposed prod. zone  
 Approx same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See attached maps

5. LEASE DENIGATION AND SERIAL NO.  
 SF - 081226

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
 Horseshoe Gallup Unit

8. FARM OR LEASE NAME  
 Horseshoe Gallup Unit

9. WELL NO.  
 297

10. FIELD AND POOL, OR WILDCAT  
 Horseshoe Gallup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 4-30N-16W

12. COUNTY OR PARISH | 13. STATE  
 San Juan | New Mexico

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)  
 70' f/Tr.33 line

16. NO. OF ACRES IN LEASE TO THIS WELL  
 Tr.33 - 515.50 Ac  
 Unit - 13,527.80 Ac

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A - Unit

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. in NE SE Sec. 4  
 731' f/#245

19. PROPOSED DEPTH  
 1360'

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5359' GL, Ungr.

22. APPROX. DATE WORK WILL START\*  
 When appl rec'd  
 Est 7/1/76 - rd & lcc  
 Drlg after #296

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	21#	120'	120 sx (Gmt to surf)
7-7/8"	5-1/2"	11#	T.D.	225 sx

Propose to drill well to depth sufficient to test the Gallup Formation. Est. tops: Upper Gallup 1145', Lower Gallup 1255'. Will set 8-5/8" OD surface casing at approx 120' and cement to surface; drill 7-7/8" hole to T.D.; log; if productive, set 5-1/2" OD casing w/ sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary, and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 & R-2210-A

Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use w/ att.  
 Archaeological Clearance Report.

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 W. A. Walther, Jr. TITLE Operations Manager DATE 6/1/76  
 W. A. Walther, Jr.  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

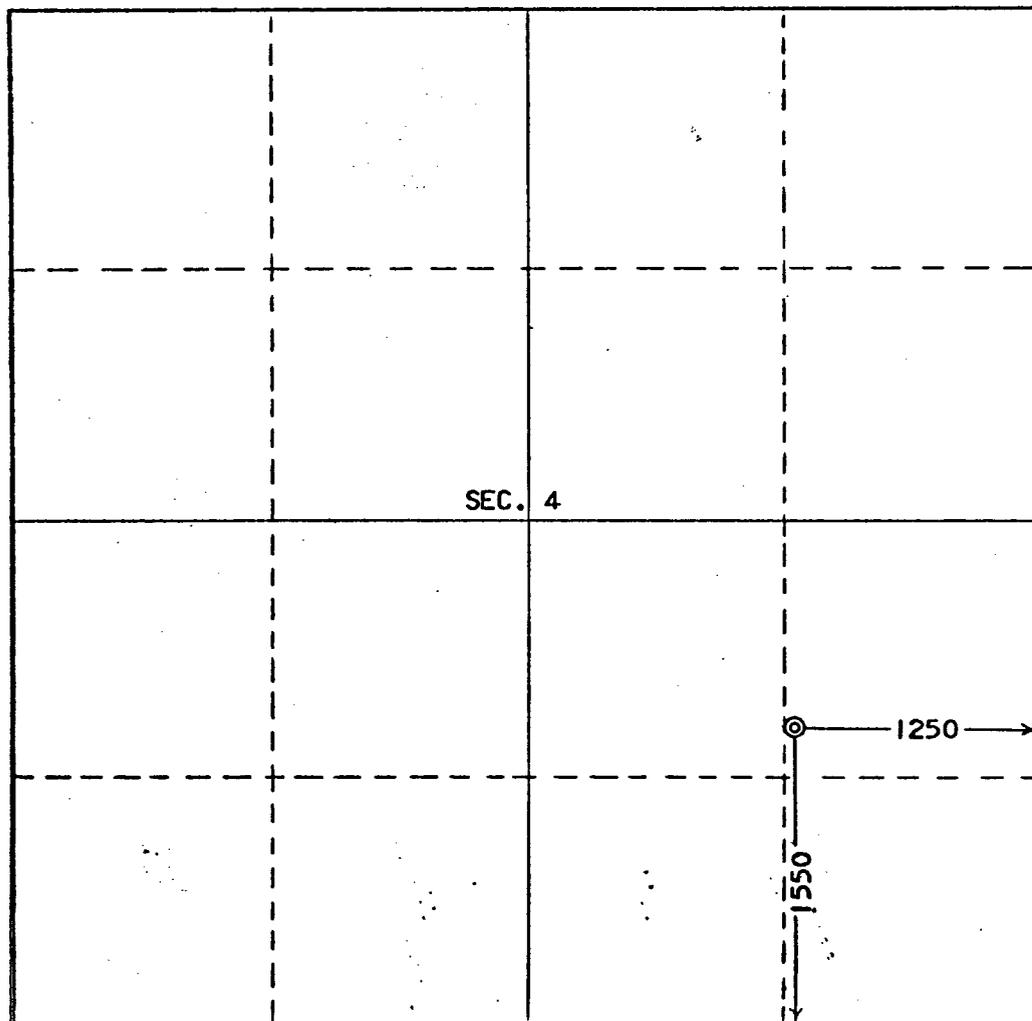
Operator <b>AtlanticRichfieldCompany</b>			Lease		Well No. <b>297</b>
Tract Letter <b>I</b>	Section <b>4</b>	Township <b>30 North</b>	Range <b>16 West</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>1550</b> feet from the <b>South</b> line and <b>1250</b> feet from the <b>East</b> line					
Ground Level Elev. <b>5359</b>	Producing Formation <b>Gallup</b>		Pool <b>Horseshoe Gallup</b>		Dedicated Acreage: <b>NA - Unitized</b> Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. Re: Order No. R-2210-
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 Unitization

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

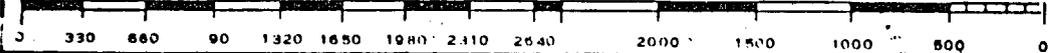
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name W. A. Walther, Jr.  
 Position W. A. Walther, Jr. Operations Manager  
 Company ATLANTIC RICHFIELD COMPANY  
 Date \_\_\_\_\_

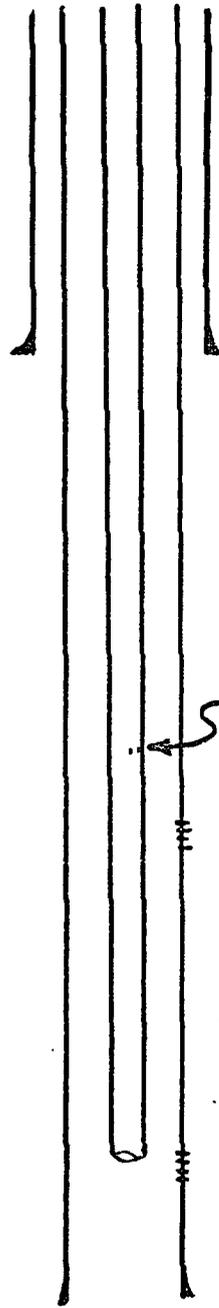
REGISTERED LAND SURVEYOR  
 I hereby certify that the well location shown on this plat was plotted from field notes of dog surveys made by me or under my supervision, and that the same are true and correct to the best of my knowledge and belief.  
W. A. Walther, Jr.  
 E. V. ECHOHAWK

Date Surveyed May 20, 1976  
 Registered Professional Engineer and/or Land Surveyor

E. V. Echohawk  
 Certificate No. 3602  
**E. V. Echohawk LS**



Elevation 5359' GL - Ungraded



8-5/8" OD Casing set at 120' and cemented to surface

2-3/8" OD EUE tubing

Upper Gallup - Perforated as indicated from logs.

Lower Gallup - Perforated as indicated from logs.

5-1/2" OD casing set at total depth with sufficient cement to protect all zones.

1360' Estimated total depth.

HORSESHOE GALLUP UNIT, Well No. 297  
Unit "I" - 1550' f/South & 1250' f/East lines  
Section 4-30N-16W  
San Juan County, New Mexico

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1A. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

B. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
 Atlantic Richfield Company

3. ADDRESS OF OPERATOR  
 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 Unit I - 1550' f/South & 1250' f/East lines Sec. 4  
 At proposed prod. zone  
 Approx same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See attached maps

5. LEASE DENIGATION AND SERIAL NO.  
 SF - 081226

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
 Horseshoe Gallup Unit

8. FARM OR LEASE NAME  
 Horseshoe Gallup Unit

9. WELL NO.  
 297

10. FIELD AND POOL, OR WILDCAT  
 Horseshoe Gallup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 4-30N-16W

12. COUNTY OR PARISH  
 San Juan

13. STATE  
 New Mexico

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 70' f/Tr.33 line

16. NO. OF ACRES IN LEASE  
 Tr.33 - 515.50 Ac  
 Unit - 13,527.80 Ac

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A - Unit

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. in NE SE Sec. 4  
 731' f/#245

19. PROPOSED DEPTH  
 1360'

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5359' GI, Ungr.

22. APPROX. DATE WORK WILL START\*  
 When appl rec'd  
 Est 7/1/76 - rd & loc  
 Drlg after #296

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	120'	120 sx (Cmt to surf)
7-7/8"	5-1/2"	14#	T.D.	225 sx

Propose to drill well to depth sufficient to test the Gallup Formation. Est. tops: Upper Gallup 1145', Lower Gallup 1255'. Will set 8-5/8" OD surface casing at approx 120' and cement to surface; drill 7-7/8" hole to T.D.; log; if productive, set 5-1/2" OD casing w/ sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary, and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 & R-2210-A

- Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use w/ att.  
 Archaeological Clearance Report.

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 W. A. Walther, Jr. TITLE Operations Manager DATE 6/1/76  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

NSL-776

OIL CONSERVATION COMMISSION  
Alto DISTRICT

OIL CONSERVATION COMMISSION  
BOX 2088  
SANTA FE, NEW MEXICO

DATE June 15, 1976

RE: Proposed MC \_\_\_\_\_  
Proposed DHC \_\_\_\_\_  
Proposed NSL ✓ \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

*Jim Kapteina*

Gentlemen:

I have examined the application dated \_\_\_\_\_  
for the Atlantic Richfield Horsehoe Gallop Unit # 294  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

This is one of six or seven wells  
on one application. It now complies  
with Order R-2210-A.

approve

Yours very truly,

AR Kendrick

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator <b>Atlantic Richfield Company</b>		Lease <b>Horseshoe Gallup Unit</b>			Well No. <b>294</b>
Unit Letter <b>J</b>	Section <b>30</b>	Township <b>31 North</b>	Range <b>16 West</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>1378</b> feet from the <b>South</b> line and <b>1330</b> feet from the <b>East</b> line					
Ground Level Elev. <b>5477</b>	Producing Formation <b>Gallup</b>	Pool <b>Horseshoe Gallup</b>		Dedicated acreage: <b>NA - Unitized</b>	

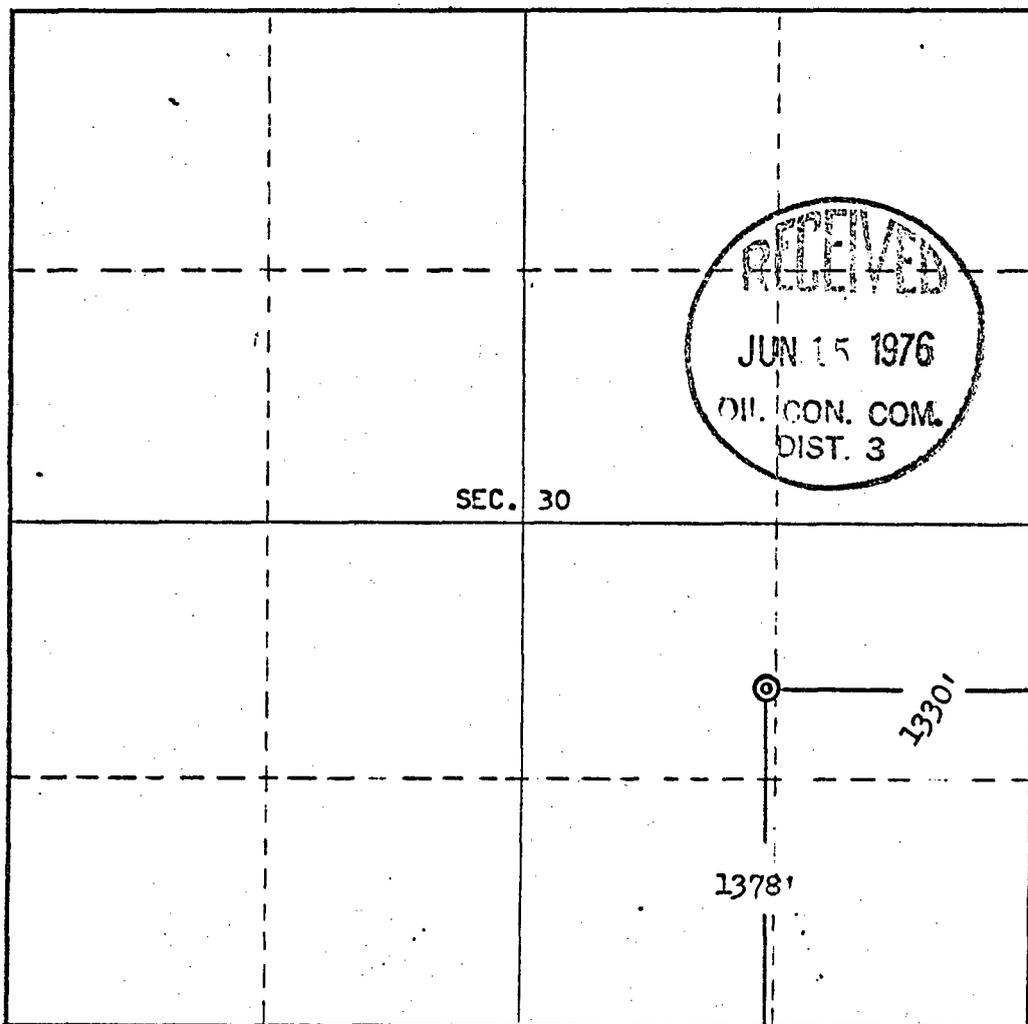
Re. Order No. R-2210-A

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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 Unitization

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

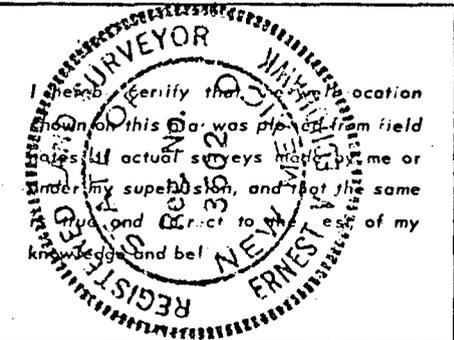
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*W. A. Walther, Jr.*  
Name **W. A. Walther, Jr.**  
Operations Manager

Position  
**ATLANTIC RICHFIELD COMPANY**

Company  
**June 11, 1976**

Date

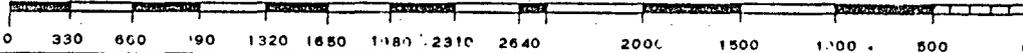


Date Surveyed  
**May 20, 1976**

Registered Professional Engineer and/or Land Surveyor

*E. V. Echoshawk*

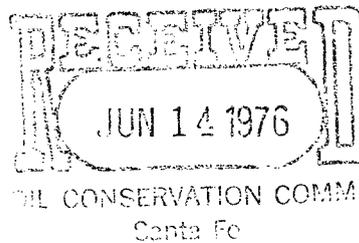
Certificate No. **3602**  
**E. V. Echoshawk LS**



AtlanticRichfieldCompany

North American Producing Division  
Rocky Mountain District  
1860 Lincoln St. — Suite 501  
Denver, Colorado 80203  
Telephone 303 573-4049

W. A. Walther, Jr.  
Operations Manager



June 11, 1976

Mr. Joe D. Ramey, Director  
State of New Mexico Oil Conservation Comm.  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Re: Horseshoe Gallup Unit  
San Juan County, New Mexico

Dear Mr. Ramey:

As an amendment to our June 7, 1976 letter, requesting administrative approval to drill seven (7) unorthodox located Horseshoe Gallup Unit wells, please make the attached copy of the Sundry Notice and Certified Location plat, changing the location of Well No. 294, a part of the June 7, 1976 letter. This revised location will comply with the provisions of Order No. R-2210-A.

Very truly yours,

*W A Walther Jr*

W. A. Walther, Jr.

Encls.

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

SUBMIT IN TRIPPLICATE\*  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

LEASE DESIGNATION AND SERIAL NO.

**14-20-603-734**

IF INDIAN, ALLOTTEE OR TRIBE NAME

**Navajo**

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

<p>1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER</p> <p>2. NAME OF OPERATOR <b>Atlantic Richfield Company</b></p> <p>3. ADDRESS OF OPERATOR <b>501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203</b></p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface <b>1378' f/South and 1330' f/East lines Sec. 30</b></p> <p>14. PERMIT NO.</p>	<p>5. OIL CONSERVATION COMMISSION <b>Santa Fe</b></p> <p>7. UNIT AGREEMENT NAME <b>Horseshoe Gallup Unit</b></p> <p>8. FARM OR LEASE NAME <b>Horseshoe Gallup Unit</b></p> <p>9. WELL NO. <b>294</b></p> <p>10. FIELD AND POOL, OR WILDCAT <b>Horseshoe Gallup</b></p> <p>11. SEC., T., R., M., OR BLEK. AND SURVEY OR AREA <b>Section 30-31N-16W</b></p> <p>12. COUNTY OR PARISH <b>San Juan</b></p> <p>13. STATE <b>New Mexico</b></p> <p>15. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>5477'</b></p>
--	---

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	
(Other) <input type="checkbox"/>	<b>Change location</b> <input checked="" type="checkbox"/>		

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

**Initially proposed 1378' f/South and 1325' f/East lines of Section 30-31N-16W. This location did not meet the provisions of New Mexico Oil Conservation Commission Order No. R-2210-A, regarding unorthodox locations. Propose to move location 5' West to the above designated location to comply with Order No. R-2210-A.**

**Certified Location Plat attached.**

18. I hereby certify that the foregoing is true and correct

SIGNED *W. A. Walther, Jr.* TITLE Operations Manager DATE June 11, 1976  
**W. A. Walther, Jr.**

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

RECEIVED  
JUN 14 1976

All distances must be from the outer boundaries of the Section

Operator <b>Atlantic Richfield Company</b>		Lease <b>Horseshoe Gallup Unit</b>		Well No. <b>294</b>	
Unit Letter <b>J</b>	Section <b>30</b>	Township <b>31 North</b>	Range <b>16 West</b>	County <b>Santa Fe San Juan</b>	
Actual Footage Location of Well: <b>1378.</b> feet from the <b>South</b> line and <b>1330</b> feet from the <b>East</b> line					
Ground Level Elev. <b>5477</b>	Producing Formation <b>Gallup</b>		Pool <b>Horseshoe Gallup</b>	Dedicated Acreage: <b>NA - Unitized</b>	

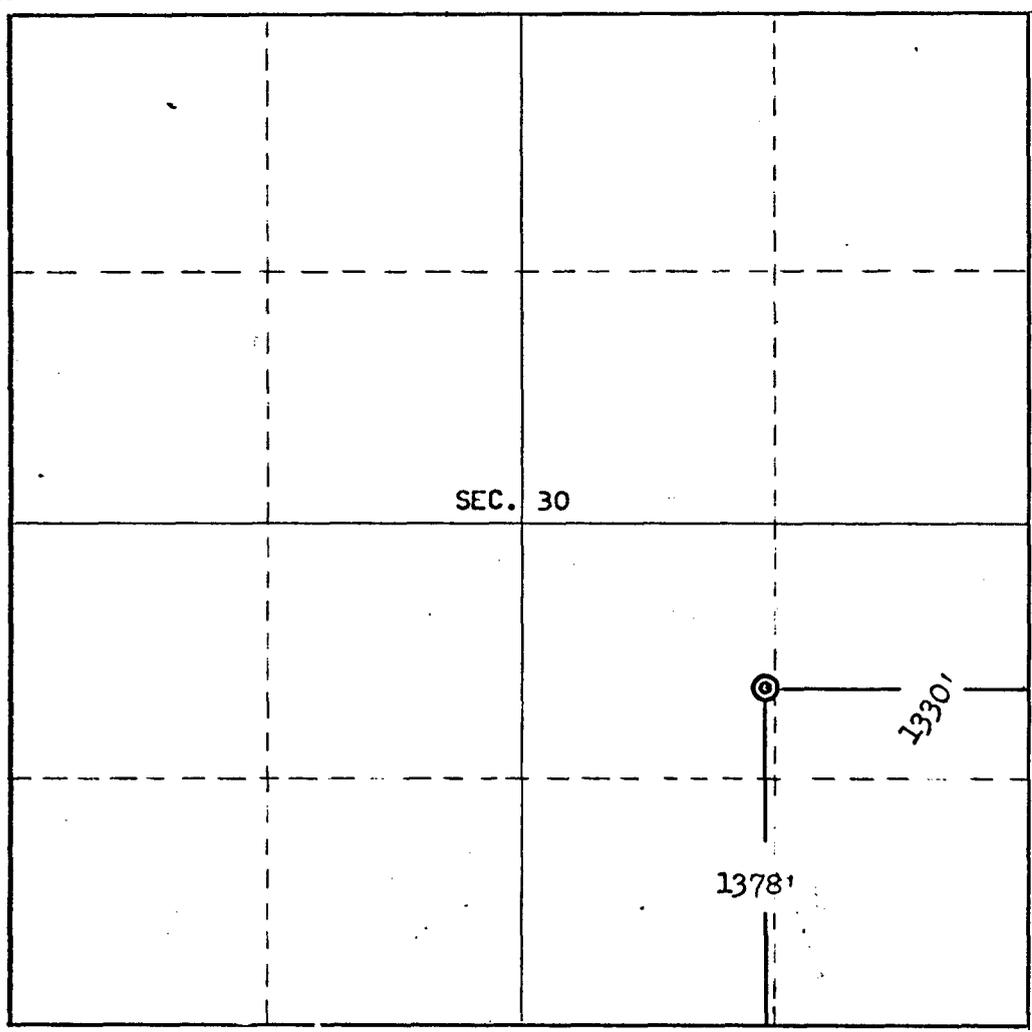
1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Re. Order No. R-2210-A

Yes  No If answer is "yes," type of consolidation Unitization

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.

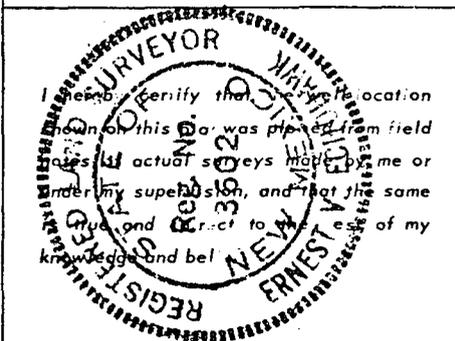


CERTIFICATION

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

*W. A. Walther, Jr.*  
Name **W. A. Walther, Jr.**  
Position **Operations Manager**  
Company **ATLANTIC RICHFIELD COMPANY**

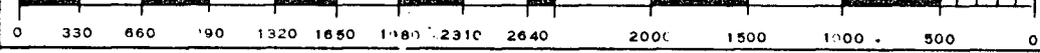
Date **June 11, 1976**



Date Surveyed **May 20, 1976**

Registered Professional Engineer and/or Land Surveyor  
*E. V. Echobawk*

Certificate No. **3602**  
**E. V. Echobawk LS**



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

2. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER   
 SINGLE ZONE  MULTIPLE ZONE

3. NAME OF OPERATOR  
 Atlantic Richfield Company

4. ADDRESS OF OPERATOR  
 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface  
 Unit A - 50' f/North & 50' f/East lines Sec. 23  
 At proposed prod. zone  
 Approx. Same

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See attached maps

7. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 2590' f/Tr. 13 line

8. NO. OF ACRES IN LEASE  
 Tr. 13, 1442.28 Ac.  
 Unit 13, 527.80 Ac.

9. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A Unit

10. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 812' f/#84 in NE NE Sec. 23

11. PROPOSED DEPTH  
 1650'

12. ROTARY OR CABLE TOOLS  
 Rotary

13. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5873' GL, Ungr.

14. APPROX. DATE WORK WILL START\*  
 When appls rec'd.

15. PROPOSED CASING AND CEMENTING PROGRAM  
 Est. 7/1/76

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	21#	120'	120 sx (Cmt to surface)
7-7/8"	5-1/2"	14#	T.D.	225 sx

Propose to drill well to depth sufficient to test the Gallup Formation. Est. tops: Upper Gallup 1424', Lower Gallup 1534'. Will set 8-5/8" surface casing at approx. 120' and cement to surface; drill 7-7/8" hole to T.D.; log; if productive, set 5-1/2" casing with sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary, and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 & R-2210-A

- Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use w/ att.  
 Archaeological Clearance Report

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.

16. SIGNED W. A. Walther, Jr. TITLE Operations Manager DATE 6/4/76  
 (This space for Federal or State office use)

17. PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

18. APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator <b>Atlantic Richfield Company</b>		Lease			Well No. <b>291</b>
Unit Letter <b>A</b>	Section <b>23</b>	Township <b>31</b>	Range <b>17</b>	County <b>San Juan</b>	

Actual Footage Location of Well:  
**50** feet from the **North** line and **50** feet from the **East** line

Ground Level Elev. <b>5873</b>	Producing Formation <b>Gallup</b>	Pool <b>Horseshoe Gallup</b>	Dedicated Acreage: <b>NA - Unitized</b> Acres
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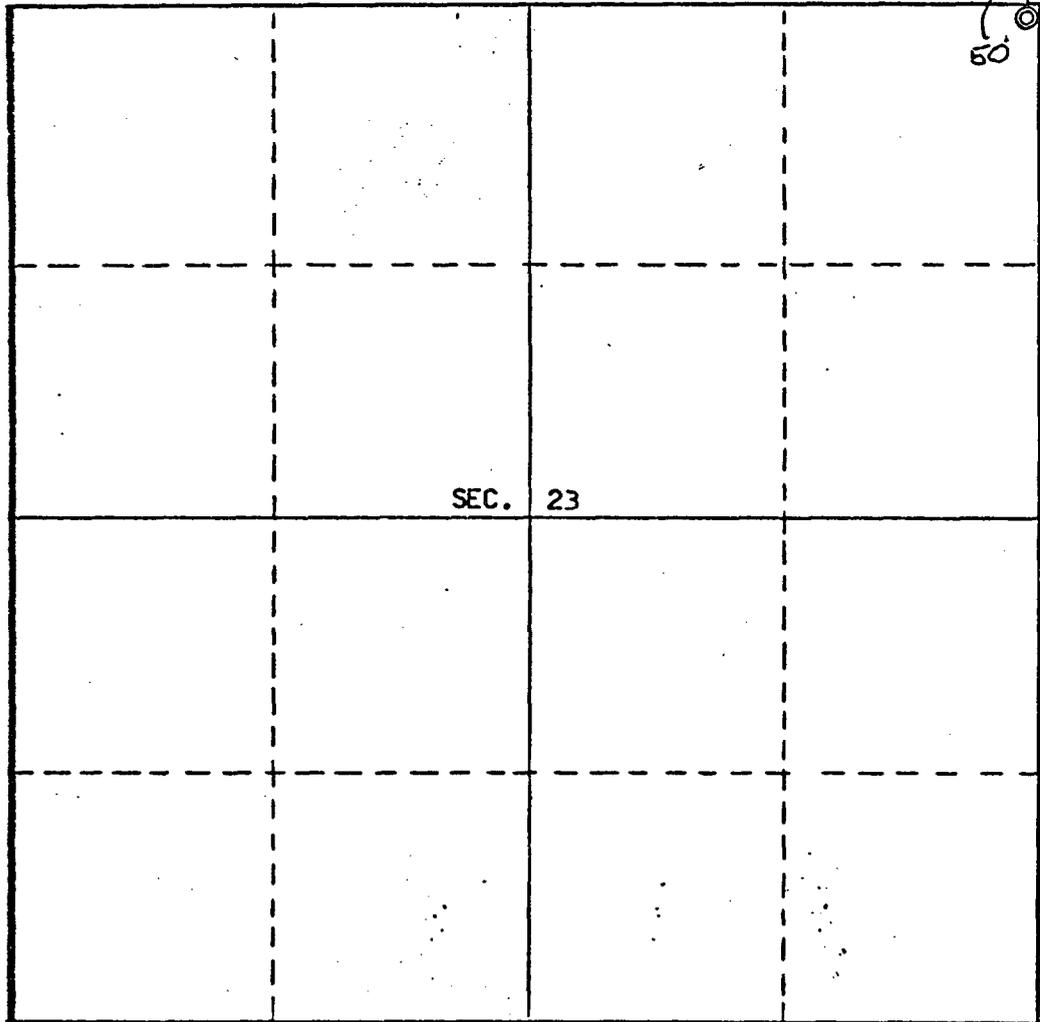
Re: Order No. R-2210

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 Unitization

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

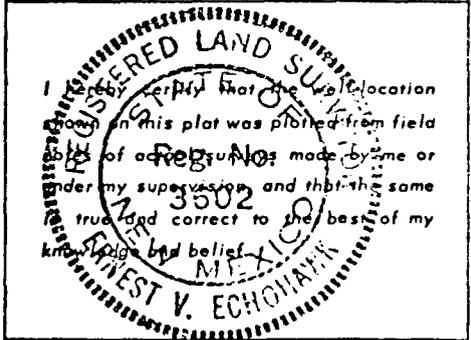
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



50' 250' CERTIFICATION

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

Name W.A. Walther Jr.  
 Position W. A. Walther Jr.  
Operations Manager  
 Company ATLANTIC RICHFIELD COMPANY  
 Date \_\_\_\_\_

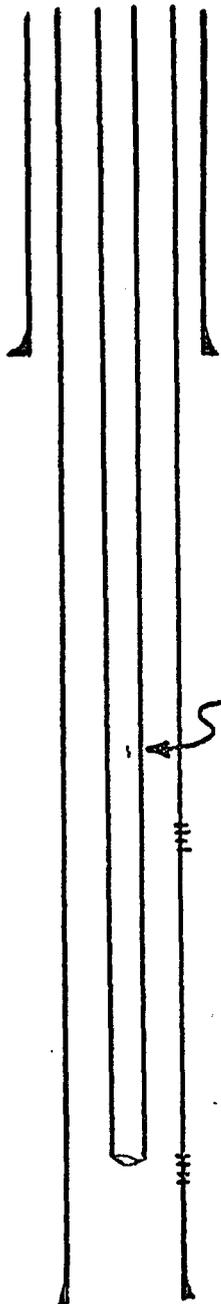


Date Surveyed May 21, 1976  
 Registered Professional Engineer and/or Land Surveyor  
E.V. Echohawk



Certificate No. 3602  
**E.V. Echohawk LS**

Elevation 5873' - GL, Ungraded



8-5/8"OD Casing set at 120' and cemented to surface

2-3/8"OD EUE tubing

Upper Gallup - Perforated as indicated from logs.

Lower Gallup - Perforated as indicated from logs.

5-1/2"OD casing set at total depth with sufficient cement to protect all zones.

1650' Estimated total depth.

HORSESHOE GALLUP UNIT, Well No. 291

Unit "A" - 50' f/North & 50' f/East lines

Section 23-31N-17W

San Juan County, New Mexico

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK  
DRILL  DEEPEN  PLUG BACK

2. TYPE OF WELL  
OIL WELL  GAS WELL  OTHER   
SINGLE ZONE  MULTIPLE ZONE

3. NAME OF OPERATOR  
Atlantic Richfield Company

4. ADDRESS OF OPERATOR  
501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colorado 80203

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
At surface  
Unit "J" - 2474' f/South & 2463' f/East lines Sec. 24  
At proposed prod. zone  
Approx. same

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
See attached maps

7. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
166' f/Tr. 15 line

8. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
822' f/#99 in NW SE Sec. 24

9. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5707' GL, Ungr.

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	21#	120'	125 sx (Cmt to surface)
7-7/8"	5-1/2"	11#	T.D.	225 sx

5. LEASE DESIGNATION AND SERIAL NO.

11-20-603-2037

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

Horseshoe Gallup Unit

8. FARM OR LEASE NAME

Horseshoe Gallup Unit

9. WELL NO.

292

10. FIELD AND POOL, OR WILDCAT

Horseshoe Gallup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec. 24-31N-17W

12. COUNTY OR PARISH

San Juan

13. STATE

New Mexico

16. NO. OF ACRES IN LEASE  
Tr. 15 - 880.00 Ac.  
Unit - 13,527.80 Ac.

17. NO. OF ACRES ASSIGNED TO THIS WELL  
N/A Unit

19. PROPOSED DEPTH  
1530'

20. ROTARY OR CABLE TOOLS  
Rotary

22. APPROX. DATE WORK WILL START\*  
When appls rec'd.

Rd & loc est 7/1/76.

Drlg after #291

Propose to drill well to depth sufficient to test the Gallup Formation. Est tops: Upper Gallup 1305', Lower Gallup 1415'. Will set 8-5/8" OD surface casing at approx. 120' and cement to surface; drill 7-7/8" hole to T.D.; log; if productive, set 5-1/2" OD casing w/ sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary, and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 and R-2210-A

Attachments: Certified Location Plat  
Pertinent Drilling Information  
Development Plan for Surface Use w/ att.  
Archaeological Clearance Report

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 W. A. Walther, Jr. TITLE Operations Manager DATE 6/4/76  
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator <b>Atlantic Richfield Company</b>			Lease			Well No. <b>292</b>		
Unit Letter <b>J</b>	Section <b>24</b>	Township <b>31</b>	Range <b>17</b>	County <b>San Juan</b>				
Actual Footage Location of Well: <b>2474</b> feet from the <b>South</b> line and <b>2463</b> feet from the <b>East</b> line								
Ground Level Elev. <b>5707</b>	Producing Formation <b>Gallup</b>			Pool <b>Horseshoe Gallup</b>	Dedicated Acreage: <b>NA - Unitized</b> Acres			

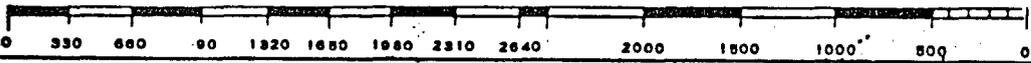
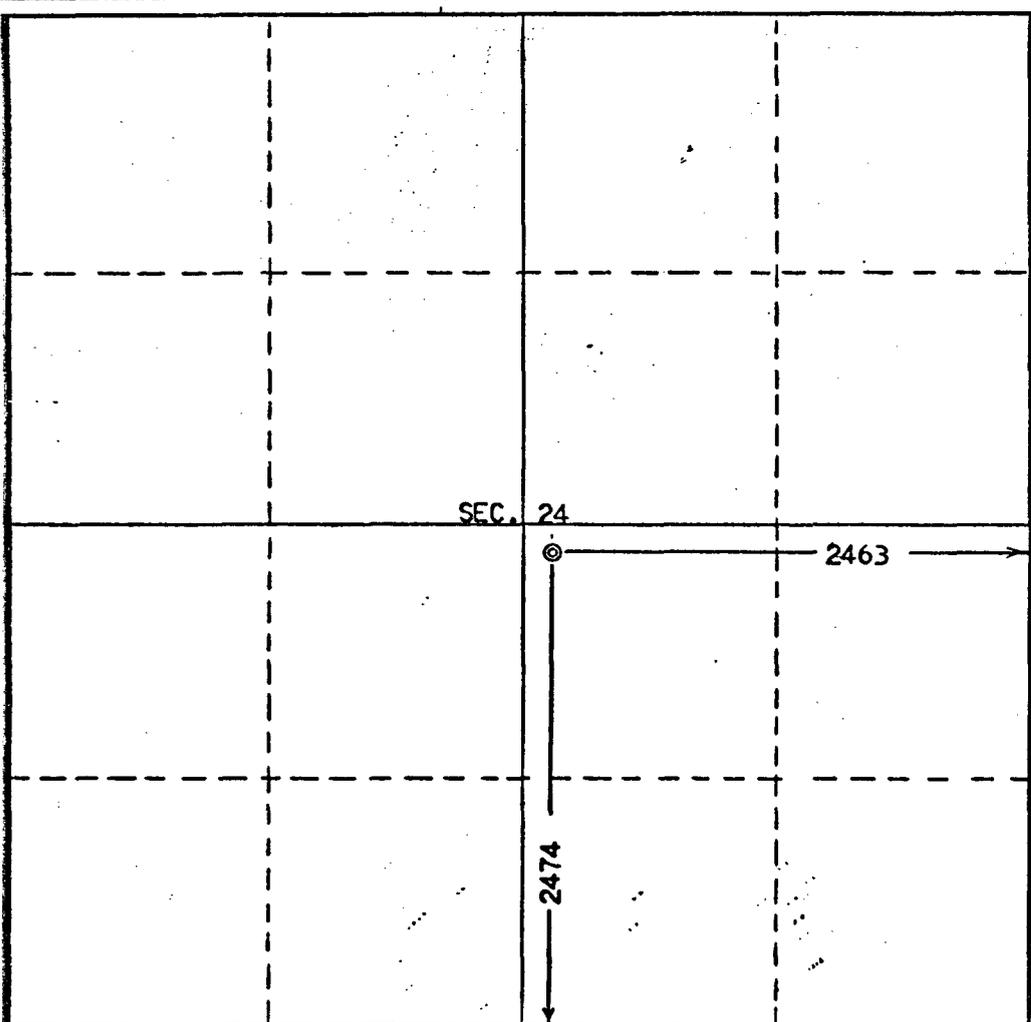
Re: Order No. R-2210-

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 Unitization

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**

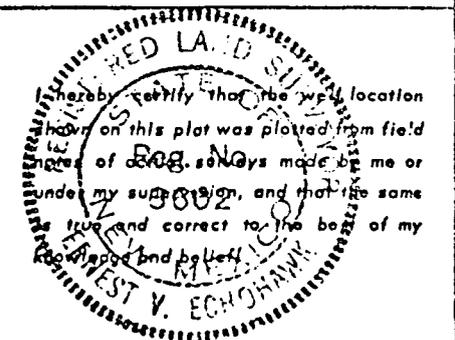
*I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.*

Name  
*W.A. Walther, Jr.*

Position **W. A. Walther, Jr.**  
**Operations Manager**

Company  
**ATLANTIC RICHFIELD COMPANY**

Date



Date Surveyed  
**May 21, 1976**

Registered Professional Engineer  
and/or Land Surveyor  
*E.V. Echohawk*

Certificate No. **3602**  
**E.V. Echohawk LS**

Elevation 5707' = GL, Ungraded



8-5/8" OD Casing set at 120' and cemented to surface

2-3/8" OD EUE tubing

Upper Gallup - Perforated as indicated from logs.

Lower Gallup - Perforated as indicated from logs.

5-1/2" OD casing set at total depth with sufficient cement to protect all zones.

1530' Estimated total depth.

HORSESHOE GALLUP UNIT, Well No. 292  
Unit "J" - 2474' f/South & 2463' f/East lines  
Section 24-31N-17W  
San Juan County, New Mexico

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
 Atlantic Richfield Company

3. ADDRESS OF OPERATOR  
 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface  
 Unit "C" - 1260' f/North & 1470' f/West lines Sec. 30  
 At proposed prod. zone  
 Approx. same

5. LEASE DESIGNATION AND SERIAL NO.  
 14-20-603-734

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 Navajo

7. UNIT AGREEMENT NAME  
 Horseshoe Gallup Unit

8. FARM OR LEASE NAME  
 Horseshoe Gallup Unit

9. WELL NO.  
 293

10. FIELD AND POOL, OR WILDCAT  
 Horseshoe Gallup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 30-31N-16W

12. COUNTY OR PARISH  
 San Juan

13. STATE  
 New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See attached maps

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)  
 1260' f/Tr.12 line

16. NO. OF ACRES IN LEASE TO THIS WELL  
 Tr.12 - 2644.14 Ac  
 Unit - 13,527.80 Ac

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A - Unit

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. in NE NW Sec.30  
 811' f/#48

19. PROPOSED DEPTH  
 1510'

20. ROTARY OR CABLE TOOLS  
 Rotary tools

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5625' GL, Ungr.

22. APPROX. DATE WORK WILL START\*  
 When appl rec'd.  
 rd & loc est 7/1/76.  
 Drlg after #292

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	21#	120'	120 sx (Cmt to surface)
7-7/8"	5-1/2"	14#	T.D.	225 sx

Propose to drill well to depth sufficient to test the Gallup Formation. Est. tops: Upper Gallup 1300', Lower Gallup 1400'. Will set 8-5/8" surface casing at approx 120' and cement to surface; drill 7-7/8" hole to T.D.; log; if productive, set 5-1/2" OD casing with sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary, and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 & R-2210-A

- Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use w/ att.  
 Archaeological Clearance Report

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 W. A. Walther, Jr. TITLE Operations Manager DATE 6/4/76  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-120  
Effective 1-4-65

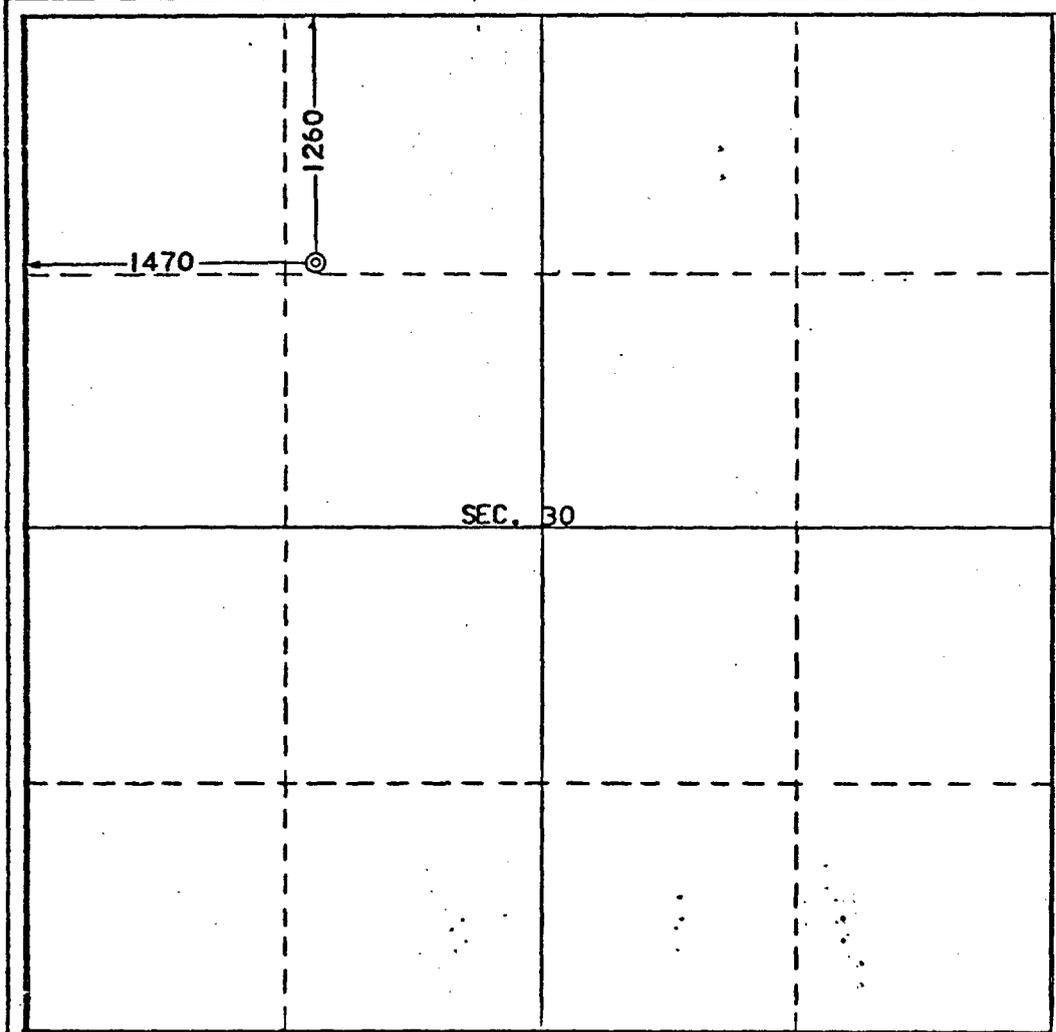
All distances must be from the outer boundaries of the Section.

Operator <b>Atlantic Richfield Company</b>		Lease			Well No. <b>293</b>
Unit Letter <b>C</b>	Section <b>30</b>	Township <b>31</b>	Range <b>16</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>1260</b> feet from the <b>North</b> line and <b>1470</b> feet from the <b>West</b> line					
Ground Level Elev. <b>5625</b>	Producing Formation <b>Gallup</b>		Pool <b>Horseshoe Gallup</b>	Dedicated Acreage <b>11A - Unitized</b>	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. Re: Order No. R-2210
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 Unitization

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  
*W. A. Walther, Jr.*  
Position **W. A. Walther, Jr.**  
**Operations Manager**

Company  
**ATLANTIC RICHFIELD COMPANY**

Date

I hereby certify that the well location shown on this plat was plotted from field notes of ~~road~~ 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  
**May 20, 1976**

Registered Professional Engineer and/or Land Surveyor

*E. V. Echohawk*  
Certificate No. **3602**  
**E.V. Echohawk LS**



Elevation 5625' GL - Ungraded



8-5/8" OD Casing set at 120' and cemented to surface

2-3/8" OD EUE tubing

Upper Gallup - Perforated as indicated from logs.

Lower Gallup - Perforated as indicated from logs.

5-1/2" OD casing set at total depth with sufficient cement to protect all zones.

1510' Estimated total depth.

HORSESHOE GALLUP UNIT, Well No. 293  
Unit "C" - 1260' f/North & 1470' f/West lines  
Section 30-31N-16W  
San Juan County, New Mexico

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL       DEEPEN       PLUG BACK

b. TYPE OF WELL  
 OIL WELL       GAS WELL       OTHER

2. NAME OF OPERATOR  
 Atlantic Richfield Company

3. ADDRESS OF OPERATOR  
 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface  
 Unit "J" - 1378' f/South & 1325' f/East lines Sec. 30  
 At proposed prod. zone  
 Approx same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See attached maps

5. LEASE DESIGNATION AND SERIAL NO.  
 14-20-603-734

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 Navajo

7. UNIT AGREEMENT NAME  
 Horseshoe Gallup Unit

8. FARM OR LEASE NAME  
 Horseshoe Gallup Unit

9. WELL NO.  
 294

10. FIELD AND POOL, OR WILDCAT  
 Horseshoe Gallup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 30-31N-16W

12. COUNTY OR PARISH | 13. STATE  
 San Juan | New Mexico

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 3902' f/Tr.12 line

16. NO. OF ACRES IN LEASE  
 Tr.12 - 2644.14 Ac  
 Unit - 13,527.80 Ac

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A - Unit

18. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 890' f/#6 in NW SE Sec.30

19. PROPOSED DEPTH  
 1390'

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5477' GL, Ungr.

22. APPROX. DATE WORK WILL START\*  
 When appl rec'd.  
 Est 7/1/76 - rd & loc.  
 Drlg after #293

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	120	120 sx (Cmt to surface)
7-7/8"	5-1/2"	14#	T.D.	225 sx

Propose to drill well to depth sufficient to test the Gallup Formation. Est. tops: Upper Gallup 1180', Lower Gallup 1290'. Will set 8-5/8"OD surface casing at approx 120' and cement to surface; drill 7-7/8" hole to T.D.; log; if productive, set 5-1/2"OD casing w/ sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 & R-2210-A

Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use w/ att.  
 Archaeological Clearance Report

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 W. A. Walther, Jr. TITLE Operations Manager DATE 6/17/76  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator <b>Atlantic Richfield Company</b>		Lease		Well No. <b>294</b>
Grid Letter <b>J</b>	Section <b>30</b>	Township <b>31</b>	Range <b>16</b>	County <b>San Juan</b>

Actual Footage Location of Well:  
**1378** feet from the **South** line and **1325** feet from the **East** line

Ground Level Elev. <b>5477</b>	Producing Formation <b>Gallup</b>	Pool <b>Horseshoe Gallup</b>	Dedicated Acreage: <b>NA - Unitized</b>
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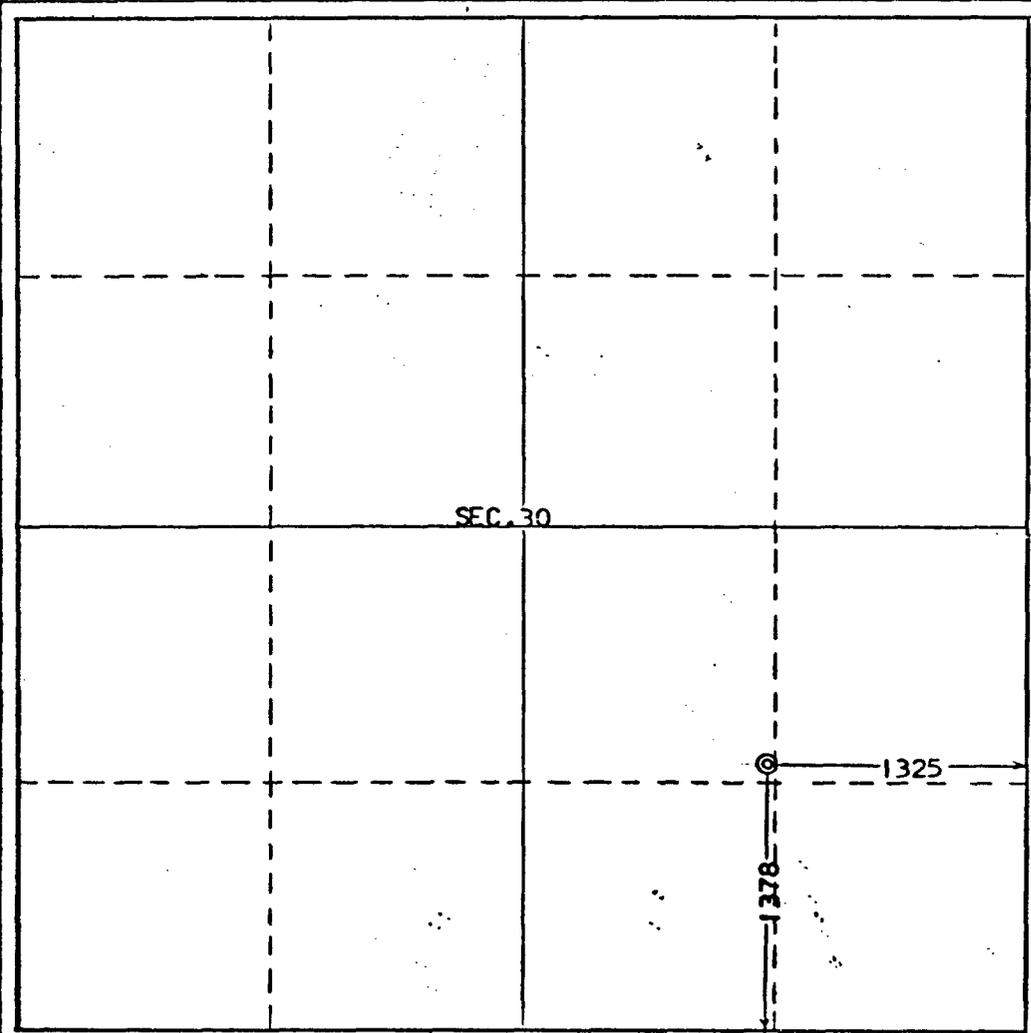
Re: Order No. R-2210

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 Unitization

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.



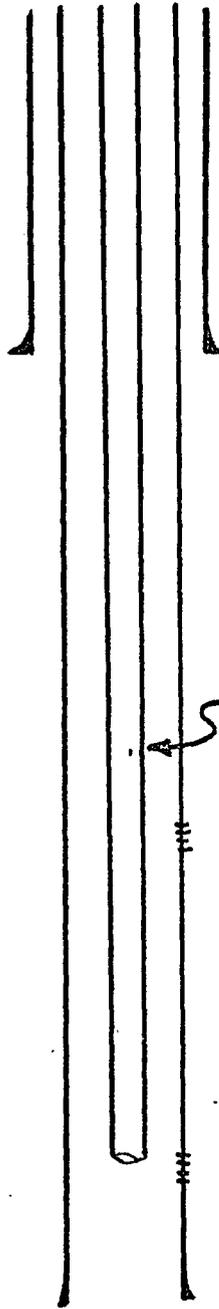
**CERTIFICATION**

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

Name: W. A. Walther, Jr.  
 Position: W. A. Walther, Jr. Operations Manager  
 Company: ATLANTIC RICHFIELD COMPANY  
 Date: \_\_\_\_\_

Date Surveyed: May 20, 1976  
 Registered Professional Engineer and/or Land Surveyor  
E.V. Echhawk  
 Certificate No. 3602  
**E.V. Echhawk LS**

Elevation 5477' GL - Ungraded



8-5/8" OD Casing set at 120' and cemented to surface

2-3/8" OD EUE tubing

Upper Gallup - Perforated as indicated from logs.

Lower Gallup - Perforated as indicated from logs.

5-1/2" OD casing set at total depth with sufficient cement to protect all zones.

1390' Estimated total depth.

HORSESHOE GALLUP UNIT, Well No. 294  
Unit "J" - 1378' f/South & 1325' f/East lines  
Section 30-31N-16W  
San Juan County, New Mexico

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

2. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER

3. NAME OF OPERATOR  
 Atlantic Richfield Company

4. ADDRESS OF OPERATOR  
 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface  
 Unit "A" - 50' f/North & 50' f/East lines Sec. 31  
 At proposed prod. zone  
 Approx same

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See attached maps

5. LEASE DESIGNATION AND SERIAL NO.  
 14-20-603-734

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 Navajo

7. UNIT AGREEMENT NAME  
 Horseshoe Gallup Unit

8. FARM OR LEASE NAME  
 Horseshoe Gallup Unit

9. WELL NO.  
 295

10. FIELD AND POOL, OR WILDCAT  
 Horseshoe Gallup Unit

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 31-31N-16W

12. COUNTY OR PARISH  
 San Juan

13. STATE  
 New Mexico

14. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 5230' f/Tr. 12 line

15. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 862' f/#52 in NE NE Sec. 31

16. NO. OF ACRES IN LEASE  
 Tr. 12 - 2644.14 Ac  
 Unit - 13,527.80 Ac

17. PROPOSED DEPTH  
 1370'

18. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A - Unit

19. ROTARY OR CABLE TOOLS  
 Rotary

20. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5430' GL, Ungr.

21. APPROX. DATE WORK WILL START\*  
 When appl rec'd.  
 Est 7/1/76 - Ad & loc.  
 Drlg after #294

22. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	120'	120 Sx (Cmt to surface)
7-7/8"	5-1/2"	11#	T.D.	225 sx

Propose to drill well to depth sufficient to test the Gallup Formation. Est. tops: Upper Gallup 1155', Lower Gallup 1265'. Will set 8-5/8"OD surface casing at approx 120' and cement to surface; drill 7-7/8" hole to TD; log; if productive, set 5-1/2"OD casing w/ sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary, and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 & R-2210-A

- Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use  
 Archaeological Clearance Report

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 W. A. Walther, Jr. TITLE Operations Manager DATE 6/11/76  
 (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

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator <b>Atlantic Richfield Company</b>		Lease			Well No. <b>295</b>
Unit Letter <b>A</b>	Section <b>31</b>	Township <b>31</b>	Range <b>16</b>	County <b>San Juan</b>	

Actual Footage Location of Well:  
**50** feet from the **North** line and **50** feet from the **East** line

Ground Level Elev. <b>5430</b>	Producing Formation <b>Gallup</b>	Pool <b>Horseshoe Gallup</b>	Dedicated Acreage <b>NA - Unitized</b>
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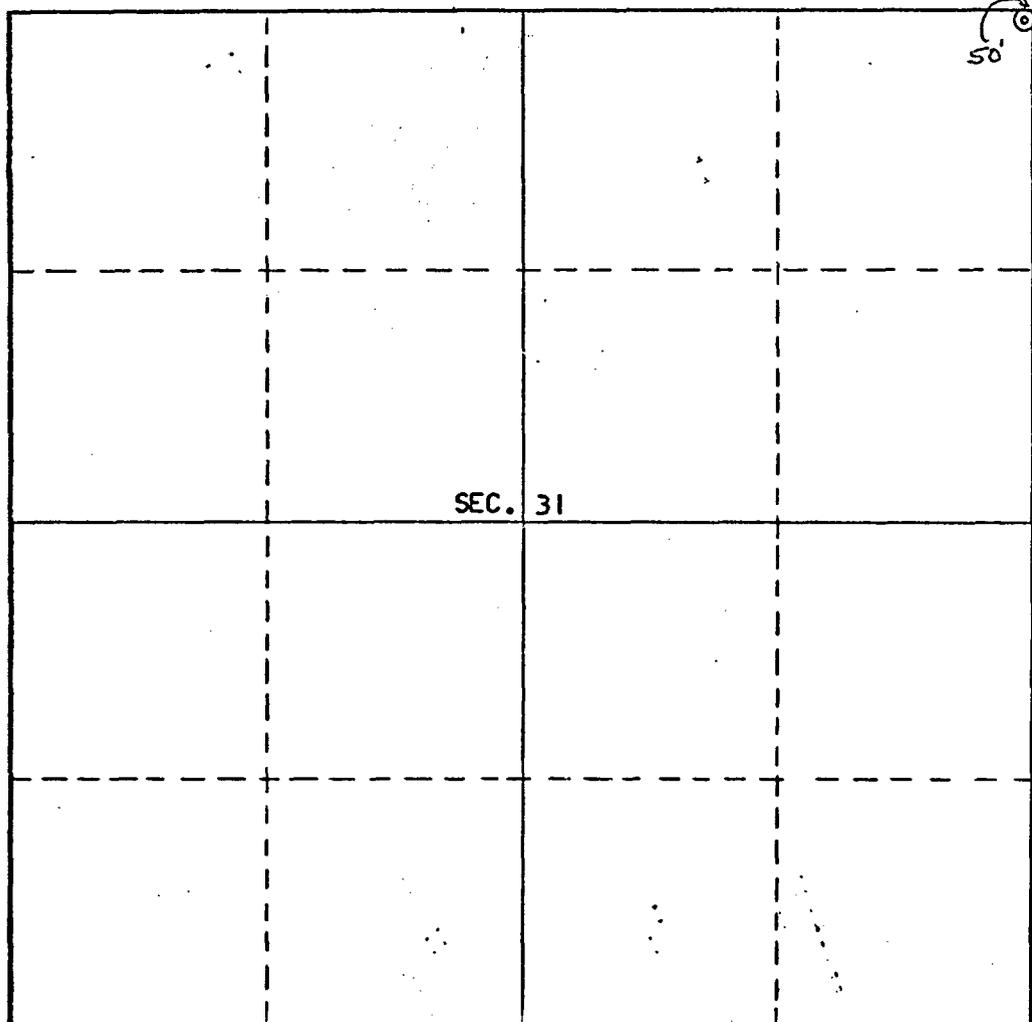
Re: Order No. R-2210

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 Unitization

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  
*W. A. Walther, Jr.*

Position **W. A. Walther, Jr.**  
**Operations Manager**

Company  
**ATLANTIC RICHFIELD COMPANY**

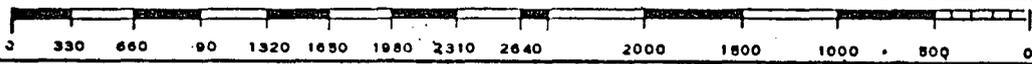
Date

Date Surveyed  
**May 20, 1976**

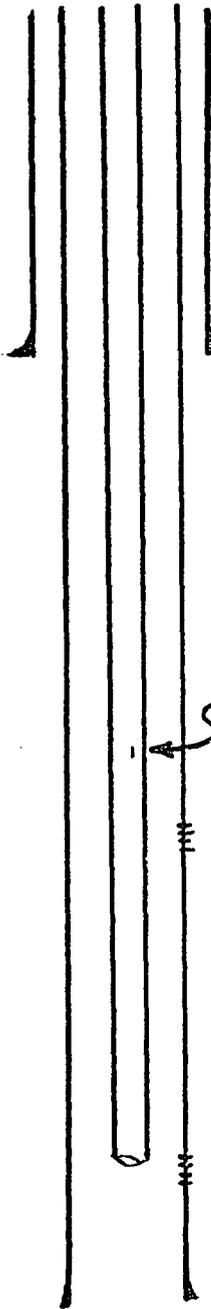
Registered Professional Engineer  
and/or Land Surveyor

*E. V. Echohawk*

Certificate No. **3602**  
**E.V. Echohawk LS**



Elevation 5430' GL - Ungraded



8-5/8" OD Casing set at 120' and cemented to surface

2-3/8" OD EUE tubing

Upper Gallup - Perforated as indicated from logs.

Lower Gallup - Perforated as indicated from logs.

5-1/2" OD casing set at total depth with sufficient cement to protect all zones.

1370' Estimated total depth.

HORSESHOE GALLUP UNIT, Well No. 295  
Unit "A" - 50' f/North & 50' f/East lines  
Section 31-31N-16W  
San Juan County, New Mexico

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

(Other instructions on reverse side)

JUN - 9 1976

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK  *Santa Fe*

2. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

3. NAME OF OPERATOR  
 Atlantic Richfield Company

4. ADDRESS OF OPERATOR  
 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 Unit I - 1350' f/South & 1250' f/East lines Sec. 32  
 At proposed prod. zone  
 Approx same

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See attached maps

5. LEASE DESIGNATION AND SERIAL NO.  
 14-20-603-734

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 Navajo

7. UNIT AGREEMENT NAME  
 Horseshoe Gallup Unit

8. FARM OR LEASE NAME  
 Horseshoe Gallup Unit

9. WELL NO.  
 296

10. FIELD AND POOL, OR WILDCAT  
 Horseshoe Gallup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 32-31N-16W

12. COUNTY OR PARISH  
 San Juan

13. STATE  
 New Mexico

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)  
 1350' f/Tr. 12 line

16. NO. OF ACRES IN LEASE  
 Tr. 12 - 2644.14 Ac  
 Unit - 13,527.80 Ac

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A - Unit

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, IN USE OR APPLIED FOR, ON THIS LEASE, FT.  
 1011' f/#2 in SW SE & #49 in SW SE, Sec. 32

19. PROPOSED DEPTH  
 1350'

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5336' GL, Ungr.

22. APPROX. DATE WORK WILL START\*  
 When appl rec'd  
 Est. 7/1/76 - rd & loc.  
 Drlg after #295

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	120'	120 sx (Cnt to surface)
7-7/8"	5-1/2"	14#	T.D.	225 sx

Propose to drill well to depth sufficient to test the Gallup Formation. Est. tops: Upper Gallup 1090', Lower Gallup 1200'. Will set 8-5/8" OD surface casing at approx. 120' and cement to surface; drill 7-7/8" hole to TD; log; if productive, set 5-1/2" OD casing w/ sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary, and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 & R-2210-A

- Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use  
 Archaeological Clearance Report

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.

34. SIGNED W. A. Walther, Jr. TITLE Operations Manager DATE 6/4/76  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
 APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator <b>Atlantic Richfield Company</b>			Lease		Well No. <b>296</b>
Unit Letter <b>I</b>	Section <b>32</b>	Township <b>31</b>	Range <b>16</b>	County <b>San Juan</b>	

Actual Footage Location of Well:  
**1350** feet from the **South** line and **1250** feet from the **East** line  
 Ground Level Elev. **5336** Producing Formation **Gallup** Pool **Horseshoe Gallup** Dedicated Acres **NA - Unitized**

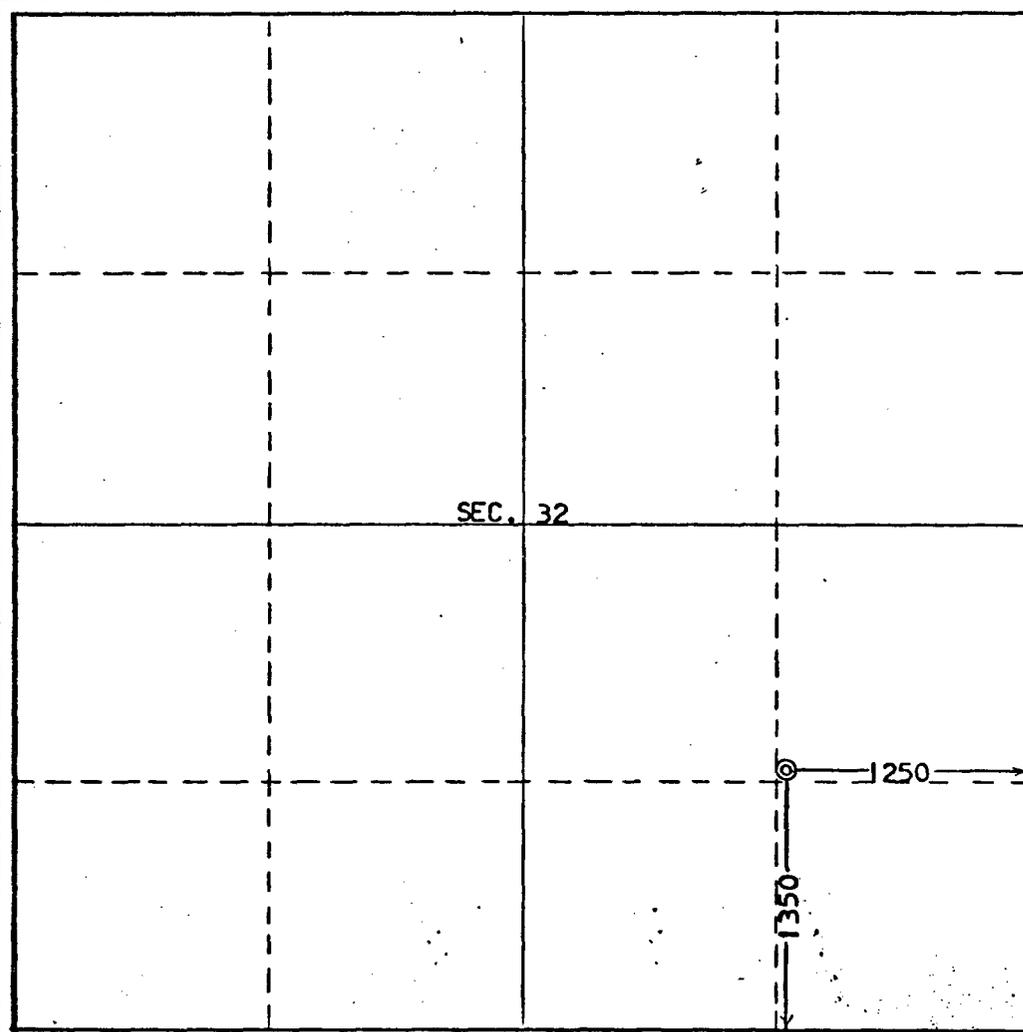
Re: Order No. R-2210-

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 Unitization

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

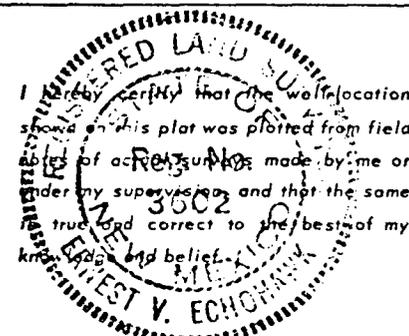
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

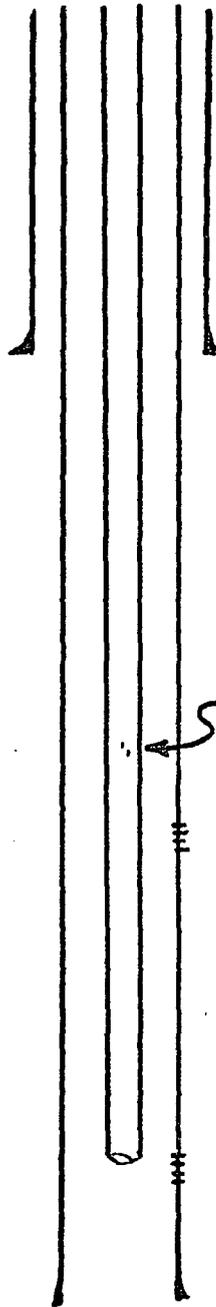
Name W. A. Walther, Jr.  
 Position W. A. Walther, Jr. Operations Manager  
 Company ATLANTIC RICHFIELD COMPANY  
 Date \_\_\_\_\_



Date Surveyed May 20, 1976  
 Registered Professional Engineer and/or Land Surveyor  
E. V. Echoshawk  
 Certificate No. 3602  
**E. V. Echoshawk LS**

0 330 660 990 1320 1650 1980 2310 2640 2000 1800 1000 500 0

Elevation 5336' GL, Ungraded



8-5/8"OD Casing set at 120' and cemented to surface

2-3/8"OD EUE tubing

Upper Gallup - Perforated as indicated from logs.

Lower Gallup - Perforated as indicated from logs.

5-1/2"OD casing set at total depth with sufficient cement to protect all zones.

1350' Estimated total depth.

HORSESHOE GALLUP UNIT, Well No. 296  
Unit "I" - 1350' f/South & 1250' f/East lines  
Section 32-31N-16W  
San Juan County, New Mexico

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
 Atlantic Richfield Company

3. ADDRESS OF OPERATOR  
 501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80203

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 Unit I - 1550' f/South & 1250' f/East lines Sec. 4  
 At proposed prod. zone  
 Approx same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See attached maps

5. LEASE DESIGNATION AND SERIAL NO.  
 SF - 081226

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
 Horseshoe Gallup Unit

8. FARM OR LEASE NAME  
 Horseshoe Gallup Unit

9. WELL NO.  
 297

10. FIELD AND POOL, OR WILDCAT  
 Horseshoe Gallup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 4-30N16W

12. COUNTY OR PARISH  
 San Juan

13. STATE  
 New Mexico

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 70' f/Tr.33 line

16. NO. OF ACRES IN LEASE  
 Tr.33 - 515.50 Ac  
 Unit - 13,527.80 Ac

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 N/A - Unit

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 731' f/#245 in NE SE Sec. 4

19. PROPOSED DEPTH  
 1360'

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5359' GL, Ungr.

22. APPROX. DATE WORK WILL START\*  
 When appl rec'd  
 Est 7/1/76 - rd & loc  
 Drlg after #296

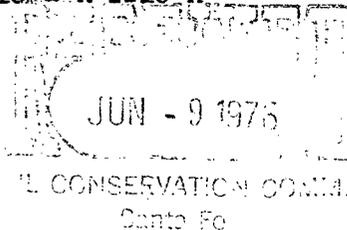
23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	120'	120 sx (Cnt to surf)
7-7/8"	5-1/2"	14#	T.D.	225 sx

Propose to drill well to depth sufficient to test the Gallup Formation. Est. tops: Upper Gallup 1145', Lower Gallup 1255'. Will set 8-5/8" OD surface casing at approx 120' and cement to surface; drill 7-7/8" hole to T.D.; log; if productive, set 5-1/2" OD casing w/ sufficient cement to protect all zones. Productive zone(s) will be perforated, treated if necessary, and well completed.

Re: New Mexico Oil Conservation Commission Order No. R-2210 & R-2210-A

Attachments: Certified Location Plat  
 Pertinent Drilling Information  
 Development Plan for Surface Use w/ att.  
 Archaeological Clearance Report.



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 W. A. Walther, Jr. TITLE Operations Manager DATE 6/1/76  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator <b>Atlantic Richfield Company</b>			Lease		Well No. <b>297</b>
Unit Letter <b>I</b>	Section <b>4</b>	Township <b>30 North</b>	Range <b>16 West</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>1550</b> feet from the <b>South</b> line and <b>1250</b> feet from the <b>East</b> line					
Ground Level Elev. <b>5359</b>	Producing Formation <b>Gallup</b>		Pool <b>Horseshoe Gallup</b>		Dedicated Acreage: <b>NA - Unitized</b> Acres

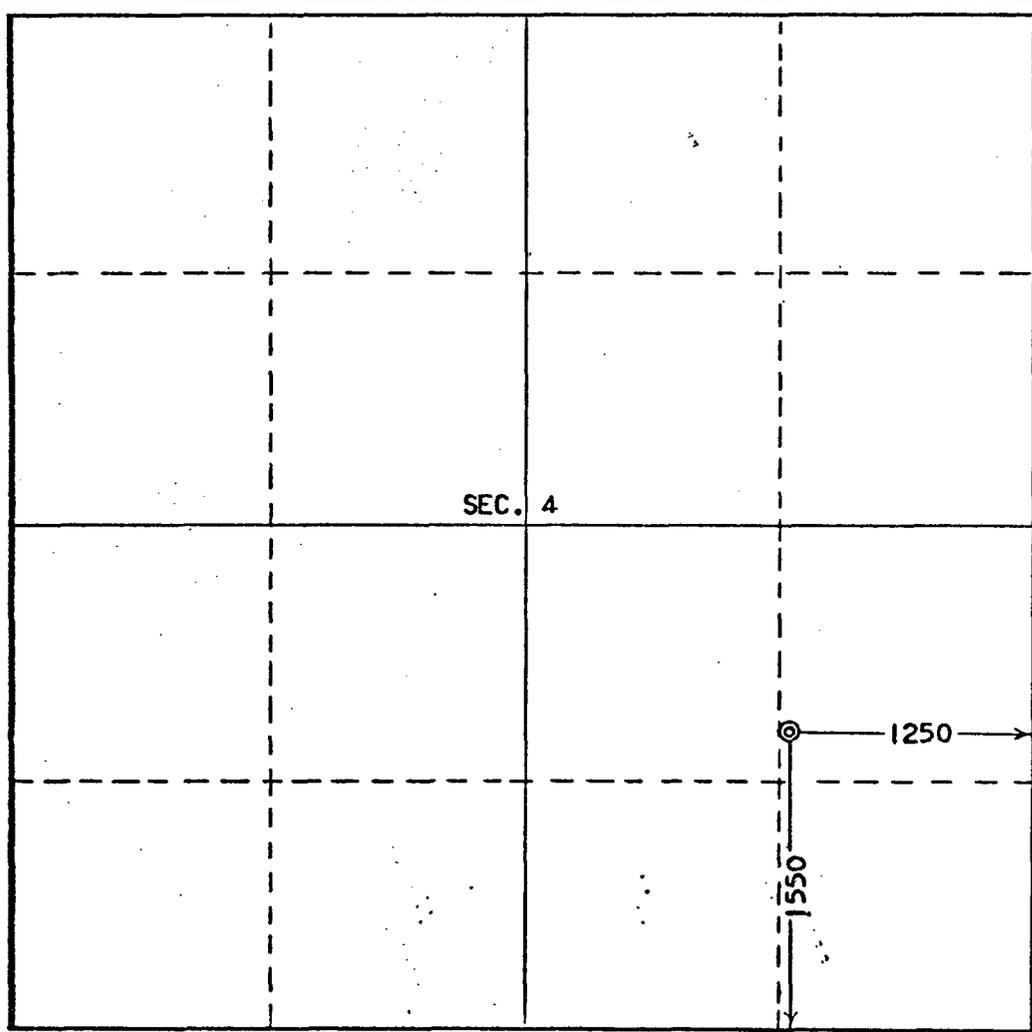
Re: Order No. R-2210

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 Unitization

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**

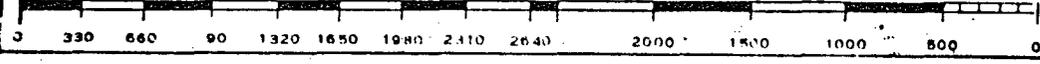
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name W. A. Walther, Jr.  
 Position W. A. Walther, Jr.  
Operations Manager  
 Company ATLANTIC RICHFIELD COMPANY  
 Date \_\_\_\_\_

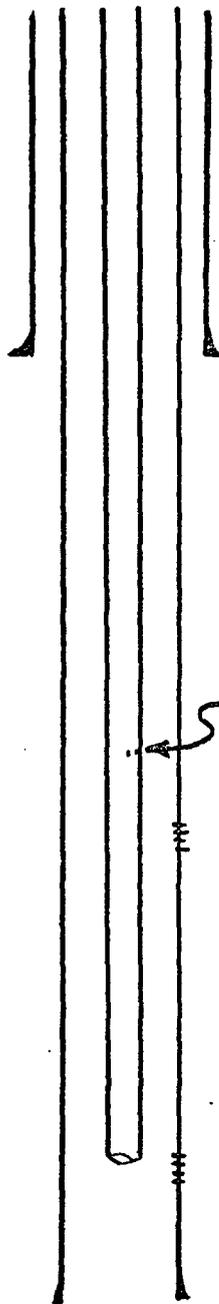
I hereby certify that the well location shown on this plat was plotted from field notes of do surveys made by me or under my supervision, and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed  
**May 20, 1976**  
 Registered Professional Engineer  
 and/or Land Surveyor

Certificate No. **3602**  
**E.V. Echohawk LS**



Elevation 5359' GL - Ungraded



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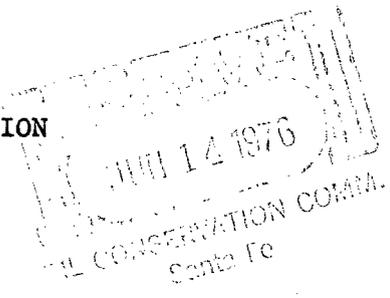
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HORSESHOE GALLUP UNIT, Well No. 297  
Unit "I" - 1550' f/South & 1250' f/East lines  
Section 4-30N-16W  
San Juan County, New Mexico

OIL CONSERVATION COMMISSION  
ay te DISTRICT

OIL CONSERVATION COMMISSION  
BOX 2088  
SANTA FE, NEW MEXICO



DATE June 11, 1976

RE: Proposed MC \_\_\_\_\_  
Proposed DHC \_\_\_\_\_  
Proposed NSL \_\_\_\_\_ ✓  
Proposed SWD \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

*Jim Kapteina*

Gentlemen:

I have examined the application dated June 7, 1976  
for the Atlantic Richfield  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Horseshoe Gallup Unit # 291, 292, 293, 294  
295, 296 & 297.

Approve: All wells are inside locations.  
#294 does not identify it to be 10 feet from  
the 40-acre line as required by Order 2210.

Yours very truly,

*MR. Kendrick*