7-1-70 CLINTON OIL COMPANY
ASSUMED OPERATIONS FROM
PAN AMERICAN PET.

Effective 11-1-71, Well Converted To Water Injection

Effective 2-11-76 Clinton Oil Co. known as Energy Reserves Group, Inc.

FILE NOTATIONS

Entered in N I D File	✓	Checked by Chief	PMB
Entered On S R Sheet	✓	Copy N I D to Field Office	✓
Location Map Pinned	✓	Approval Letter	✓
Card Indexed	✓	Disapproval Letter	
I W R for State or Fee Land			

COMPLETION DATA:

Date Well Completed	6-25-64	Location Inspected	
OW ✓ WW	TA	Bond released	
GW OS	PA	State of Fee Land	

LOGS FILED

Driller's Log 1-14-64

Electric Logs (No.) 3

E | I | E-I ✓ | GR | GR-N | Micro

Lat | Mi-L | Sonic GR ✓ | Others Amount of Bond Pay

Form OGCC-1 a

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

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

2. NAME OF OPERATOR
Pan American Petroleum Corporation

3. ADDRESS OF OPERATOR
Box 1480, Riverton, Wyoming

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
743' FSL, 364' FWL SW SW Sec. 10
At proposed prod. zone

5. LEASE DESIGNATION AND SERIAL NO.
U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
USA Pearl Broadhurst

9. WELL NO.
5

10. FIELD AND POOL, OR WILDCAT
Red Wash

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 10 T7S R23E

12. COUNTY OR PARISH: Uintah
13. STATE: Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
27 miles

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. line, if any): 743'

16. NO. OF ACRES IN LEASE: 880

17. NO. OF ACRES ASSIGNED TO THIS WELL: 80

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: approx. 2640'

19. PROPOSED DEPTH: 5900'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
Ground Elev. 5278 KBM Elev 5290

22. APPROX. DATE WORK WILL START*
4/23/64

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
15"	10-3/4"		300	
9"	7"		5900	

Propose to drill well for test of Green River (2800') and Wasatch (5850') formations. Will DST as shows require and anticipate multiple zone completion by selective perforation, testing and stimulation of several sands within Wasatch which will probably be necessary for evaluation. Will run IES, Microlaterolog and Gamma Ray Sonic logs. Casing will be cemented in accordance with standard completion practices.

Location moved 83' N and 96' W of C SW SW Sec. 10 T7S R23W due to terrain.
Pan American has all acreage within 660' of this location.
USGS approval verbal obtained 4/17/64 Geo. Brown to J. E. Lang
State approval verbal obtained 4/17/64 Cleon Feight to J. E. Lang

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.
Original Signed
J. E. LANG
SIGNED _____ TITLE Area Superintendent DATE 4/20/64

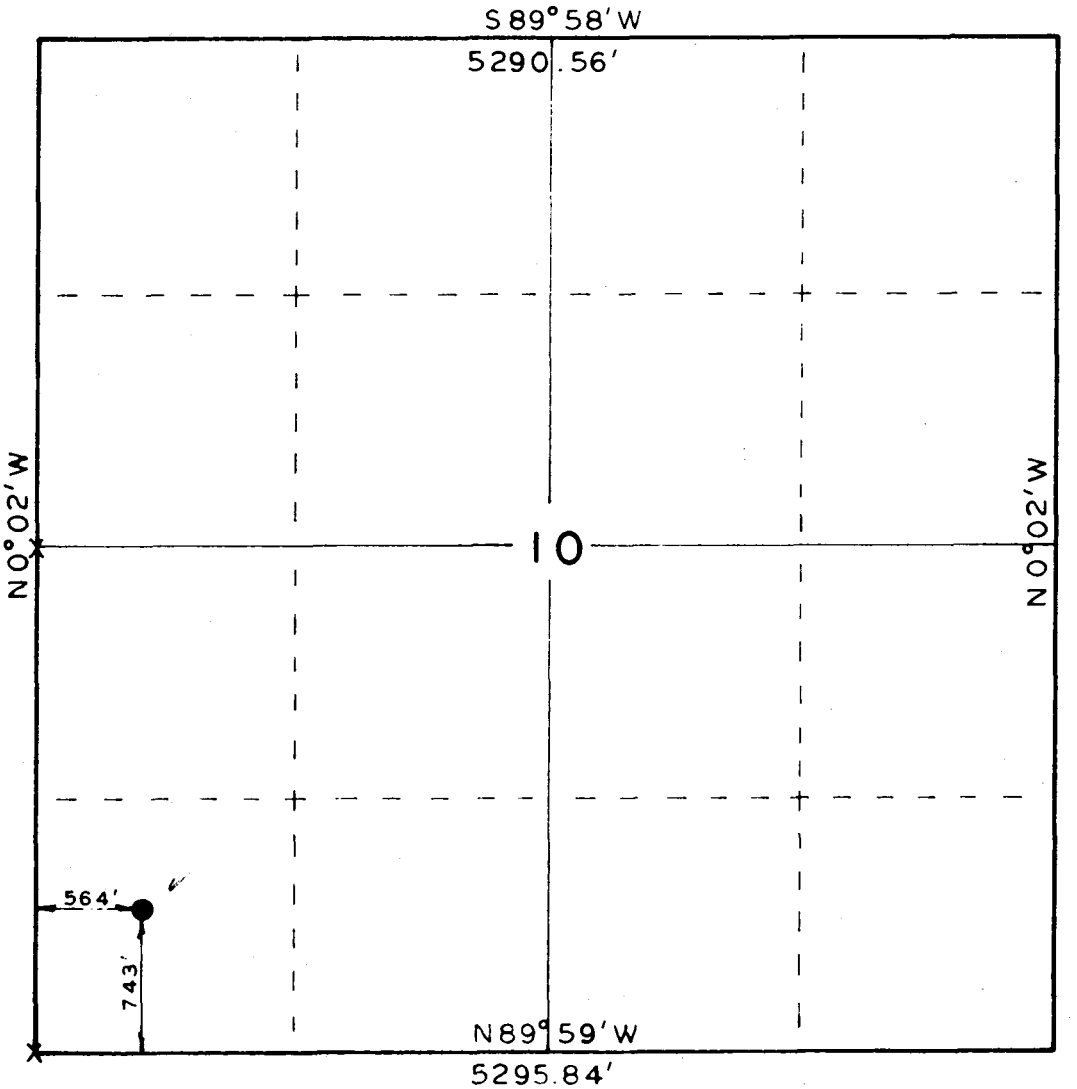
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

T 7 S, R 23 E, SLB&M



X = Corners located (brass caps)

Scale: 1" = 1000'

Nelson J. Marshall

By: ROSS CONSTRUCTION CO.
Vernal, Utah

PARTY Gene Stewart L. C. Kay Ray Stewart WEATHER Windy	SURVEY PAN AMERICAN PET. CORP. PEARL A. BROADHURST WELL NO. 5, LOCATED AS SHOWN IN THE SW 1/4, SW 1/4, SEC. 10, T 7 S, R 23 E, SLB&M. UINTAH COUNTY, UTAH.	DATE 4/17/64 REFERENCES GLO Township plat Approved 11/29/1944 FILE PAN AM

FORM 5202

Form OGCC-1 a

Copy AHC

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Red Wash

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10 T7S R23E

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

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

2. NAME OF OPERATOR: Pan American Petroleum Corporation

3. ADDRESS OF OPERATOR: Box 1400, Riverton, Wyoming

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 743' FSL, 564' FWL NW SW SW Sec. 10
At proposed prod. zone:

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 27 miles

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. line, if any): 743'

16. NO. OF ACRES IN LEASE: 880

17. NO. OF ACRES ASSIGNED TO THIS WELL: 80

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: approx. 2640'

19. PROPOSED DEPTH: 5900'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): Ground Elev. 5278 RDB Elev 5290

22. APPROX. DATE WORK WILL START*: 4/23/64

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
15"	10-3/4"		500	
9"	7"		5900	

Propose to drill well for test of Green River (2860') and Wasatch (5850') formations. Will DST as shows require and anticipate multiple zone completion by selective perforation, testing and stimulation of several sands within Wasatch which will probably be necessary for evaluation. Will run IES, Microlaterolog and Gamma Ray Sonic logs. Casing will be cemented in accordance with standard completion practices.

Location moved 83' N and 98' W of C SW SW Sec. 10 T7S R23W due to terrain.
Pan American has all acreage within 660' of this location.
USGS approval verbal obtained 4/17/64 Geo. Brown to J. E. Lang
State approval verbal obtained 4/17/64 Cleon Feight to J. E. Lang

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 J. E. Lang TITLE Area Superintendent DATE 4/29/64

(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

April 30, 1964

Pan American Petroleum Corporation
Box 1400
Riverton, Wyoming

Re: Notice of Intention to Drill Well
No. USA Pearl Broadhurst #5, 743'
FSL & 564' FWL, of Section 10, T.
7 S., R. 23 E., Uintah County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above mentioned well is hereby granted.

As soon as you have determined that it will be necessary to plug and abandon the above well, you are hereby requested to immediately notify the following:

PAUL W. BURCHELL, Chief Petroleum Engineer
Office: LA 8-5771 or DA8-5772
Home: CR 7-2890 - Salt Lake City, Utah

This approval terminates within 90 days if this well has not been spudded within said period.

Enclosed please find Form OGCC-8-X, which is to be completed if water sands (aquifers) are encountered while drilling, particularly assessable near surface water sands. Your cooperation with respect to completing this form will be greatly appreciated.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT
EXECUTIVE DIRECTOR

CBF:cnp
cc: George Brown, Acting Dist. Eng.,
U. S. Geological Survey - Salt Lake City, Utah

H. L. Coonts, Petroleum Engineer
Oil & Gas Conservation Commission - Moab, Utah

Copy HLC

Form 9-331a
(Feb. 1951)

Budget Bureau No. 42-R358.4.
Form Approved.

Land Office Salt Lake

Lease No. U-02651-A

Unit USA Pearl Broadhurst

	10		
X			

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ~~XXXXXXX~~ CASING	X
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

May 1, 1964

Well No. 5 is located 743 ft. from {N/S} line and 564 ft. from {E/W} line of sec. 10

SW SW Sec. 10 (¼ Sec. and Sec. No.) 7S (Twp.) 23E (Range) (Meridian)

Red Wash (Field) Uintah (County or Subdivision) Utah (State or Territory)

The elevation of the ~~derrick floor~~ RDB above sea level is 5290 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

At a depth of 495', cemented 480' of 10-3/4" 32.75# H-40 casing at 494', with 353 sacks.

Approved MAY 4 1964
Rodney A. Smith
District Engineer

RECEIVED
BR. OF OIL & GAS OPERATIONS
MAY 4 1964
U. S. GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Pan American Petroleum Corporation

Address P. O. Box 40

Casper, Wyoming 82602

Original Signed By: J. R. Jones
By

Title District Services Supervisor

GPO 914974

Form 9-331a
(Feb. 1951)

	10		
x			

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Budget Bureau No. 42-R358.4.
Form Approved.
Land Office Salt Lake
Lease No. U-02651-A
Unit USA Pearl Broadhurst

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ~~ALTERING~~ CASING Oil String	X
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

May 20, 1964

Well No. 5 is located 743 ft. from ~~N~~ S line and 564 ft. from ~~E~~ W line of sec. 10

SW SW Sec. 10 (¼ Sec. and Sec. No.) 7S (Twp.) 23E (Range) (Meridian)

Red Wash (Field) Uintah (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is ____ ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

At a depth of 5907', cemented 176 joints of 7" OD 20# and 23# casing at 5567' with 360 sacks.

Approved MAY 25 1964
(ORIG. SGD.) R. A. SMITH
District Engineer

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Pan American Petroleum Corporation

Address P. O. Box 40
Casper, Wyoming 82602

By Original Signed E. O. Wise

Title District Services Supervisor

GPO 914974

PAN AMERICAN PETROLEUM CORPORATION
WELL STATUS AND PRODUCTION REPORT

FIELD: WALKER HOLLOW
LEASE: USA PEARL BROADHURST
COUNTY: UINTAH STATE: UTAH
FOR MONTH OF: APRIL 1964

ACCT. DEPT. USE
PAGE 1
FLO 937

TOTAL SALES FOR MONTH 11,413.62 BBLS. OIL NONE MCF GAS

TYPE LEASE	GOVERNMENT LEASE NUMBER	WELL NO	POOL	LOCATION QTR. QTR	SEC	TWP.	RNG	TEST DATE MO	TEST DATE DAY	OIL BBLS.	WATER BBLS.	% WTR	GAS MCF	GAS/OIL RATIO	LS OR TPF	SPM OR CKE	GRAVITY	OIL OR GAS	STATUS	DAYS OPER	CURRENT MONTH PRODUCTION OIL BARRELS	CURRENT MONTH PRODUCTION WATER BARRELS	CURRENT MONTH PRODUCTION GAS MCF	CUMULATIVE PRODUCTION OIL BARRELS	CUMULATIVE PRODUCTION WATER BARRELS	
G	U	02651A	1GR	NESE	9	7S	23E	4	7	188	5	3	86	456			28.0	B	23	30	4700	57	10592	38123	556	
G	U	02651A	2GR	SWNW	10	7S	23E	4	8	183	19752						28.0	B	23	30	3709	9202		10966	14721	
G	U	02651A	3GR	SWNE	9	7S	23E	4	9	105	30374								24	30	3250	10448		6413	19738	
G	U	02651A	4GR	SWSE	9	7S	23E			DRILLING - TD									R1							
G	U	02651A	5GR	SWSW	10	7S	23E			DRILLING - TD									R1							
																				LEASE TOTAL	11659	19707	10592	55502	35015	31922
																				30-DAY DAILY AVERAGE	389	657	353			
																				FIELD TOTAL	11659	19707	10592	55502	35015	31922
																				30-DAY DAILY AVERAGE	389	657	353			

WELL STATUS

11. FLOWING OIL WELL
12. FLOWING GAS WELL
21. DOWNHOLE ELECTRIC PUMP
22. ROD PUMP - ELECTRIC MOTOR
23. ROD PUMP - GAS ENGINE
24. DOWNHOLE HYDRAULIC PUMP
25. GAS LIFT
31. GAS INJECTION WELL
32. WATER INJECTION WELL
33. WATER SOURCE WELL
34. WATER DISPOSAL WELL
41. SHUT-IN LACK OF MARKET
42. SHUT-IN HIGH GAS - OIL RATIO
43. SHUT-IN HIGH WATER - OIL RATIO
44. SHUT-IN OTHER
51. INACTIVE GAS INJECTION WELL
52. INACTIVE WATER INJECTION WELL
53. INACTIVE WATER SOURCE WELL
54. INACTIVE WATER DISPOSAL WELL
61. TEMPORARILY ABANDONED (EX-PRODUCING WELL)
62. TEMPORARILY ABANDONED (EX-PRODUCING ZONE)
63. TEMPORARILY ABANDONED (DRY HOLE)
64. TEMPORARILY ABANDONED (DRY ZONE)
71. PERMANENTLY ABANDONED ZONE
72. PERMANENTLY ABANDONED WELL
81. DRILLING
82. INCOMPLETE WELL - TESTING
83. ACTIVE RECOMPLETION
84. ACTIVE WORKOVER
91. FACILITY WELL

WELL STATUS REPORT AND GAS-OIL RATIO TESTS

Operator: Pan American Petroleum Corporation Field and Reservoir: Red Wash - Green River County: Uintah

Address: P. O. Box 40, Casper, Wyoming Month: June, 1964

LEASE NAME	Well No.	Date of Test	Status	S.P.M.	L.S.	Choke Size	TBG Press.	SEP Press.	SEP Temp.	Length of Test (Hrs.)	PRODUCTION DURING TEST Gas M.C.F.	Oil Bbls.	Water Bbls.	Oil Grav	G.O.R. Cu. Ft./Bbl.
USA Pearl Broadhurst	1	6/3/64	Prod.							24	172.4	152.9	4.4	27	1128
USA Pearl Broadhurst	2	6/15/64	Prod.							24	22.5	58.9	321.5	27	382
USA Pearl Broadhurst	3	6/13/64	Prod.							24	14.9	39.1	218.8	27	381
USA Pearl Broadhurst	4	6/12/64	Prod.							24	91.4	147.4	23.7	27	620
USA Pearl Broadhurst	5	6/30/64	Prod.							24	32.0	52.5	5.2	27	609
							~~Daily Average:~~				~~333.2~~	~~450.8~~	~~537.6~~		
							Total Month (June):				9996	13,524	17,207		
USA Pearl Broadhurst	Flare	6/30/64									78 (or 2.6/day)				
							Total Consumed:				9918				

All Tests Reported herein were made in accordance with the Applicable Rules, Regulations and Instructions of the Utah Oil & Gas Conservation Commission

Executed this the 21 day of July 19 64

State of Wyoming
County of Natrona

E. O. Wise
Signature of Affiant

Utah Oil & Gas Conservation Commi
Well Status Report and Gas-Oil Ratio
Form OGCC No. P-9
Authorized by Order In Cause No. 1
Effective December 14, 1958

MEMORANDUM GO-144

TO: MR. S ARH

FROM: MR. CWN

SUBJECT: BROADHURST # 5 PAN AM

OUR FILE:

YOUR FILE:

RESULTS OF RE-WORK NOT FILED

R.O.

June 18, 1964

Pan American Petroleum Corporation
P. O. Box 40
Casper, Wyoming 82602

Attention: Mr. J. B. Jones, District Services Supervisor

Re: Well No. USA Pearl Broadhurst #4
Sec. 9, T. 7 S., R. 23 E.,
Uintah County, Utah

Well No. USA Pearl Broadhurst #5
Sec. 10, T. 7 S., R. 23 E.,
Uintah County, Utah

Gentlemen:

Our records indicate that you have not filed a Monthly Report of Operations for the month of May, 1964, for the subject well. Rule C-22(1), General Rules and Regulations and Rules of Practice and Procedure, Utah State Oil and Gas Conservation Commission requires that said reports be filed on or before the sixteenth (16) day of the succeeding month. These reports may be filed on Form OGCC-1b (U. S. Geological Survey Form 9-331, "Sundry Notices and Report on Wells"), or on company forms containing substantially the same information. We are enclosing forms for your convenience.

Thank you for your assistance in the matter.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

KATHY G. WARNER
RECORDS CLERK

kgw

Enclosure - Forms

ENERGY RESERVES GROUP, INC.

ATTACHMENT III

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE *
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Red Wash - Green River

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 10 - T7S-R23E

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Pan American Petroleum Corporation

3. ADDRESS OF OPERATOR: P. O. Box 40, Casper, Wyoming 82602

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*

At surface 743 FSL, 564 FWL, SW SW Sec. 10-T7S-R23E

At top prod. interval reported below

At total depth

14. PERMIT NO. | DATE ISSUED

12. COUNTY OR PARISH: Uintah | 13. STATE: Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
4-26-64	5-17-64	5-26-64	RDB 5290, Grd. 5278	

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
5907'	5481'		→	Surfac - 5907	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: 4828-4794 Green River

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: IES, Gamma Ray Sonic, Microlaterlog

27. WAS WELL CORED: Yes

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
10-3/4"	32.75#	494'	15"	353 sacks	None
7"	20 and 23#	5567'	9"	360 sacks	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*)

4828 and 4794 with single-plane 5-way jets

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4828-4794	500 gal Regular MCA Acid
	10,000# 10-20 Sand
	8,000# Resin & Walnut Hulls

33.* PRODUCTION

DATE FIRST PRODUCTION: After load oil recovered, 6-26-64

PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*): Pumping - 2-1/2"

WELL STATUS (*Producing or shut-in*): Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
6-25-64	24		→	52		0	

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
		→				

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

Original Signed

SIGNED E. O. WISE E. O. Wise TITLE District Services Superintendent DATE July 13, 1964

*(See Instructions and Spaces for Additional Data on Reverse Side)

Form OGCC No. P-9 to follow.

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Pan American Petroleum Corporation

3. ADDRESS OF OPERATOR: P. O. Box 40, Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 743 FSL, 564 FWL, SW SW Sec. 10-T7S-R23E
At top prod. interval reported below
At total depth

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: USA Pearl Broadhurst
9. WELL NO.: 5
10. FIELD AND POOL, OR WILDCAT: Red Wash - Green River
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 10 - T7S-R23E
12. COUNTY OR PARISH: Uintah
13. STATE: Utah

14. PERMIT NO. | DATE ISSUED

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
4-26-64	5-17-64	5-26-64	RDB 5290, Grd. 5278	

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
5907'	5481'		→	Surface - 5907	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: 4828-4794 Green River

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: IES, Gamma Ray Sonic, Microlaterlog

27. WAS WELL CORED: Yes

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
10-3/4"	32.75#	484'	15"	353 sacks	None
7"	20 and 23#	5367'	9"	360 sacks	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)
4828 and 4794 with single-plane 5-way jets

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4828-4794	500 gal Regular MCA Acid
	10,000# 10-20 Sand
	8,000# Resin & Walnut Hulls

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
After load oil recovered, 5-26-64	Pumping - 2-1/2"	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
6-25-64	24		→	52		0	

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
		→				

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Original Signed E. O. WISE E. O. Wise TITLE District Services Superintendent DATE July 13, 1964

*(See Instructions and Spaces for Additional Data on Reverse Side)

Form OGCC No. P-9 to follow.

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Cored Intervals:			
			Core #1: 4725-4777, Cut 52', Recovered 50'.
			Core #2: 4777-4829, Cut 52', Recovered 52'.
			Core #3: 5310-5360, Cut 50', Recovered 49'.
			Core #4: 5360-5412, Cut 52', Recovered 49'.
			Core #5: 5412-5462, Cut 50', Recovered 35'.
No drill stem tests were taken on this well.			

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Log Tops:		
Green River	2877	
Wasatch	5840	

JUL 14 1984

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-683836

12

July 14, 1964

Pan American Petroleum Corporation
P. O. Box 40
Casper, Wyoming 82602

Re: Well No. USA Pearl Broadhurst 15
Sec. 10, T. 7 S., R. 23 E.,
Uintah County, Utah

Attn: Mr. E. O. Wise

Gentlemen:

Thank you for your "Well Completion or Recompletion Report and Log". Upon checking this information, it was noted that a Microlaterlog was run on the above mentioned well. It would be appreciated if we could receive a copy of said Electric Log.

Thank you for your consideration in this request.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

KATHY G. WANNER
RECORDS CLERK

KGW:ns

COMMISSIONERS
C. R. HENDERSON
CHAIRMAN
M. V. HATCH
C. S. THOMSON
B. H. CROFT
C. P. OLSON

EXECUTIVE DIRECTOR
C. B. FEIGHT

THE STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

310 NEWHOUSE BUILDING
10 EXCHANGE PLACE
SALT LAKE CITY 84111

PETROLEUM ENGINEERS
PAUL W. BURCHELL
CHIEF ENGINEER
SALT LAKE CITY
HARVEY L. COONTS
BOX 266
MOAB, UTAH

RECEIVED
PRODUCING
JUL 15 1964
DPS
DS-N
DS-S
DC
DE
DDS
1 HA
2 SS
FILE

July 14, 1964

Pan American Petroleum Corporation
P. O. Box 40
Casper, Wyoming 82602

Re: Well No. USA Pearl Broadhurst #5
Sec. 10, T. 7 S., R. 23 E.,
Uintah County, Utah

Attn: Mr. E. O. Wise

Gentlemen:

Thank you for your "Well Completion or Recompletion Report and Log". Upon checking this information, it was noted that a Microlaterlog was run on the above mentioned well. It would be appreciated if we could receive a copy of said Electric Log.

Thank you for your consideration in this request.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

Kathy G. Warner

KATHY G. WARNER
RECORDS CLERK

KGW:ns

Oil and Gas Conservation Commission:
Attn: Kathy G. Warner

July 21, 1964

Further investigation reveals that the Microlaterolog run on this particular well was reported in error; therefore, we will be unable to furnish you copies.

E. O. Wise

E. O. Wise

PWB

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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.)

Form 1-[illegible]
Budget [illegible]

7. LEASE DESIGNATION: U 02651-A

6. IF INDIAN, ALL [illegible]

7. UNIT [illegible]

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Red-Wash-Green River

11. SEC., T., R., M., OR BLK. SURVEY OR AREA: Sec. 10-T7S-R22E 23

12. COUNTY OR PARISH: Uintah Utah

X

Pan American Petroleum Corporation

P. O. Box 1600, Riverton, Wyoming

[illegible] in accordance with any State requirements.*

[illegible] FSL 564' FWL SW FW Sec. 10-T7S-R22E

[illegible] (Show whether DF, RT, GR, etc.)

RDB 5298 Grd 5278

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

[illegible]	X	SUBSEQUENT REPORT OF	
[illegible]		WATER SHUT-OFF	REPAIRING WELL
[illegible]		FRACTURE TREATMENT	ALTERING CASING
[illegible]		SHOOTING OR ACIDIZING	ABANDONMENT
[illegible]		(Other)	

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

[illegible] state all pertinent details, and give pertinent dates, including [illegible] and give subsurface locations and measured and true vertical depths for [illegible]

The following work is proposed:

1. Perforate the Gamma Ray-Sonic Log intervals: 5325, 5333, 5388, 5397, 5412 and 5431 with a 4-way single plane jet.

2. Acidize the above perforations with 500 gal. 15% MCA or SDA.

3. Frac with 30,000 lb. 10-20 sand and 30,000 gal. admitted Ashley Crude in six separate stages. Using perf balls to separate the stages.

The well is presently shut-in due to an uneconomical producing rate.

Present Well Status:
TD: 5907 PBD 5480
Formation Tops: Green River 2877
Wasatch 5840
Csg: 7" 23# 144' RDB
20# 4517' RDB
23# 5590' RDB
Cmt. with 360 sx 50-50 pozmix x 2% gal.

APPROVED BY UTAH OIL AND GAS CONSERVATION COMMISSION

DATE: 2-21-66 by [illegible]
CHIEF PETROLEUM ENGINEER

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

SIGNED _____ TITLE Area Superintendent DATE 2/17/66

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

July 1[illegible], 1966

Pan American Petroleum Corporation
P. O. Box 4[illegible]
Casper, Wyoming 82602

Gentlemen:

As of this date we have not received the subsequent report on the following well:

Well No. USA Pearl Broadhurst #5 Sec. 10, T. 7 S., R. 23 E., Uintah County, Utah	Subsequent report of Notice to multiple complete, dated Feb. 17, 1[illegible]66.

Please complete the enclosed forms on said well and return them to this office as soon as possible.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

ANNETTE R. HANSEN
RECORDS CLERK

ARH:cam

Enclosure

Form OGCC-1b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Pan American Petroleum Corporation

3. ADDRESS OF OPERATOR: P. O. Box 1400, Riverton, Wyoming

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 743' FSL 564' FWL SW SW Sec. 10-T7S-R23E

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Red Wash-Green River

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10-T7S-R23E

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): RDB 5290 G.L. 5278

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF		PULL OR ALTER CASING		WATER SHUT-OFF		REPAIRING WELL	
FRACTURE TREAT		MULTIPLE COMPLETE		FRACTURE TREATMENT		ALTERING CASING	
SHOOT OR ACIDIZE		ABANDON*		SHOOTING OR ACIDIZING		ABANDONMENT*	
REPAIR WELL		CHANGE PLANS		(Other) Multiple Completion			x
(Other)				(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.) *

On 3-10-66, the well was perforated at the following Gamma Ray-Sonic Log intervals with 4-way single plane jets. The perforations were at 5325, 5333, 5388, 5397, 5412 and 5431. After setting a Howco Frac Liner over the previously completed zone, perfs 4794 and 4828, the above perforations were acidized with 500 gallons MCA at 6 BPM and 2200 psi. The well was then fraced down the casing in the following manner:

1. Broke down with 150 bbl. Ashley Crude with 1/10#/gal. adomite @ 40 BPM and 2600 psi.
2. Began sand at 1 lb/gal and after 5000 lbs. of 10-20 sand, four 1-1/4" perf balls were dropped. Frac fluid was Ashley crude with 1/10 lb/gal. adomite added.
3. A second group of four perf balls were dropped before the first set hit the perforations and the well pressured up. The frac was shut down to allow the balls to fall off the perfs and injections were continued until the next set of balls hit and the well pressured up. The balls were allowed to drop off and then injection resumed for the remaining 20,000 lb. of sand.
4. Flushed with 200 bbls. Ashley Crude.

(See attached sheet)

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

SIGNED N T Shirley TITLE Area Foreman DATE 8/11/66

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Average injection rate was 28 BPM at 3000 psi, Initial shut in pressure was 1600 psi, 5 min. 1400 psi and 15 min. 1300 psi.

Attempted to retrieve the Howco Frac Liner, but was unable to pull. Worked the liner down to a point where the top of the liner was at 4942 and bottom at 5007. This left the upper zone, perfs 4794 and 4828, and the bottom intervals open.

Production after recompletion from all zones was 126 BOPD, 49 BWPD and 129 MCFD. The well was shut in before recompletion due to an uneconomical producing rate.

ENERGY RESERVES GROUP, INC. ATTACHMENT IV

Form 9-331
(May 1963)

RECEIVED
BR. OF OIL & GAS OPERATIONS

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SEP 2

U.S. GEOLOGICAL SURVEY

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.)

1. OIL WELL: [X] GAS WELL: [ ] OTHER

2. NAME OF OPERATOR: Pan American Petroleum Corporation

3. ADDRESS OF OPERATOR: P. O. Box 1400, Riverton, Wyoming

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 743' FSL 564' FWL SW SW Sec. 10-T7S R23E

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Red Wash-Green River

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10-T7S-R23E

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): RDB 5290 G.L. 5278

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Multiple Completion			[X]
(Other)			[ ]	(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.) *

On 3-10-66, the well was perforated at the following Gamma Ray-Sonic Log intervals with 4-way single plane jets. The perforations were at 5325, 5333, 5388, 5397, 5412 and 5431. After setting a Howco Frac Liner over the previously completed zone, perfs 4794 and 4828, the above perforations were acidized with 500 gallons MCA at 6 BPM and 2200 psi. The well was then fraced down the casing in the following manner:

1. Broke down with 150 bbl. Ashley Crude with 1/10#/gal. adomite @ 40 BPM and 2600 psi.
2. Began sand at 1 lb/gal and after 5000 lbs. of 10-20 sand, four 1-1/4" perf balls were dropped. Frac fluid was Ashley crude with 1/10 lb/gal. adomite added.
3. A second group of four perf balls were dropped before the first set hit the perforations and the well pressured up. The frac was shut down to allow the balls to fall off the perfs and injections were continued until the next set of balls hit and the well pressured up. The balls were allowed to drop off and then injection resumed for the remaining 20,000 lb. of sand.
4. Flushed with 200 bbls. Ashley Crude.

(See attached sheet)

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

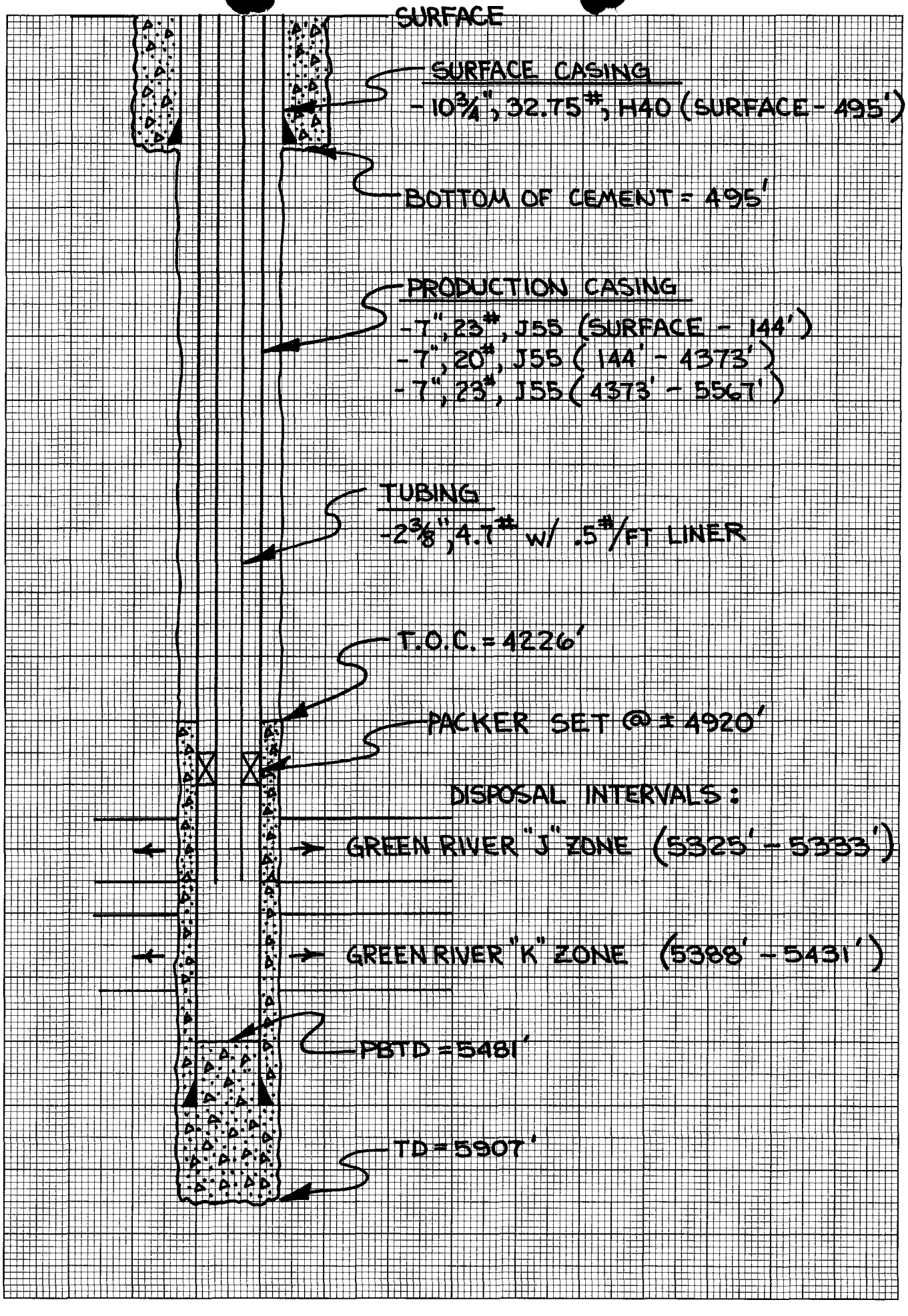
SIGNED: [signature] TITLE: Area Superintendent DATE: 9/6/66

(This space for Federal or State office use)

APPROVED BY: [signature] TITLE: ACTING DISTRICT ENGINEER DATE: SEP 8 1966

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side



46 1320
K+E 10 X 10 TO ½ INCH 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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.)

1. OIL WELL [ ] GAS WELL [X] OTHER Injection Well

2. NAME OF OPERATOR: Clinton Oil Company

3. ADDRESS OF OPERATOR: 217 North Water, Wichita, Kansas 67202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface
SW SW Sec 10-T7S-R23E
743 FSL & 564 FWL

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Redwash-Green River

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 10-T7S-R23E

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): RDB - 5290' GL-5287'

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF		PULL OR ALTER CASING		WATER SHUT-OFF		REPAIRING WELL	
FRACTURE TREAT		MULTIPLE COMPLETE		FRACTURE TREATMENT		ALTERING CASING	
SHOOT OR ACIDIZE	X	ABANDON*		SHOOTING OR ACIDIZING		ABANDONMENT*	
REPAIR WELL		CHANGE PLANS		(Other)			
(Other)				(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.) *

As per Sundry notice filed 12/9/71, well was converted to injection. Baker Mod "B" tandem tension packer now set at 4743' KB will be moved to approximately 4773'KB. The H_2 zone will be perforated from 4749-52' KB and produced thru the annulus as a gas source for lease fuel. Injection operations will continue down tubing as before into the same zones.

RECEIVED
BR. OF OIL & GAS OPERATIONS
DEC 20 1971
U. S. GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

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

SIGNED [signature] TITLE Dist. Prod. Engineer DATE 12/15/71

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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.)

1. OIL WELL [ ] GAS WELL [X] OTHER Injection

2. NAME OF OPERATOR: Clinton Oil Company

3. ADDRESS OF OPERATOR: 217 North Water St. Wichita, Kansas 67202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: SW SW SW Sec 10-T7S-R23E, 743' FSL & 564' FWL

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Redwash-Green River

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 10-T7S-R23E

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): RDB-5290'

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[X]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other)			[ ]				

(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.) *

The H-2 zone of the Green River Fm was perforated on 12/29/71 from 4748-52 KB w/3SPF. Lower zones injection string was run as follows: Baker Mod BE Bypass flow regulator set at 4879', Baker Mod A-2 Locset pkr at 4846', Baker Mod BE Bypass flow regulator at 4809', Baker Mod "B" tandem tension pkr at 4875', Blanking plug seating nipple at 4772', and Sliding sleave at 4839'. All depths refer to KB.

Attempted to swab down annulus through tubing and sliding sleave. Unable to dry up H-2 gas zone. Closed sliding sleave and pulled blanking plug. Resumed injection down tubing w/500 BWPD going to J6, J7, K1, K2, and K3 zones through regulator at 4879' and 500 BWPD to the H4 and H5 zones through regulator at 4809'.

H-2 zones is open to the annulus but temporarily abandoned. Fluid level measurements indicate no communication from the lower injection zones around pkr at 4875' or from behind the casing. Work completed 1/21/72.

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

SIGNED M. A. Stead TITLE District Prod. Engineer DATE 1/26/72

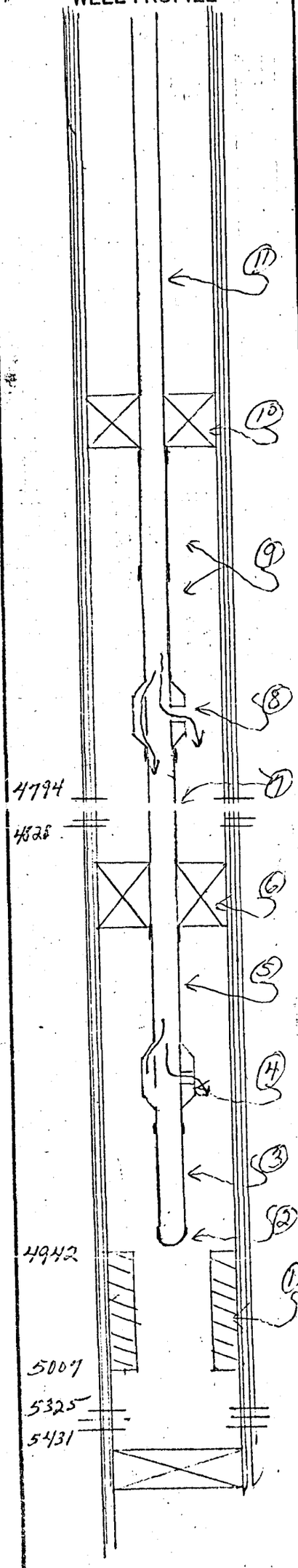
(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

WELL PROFILE



OPERATOR Clinton Oil

WELL # USA Pearl Broadhurst #6

FIELD Walker Hollow

COUNTY Uintah

STATE Utah

DATE 11-1-71

☐ NEW COMPLETION ☒ WORKOVER

	CASING	LINER	TUBING 1	TUBING 2	TUBING 3
SIZE	7"		2 7/8		
WEIGHT					
GRADE					
THREAD					
DEPTH					

ITEM NO.	EQUIPMENT AND SERVICES	ESTIMATE
1	Frac Liner	
2	2 7/8 EUSRd Collar and 2 7/8 EUSRd Ball Plug	29
3	2 7/8 Tbg 1 Joint	30.74
4	Baker 3 7/4" OD Model "BE" By Pass Flow Regulator 7/64 #600-30	2.85
5	2 7/8 Tbg 1 Joint	30.45
6	Baker Size 47B Model "A-3" Lok Set Retrievable Casing Packer #646-12	4.45
7	2 7/8 Tbg 1 Joint	31.50
8	Same as #4 7/64 orifice	2.85
9	2 7/8 Tbg 2 Joints	62.75
10	Baker Size 47B Model "B" Tandem Tension Packer W/ Unloader #603-21	3.36
11	2 7/8 Tbg 151 Joints	4731.45

COMMENTS:

12' KB

Top Packer @ 4743.45
Top Regulator @ 4807.56
Bottom Packer @ 4844.21
Bottom Regulator @ 4879.09
Tail Pipe @ 4913.47

Packers Set W/ 7K # Tension

TOTAL ESTIMATE

PREPARED BY	OFFICE	PHONE
H.F. Mayland	Vernal	789-0126

Worksheet No. 523

SAVE TIME AND MONEY WITH COMPLETIONS BY BAKER

BAKER OIL TOOLS, INC.

HOUSTON LOS ANGELES NEW YORK

PRINTED IN U.S.A.

WELL FLUIDS INITIAL ____ FINAL ____

Energy Reserves Group, Inc.
P.O. Box 1201, Zip 67201
217 North Water Street
Wichita, Kansas
Phone 316 265 7721

Energy Reserves Group

February 12, 1975

State of Utah
Division of Oil & Gas Conservation
1588 West North Temple
Salt Lake City, Utah 84116

Gentlemen:

Effective February 11, 1976, Clinton Oil Company will be known as Energy Reserves Group, Inc. Please change your records accordingly.

If you have any questions or if there are any requirements to fulfill with the state of Utah concerning the attached Oil and Gas Conservation Taxes, please advise.

Very truly yours,

E. M. Tatum

E. M. Tatum
Utah Revenue Accountant

Attachments

CL1-12A (REV. 1964)

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

WATER ANALYSIS REPORT

OPERATOR: Energy Reserves Group
WELL NO.: Pearl Broadhurst #1
FIELD: Walker Hollow
COUNTY:
STATE: Utah

DATE: Nov. 13, 79 LAB NO.: 32292-1
LOCATION:
FORMATION: Green River H, J & K zones
INTERVAL: 4770-5408
SAMPLE FROM: Separator (September 25, 1979)

REMARKS & CONCLUSIONS:

Cations	mg/1	meq/1	Anions	mg/1	meq/1
Sodium	4640	201.82	Sulfate	500	10.40
Potassium	25	0.64	Chloride	3350	94.47
Lithium	-	-	Carbonate	1248	41.56
Calcium	9	0.45	Bicarbonate	3514	57.63
Magnesium	14	1.15	Hydroxide	-	-
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		204.06	Total Anions		204.06

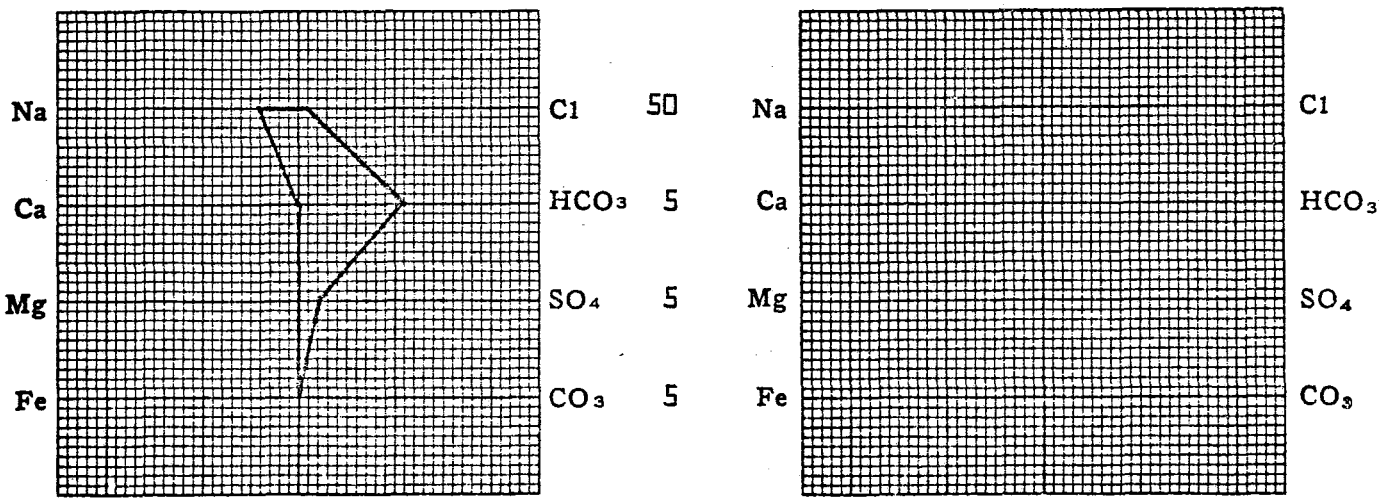
Total dissolved solids, mg/1: 11517
NaCl equivalent, mg/1: 10823
Observed pH: 9.5

Specific resistance @ 68°F.:
Observed: 0.74 ohm-meters
Calculated: 0.65 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/1=Milligrams per liter Meq/1= Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

mg = (ppm)(SG)

CL1-12A (REV. 1964)

attachment #2

RECEIVED

JUL 22 1980

RMD CASPER

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

Notebook →

WATER ANALYSIS REPORT

OPERATOR	Energy Reserves Group	DATE	7-9-80 LAB NO. 34701-1
WELL NO.	#6 Broadhurst	LOCATION	Section 9-75-23E
FIELD	Walker Hollow	FORMATION	
COUNTY	Uintah	INTERVAL	4964-5005 - I zone
STATE	Utah	SAMPLE FROM	DST #1 (Sample Chamber)

REMARKS & CONCLUSIONS:

Cations	mg/1	meq/1	Anions	mg/1	meq/1
Sodium	2462	107.08	Sulfate	12	0.25
Potassium	18	0.46	Chloride	1720	48.50
Lithium	-	-	Carbonate	-	-
Calcium	23	1.15	Bicarbonate	3660	60.02
Magnesium	1	0.08	Hydroxide	-	-
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		108.77	Total Anions		108.77

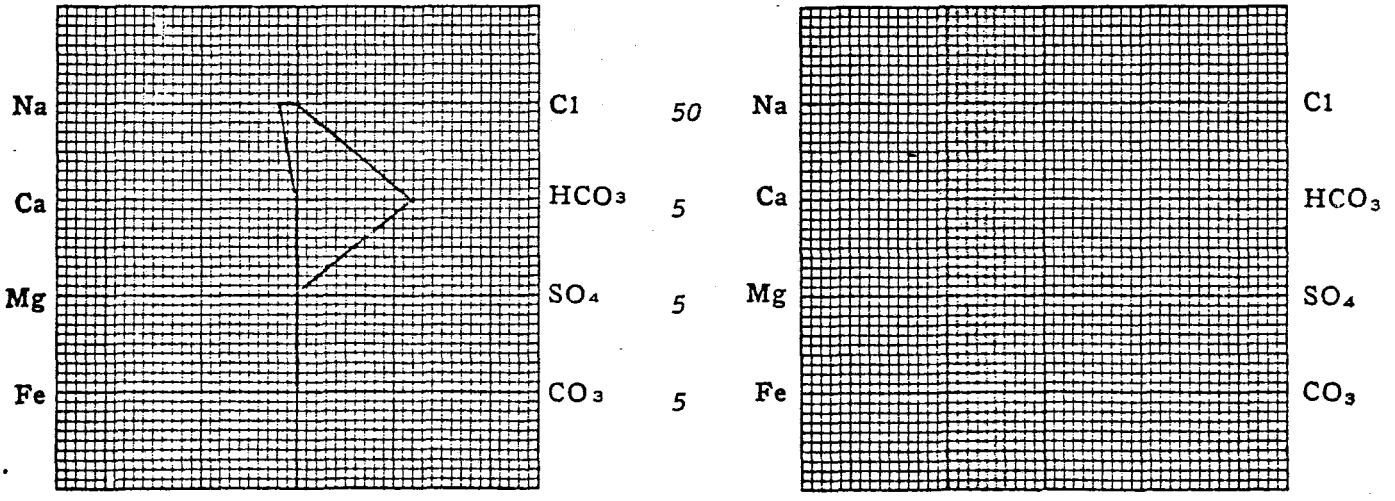
Total dissolved solids, mg/1	6039
NaCl equivalent, mg/1	5218
Observed pH	7.8

Specific resistance @ 68°F.:
Observed 1.15 ohm-meters
Calculated 1.25 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/1=Milligrams per liter Meq/1= Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

A DIVISION OF WPC, INC. WTR ANALYSIS NOTEBOOK

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307/266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO. . . 4051

DATE RUN: 10/2/80

A SAMPLE OF: WATER FROM ENERGY RESERVES GROUP
SAMPLE FROM: BROADHURST #4 WALKER HOLLOW UINTAH CO. UTAH Green River J & K zn produced wtr
AT: Pit ..... SECURED BY: .....
SAMPLING CONDITIONS: ..... PRESS: ..... TEMP: ..... TIME: ..... DATE: .....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	3415.4	148.57
POTASSIUM-K	76	1.95
CALCIUM-CA	11.31	.56
MAGNESIUM-MG	2.94	.24
BARIUM-BA	0	0
TOTAL CATIONS	3505.65	151.32

ANIONS

CHLORIDE-CL	2600	73.32
SULFATE-SO4	480	9.98
CARBONATE-CO3	204	6.79
BICARBONATE-HCO3	3733.2	61.22
TOTAL ANIONS	7017.2	151.32

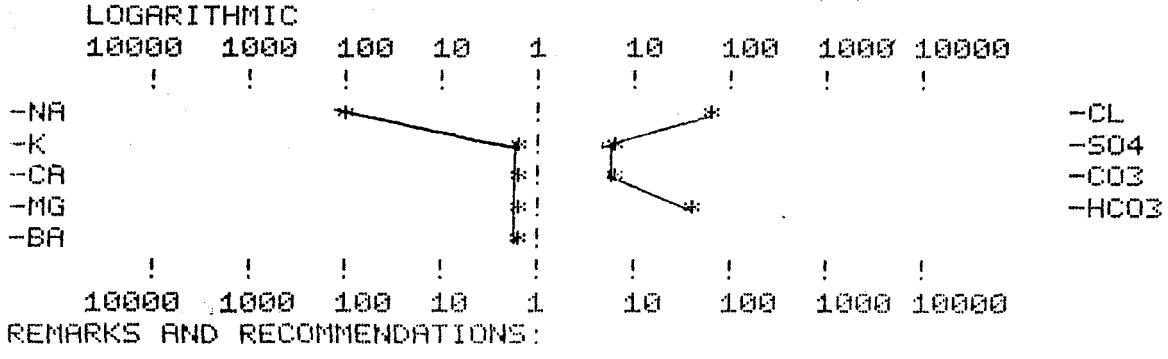
TOTAL DISSOLVED SOLIDS(CALC.) 10522.85

OTHER PROPERTIES

PH 8.3
RESISTIVITY(OHM-METERS), 77 F .8

IRON-FE (TOTAL) 0
SULFIDE AS H2S 0

WATER PATTERNS--ME/L



REMARKS AND RECOMMENDATIONS:

Oil & Grease 5.3 mg/l

COPIES TO:

ANALYSIS BY: C. J. Lyn

DIVISION OF WPC, INC.
PETROLEUM ANALYTICAL LABORATORY SERVICE
P. O. BOX 2652 * 24 HOUR PHONE 307/266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO. . . 4306

DATE RUN: 11/19/80

A SAMPLE OF: WATER FROM ENERGY RESERVES GROUP
SAMPLE FROM: BROADHURST #6 WALKER HOLLOW UINTAH UTAH Green River J & K zn produced wtr
AT: Pit SECURED BY:
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME:..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	2264.24	98.49
POTASSIUM-K	16	.41
CALCIUM-CA	2.42	.12
MAGNESIUM-MG	.49	.04
BARIUM-BA	0	0
TOTAL CATIONS	2283.16	99.07

ANIONS		
CHLORIDE-CL	1300	36.66
SULFATE-SO4	0	0
CARBONATE-CO3	420	13.99
BICARBONATE-HCO3	2952.4	48.42
TOTAL ANIONS	4672.4	99.07

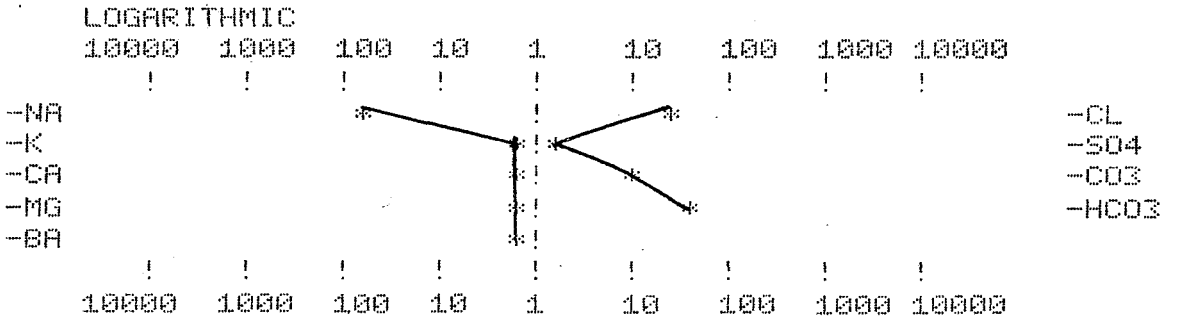
TOTAL DISSOLVED SOLIDS(CALC.) 6955.56

OTHER PROPERTIES

PH 9
RESISTIVITY(OHM-METERS), 77 F 1.5

IRON-FE (TOTAL) 0
SULFIDE AS H2S PRESENT

WATER PATTERNS--ME/L



REMARKS AND RECOMMENDATIONS:

COPIES TO:

ANALYSIS BY: Gene Hauch

MD GL

PETROLEUM ANALYTICAL LABORATORY SERVICE

P. O. BOX 2652 * 24 HOUR PHONE 307/266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO. . . 4307

DATE RUN: 11/19/80

A SAMPLE OF: WATER FROM ENERGY RESERVES GROUP
SAMPLE FROM: BROADHURST #8 WALKER HOLLOW UINTAH UTAH Green River J & K produced wtr
AT: Treater ..... SECURED BY: .....
SAMPLING CONDITIONS: ..... PRESS: ..... TEMP: ..... TIME: ..... DATE: .....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	4571	198.84
POTASSIUM-K	139	3.56
CALCIUM-CA	42.02	2.1
MAGNESIUM-MG	9.8	.81
BARIUM-BA	0	0
TOTAL CATIONS	4761.82	205.3

ANIONS

CHLORIDE-CL	5150	145.23
SULFATE-SO4	570	11.86
CARBONATE-CO3	132	4.4
BICARBONATE-HCO3	2671.8	43.82
TOTAL ANIONS	8523.8	205.3

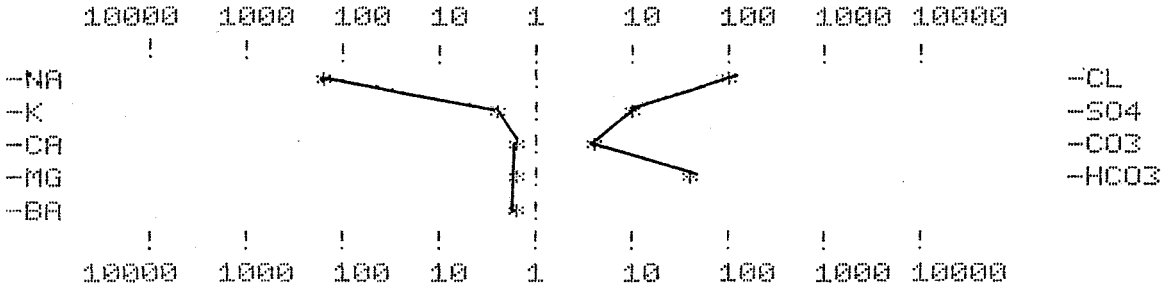
TOTAL DISSOLVED SOLIDS(CALC.) 13285.62

OTHER PROPERTIES

PH 8.3
RESISTIVITY(OHM-METERS), 77 F .64

IRON-FE (TOTAL) 0
SULFIDE AS H2S 0

WATER PATTERNS--ME/L
LOGARITHMIC



REMARKS AND RECOMMENDATIONS:

COPIES TO:

ANALYSIS BY: Gene Hauck

MD GL

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

January 6, 1981

U.S. Environmental Protection
Agency
Attn: Mike Kuntz, Attorney
Region VIII
1860 Lincoln Street
Denver, CO 80295

Re: Class II Underground
Injection Applications
Energy Reserves Group, Inc.
SW SW Sec. 10, T. 7S, R. 23E
Uintah County, Utah
&
American Quasar Petroleum Co.
SW NW Sec. 34, T. 2N, R. 6E
Summit County, Utah

Dear Mike,

Please find enclosed for your review and comments, the above applications for a Class II well determination.

As these applications must be noticed and published in accordance with Rule I-5(b)(6), please contact this Division and/or submit all comments within fifteen days of the date of receipt, or the applications will continue to be processed without your comments.

Your prompt attention in reviewing these applications will be greatly appreciated and if you have any questions or require further information, please do not hesitate to call or write the Division.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

Thalia R. Pratt

THALIA R. PRATT
UIC SPECIALIST

Enclosures: (2)

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

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ENERGY RESERVES GROUP, INC.

Application for Approval of Class II Injection Wells

for

U.S.A. Pearl Broadhurst #5

SW SW Section 10-T7S-R23E

Uintah County, Utah

ENERGY RESERVES GROUP, IN
U.S.A. Pearl Broadhurst #5
Section 10-T7S-R23E

The following report is intended to be used for, and to meet the requirements of, the Application for Approval of Class II Injection Wells as required by the Division of Oil, Gas & Mining in the State of Utah. This report contains the required attachments as required under paragraph (2) of (E.) entitled "Application for Approval of Class II Injections Wells.

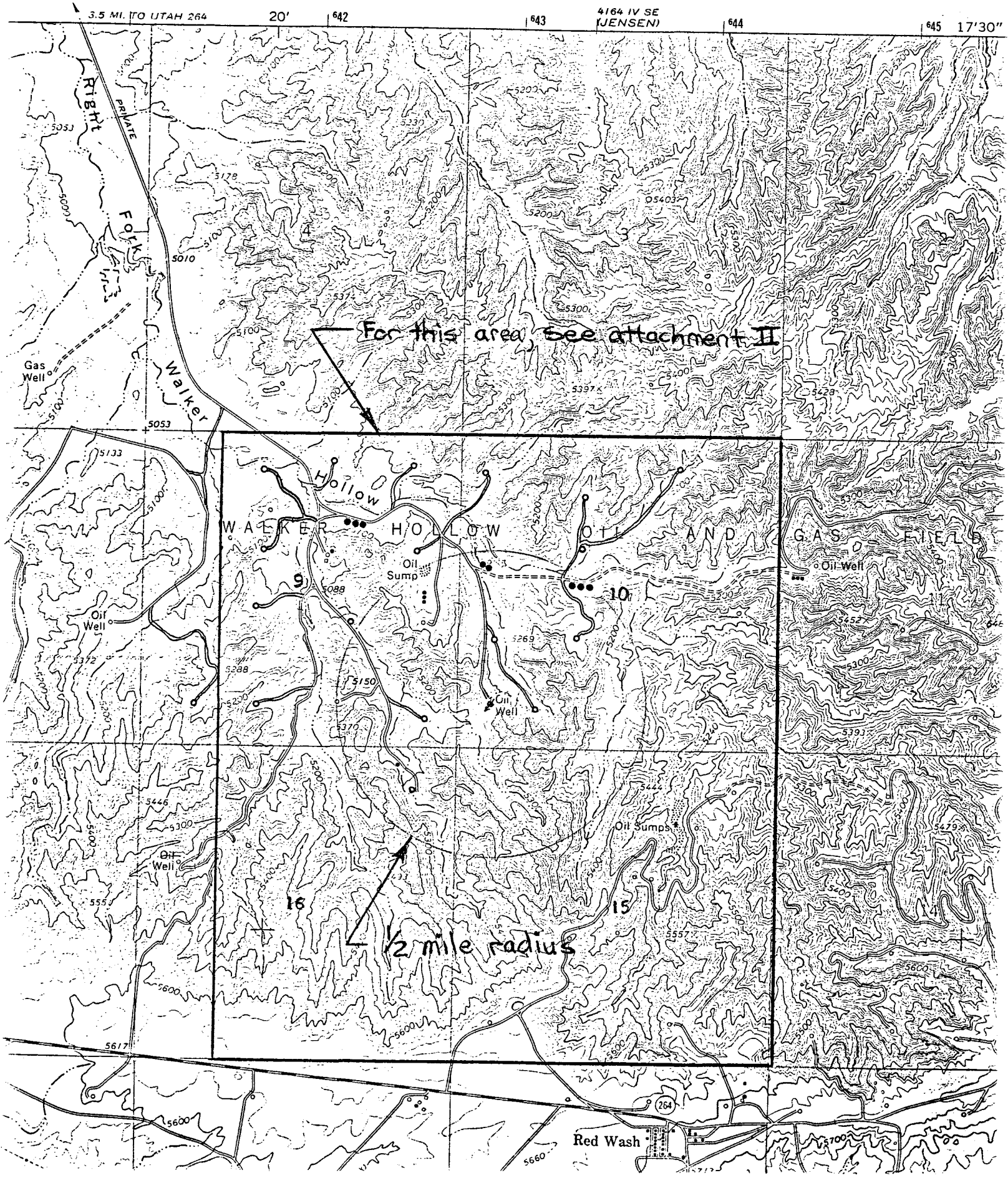
(a) A plat showing the location and total depth of U.S.A. Pearl Broadhurst #5 and all other wells within 1/2 mile of the Class II Injection Well is provided on Attachments I & II. The Federal Government is the surface land owner.

(b) U.S.A. Pearl Broadhurst #5 was drilled in 1964. A copy of the original Completion Report as well as a Sundry Notice containing subsequent completion information is provided on Attachments III & IV. Electric logs should already be on file with the Division of Oil, Gas & Mining in the State of Utah.

(c) A schematic diagram of U.S.A. Pearl Broadhurst #5 is provided on Attachment V. It provides the following data: total depth, plugged back depth, depth and geological name of the disposal intervals, depths of casing and cement, sizes of casing and tubing, and depth of the packer.

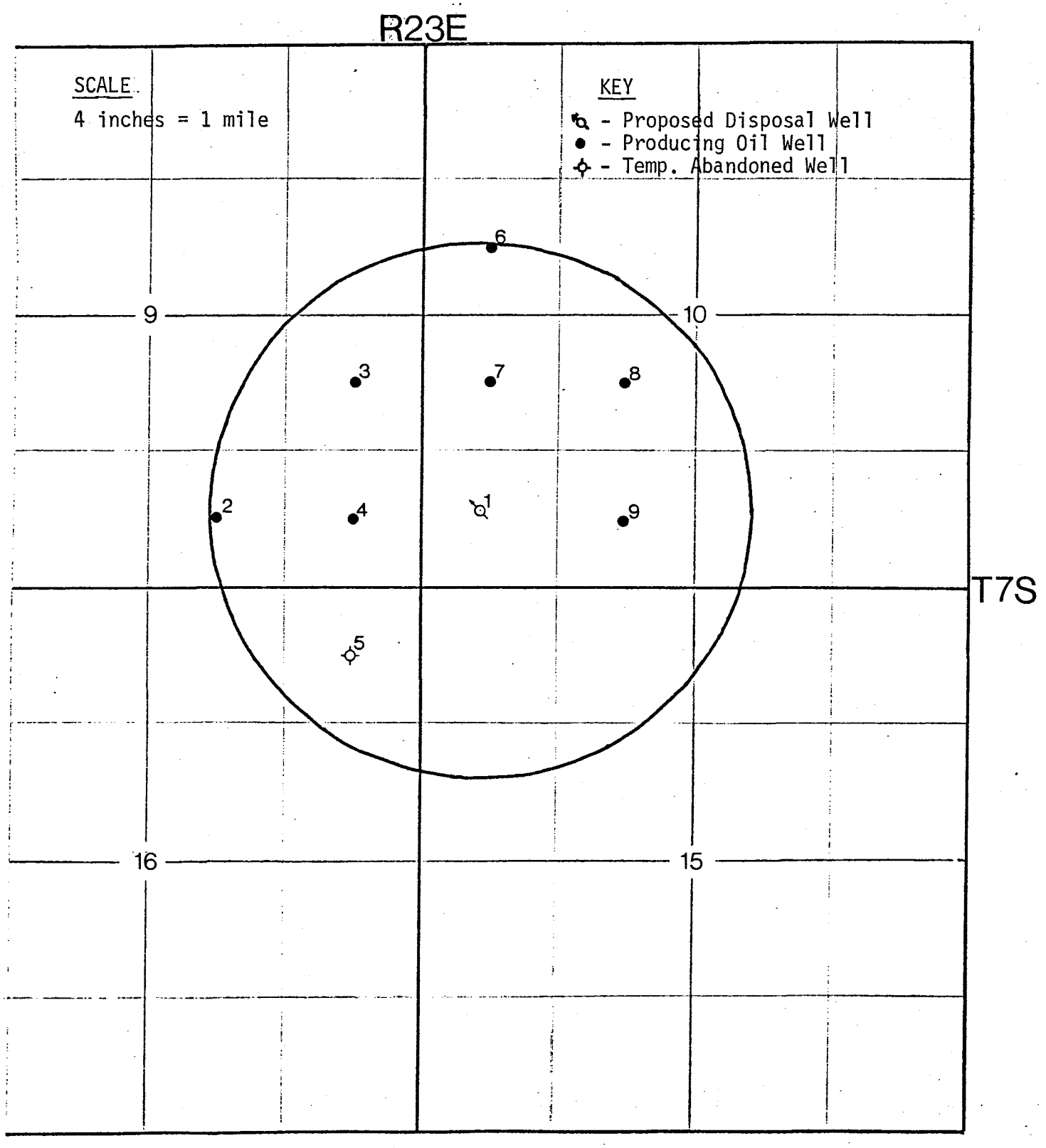
(d) Injection rates will be less than 1000 barrels per day. There are no known underground sources of drinking water overlying the proposed disposal intervals. The injection pressure will be lower than fracture pressure for the Green River formation in that area.

(e) The daily injection rates should be around 500 barrels of water, and around 2000 psi injection pressure. The injection fluid is produced water from the Green River formation "H, J & K" zones, and depths ranging from 4,700'-5,300'. A representative sample of water to be injected is provided on Attachment VI. No known water aquifers are in the area.


3.5 MI. TO UTAH 264
20'
642
643
4164 IV SE
(JENSEN)
644
645
17'30"
Right
Fork
Walker
PRIVATE
Gas Well
For this area, See attachment II
Hollow
WALKER HOLLOW OIL AND GAS FIELD
Oil Sump
Oil Well
Oil Sumps
9
10
15
16
1/2 mile radius
Red Wash
264

ENERGY RESERVES GROUP, I[redacted] [redacted] ATTACHMENT II

1. USA Pearl Broadhurst # 5--SW/SW Sec. 10 -- TD = 5,907'
2. USA Pearl Broadhurst # 4--SW/SE Sec. 9 -- TD = 5,900'
3. USA Pearl Broadhurst # 1--NE/SE Sec. 9 -- TD = 5,902'
4. USA Pearl Broadhurst #15--SE/SE Sec. 9 -- TD = 5,517'
5. Chevron --NE/NE Sec. 16 -- TD = (NA)
6. USA Pearl Broadhurst # 2--SW/NW Sec. 10 -- TD = 5,800'
7. USA Pearl Broadhurst #16--NW/SW Sec. 10 -- TD = 5,487'
8. USA Pearl Broadhurst # 8--NE/SW Sec. 10 -- TD = 5,500'
9. USA Pearl Broadhurst #22--SE/SW Sec. 10 -- TD = 5,650'



CL1-12A (REV. 1964)

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

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WATER ANALYSIS REPORT

OPERATOR Energy Reserves Group, Inc.
WELL NO. Broadhurst No. 6
FIELD Walker Hollow
COUNTY Uintah
STATE Utah

DATE January 13, 1981 LAB NO. 36315-1
LOCATION
FORMATION Green River J & K zns
INTERVAL @ 5275-5384
SAMPLE FROM Treater (1-2-81)

REMARKS & CONCLUSIONS: Oil and grease, mg/l (Freon Method) -------- 33.9

Cations	mg/l	meq/1	Anions	mg/l	meq/1
Sodium	3423	148.91	Sulfate	416	8.65
Potassium	21	0.54	Chloride	2850	80.37
Lithium	-	-	Carbonate	192	6.39
Calcium	10	0.50	Bicarbonate	3341	54.79
Magnesium	3	0.25	Hydroxide	-	-
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		150.20	Total Anions		150.20

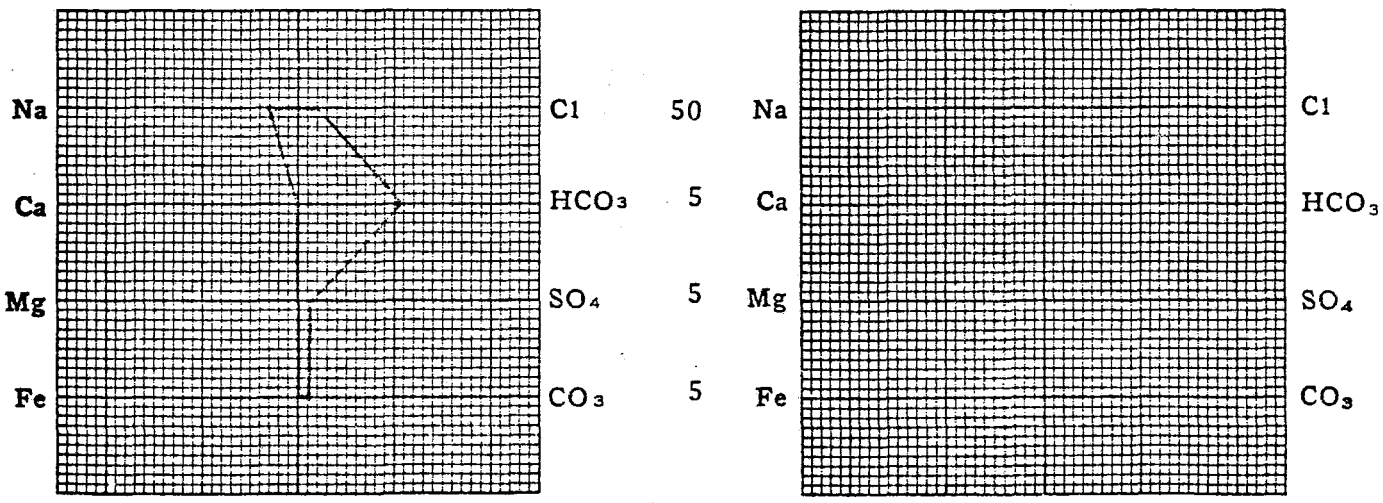
Total dissolved solids, mg/1 - - - - - - 8558
NaCl equivalent, mg/1 - - - - - - - - 7751
Observed pH - - - - - - - - - - - - 8.4

Specific resistance @ 68°F.:
Observed - - - - 0.91 ohm-meters
Calculated - - - - 0.85 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/1=Milligrams per liter Meq/1= Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

CL1-12A (REV. 1964)

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

JAN 19 1981
RMD CASPER

WATER ANALYSIS REPORT

OPERATOR Energy Reserves Group, Inc.
WELL NO. Broadhurst No. 6
FIELD Walker Hollow
COUNTY Uintah
STATE Utah

DATE January 13, 1981 LAB NO. 36315-2
LOCATION
FORMATION Green River J & K zns
INTERVAL 5275-5384
SAMPLE FROM Pit (1-2-81)

REMARKS & CONCLUSIONS: Oil and grease, mg/l (Freon Method) ---------- 10.4

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	3454	150.25	Sulfate	426	8.86
Potassium	29	0.74	Chloride	2850	80.37
Lithium	-	-	Carbonate	168	5.59
Calcium	14	0.70	Bicarbonate	3488	57.20
Magnesium	4	0.33	Hydroxide	-	-
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		152.02	Total Anions		152.02

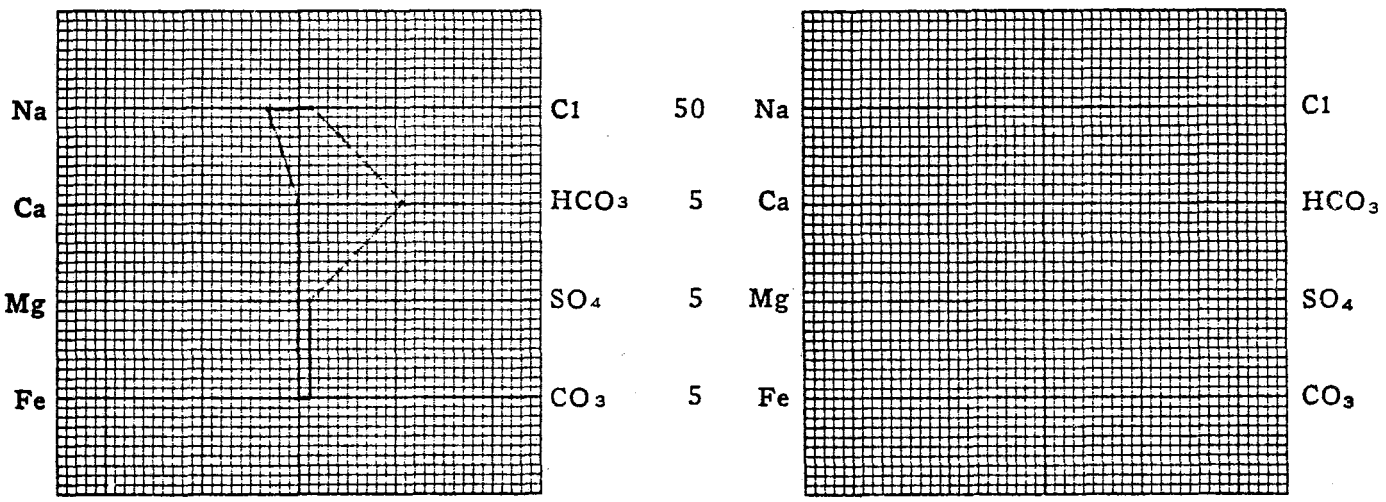
Total dissolved solids, mg/l ---------- 8660
NaCl equivalent, mg/l ---------- 7811
Observed pH ---------- 8.4

Specific resistance @ 68°F.:
Observed ---------- 0.89 ohm-meters
Calculated ---------- 0.84 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/l=Milligrams per liter Meq/l= Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

CL1-12A (REV. 1964)

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

RMD CASPER

WATER ANALYSIS REPORT

OPERATOR: Energy Reserves Group, Inc.
WELL NO.: Broadhurst #6
FIELD: Walker Hollow
COUNTY: Uintah
STATE: Utah

DATE: 2-3-81 LAB NO.: 36427-3
LOCATION:
FORMATION: Green River J & K zns
INTERVAL: 5275-5384
SAMPLE FROM: Pit (1-8-81)

REMARKS & CONCLUSIONS:
Oil and grease, mg/l (Freon Method) ---------- 11.9

Cations	mg/1	meq/1	Anions	mg/1	meq/1
Sodium	3568	155.21	Sulfate	526	10.94
Potassium	23	0.59	Chloride	2500	70.50
Lithium	-	-	Carbonate	456	15.18
Calcium	10	0.50	Bicarbonate	3659	60.01
Magnesium	4	0.33	Hydroxide	-	-
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		156.63	Total Anions		156.63

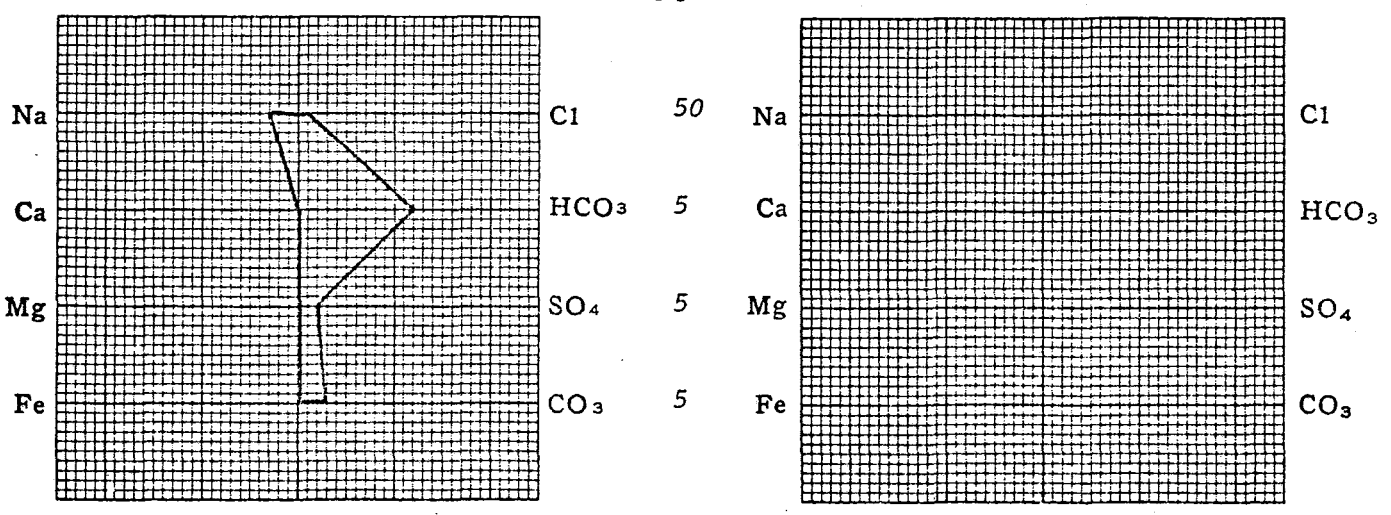
Total dissolved solids, mg/1 - - - - - 8886
NaCl equivalent, mg/1 - - - - - - - - 8047
Observed pH - - - - - - - - - - - - 8.6

Specific resistance @ 68°F.:
Observed - - - - 0.88 ohm-meters
Calculated - - - - 0.82 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/1=Milligrams per liter Meq/1= Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

DIVISION OF WPC, INC.
PETROLEUM ANALYTICAL LABORATORY SERVICE
P. O. BOX 2652 * 24 HOUR PHONE 307/266-1616
CASPER, WYOMING 82602

AIR MONITORING
COMPLETE GAS SERVICE
CONSULTING CHEMISTS
POLLUTION CONTROL
WATER ANALYSIS

SAMPLE NO. . . 5081

DATE RUN: 3/13/81

Green River J & K zn
Produced wtr

A SAMPLE OF: WATER FROM ENERGY RESERVES GROUP 2/27/81
SAMPLE FROM: WALKER HOLLOW FIELD PEARL BROADHURST #6 BATT. PROD WATER FROM TREATEI
AT:..... SECURED BY:.....
SAMPLING CONDITIONS:..... PRESS:..... TEMP:..... TIME:..... DATE:.....

WATER ANALYSIS

DISSOLVED SOLIDS

CATIONS	MG/L	ME/L
SODIUM-NA	4129.47	179.63
POTASSIUM-K	678	17.36
CALCIUM-CA	2.96	.15
MAGNESIUM-MG	4.2	.35
BARIUM-BA	0	0
TOTAL CATIONS	4814.64	197.48

ANIONS		
CHLORIDE-CL	4700	132.54
SULFATE-SO4	700	14.56
CARBONATE-CO3	816	27.17
BICARBONATE-HCO3	1415.2	23.21
TOTAL ANIONS	7631.2	197.48

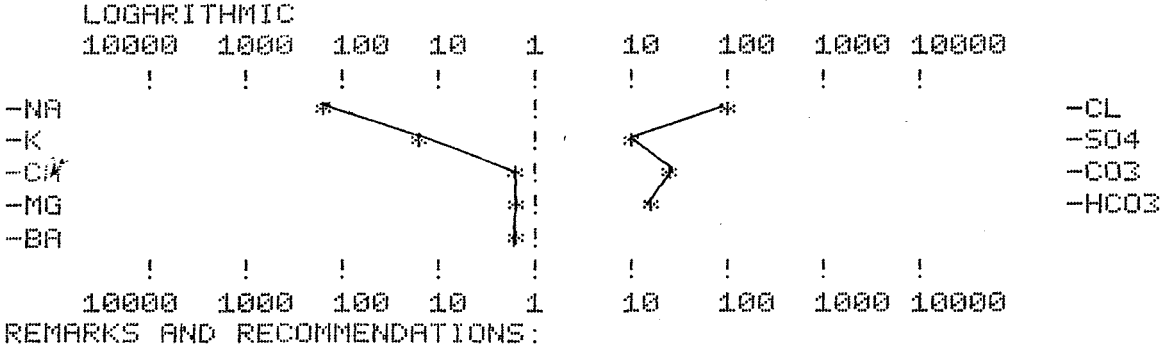
TOTAL DISSOLVED SOLIDS(CALC.) 12445.84

OTHER PROPERTIES

PH 8.9
RESISTIVITY(OHM-METERS), 77 F .72

IRON-FE (TOTAL) 0
SULFIDE AS H2S 0

WATER PATTERNS--ME/L



REMARKS AND RECOMMENDATIONS:

COPIES TO:

ANALYSIS BY: Dave Hamb

MD GL

CL1-12A (REV. 1964)

Attachment #3

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

WATER ANALYSIS REPORT

OPERATOR Energy Reserves Group, Inc. DATE 4-20-81 LAB NO. 37250
WELL NO. #14 Broadhurst LOCATION SENE 9-7S-23E
FIELD FORMATION
COUNTY Uintah INTERVAL 3450' Upper Green River
STATE Utah SAMPLE FROM DST #1 MFE (3-29-81)

REMARKS & CONCLUSIONS:

Cations	mg/1	meq/1	Anions	mg/1	meq/1
Sodium	2763	120.20	Sulfate	480	9.98
Potassium	9	0.23	Chloride	645	18.19
Lithium	-	-	Carbonate	1225	40.79
Calcium	4	0.20	Bicarbonate	3171	52.00
Magnesium	4	0.33	Hydroxide	-	-
Iron	-	-	Hydrogen sulfide	-	-
Total Cations		120.96	Total Anions		120.96

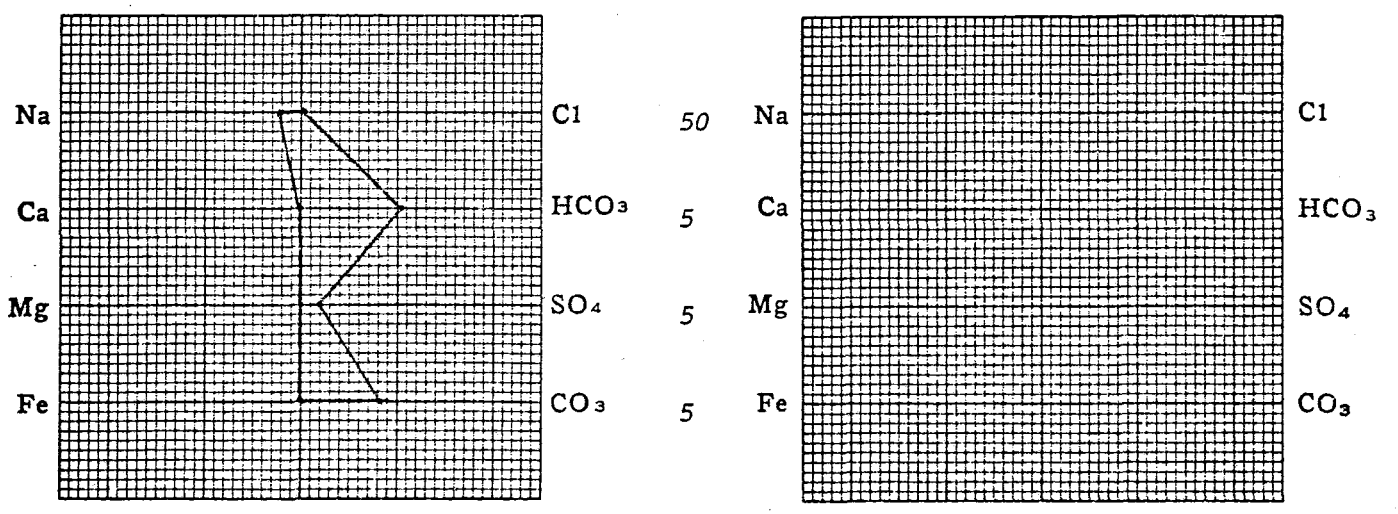
Total dissolved solids, mg/1 6689
NaCl equivalent, mg/1 6173
Observed pH 9.4

Specific resistance @ 68°F.:
Observed 1.22 ohm-meters
Calculated 1.10 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/1=Milligrams per liter Meq/1= Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

CL1-12A (REV. 1964)

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

RECEIVED APR 24 1981 RMD CASPER

WATER ANALYSIS REPORT

OPERATOR Energy Reserves Group
WELL NO. #12 Broadhurst
FIELD Walker Hollow
COUNTY Uintah
STATE Utah

DATE 4-21-81 LAB NO. 37252-3
LOCATION Section 9-7S-23E
FORMATION Green River
INTERVAL
SAMPLE FROM "J" Zone Swab (4-6-81)

REMARKS & CONCLUSIONS:

Cations	mg/1	meq/1	Anions	mg/1	meq/1
Sodium	2834	123.28	Sulfate	155	3.22
Potassium	98	2.51	Chloride	2625	74.03
Lithium	-	-	Carbonate	408	13.59
Calcium	8	0.40	Bicarbonate	2171	35.60
Magnesium	3	0.25	Hydroxide	-	-
Iron	present		Hydrogen sulfide	-	-
Total Cations		126.44	Total Anions		126.44

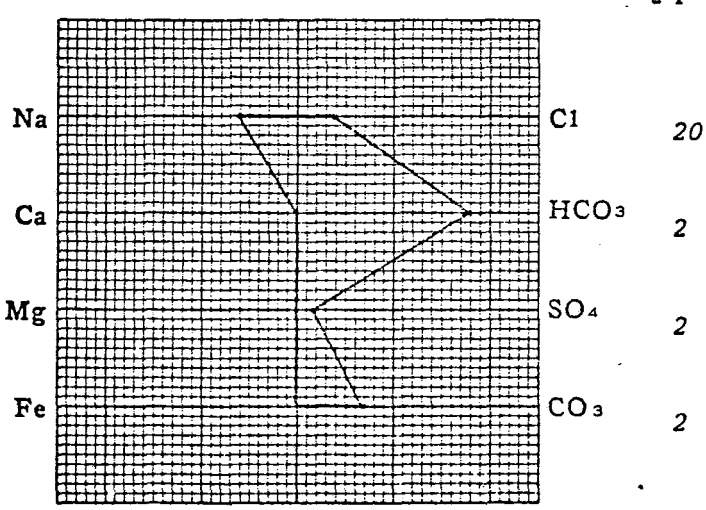
Total dissolved solids, mg/1 - 7199
NaCl equivalent, mg/1 - 6769
Observed pH - 8.7

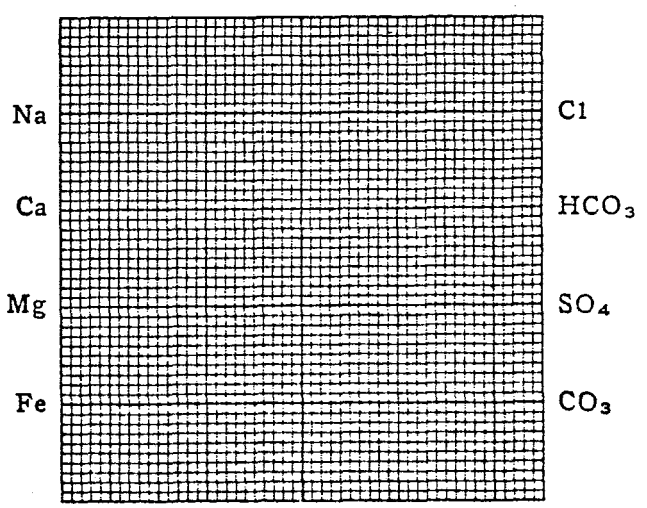
Specific resistance @ 68°F.:
Observed - 1.00 ohm-meters
Calculated - 0.98 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit





(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/1=Milligrams per liter Meq/1= Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

CL1-12A (REV. 1964)

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

RECEIVED
APR 4 1981
RMD CASPER

WATER ANALYSIS REPORT

OPERATOR *Energy Reserves Group* DATE *4-21-81* LAB NO. *37252-2*
WELL NO. *#10 Broadhurst* LOCATION *Section 9-7S-23E*
FIELD *Walker Hollow* FORMATION *Green River*
COUNTY *Uintah* INTERVAL
STATE *Utah* SAMPLE FROM *"K" Zone Swab*

REMARKS & CONCLUSIONS:

Cations	mg/1	meq/1	Anions	mg/1	meq/1
Sodium	2708	117.79	Sulfate	131	2.72
Potassium	68	1.74	Chloride	2600	73.32
Lithium	-	-	Carbonate	432	14.39
Calcium	5	0.25	Bicarbonate	1805	29.60
Magnesium	3	0.25	Hydroxide	-	-
Iron	present		Hydrogen sulfide	-	-
Total Cations		120.03	Total Anions		120.03

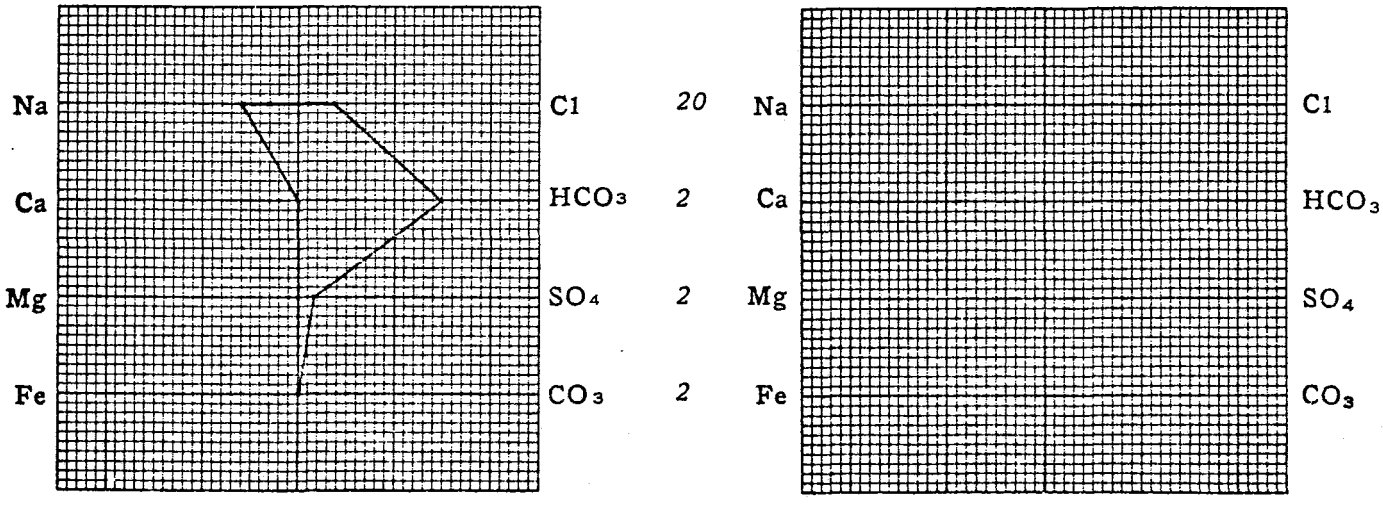
Total dissolved solids, mg/1 - - - - - 6835
NaCl equivalent, mg/1 - - - - - - - 6504
Observed pH - - - - - - - - - - - 8.6

Specific resistance @ 68°F.:
Observed - - - - 1.04 ohm-meters
Calculated - - - - 1.02 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/1=Milligrams per liter Meq/1= Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

ENERGY RESERVES GROUP
USA PEARL BROADHURST #5
SECTION 10-T7S-R23E

The following report is intended to meet the requirements of Rule I-5 Application for Approval of Class II Injection Wells, as required by the Board of Oil, Gas & Mining in the State of Utah.

(1) The application form DOGM-UIC-1 is attached with 6 copies and one complete set of attachments.

(b) The application is accompanied by the following attachments:

(1) A plat showing the location and total depth of USA Pearl Broadhurst #5 and all other wells within 1/2 mile of the Class II Injection Well is provided on Attachments I & II. The Federal Government is the surface land owner.

(2) A copy of the notice of completion form DOGM-UIC-2 is provided as Attachment III. A cement bond log is provided as Attachment IV and all other electric logs should be on file with the Division of Oil, Gas & Mining in the State of Utah.

(3) A schematic diagram of USA Pearl Broadhurst #5 is provided on Attachment V.

I. Total depth and plugged back total depth.
II. The depth of the disposal interval.
III. The geological name of the disposal interval.
IV. The depths of the casing and cement.
V. The sizes of the casing and tubing, and the depth of the packer.
VI. An analysis of the cement bond log (Attachment IV) shows good bonding from ± 4,230' to PBTD.
VII. The well was not directionally drilled and deviation surveys were not available. Therefore the bottom hole location can be assumed to be the same as the surface location (743' FSL & 564' FWL Sec. 10-T7S-R23E)

(4) It is not anticipated that injection rates and/or pressure would initiate fractures which could enable injection fluid to enter a USDW.

-Maximum injection rate will be approximately 500 bbls of water per day.
-Maximum surface injection pressure will be approximately 1000 psi.
-Injection fluid is produced water from the Green River Formation "H,J,K" zones.
-Lithology of the injection zone is the Green River Sandstone.
-Fracture gradient values for the Green River Formation range from .625 to .7 psi/ft of depth.
-The maximum allowable surface pressures (before fracturing the formation) can be calculated as follows:

$P_s = BHTP - P_h + P_f + P_{pf}$

P_s=Surface treating pressure

BHTP=Bottom hole treating pressure

P_h=Hydrostatic head pressure

P_f=Pipe friction pressure (negligible with low pumping rates)

P_{pf}=Perforation friction pressure (negligible with low pumping rates)

If fracture gradient=.625 psi/ft,

$P_s = (.625)\ (5378) - (.433)\ (5378) = \underline{\underline{1033\ psi}}$

If a fracture gradient of .7 psi/ft is used, a similar calculation results in a surface pressure of 1436 psi needed to fracture the formation. The anticipated maximum surface pressure for USA Pearl Broadhurst #5 is 1000 psi which is less than both calculated surface fracture pressures.

(5) The proposed operating data is as follows:

I. Design injection rate - 500 barrels per day
Design injection pressure - 1000 psi max.

II. Injection fluid source - USA Pearl Broadhurst lease, Green River Formation "H,J,K" zones, 4,700' to 5,300'.

III. Water Analysis - (see Attachment VI)

IV. Injection Zone - Green River Formation "J & K" zones

V. No known USDW within 1/2 mile radius

VI. See Attachment VI - As per Rule I-5 (c), the injection water is not reasonably expected, in the foreseeable future, to serve as a source of drinking water because of its chloride concentration and its total dissolved solids.

PWagner

Phil Wagner
Production Engineer
Rocky Mountain District

PW:erl

ENERGY RESERVES GROUP, INC.
CL1-12A (REV. 1964)

ATTACHMENT VI

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

RECEIVED APR 24 1981 RMD CASPER

WATER ANALYSIS REPORT

OPERATOR Energy Reserves Group
WELL NO. #10 Broadhurst
FIELD Walker Hollow
COUNTY Uintah
STATE Utah

DATE 4-21-81 LAB NO. 37252-1
LOCATION Section 9-7S-23E
FORMATION Green River
INTERVAL
SAMPLE FROM "J" Zone Swab

REMARKS & CONCLUSIONS:

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	2404	104.58	Sulfate	132	2.75
Potassium	27	0.69	Chloride	2220	62.60
Lithium	-	-	Carbonate	192	6.39
Calcium	10	0.50	Bicarbonate	2085	34.19
Magnesium	2	0.16	Hydroxide	-	-
Iron	present		Hydrogen sulfide	-	-
Total Cations		105.93	Total Anions		105.93

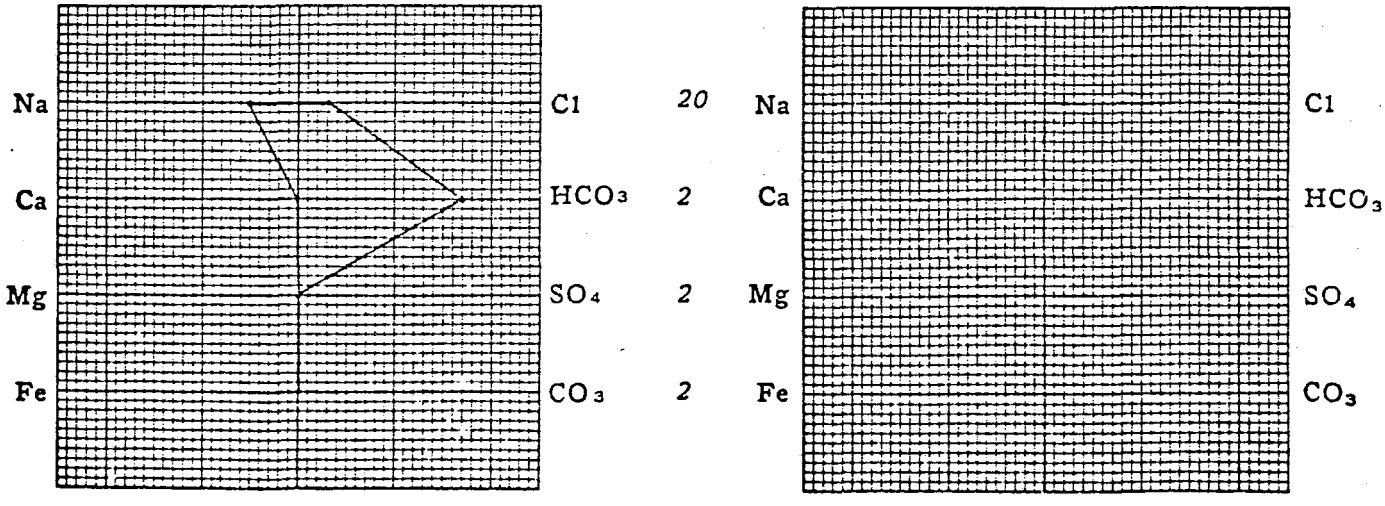
Total dissolved solids, mg/l 6013
NaCl equivalent, mg/l 5561
Observed pH 8.4

Specific resistance @ 68°F.:
Observed 1.20 ohm-meters
Calculated 1.20 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/l = Milligrams per liter Meq/l = Milligram equivalents per liter
Sodium chloride equivalent = by Dunlap & Hawthorne calculation from components

ENERGY RESERVES GROUP, INC.
CL1-12A (REV. 1964)

ATTACHMENT VI

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

RECEIVED APR 24 1981 RMD CASPER

WATER ANALYSIS REPORT

OPERATOR: Energy Reserves Group
WELL NO.: #10 Broadhurst
FIELD: Walker Hollow
COUNTY: Uintah
STATE: Utah

DATE: 4-21-81 LAB NO. 37252-1
LOCATION: Section 9-7S-23E
FORMATION: Green River
INTERVAL:
SAMPLE FROM: "J" Zone Swab

REMARKS & CONCLUSIONS:

Cations	mg/1	meq/1	Anions	mg/1	meq/1
Sodium	2404	104.58	Sulfate	132	2.75
Potassium	27	0.69	Chloride	2220	62.60
Lithium	-	-	Carbonate	192	6.39
Calcium	10	0.50	Bicarbonate	2085	34.19
Magnesium	2	0.16	Hydroxide	-	-
Iron	present		Hydrogen sulfide	-	-
Total Cations		105.93	Total Anions		105.93

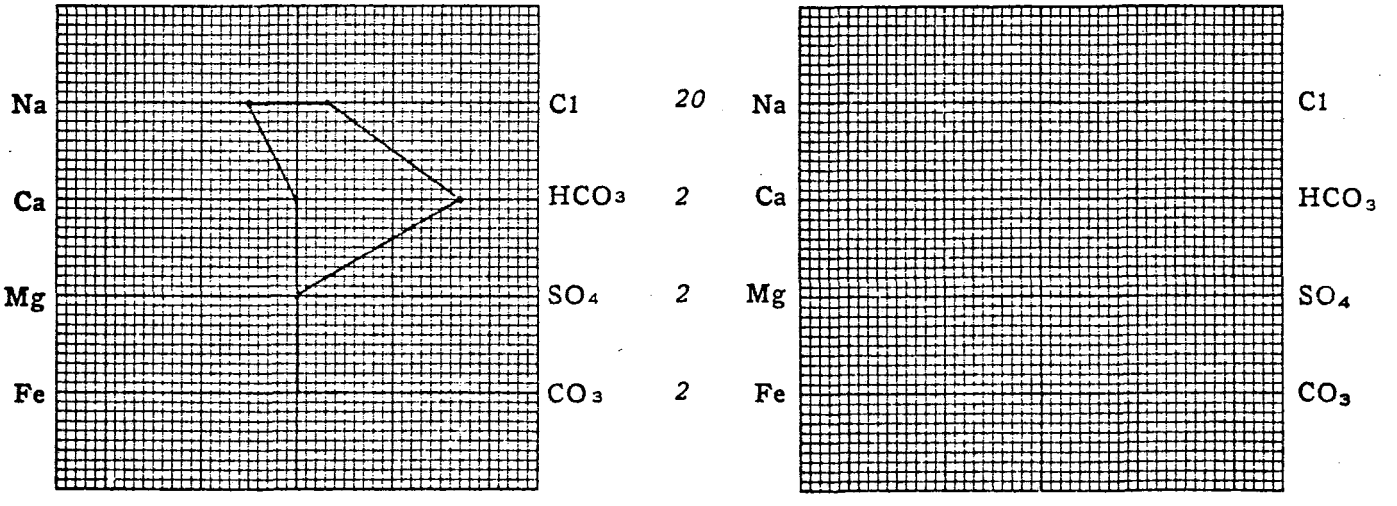
Total dissolved solids, mg/1: 6013
NaCl equivalent, mg/1: 5561
Observed pH: 8.4

Specific resistance @ 68°F.:
Observed: 1.20 ohm-meters
Calculated: 1.20 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/1=Milligrams per liter Meq/1= Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

Form 9-1123
(Rev. Dec. 1957)

(Submit in triplicate to appropriate
Regional Oil and Gas or Mining Supervisor)

DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of Land Management, holder of lease

DISTRICT LAND OFFICE: Salt Lake City, Utah
SERIAL NO.: U-02651-A

and hereby designates

NAME: Clinton Oil Company
ADDRESS: 217 North Water Street, Wichita, Kansas 67202

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable):

T-7-S, R-23-E, Uintah County, Utah

Section 9: E/2, E/2 W/2, SW/4 SW/4

Section 10: W/2, NW/4 NE/4

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

PAN AMERICAN PETROLEUM CORPORATION

W. E. Hunter
(Signature of lessee)

Attorney-In-Fact

July 1, 1970
(Date)

Security Life Building, Denver, Colorado 80202
(Address)

U. S. GOVERNMENT PRINTING OFFICE 16—53606-8

ENERGY RESERVES GROUP, INC.
CL1-12A (REV. 1964)

ATTACHMENT VI

RECEIVED
APR 24 1981
RMD CASPER

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

WATER ANALYSIS REPORT

OPERATOR Energy Reserves Group
WELL NO. #10 Broadhurst
FIELD Walker Hollow
COUNTY Uintah
STATE Utah

DATE 4-21-81 LAB NO. 37252-1
LOCATION Section 9-7S-23E
FORMATION Green River
INTERVAL
SAMPLE FROM "J" Zone Swab

REMARKS & CONCLUSIONS:

Cations	mg/1	meq/1	Anions	mg/1	meq/1
Sodium	2404	104.58	Sulfate	132	2.75
Potassium	27	0.69	Chloride	2220	62.60
Lithium	-	-	Carbonate	192	6.39
Calcium	10	0.50	Bicarbonate	2085	34.19
Magnesium	2	0.16	Hydroxide	-	-
Iron	present		Hydrogen sulfide	-	-
Total Cations		105.93	Total Anions		105.93

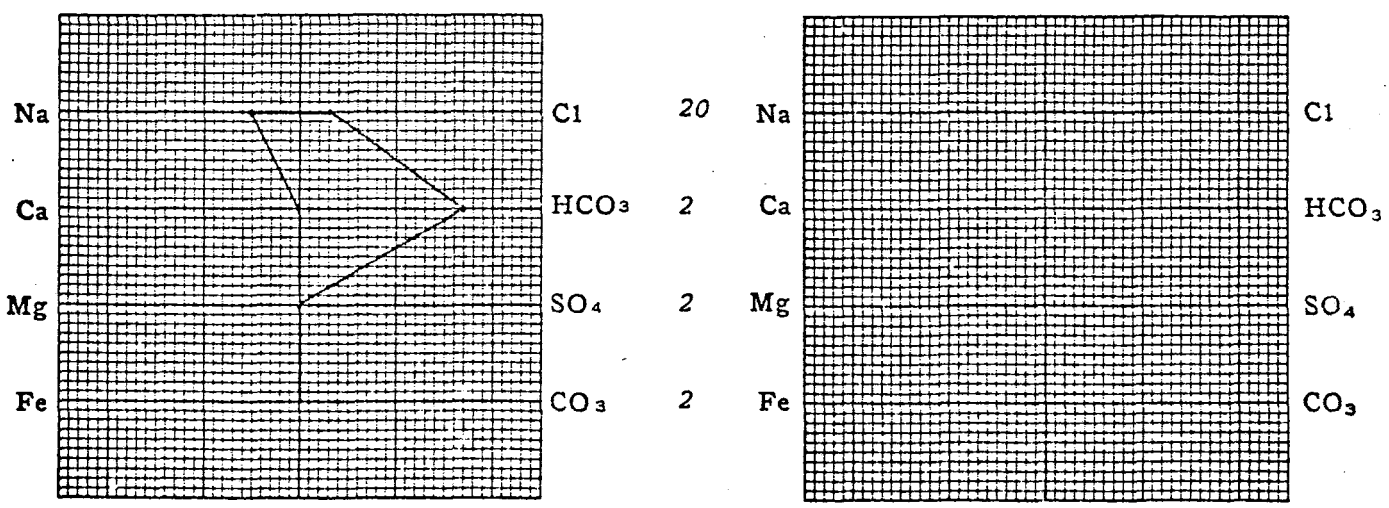
Total dissolved solids, mg/1 - 6013
NaCl equivalent, mg/1 - 5561
Observed pH - 8.4

Specific resistance @ 68°F.:
Observed - 1.20 ohm-meters
Calculated - 1.20 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/1=Milligrams per liter Meq/1= Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

FORM OGCC-8-X

STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION
310 NEWHOUSE BUILDING
SALT LAKE CITY 11, UTAH

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number: Pearl Broadhurst No. 5

Operator Pan American Petroleum Corporation Address P. O. Box 40 Casper, Wyoming Phone 235-1341

Contractor R. L. Manning Address Denver, Colorado Phone

Location: SW ¼ SW ¼ Sec. 10 T. 7 N/S R. 23 E/W Uintah County, Utah.

Water Sands:

Depth From	Depth To	Volume Flow Rate or Head	Quality Fresh or Salty
1.			
2.			
3.			
4.			
5.			

(Continued on reverse side if necessary)

Formation Tops:

Green River	2877
Wasatch	5840

Remarks:

No formations were tested for water production capacity, and water producing capacity is not known.

NOTE: (a) Upon diminishing supply of forms, please inform the Commission
(b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure. (See back of form)

Mr. W.B. Jackson, Rocky Mt. Division Manager
Box 599
700 S. Colorado Blvd.
Denver, Colorado 80201

Re: Wait #189 (41-16B)
T7S R23E Sec. 16
Uintah County, Utah

DEAR Mr. Jackson:

Energy Reserves Group has applied for an injection well in SWSW section 10, T7S, R23E. It is Division policy to notify all producing leaseholders within ½ mile of the injection well, prior to approval.

Since Chevron's 41-16B well is located within the area of review, I would appreciate any information you could give me concerning the condition of the well to determine if it could serve as a conduit to younger strata.

Enclosed please find a copy of the notice that was published. If you have any questions or comments concerning this well, let me know.

Sincerely,
GLH

Enclosure: Notice

SHL

Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602

Att: Bobby Patrick

Re: Class II Injection Well Approval
USA Pearl Broadhurst #5
Sec. 10, T7S, R23E
Uintah County, Utah

Gentlemen:

This letter constitutes the Division's approval for the subject injection well.

Said approval is, however, conditional upon adhering to the provisions listed below and upon following the "Class II Underground Injection Control" program rules and regulations that were adopted January 29, 1982.

1) Not exceed maximum injection pressure of 2500 psi.
2) Provide DOGM monthly water cut information from the H producing zone in this well.
3) Install continuous recording equipment measuring the volume of fluids injected and injection pressures.

If you have any questions relative to the above, please contact us.

Sincerely,
Division of Oil, Gas & Mining
Cleon B. Feight

ENCLOSURE: UIC Reg. 5 & Forms

ENERGY RESERVES GROUP, INC.

ATTACHMENT IV

Form 9-331
(May 1963)

RECEIVED
BR. OF OIL & GAS OPERATIONS

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SEP 2

U.S. GEOLOGICAL SURVEY

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.)

OIL WELL [X] GAS WELL [ ] OTHER [ ]

2. NAME OF OPERATOR: Pan American Petroleum Corporation

3. ADDRESS OF OPERATOR: P. O. Box 1400, Riverton, Wyoming

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 743' FSL 564' FWL SW SW Sec. 10-T7S R23E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.): RDB 5290 G.L. 5278

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Red Wash-Green River

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10-T7S-R23E

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Multiple Completion			[X]
(Other)				(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.) *

On 3-10-66, the well was perforated at the following Gamma Ray-Sonic Log intervals with 4-way single plane jets. The perforations were at 5325, 5333, 5388, 5397, 5412 and 5431. After setting a Howco Frac Liner over the previously completed zone, perfs 4794 and 4828, the above perforations were acidized with 500 gallons MCA at 6 BPM and 2200 psi. The well was then fraced down the casing in the following manner:

1. Broke down with 150 bbl. Ashley Crude with 1/10#/gal. adomite @ 40 BPM and 2600 psi.
2. Began sand at 1 lb/gal and after 5000 lbs. of 10-20 sand, four 1-1/4" perf balls were dropped. Frac fluid was Ashley crude with 1/10 lb/gal. adomite added.
3. A second group of four perf balls were dropped before the first set hit the perforations and the well pressured up. The frac was shut down to allow the balls to fall off the perfs and injections were continued until the next set of balls hit and the well pressured up. The balls were allowed to drop off and then injection resumed for the remaining 20,000 lb. of sand.
4. Flushed with 200 bbls. Ashley Crude.

(See attached sheet)

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

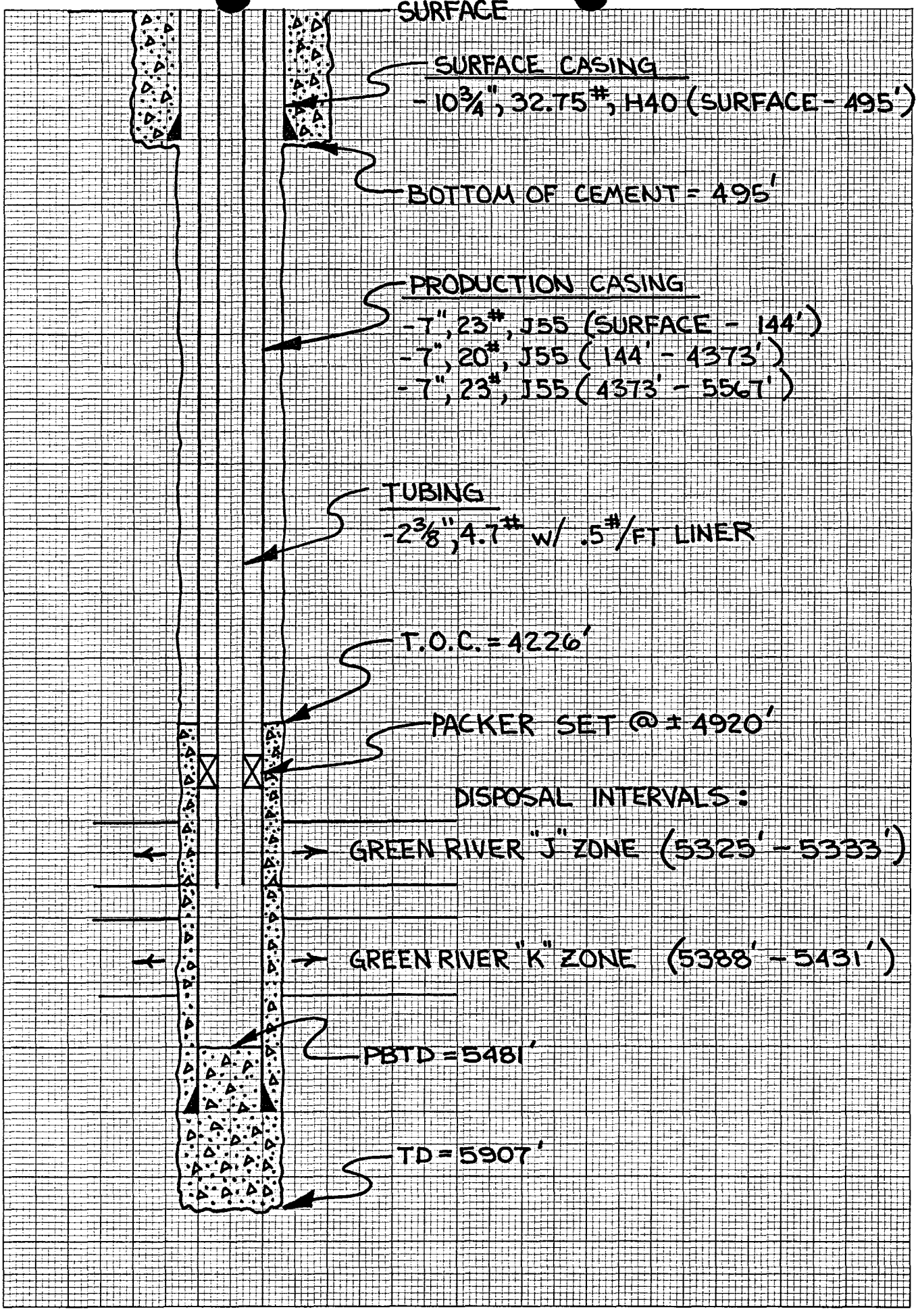
SIGNED [signature] TITLE Area Superintendent DATE 9/6/66

(This space for Federal or State office use)

APPROVED BY [signature] TITLE ACTING DISTRICT ENGINEER DATE SEP 8 1966

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side



46 1320
K+E 10 X 10 TO ½ INCH 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.

ENERGY RESERVES GROUP, INC.
CL1-12A (REV. 1964)

ATTACHMENT VI

CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 2794
Casper, Wyoming

RECEIVED APR 24 1981 RMO CASPER

WATER ANALYSIS REPORT

OPERATOR: Energy Reserves Group
WELL NO.: #10 Broadhurst
FIELD: Walker Hollow
COUNTY: Uintah
STATE: Utah

DATE: 4-21-81 LAB NO. 37252-1
LOCATION: Section 9-7S-23E
FORMATION: Green River
INTERVAL:
SAMPLE FROM: "J" Zone Swab

REMARKS & CONCLUSIONS:

Cations	mg/1	meq/1	Anions	mg/1	meq/1
Sodium	2404	104.58	Sulfate	132	2.75
Potassium	27	0.69	Chloride	2220	62.60
Lithium	-	-	Carbonate	192	6.39
Calcium	10	0.50	Bicarbonate	2085	34.19
Magnesium	2	0.16	Hydroxide	-	-
Iron	present		Hydrogen sulfide	-	-
Total Cations		105.93	Total Anions		105.93

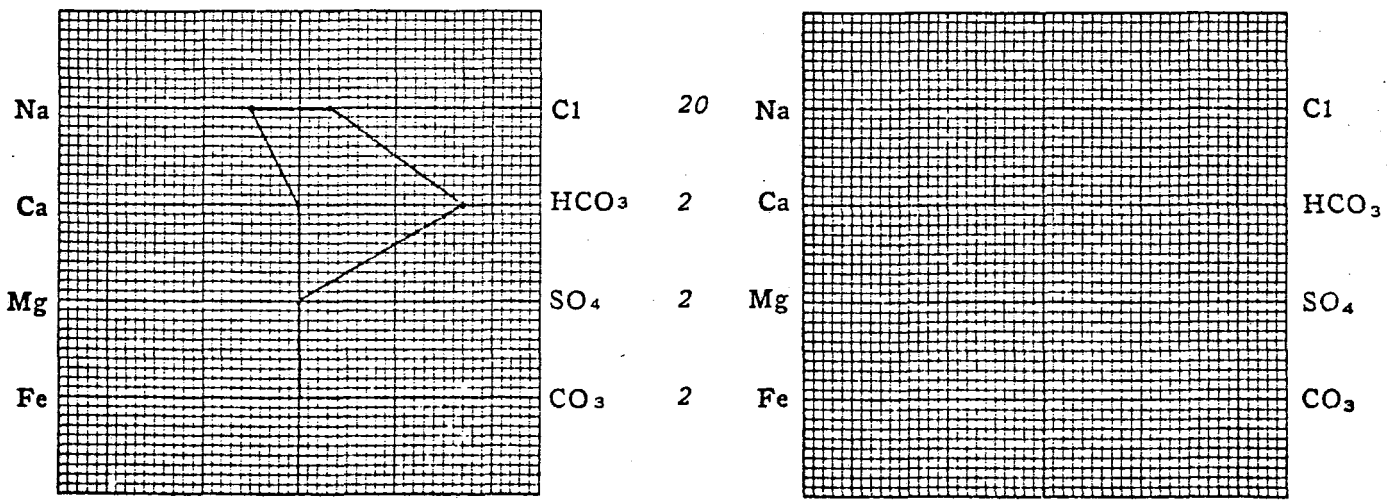
Total dissolved solids, mg/1: 6013
NaCl equivalent, mg/1: 5561
Observed pH: 8.4

Specific resistance @ 68°F.:
Observed: 1.20 ohm-meters
Calculated: 1.20 ohm-meters

WATER ANALYSIS PATTERN

Sample above described

Scale
MEQ per Unit



(Na value in above graphs includes Na, K, and Li)
NOTE: Mg/1=Milligrams per liter Meq/1= Milligram equivalents per liter
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

ENERGY RESERVES GROUP, INC.

Application for Approval of Class II Injection Wells

for

U.S.A. Pearl Broadhurst #5

SW SW Section 10-T7S-R23E

Uintah County, Utah

ENERGY RESERVES GROUP, I
U.S.A. Pearl Broadhurst #5
Section 10-T7S-R23E

The following report is intended to be used for, and to meet the requirements of, the Application for Approval of Class II Injection Wells as required by the Division of Oil, Gas & Mining in the State of Utah. This report contains the required attachments as required under paragraph (2) of (E.) entitled "Application for Approval of Class II Injections Wells.

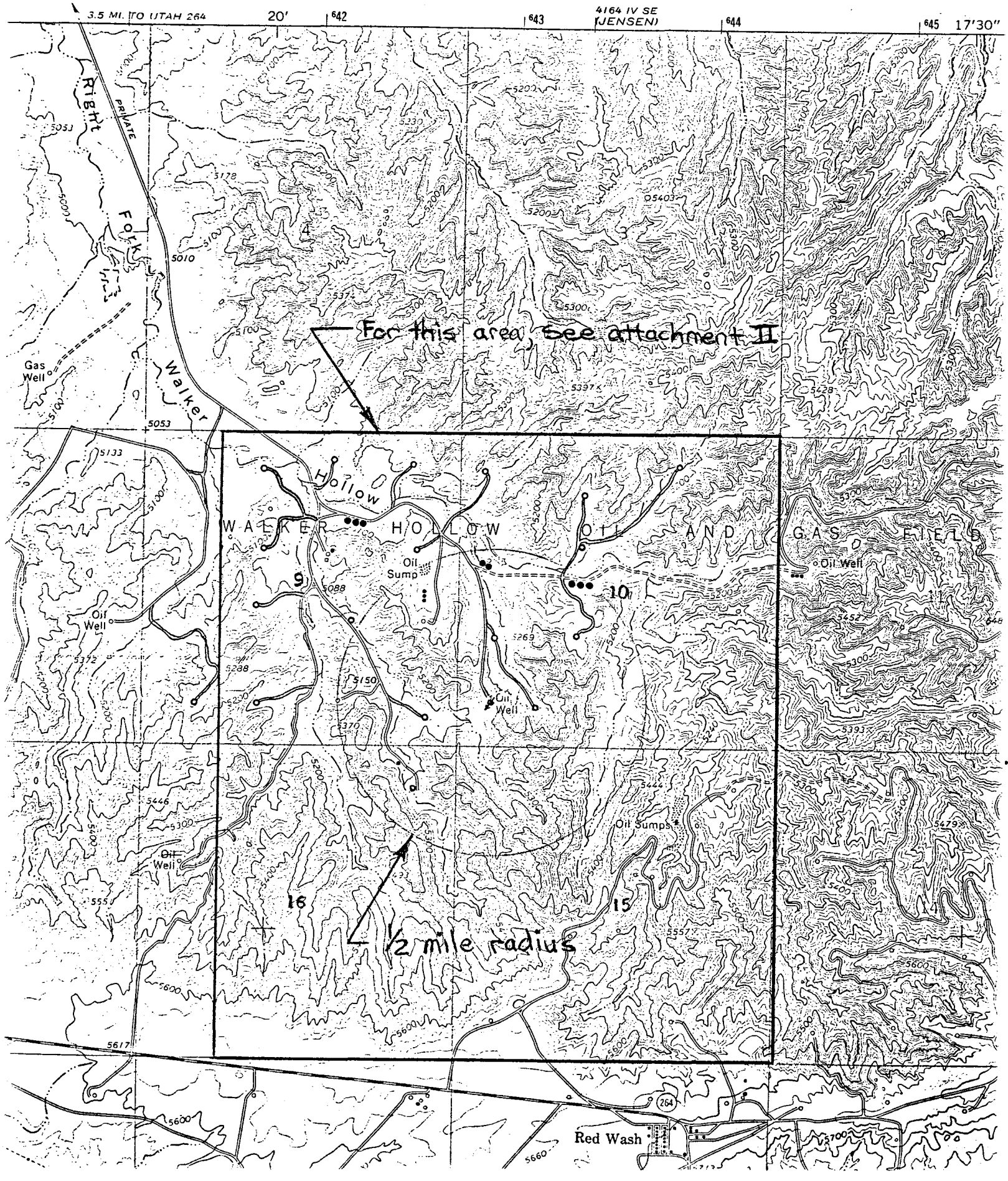
(a) A plat showing the location and total depth of U.S.A. Pearl Broadhurst #5 and all other wells within 1/2 mile of the Class II Injection Well is provided on Attachments I & II. The Federal Government is the surface land owner.

(b) U.S.A. Pearl Broadhurst #5 was drilled in 1964. A copy of the original Completion Report as well as a Sundry Notice containing subsequent completion information is provided on Attachments III & IV. Electric logs should already be on file with the Division of Oil, Gas & Mining in the State of Utah.

(c) A schematic diagram of U.S.A. Pearl Broadhurst #5 is provided on Attachment V. It provides the following data: total depth, plugged back depth, depth and geological name of the disposal intervals, depths of casing and cement, sizes of casing and tubing, and depth of the packer.

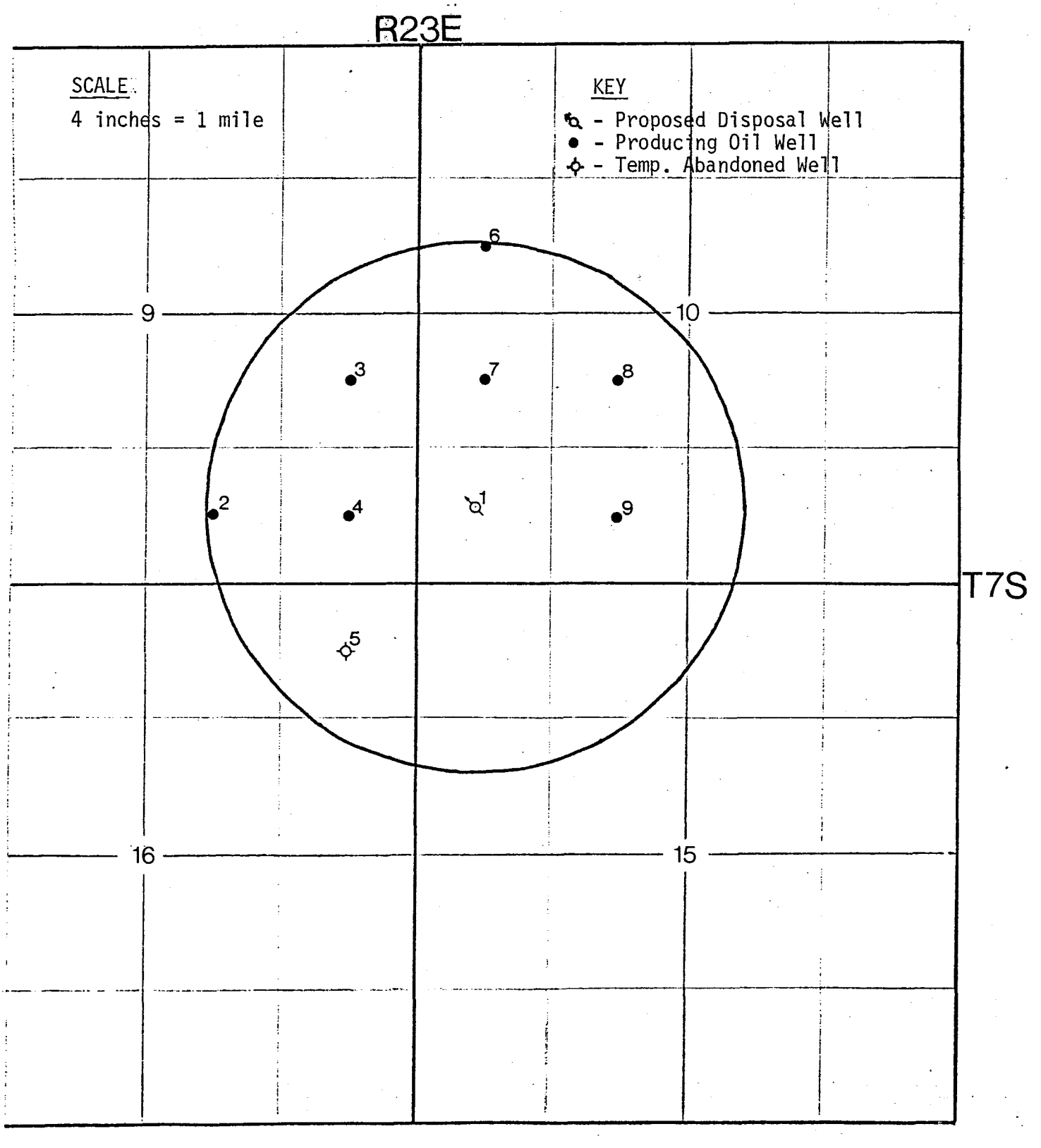
(d) Injection rates will be less than 1000 barrels per day. There are no known underground sources of drinking water overlying the proposed disposal intervals. The injection pressure will be lower than fracture pressure for the Green River formation in that area.

(e) The daily injection rates should be around 500 barrels of water, and around 2000 psi injection pressure. The injection fluid is produced water from the Green River formation "H, J & K" zones, and depths ranging from 4,700'-5,300'. A representative sample of water to be injected is provided on Attachment VI. No known water aquifers are in the area.


3.5 MI. TO UTAH 264
20'
642
643
4164 IV SE
(JENSEN)
644
645
17'30"
Right
Fork
Walker
Hollow
PRIVATE
For this area, see attachment II
WALKER HOLLOW OIL AND GAS FIELD
Oil Sump
Oil Well
Oil Sumps
Gas Well
9
10
15
16
½ mile radius
Red Wash
264

ENERGY RESERVES GROUP, I[illegible] ATTACHMENT II

1. USA Pearl Broadhurst # 5--SW/SW Sec. 10 -- TD = 5,907'
2. USA Pearl Broadhurst # 4--SW/SE Sec. 9 -- TD = 5,900'
3. USA Pearl Broadhurst # 1--NE/SE Sec. 9 -- TD = 5,902'
4. USA Pearl Broadhurst #15--SE/SE Sec. 9 -- TD = 5,517'
5. Chevron --NE/NE Sec. 16 -- TD = (NA)
6. USA Pearl Broadhurst # 2--SW/NW Sec. 10 -- TD = 5,800'
7. USA Pearl Broadhurst #16--NW/SW Sec. 10 -- TD = 5,487'
8. USA Pearl Broadhurst # 8--NE/SW Sec. 10 -- TD = 5,500'
9. USA Pearl Broadhurst #22--SE/SW Sec. 10 -- TD = 5,650'



CLASS II FILE NOTATIONS
* * * * * * * * * * * *

DATE FILED: November 13, 1981 DATE OF PUBLICATION: _____

OPERATOR: Energy Reserves Group, Inc.

WELL NO: U.S.A. Pearl Boradhurst #5

Location: Sec. 10 T. 7S R. 23 E County: Uintah

New Well? _____ Conversion? X

Enhanced Recovery _____ Salt Water Disposal X

Gas Injection _____ SURETY/BOND: Yes XX No _____

Completed DOGM-UIC-1? Yes Completed DOGM-UIC-2? _____ Card Indexed? Yes

API Number 43-047-15695

APPLICATION FILE COMPLETE

Plat Identifying Surface Owner(s): Yes Cement Bond Log Required: _____

Electric Log and/or Radioactive Log: Yes

Schematic Diagram Showing:

Total Depth or Plug-Back Depth: T.D. 5907' PBTD 5481'

Depth of Injection or Disposal Interval: 5325' - ~~5333'~~ 5431

Geological Name of Injection or Disposal Zone: Green River H,J & K Zones

Depths of Tops & Bottoms of Casing & Cement: 495' (Surface) PC 5481' to 4226'

Size of Casing & Tubing, & Depth of Packer: 2 3/8" 4.7# w/.5# Ft. Liner

Assessment of presently existing Cement Bond between the Casing & Formation:

Good: ✓ Poor: _____ Location of Bottom Hole: _____

Maximum Injection Pressure: ~~2000~~ 1450 psi Maximum Surface Injection Rate: 1,000/bpd

* * * * * * * * *

CHECKED BY: UIC SPECIALIST: ~~Application information complete review~~ Dual completed well. Produced water from H,J,+K zones + reinjecting into J.+K.

~~needed by UIC Engineer~~

UIC ~~ENGINEER~~ Geologist: See memo to file.

DIRECTOR: Approved ✓ Requires Hearing: _____

Approval Letter Written: ✓

CLINTON OIL COMPANY
217 NORTH WATER / WICHITA, KANSAS 67202 / 316 262-8231

June 26, 1970

Utah Oil & Gas Conservation Com.
1588 West North Temple
Salt Lake City, Utah 84116

Re: Notice of Change of Operator

Gentlemen:

Listed below are leases that will be operated by Clinton Oil Company effective July 1, 1970. These were previously owned by Pan American Petroleum Corp.

Lease Name	Location	County
USA Pan American Wells no. 1 thru 10	Ashley Creek Field	Uintah
Walker Hollow Field Unit Wells no. 1 thru 5	Walker Hollow Field	Unitah

If further information is needed, please advise.

Very truly yours,

C. W. Vorachek
Production Dept.

gw

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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.)

1. OIL WELL [XX] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Clinton Oil Company

3. ADDRESS OF OPERATOR: 217 N. Water Street, Wichita, Kansas 67202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface
SW SW SW Sec. 10-T7S-R23E, Uintah County, Utah
743' FSL and 564' FWL

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Red Wash - Green River

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10-T7S-R23E

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): RDB 5290 GL 5278

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other) Convert to Injection			[XX]				

(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.)*

Under the provisions of Cause #108-1 dated March 11, 1965, in the matter of the Application of Pan American Petroleum Corp. for an order permitting a Secondary Recovery Project in the Green River Formation, Red Wash Field, Uintah Co., Utah, we are requesting administrative approval to convert the USA Pearl Broadhurst #5 well to water injection through perforations at 4794 in the H_4 zone, 4828 in the H_5 zone, 5325 in the J_6 zone, 5333 in the J_7 zone, 5397 in the K_1 Zone, 5412 in the K_2 zone and 5431 in the K_3 zone. All depths are from KB. PBTD is 5467. Injection is initially planned at 1,000 BWPD split between the 'H' zone and the 'J' & 'K' zones utilizing a Baker Downhole flow regulator and a Baker Mod. 'D' pkr. set above the junk frac liner in the hole at approximately 4900'. A second packer will be set at approximately 4750' above the 'H' zone perfs so that all injection will be under packers through 2 7/8" tubing.

43-047-15295

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

SIGNED M. A. Stead TITLE District Production Engineer DATE August 2, 1971

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

August 6, 1971

Clinton Oil Company
217 N. Water Street
Wichita, Kansas 67202

Re: Well No. USA Pearl Broadhurst
#5
Sec. 10, T. 7 S, R. 23 E,
Uintah County, Utah

Gentlemen:

Insofar as this office is concerned, approval to convert the above referred to well to water injection is hereby granted in accordance with the Order issued in Cause No. 108-1, dated March 11, 1965.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT
DIRECTOR

CBF:sd
cc: U.S. Geological Survey

SCOTT M. MATHESON
Governor

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

CLEON B. FEIGHT
Director

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

OIL, GAS AND MINING BOARD

CHARLES R. HENDERSON
Chairman

JOHN L. BELL
C. RAY JUVELIN
THADIS W. BOX
MAXILIAN A. PARBIAN
EDWARD T. BECK
E. STEELE McINTYRE

November 13, 1981

Vernal Express
Legal Advertising
Vernal, Ut. 84078

RE: Notice of Hearing
Cause No. WD-103

Gentlemen:

Attached hereto is a Notice of Hearing/Order to Show Cause, before the Board of Oil, Gas and Mining, Department of Natural Resources, State of Utah.

It is requested that this notice be published ONCE ONLY, as soon as possible but no later than the 19th day of November, 1981. In the event that said notice cannot be published by this date, please notify this office immediately by calling 533-5771.

Upon completion of this request, please send proof of publication and statement of cost to the Division of Oil, Gas and Mining, 1588 West North Temple, Salt Lake City, Utah 84116.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

PAULA FRANK
Administrative Assistant

attachment

SCOTT M. MATHESON
Governor

GORDON E. HARMSTON
Executive Director
NATURAL RESOURCES

CLEON B. FEIGHT
Director

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

OIL, GAS, AND MINING BOARD

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MAXILIAN A. FARBMAN
EDWARD T. BECK
E. STEELE McINTYRE

November 13, 1981

Newspaper Agency Corp.
Legal Advertising
143 S. Main
S.L.C., Ut. 84101

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Cause No. WD-103

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Very truly yours,

DIVISION OF OIL, GAS AND MINING

PAULA FRANK
Administrative Assistant

attachment

ADM-35B

Affidavit of Publication

STATE OF UTAH.
County of Salt Lake } ss.

CAUSE NO. WD-103
BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES AND ENERGY in and for the STATE OF UTAH
IN THE MATTER OF THE APPLICATION OF ENERGY RESERVES GROUP, INC., FOR ADMINISTRATIVE APPROVAL TO DISPOSE SALT WATER INTO THE U.S.A. PEARL BROADHURST #5, SECTION 10, T.7S., R.23 E., SW SW, UINTAH COUNTY, UTAH.

NOTICE

STATE OF UTAH TO: All person, owners, producers, operators, purchasers, and takers of oil and gas, and all other interested persons, particularly in Uintah County, Utah:

NOTICE IS HEREBY GIVEN that Energy Reserves Group, Inc., Box 1407, 633 17th Street, Suite 3200, Denver, Colorado, is requesting that the Division authorize the approval of the injection of salt water into a well as follows:

LEASE AND WELL: USA Pearl Broadhurst #5, U-02651-A

INJECTION ZONE AND DEPTH: 4828'-4794 Green River Formation

INJECTION PRESSURE AND RATE: Approximately 500 BPD, 2000 psi

This application will be granted unless objections are filed with the Division of Oil, Gas and Mining within fifteen(15) days after publication of this Notice. Objections, if any, should be mailed to the Division of Oil, Gas and Mining, Room 4241 State Office Building, Salt Lake City, Utah, 84114. (801) 533-5771

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
Paula J. Frank
Secretary of the Board

B-97

Shana D. Conaty

Being first duly sworn, deposes and says that he is legal advertising clerk of THE SALT LAKE TRIBUNE, a daily newspaper printed in the English language with general circulation in Utah, and published in Salt Lake City, Salt Lake County in the State of Utah, and of the DESERET NEWS a daily (except Sunday) newspaper printed in the English language with general circulation in Utah, and published in Salt Lake City, Salt Lake County, in the State of Utah.

That the legal notice of which a copy is attached hereto

Pub notice of application Cause #WD-103 (Energy Reserves Group, Inc.)

was published in said newspapers on Nov. 20, 1981

Legal Advertising Clerk

Subscribed and sworn to before me this 23rd *day of* Nov. *A.D. 19*81.

Notary Public

My Commission Expires

Feb. 11, 1982

ENERGY RESERVES GROUP, INC.

Application for Approval of Class II Injection Wells

for

U.S.A. Pearl Broadhurst #5

SW SW Section 10-T7S-R23E

Uintah County, Utah

RECEIVED
NOV 12 1981
DIVISION OF
OIL, GAS & MINING

ENERGY RESERVES GROUP, INC.
U.S.A. Pearl Broadhurst #5
Section 10-T7S-R23E

The following report is intended to be used for, and to meet the requirements of, the Application for Approval of Class II Injection Wells as required by the Division of Oil, Gas & Mining in the State of Utah. This report contains the required attachments as required under paragraph (2) of (E.) entitled "Application for Approval of Class II Injections Wells.

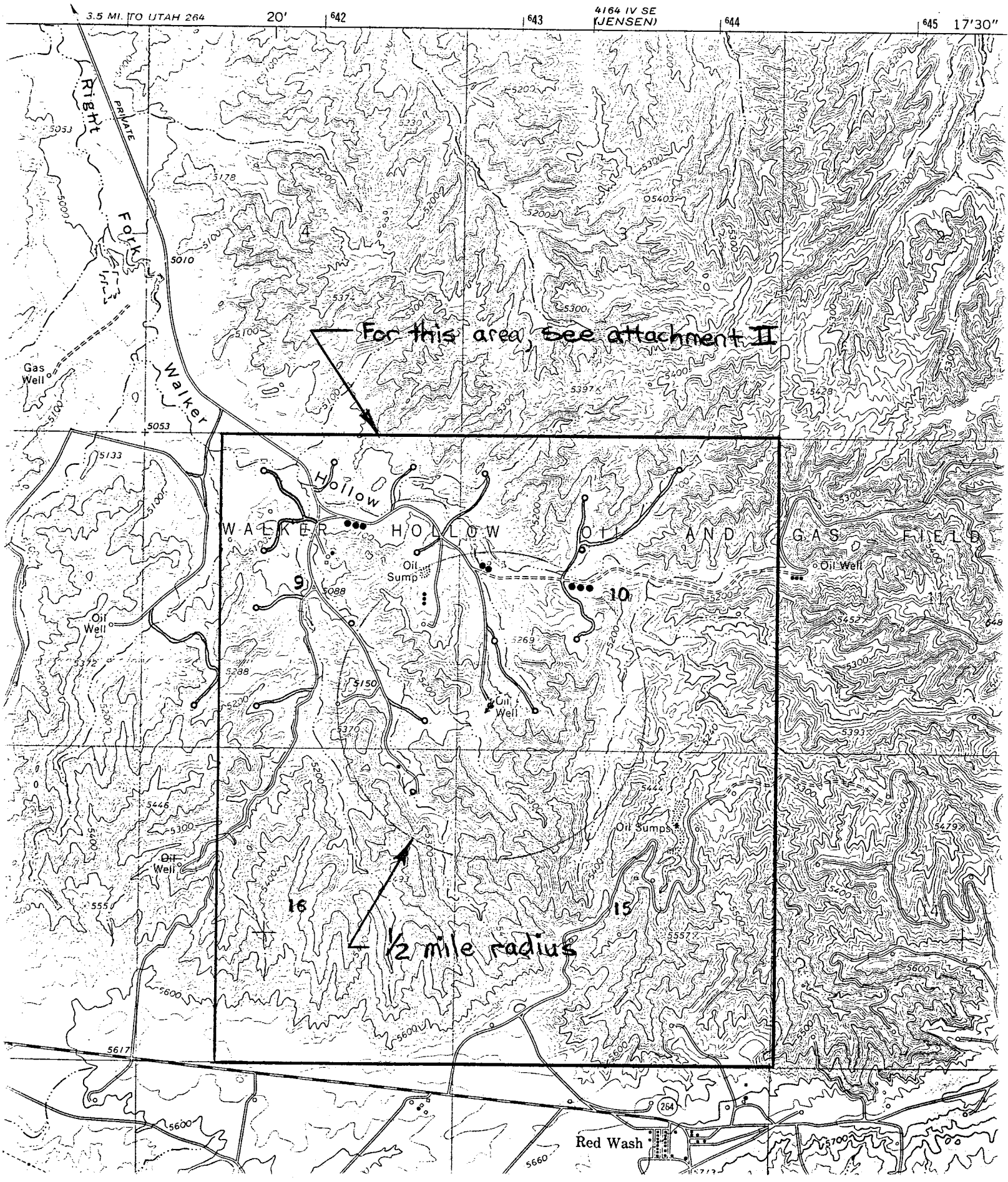
(a) A plat showing the location and total depth of U.S.A. Pearl Broadhurst #5 and all other wells within 1/2 mile of the Class II Injection Well is provided on Attachments I & II. The Federal Government is the surface land owner.

(b) U.S.A. Pearl Broadhurst #5 was drilled in 1964. A copy of the original Completion Report as well as a Sundry Notice containing subsequent completion information is provided on Attachments III & IV. Electric logs should already be on file with the Division of Oil, Gas & Mining in the State of Utah.

(c) A schematic diagram of U.S.A. Pearl Broadhurst #5 is provided on Attachment V. It provides the following data: total depth, plugged back depth, depth and geological name of the disposal intervals, depths of casing and cement, sizes of casing and tubing, and depth of the packer.

(d) Injection rates will be less than 1000 barrels per day. There are no known underground sources of drinking water overlying the proposed disposal intervals. The injection pressure will be lower than fracture pressure for the Green River formation in that area.

(e) The daily injection rates should be around 500 barrels of water, and around 2000 psi injection pressure. The injection fluid is produced water from the Green River formation "H, J & K" zones, and depths ranging from 4,700'-5,300'. A representative sample of water to be injected is provided on Attachment VI. No known water aquifers are in the area.


3.5 MI. TO UTAH 264
20'
642
643
4164 IV SE
(JENSEN)
644
645
17'30"
Right
Fork
Walker
PRIVATE
Gas Well
For this area, See attachment II
Hollow
WALKER HOLLOW OIL AND GAS FIELD
Oil Sump
Oil Well
Oil Sumps
9
10
11
14
15
16
½ mile radius
Red Wash
264

ENERGY RESERVES GROUP, IN[redacted] ATTACHMENT II

1. USA Pearl Broadhurst #[redacted]--SW/SW Sec. 10 -- TD = 5,907'
2. USA Pearl Broadhurst # 4--SW/SE Sec. 9 -- TD = 5,900'
3. USA Pearl Broadhurst # 1--NE/SE Sec. 9 -- TD = 5,902'
4. USA Pearl Broadhurst #15--SE/SE Sec. 9 -- TD = 5,517'
5. Chevron --NE/NE Sec. 16 -- TD = (NA)
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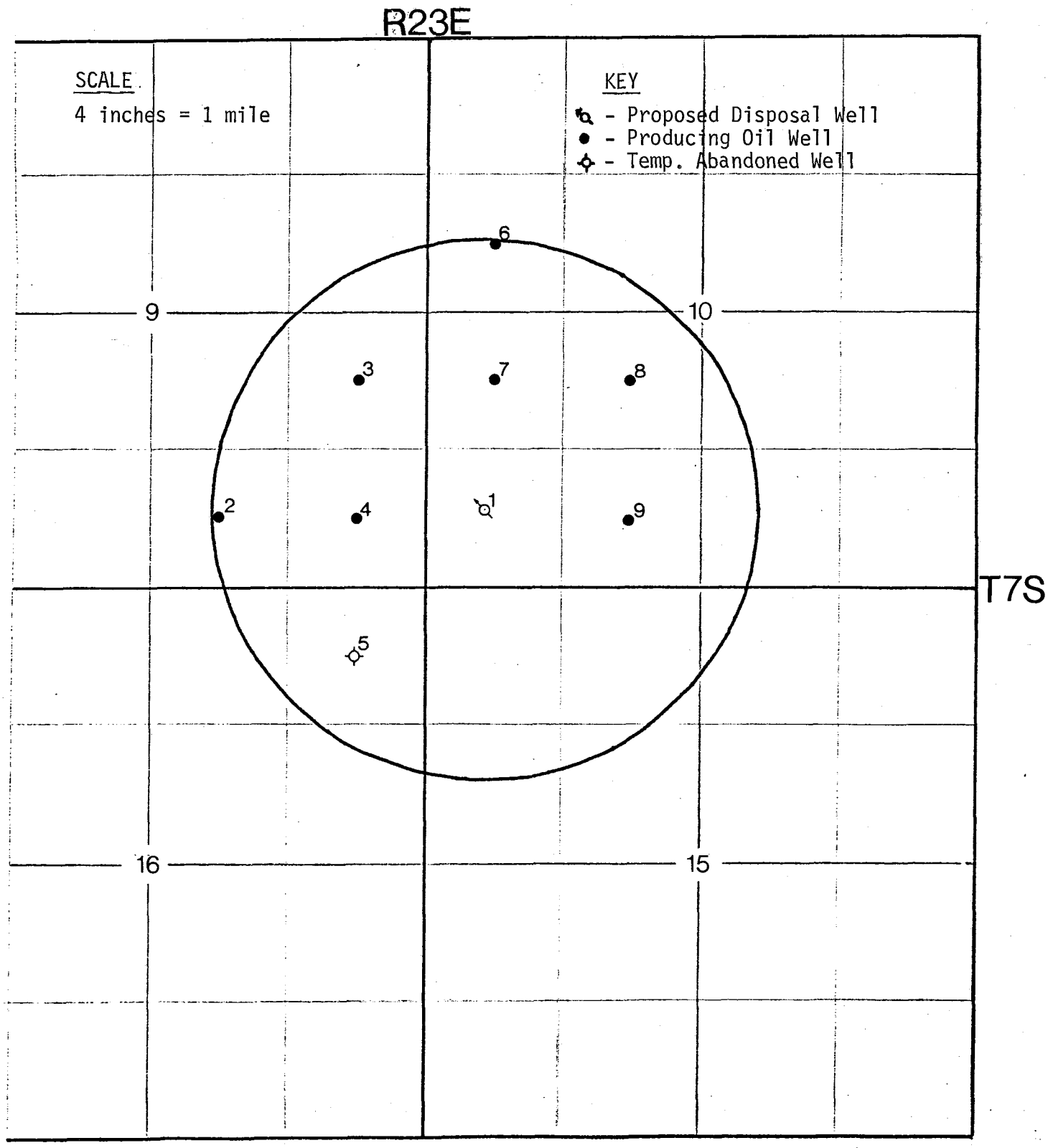
7. USA Pearl Broadhurst #16--NW/SW Sec. 10 -- TD = 5,487'
8. USA Pearl Broadhurst # 8--NE/SW Sec. 10 -- TD = 5,500'
9. USA Pearl Broadhurst #22--SE/SW Sec. 10 -- TD = 5,650'



ADM-35B

Affidavit of Publication

STATE OF UTAH.
County of Salt Lake } ss.

Shana D. Conaty

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That the legal notice of which a copy is attached hereto

Pub notice of application Cause #WD-103 (Energy Reserves Group, Inc.)

was published in said newspapers on Nov. 20, 1981

Legal Advertising Clerk

Subscribed and sworn to before me this 23rd *day of* Nov. *A.D. 19*81.

Notary Public

My Commission Expires

Feb. 11, 1982

CAUSE NO. WD-103
BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES AND ENERGY in and for the STATE OF UTAH
IN THE MATTER OF THE APPLICATION OF ENERGY RESERVES GROUP, INC., FOR ADMINISTRATIVE APPROVAL TO DISPOSE SALT WATER INTO THE U.S.A. PEARL BROADHURST #5, SECTION 10, T.7S, R.23 E., SW SW, UINTAH COUNTY, UTAH.

NOTICE

STATE OF UTAH TO: All person, owners, producers, operators, purchasers, and takers of oil and gas, and all other interested persons, particularly in Uintah County, Utah:

NOTICE IS HEREBY GIVEN that Energy Reserves Group, Inc., Box 1407, 633 17th Street, Suite 3200, Denver, Colorado, is requesting that the Division authorize the approval of the injection of salt water into a well as follows:

LEASE AND WELL: USA Pearl Broadhurst #5, U-02651-A

INJECTION ZONE AND DEPTH: 4828'-4794' Green River Formation

INJECTION PRESSURE AND RATE: Approximately 500 BPD, 2000 psi

This application will be granted unless objections are filed with the Division of Oil, Gas and Mining within fifteen(15) days after publication of this Notice. Objections, if any, should be mailed to the Division of Oil, Gas and Mining, Room 4241 State Office Building, Salt Lake City, Utah, 84114. (801) 533-5771

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
Paula J. Frank
Secretary of the Board

B-97

RECEIVED
NOV 25 1981
DIVISION OF
OIL, GAS & MINING

NOTICE
CAUSE NO. WD-103

BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES AND ENERGY in and for the STATE OF UTAH.

IN THE MATTER OF THE APPLICATION OF ENERGY RESERVES GROUP, INC., FOR ADMINISTRATIVE APPROVAL TO DISPOSE SALT WATER INTO THE U.S.A. PEARL BROADHURST NO. 5, SECTION 10, T.7S, R.23E., SW SW, UINTAH COUNTY, UTAH.

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STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

PAULA J. FRANK
Secretary of the Board

Published in the Vernal Express Nov. 19, 1981

PROOF OF PUBLICATION

STATE OF UTAH, } ss.
County of Uintah

I, Janet Wallis,

being duly sworn, depose and say, that I am the Business Manager of The Vernal Express, a weekly newspaper of general circulation, published once each week at Vernal, Utah, that the notice attached hereto was published in said newspaper

for one consecutive weeks,

the first publication having been made on

the 19 day of November, 1981

and the last on the ..... day of

....., 19....., that said notice

was published in the regular and entire issue of every number of the paper during the period and times of publication, and the same was published in the newspaper proper and not in a supplement.

By Janet Wallis
Manager

Subscribed and sworn to before me,

this 19 day of November

A. D. 19 81

Jack R. Wallis
Notary Public, Residence, Vernal, Utah

My Commission expires .....

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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.)

1. OIL WELL [ ] GAS WELL [X] OTHER Injection Well

2. NAME OF OPERATOR: Clinton Oil Company

3. ADDRESS OF OPERATOR: 217 North Water Street, Wichita, Kansas 67202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: SW SW SW Sec 10-T7S-R23E, 743' FSL & 564' FWL

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Redwash-Green River

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 10-T7S-R23E

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): RDB 5290 GL 5278

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Converting to Injection			[X]
(Other)			[ ]	(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.) *

As per Sundry notice filed August 2, 1971, and approved September 6, 1971 well was converted to injection effective November 1, 1971. Injection is down a single string of 2 7/8" tubing. 500 barrels of water per day is injected into perforations at 5325' in the J6 zone. 5333' in the J7 zone, 5397' in the K1 zone, 5412' in the K2 zone and 5431' in the K3 zone, through a Baker Model BE Bypass Flow Regulator under a Baker Model A-2 Locset packer set at 4844' KB. An additional 500 barrels of water per day is injected into perforations at 4794' in the H4 zone and 4828' in the H5 zone through a Baker Model BE Bypass Flow Regulator at 4809' and under a Baker Model "B" tandem tension packer at 4743' KB.

See Attached Drawing.

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

SIGNED _____ TITLE District Production Engineer DATE 12/3/71

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

December 3, 1981

Energy Reserves Group, Inc.
P.O. Box 1407
633 17th Street, Suite 3200
Denver, CO 80201

Re: Class II Injection Well
Application
U.S.A. Pearl Broadhurst #5
Sec. 10, T. 7S, R. 23E.
Uintah County, Utah
CUASE NO. WD-103

Gentlemen,

As you may be aware, the Division of Oil, Gas and Mining is in the process of obtaining primacy under Part C, Section 1425 of the Safe Drinking Water Act, Public Law 93-523, as amended, for regulating Class II Injection Wells within the State of Utah. The Board of Oil, Gas and Mining adopted regulations pursuant to this effort on November 19, 1981, Underground Injection Control, Class II Wells, Rules I-1 through I-9.

Attached please find a copy of these regulations and the pertinent Forms required for application. Please review these regulations and fill out the appropriate forms.

Since the Division received your application November 12, 1981, a notice has been published prior to the 19th of November in the Vernal Express and the Salt Lake Tribune and the Deseret News. The Division rules were adopted November 19th, which requires all Injection Well applications to now be in compliance with the Rules.

Since this well was completed by Pan American Petroleum, May 26, 1964, a cement bond log may be required to demonstrate the integrity of the interval. (Rule I-5(b)(2). The applicant should also discuss the information required by Rule I-5(4) concerning the confining strata. The Division will research published ground water information in this area through the Utah

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

an equal opportunity employer • please recycle paper

Division of Water Resources and the Utah Division of State Health.

The Division understands that this is an inconvienience to you and appreciates your patience in applying under the new rules.

Truly yours,

DIVISION OF OIL, GAS AND MINING

LELAND C. SPENCER
UIC ENGINEER

cc: Cleon Feight, Director
Ed Guynn, USGS
Mike Kuntz, EPA

LCS/tp

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES AND ENERGY
in and for the STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF ENERGY RESERVES GROUP, INC., FOR ADMINISTRATIVE APPROVAL TO DISPOSE SALT WATER INTO THE U.S.A. PEARL BROADHURST #5, SECTION 10, T.7S, R.23 E., SW SW, UINTAH COUNTY, UTAH.	CAUSE NO. WD-105

NOTICE

STATE OF UTAH TO: All persons, owners, producers, operators, purchasers, and takers of oil and gas, and all other interested persons, particularly in Uintah County, Utah:

NOTICE IS HEREBY GIVEN that Energy Reserves Group, Inc., Box 1407, 633 17th Street, Suite 3200, Denver, Colorado, is requesting that the Division authorize the approval of the injection of salt water into a well as follows:

LEASE AND WELL: USA Pearl Broadhurst #5, U-02651-A

INJECTION ZONE AND DEPTH: 4828'-4794 Green River Formation

MAXIMUM INJECTION PRESSURE AND RATE: Approximately 500 BPD, 2000 psi 1000

This application will be granted unless objections are filed with the Division of Oil, Gas and Mining within fifteen (15) days after publication of this Notice. Objections, if any, should be mailed to the Division of Oil, Gas and Mining, Room 4241 State Office Building, Salt Lake City, Utah, 84114. (801) 533-5771

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

Paula J. Grant
Secretary of the Board

ENERGY RESERVES GROUP, INC.

Application for Approval of Class II Injection Wells

for

U.S.A. Pearl Broadhurst #5

SW SW Section 10-T7S-R23E

Uintah County, Utah

ENERGY RESERVES GROUP, IN
U.S.A. Pearl Broadhurst #5
Section 10-T7S-R23E

The following report is intended to be used for, and to meet the requirements of, the Application for Approval of Class II Injection Wells as required by the Division of Oil, Gas & Mining in the State of Utah. This report contains the required attachments as required under paragraph (2) of (E.) entitled "Application for Approval of Class II Injections Wells.

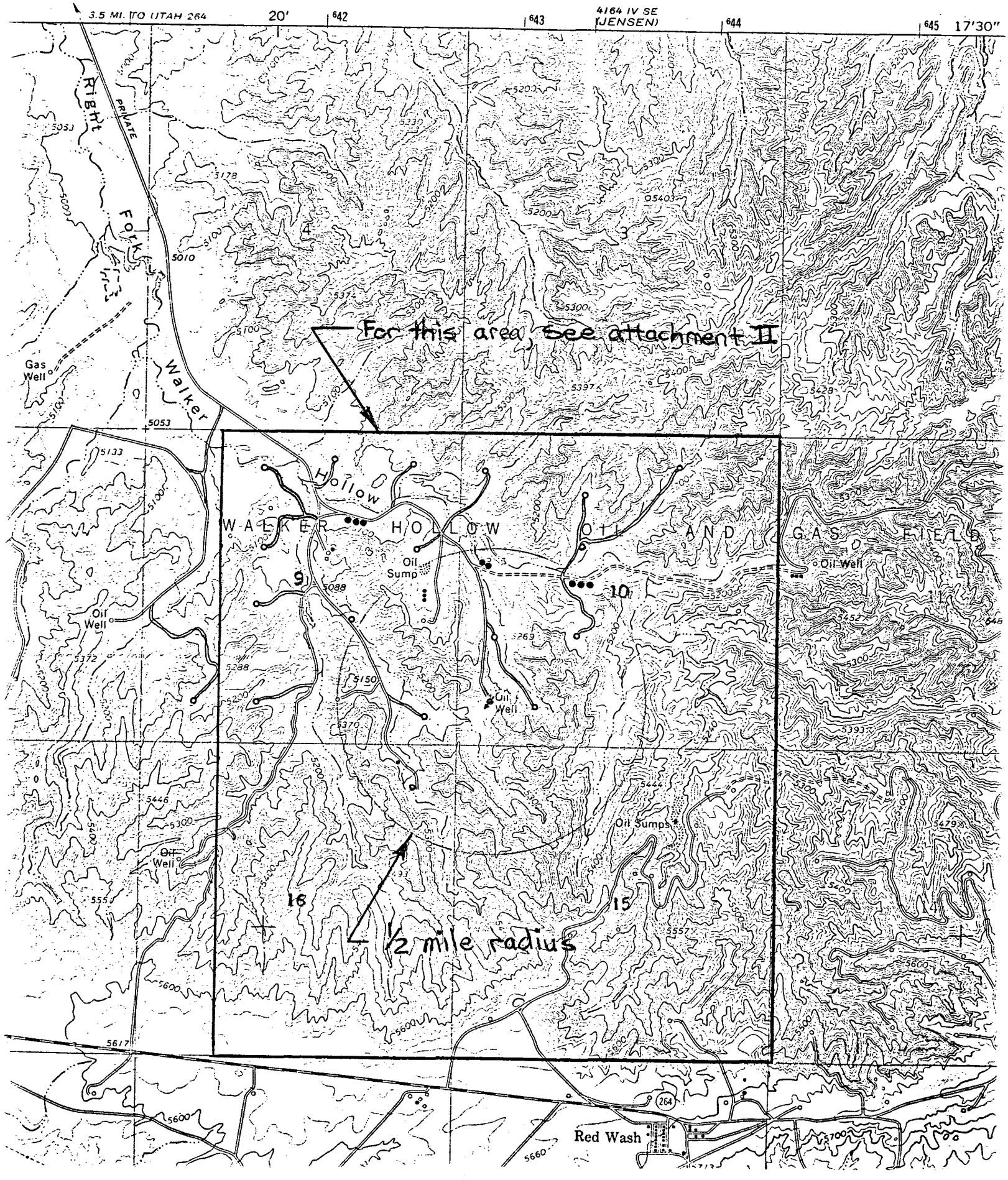
(a) A plat showing the location and total depth of U.S.A. Pearl Broadhurst #5 and all other wells within 1/2 mile of the Class II Injection Well is provided on Attachments I & II. The Federal Government is the surface land owner.

(b) U.S.A. Pearl Broadhurst #5 was drilled in 1964. A copy of the original Completion Report as well as a Sundry Notice containing subsequent completion information is provided on Attachments III & IV. Electric logs should already be on file with the Division of Oil, Gas & Mining in the State of Utah.

(c) A schematic diagram of U.S.A. Pearl Broadhurst #5 is provided on Attachment V. It provides the following data: total depth, plugged back depth, depth and geological name of the disposal intervals, depths of casing and cement, sizes of casing and tubing, and depth of the packer.

(d) Injection rates will be less than 1000 barrels per day. There are no known underground sources of drinking water overlying the proposed disposal intervals. The injection pressure will be lower than fracture pressure for the Green River formation in that area.

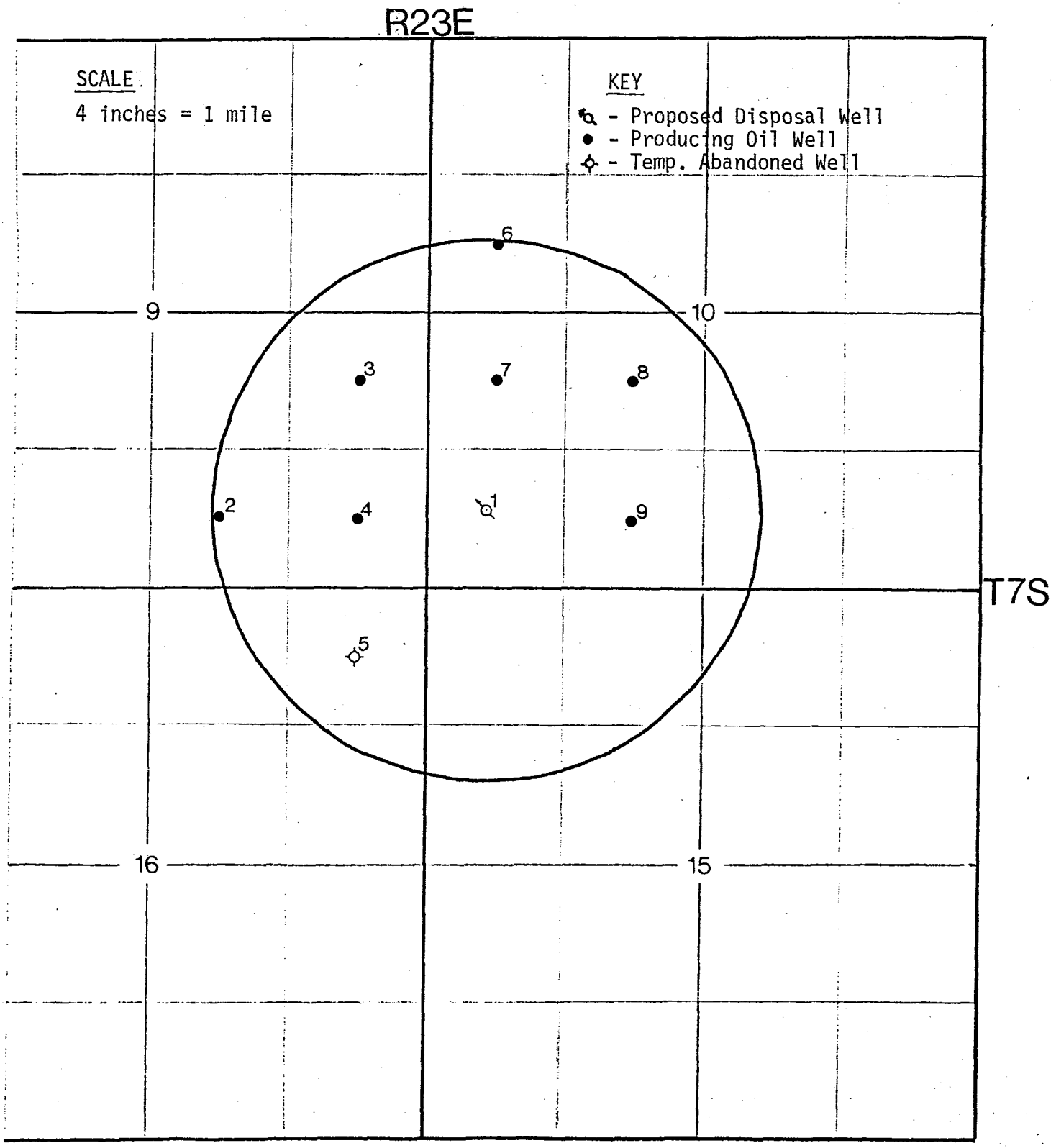
(e) The daily injection rates should be around 500 barrels of water, and around 2000 psi injection pressure. The injection fluid is produced water from the Green River formation "H, J & K" zones, and depths ranging from 4,700'-5,300'. A representative sample of water to be injected is provided on Attachment VI. No known water aquifers are in the area.


3.5 MI. TO UTAH 264
20'
642
643
4164 IV SE
(JENSEN)
644
645
17'30"
Right
Fork
Walker
PRIVATE
Gas Well
For this area, see attachment II
Hollow
WALKER HOLLOW OIL AND GAS FIELD
Oil Sump
Oil Well
Oil Sumps
9
10
15
16
½ mile radius
Red Wash
264

ENERGY RESERVES GROUP, I[redacted]

ATTACHMENT II

1. USA Pearl Broadhurst # 5--SW/SW Sec. 10 -- TD = 5,907'
2. USA Pearl Broadhurst # 4--SW/SE Sec. 9 -- TD = 5,900'
3. USA Pearl Broadhurst # 1--NE/SE Sec. 9 -- TD = 5,902'
4. USA Pearl Broadhurst #15--SE/SE Sec. 9 -- TD = 5,517'
5. Chevron --NE/NE Sec. 16 -- TD = (NA)
6. USA Pearl Broadhurst # 2--SW/NW Sec. 10 -- TD = 5,800'
7. USA Pearl Broadhurst #16--NW/SW Sec. 10 -- TD = 5,487'
8. USA Pearl Broadhurst # 8--NE/SW Sec. 10 -- TD = 5,500'
9. USA Pearl Broadhurst #22--SE/SW Sec. 10 -- TD = 5,650'



PROOF OF PUBLICATION

STATE OF UTAH, } ss.
County of Uintah

I, Janet Wallis,

being duly sworn, depose and say, that I am the Business Manager of The Vernal Express, a weekly newspaper of general circulation, published once each week at Vernal, Utah, that the notice attached hereto was published in said newspaper

for one consecutive weeks,

the first publication having been made on

the 19 day of November, 1981

and the last on the ..... day of

....., 19....., that said notice

was published in the regular and entire issue of every number of the paper during the period and times of publication, and the same was published in the newspaper proper and not in a supplement.

By Janet Wallis
Manager

Subscribed and sworn to before me,

this 19 day of November

A. D. 19 81

Jack R. Wallis
Notary Public, Residence, Vernal, Utah

My Commission expires .....

NOTICE
CAUSE NO. WD-103

BEFORE THE DIVISION OF OIL, GAS AND MINING DEPARTMENT OF NATURAL RESOURCES AND ENERGY in and for the STATE OF UTAH.

IN THE MATTER OF THE APPLICATION OF ENERGY RESERVES GROUP, INC., FOR ADMINISTRATIVE APPROVAL TO DISPOSE SALT WATER INTO THE U.S.A. PEARL BROADHURST NO. 5, SECTION 10, T.7S, R.23E., SW SW, UINTAH COUNTY, UTAH.

STATE OF UTAH TO: All persons, owners, producers, operators, purchasers, and takers of oil and gas, and all other interested persons, particularly in Uintah County, Utah:

NOTICE IS HEREBY GIVEN that Energy Resources Group, Inc., Box 1407, 633 17th Street, Suite 3200, Denver, Colorado, is requesting that the Division authorize the approval of the injection of salt water into a well as follows:

LEASE AND WELL: USA Pearl Broadhurst No. 5, U-02651-A.

INJECTION ZONE AND DEPTH: 4828'-4794 Green River Formation.

INJECTION PRESSURE AND RATE: Approximately 500 BPD, 2000 psi.

This application will be granted unless objections are filed with the Division of Oil, Gas and Mining within fifteen (15) days after publication of this Notice. Objections, if any, should be mailed to the Division of Oil, Gas and Mining, Room 4241 State Office Building, Salt Lake City, Utah, 84114. (801) 533-5771.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

PAULA J. FRANK
Secretary of the Board

Published in the Vernal Express Nov. 19, 1981

RECEIVED
DEC 1 C 1981
DIVISION OF OIL, GAS & MINING

CAUSE NO. WD-103

Notice of hearing was sent to the following:

NEWSPAPERS: Newspaper Agency Corp.
Vernal Express

Energy Reserves Group
Box 1407
633 17th St.
Suite 3200
Denver, CO 80201

Energy Reserves Group
217 N. Water St.
Wichita, Kansas 67202

Energy Reserves Group
P.O. Box 3280
28 Foster Rd.
Casper, WY 82602

Environmental Protection Agency
1860 Lincoln St.
Suite 103
Denver, CO 80295
Attn: Mike Kuntz

P.J. Frank
NOV. 13, 1981

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES AND ENERGY
in and for the STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF ENERGY RESERVES GROUP, INC., FOR ADMINISTRATIVE APPROVAL TO DISPOSE SALT WATER INTO THE U.S.A. PEARL BROADHURST #5, SECTION 10, T.7S, R.23 E., SW SW, UINTAH COUNTY, UTAH.	)	CAUSE NO. WD-103

N O T I C E

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STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

Paula J. Frank
Secretary of the Board

Energy Reserves group

RADIUS OF INFLUENCE BY VOLUMETRIC METHOD

Well No. USA Pearl Broadhurst #5 Sec. 10 T. 75 R. 23E County Uintah

V_1 = Volume of fluid to be injected for life of well

V_2 = Volume of storage per acre in formation

A = Acres of Influence

r = Radius of Influence

$$V_1 = 600 \left(\frac{bbls}{day}\right) \times 365 \left(\frac{day}{year}\right) \times 5 \text{ year} = 1,095000 \text{ bbls}$$

$$V_2 = \emptyset \times h(ft) \times 43560 \left(\frac{ft^2}{acre}\right) \times \frac{1}{5.614}\left(\frac{bbl}{ft^3}\right) \times 1 \left(\frac{bbl}{bbl}\right)$$

$\emptyset$ = porosity % .08

h = thickness of injection zone 106'

$$= .08 \times 106 \text{ (ft)} \times 43560 \left(\frac{ft^2}{acre}\right) \times \frac{1}{5.614}\left(\frac{bbl}{ft^3}\right) \times 1 \left(\frac{bbl}{bbl}\right)$$

$$= 65798$$

$$A = \frac{V_1}{V_2} = \frac{1095000}{65798} = 16.7 \sim 17$$

$$r = \sqrt{\frac{(A)(43560)}{\pi}} = \sqrt{\frac{(17)(43560)}{\pi}} = 486'$$

OEL

Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602
Phone 307 265 7331

Energy Reserves Group

December 22, 1981

State of Utah Natural Resources & Energy
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, Utah 84114
Attn: Leland C. Spencer

Dear Mr. Spencer:

In response to your letter of December 3, 1981, please find the enclosed Application for Approval of Class II Injection Wells for USA Pearl Broadhurst #5 in Uintah County, Utah. Included are the original and 6 copies of the application forms (DOGM-UIC-1 & DOGM-UIC-2), and one complete set of attachments.

Please feel free to contact me if you need any additional information.

Sincerely,
ENERGY RESERVES GROUP, INC.

Phil Wagner
Production Engineer
Rocky Mountain District

PW:erl

attachments

RECEIVED
DEC 29 1981
DIVISION OF
OIL, GAS & MINING

DIVISION OF OIL, GAS AND MINING
Room 4241 State Office Building
Salt Lake City, UT 84114
(801) 533-5771

FORM NO.
DOGM-UIC-1

IN THE MATTER OF THE APPLICATION OF
Energy Reserves Group, Inc.

CAUSE NO. WD-103

ADDRESS P.O. Box 3280
Casper, Wyoming ZIP 82602

INDIVIDUAL ___ PARTNERSHIP ___ CORPORATION X

ENHANCED RECOVERY INJ. WELL ☐
DISPOSAL WELL ☒

FOR ADMINISTRATIVE APPROVAL TO DISPOSE OR INJECT FLUID INTO THE USA Pearl Broadhurst #5 well

SEC. 10 TWP. 7S RANGE 23E

Uintah COUNTY, Utah

APPLICATION

Comes now the applicant and shows the Corporation Commission the following:

1. That I-5-(b)6 authorizes administrative approval of enhanced recovery injection or disposal operations.
2. That the applicant submits the following information.

Lease Name: USA Pearl Broadhurst	Well No.: #5	Field: Walker Hollow	County: Uintah
Location of Enhanced Recovery Injection or Disposal Well: SW SW	Sec. 10	Twp. 7S	Rge. 23E
New Well To Be Drilled: YES ☐ NO ☒	Old Well To Be Converted: YES ☒ NO ☐	Casing Test: YES ☒ NO ☐ DATE 12-10-81	
Depth-Base Lowest Known Fresh Water Within ½ Mile: None	Does Injection Zone Contain Oil-Gas-Fresh Water Within ½ Mile: YES ☒ No ☐	State What: Oil-Gas-Water	
Location of Injection Source(s): USA Pearl Broadhurst Lease	Geologic Name(s) and Depth of Source(s): Green River "H, J", & K" Zones 4,700'-5,300'		
Geologic Name of Injection Zone: Green River "J" & "K" Zones	Depth of Injection Interval: 5,325' To 5,431'		
a. Top of the Perforated Interval: 5,325' KB	b. Base of Fresh Water: None Known	c. Intervening Thickness (a minus b): N/A	
Is the intervening thickness sufficient to show fresh water will be protected without additional data? YES N/A NO			
Lithology of Intervening Zones: N/A			
Injection Rates and Pressures: Maximum Approx 500 B/D; Approx 1000 PSI			
The Names and Addresses of Those To Whom Copies of This Application and Attachments Have Been Sent			

State of Wyoming)
County of Natrona)

Phil Wagner Production Engineer Energy Reserves Group
Applicant

Before me, the undersigned authority, on this day personally appeared Phil Wagner known to me to be the person whose name is subscribed to the above instrument, who being by me duly sworn on oath states, that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

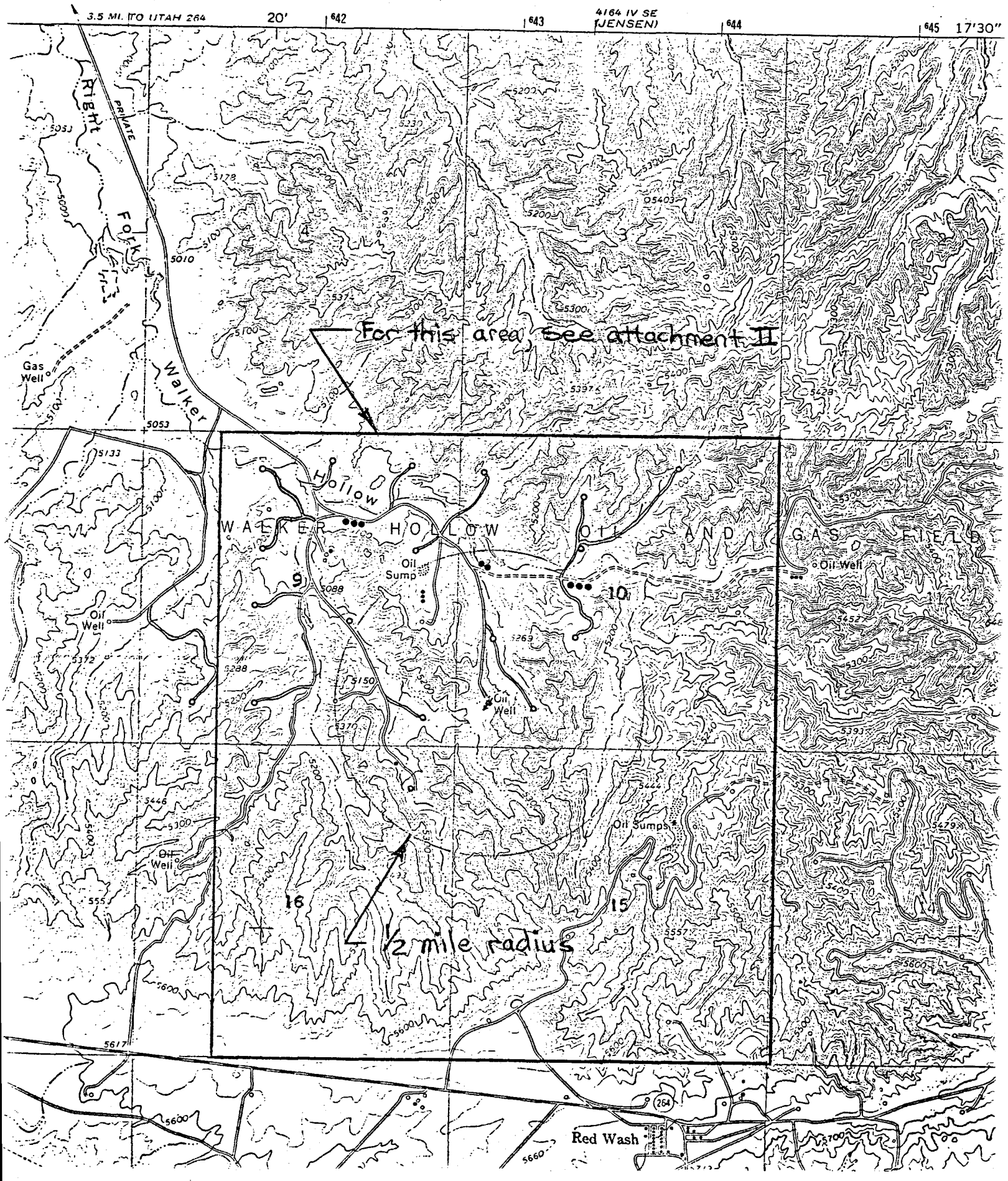
Subscribed and sworn to before me this 23rd day of December, 1981

JUDITH L. ROSS, Notary Public
County of Natrona
SEAL
State of Wyoming
My Commission Expires Mar. 14, 1983

My Commission expires March 14, 1983

Judith L. Ross
Notary Public in and for Natrona County, Wy.

(OVER)


3.5 MI. TO UTAH 264
20'
642
643
4164 IV SE
(JENSEN)
644
645
17'30"
Right
Fork
Walker
PRIVATE
Gas Well
For this area, See attachment II
WALKER HOLLOW OIL AND GAS FIELD
Hollow
Oil Sump
Oil Well
Oil Sumps
9
10
16
15
½ mile radius
Red Wash
264

ENERGY RESERVES GROUP, I

ATTACHMENT II

1. USA Pearl Broadhurst # 5--SW/SW Sec. 10 -- TD = 5,907'
2. USA Pearl Broadhurst # 4--SW/SE Sec. 9 -- TD = 5,900'
3. USA Pearl Broadhurst # 1--NE/SE Sec. 9 -- TD = 5,902'
4. USA Pearl Broadhurst #15--SE/SE Sec. 9 -- TD = 5,517'
5. Chevron --NE/NE Sec. 16 -- TD = (NA)
6. USA Pearl Broadhurst # 2--SW/NW Sec. 10 -- TD = 5,800'
7. USA Pearl Broadhurst #16--NW/SW Sec. 10 -- TD = 5,487'
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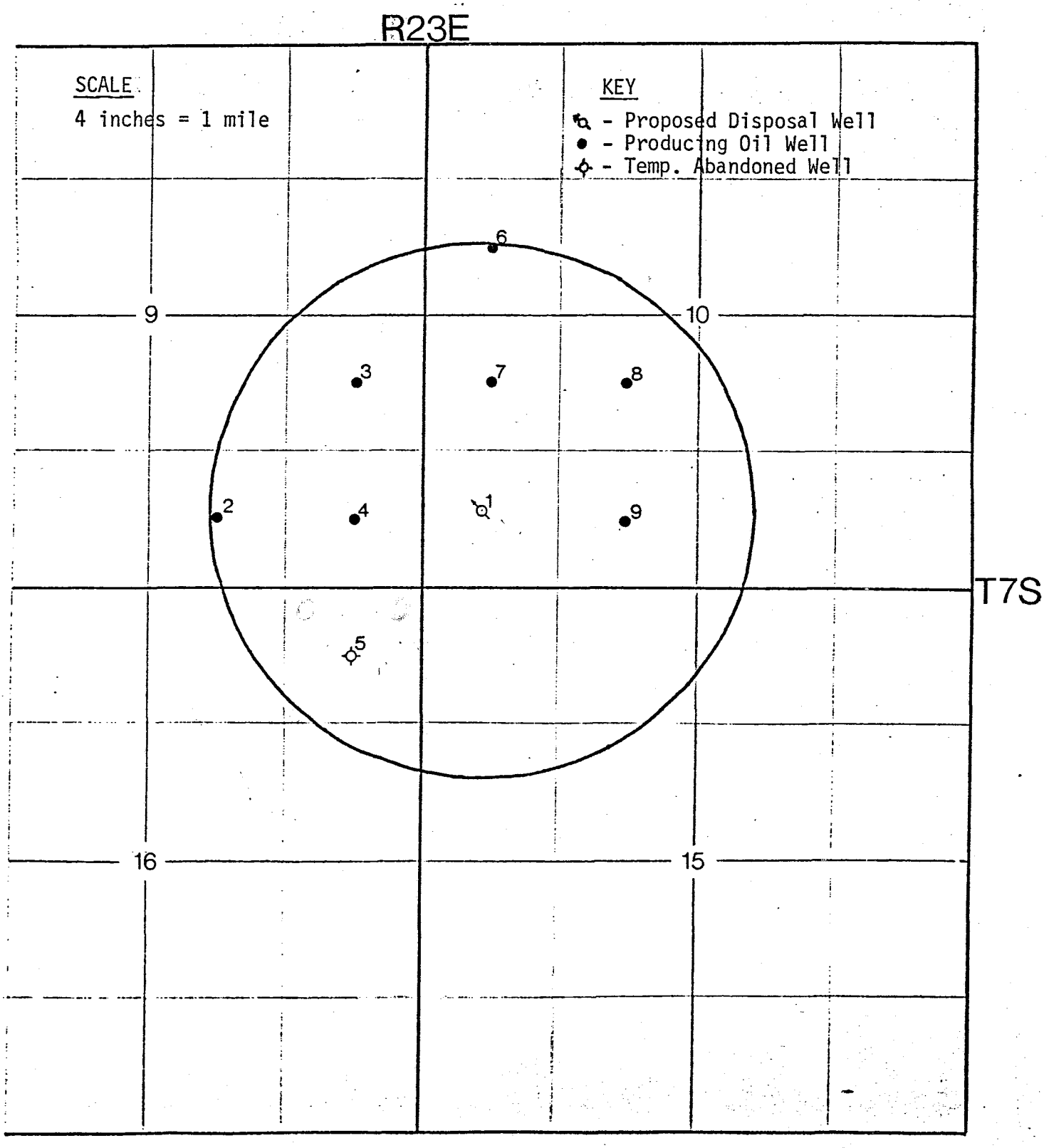
9. USA Pearl Broadhurst #22--SE/SW Sec. 10 -- TD = 5,650'



Division of Oil, Gas, and Mining **PLEASE TYPE OR USE BLACK INK ONLY** ATTACHMENT III

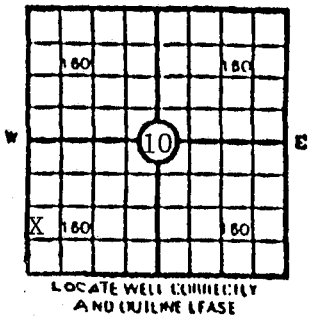
(To be filed within 30 days after drilling is completed)

Form DOGM-UIC-2

COUNTY
LEASE NO.

API NO
43-047-15695

640 Acres



LOCATE WELL CORRECTLY AND OUTLINE LEASE

COUNTY Uintah SEC 10 TWP 7S RGE 23E

COMPANY OPERATING Energy Reserves Group, Inc.

OFFICE ADDRESS P.O. Box 3280

TOWN Casper STATE ZIP WY 82602

FARM NAME USA Pearl Broadhurst WELL NO #5

DRILLING STARTED 4-26 19 64 DRILLING FINISHED 5-17 19 64

DATE OF FIRST PRODUCTION 6-26-64 COMPLETED 5-26-64

WELL LOCATED C ¼ SW ¼ SW ¼ Section 10

743 FT FROM SL OF ¼ SEC. & 564 FT. FROM WL OF ¼ SEC.

ELEVATION DERRICK FLOOR 5,290' GROUND 5,278'

TYPE COMPLETION

Single Zone _____ Order No. _____

Multiple Zone X Order No. _____

Commingled _____ Order No. _____

LOCATION EXCEPTION Order No. _____ Penalty _____

OIL OR GAS ZONES

Name	From	To	Name	From	To
Green River "H"	4748'	4828'			
Green River "J"	5325'	5333'			
Green River "K"	5388'	5431'			

CASING & CEMENT

Casing Set				Csg Test	Cement		
Size	Wgt	Grade	Feet	Psi	Sax	Fillup	Top
10-3/4"	32.75#	H-40	495'	----	353	495'	surface
7"	20#,23#	J-55	5567'	2500	360	1681'	4226'

Packer set:
Depth ± 4910' KB

TOTAL DEPTH 5907' KB

COMPLETION & TEST DATA BY PRODUCING FORMATION

	1	2	3
FORMATION	Green River "H"	Green River "J"	Green River "K"
SPACING & SPACING ORDER NO.	40 acre	40 acre	40 acre
CLASSIFICATION (Oil; Gas; Dry; Inj. Well)	Oil	Oil	Oil
PERFORATED	4,748'-4,752'	5,325'	5,388'
	4,794'	5,333'	5,397'
INTERVALS	4,828'		5,412'
			5,431'
ACIDIZED?	1000 gallons	500 gallons	
FRACTURE TREATED?	18,000 gallons	30,000 gallons	

INITIAL TEST DATA

Date	6-26-64	3-10-66	3-10-66
Oil-bbl./day	52 BOPD	126 BOPD	
Oil Gravity	± 28°	± 28°	
Gas-Cu. Ft./day	0 CF	129,000 CF	
Gas-Oil Ratio Cu. Ft./Bbl.	NA	1024	
Water-Bbl./day	0	49 BWPD	
Pumping or flowing	Pumping	Pumping	
CHOKE SIZE			
FLOW TUBING PRESSURE			

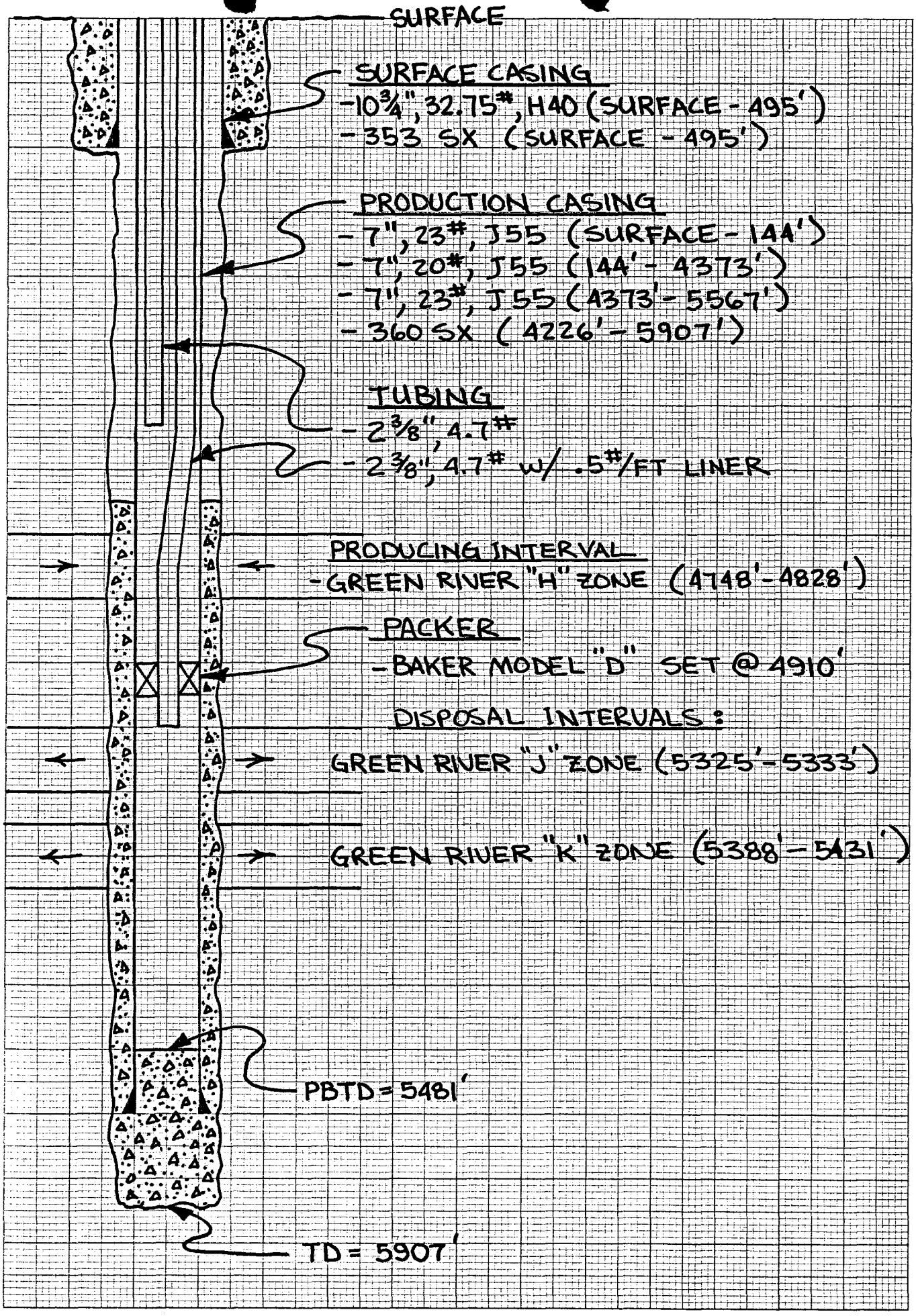
A record of the formations drilled through, and pertinent remarks are presented on the reverse

(Please use reverse side)

I, the undersigned, being first duly sworn upon oath, state that this well record is true, correct and complete according to the records of this office and the best of my knowledge and belief.

Telephone (307) 265-7331 Phil Wagner - Prod. Engr - RMD

Name and title of representative of company



46 1320
K&E 10 X 10 TO ½ INCH 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

January 6, 1982

U.S. Geological Survey
Attn: Mr. Raffoul
1745 W. 1700 S.
Ste. 2000
Salt Lake City, UT 84104

Re: Class II Underground
Injection Application
Energy Reserves Group, Inc.
SW SW Sec. 10, T. 7S, R. 23E
Uintah County, Utah

Dear Mr. Raffoul,

Please find enclosed for your review and comments, the above application for a Class II well determination.

As this application must be noticed and published in accordance with Rule I-5(b)(6), please contact this Division and/or submit all comments within fifteen days of the date of receipt, or the application will continue to be processed without your comments.

Your prompt attention in reviewing this application will be greatly appreciated and if you have any questions or require further information, please do not hesitate to call or write the Division.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

Thalia R. Pratt

THALIA R. PRATT
UIC SPECIALIST

Enclosures: (2)

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

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United States Department of the Interior

GEOLOGICAL SURVEY
Conservation Division
2000 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104-3884

RECEIVED
JAN 08 1982
DIVISION OF
OIL, GAS & MINING

January 7, 1982

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

JAN 8 1982
LCS

Attn: Mr. Leland C. Spencer
UIC Engineer

Re: Class II Injection Well
Well No. 5
Section 10, T7S, R23E
Uintah County, Utah
Lease U-02651-A

Dear Mr. Spencer:

The Energy Reserves Group, Inc. application of a class II injection well for the referenced well was received and reviewed. This application is not similar to the application this office received directly from Energy Reserves.

The main concern this office has about this injection well is that the operator will probably exceed the fracturing pressure early in the injection life of this well. While discussing this subject with Energy Reserves, the approval was conditioned that fracturing pressure would not be exceeded.

In this application to the State, Energy Reserves states on the second page of the application that the injection pressure will be 2000 psi. In another document submitted to the State, they state that the injection pressure will be approximately 1000 psi. The calculations of Energy Reserves justly show that the true injection pressure should not exceed 1033 psi. It is known that when injecting fluid into the ground, the pressure in general increases with time. If this well is approved by the state, it will only be a short time before injection pressure will exceed the calculated fracture gradient pressure.

Another point of interest is the lack of any monitoring device that will be triggered if injection pressure reaches 1033 psi. Since the pump used will probably be able to generate 2000 to 3000 psi, it is more than likely that higher pressure of injection will be used.

This office agrees with you that a new cement bond log would be advisable.

Sincerely,

for E. W. Guynn
District Oil & Gas Supervisor

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
1860 LINCOLN STREET
DENVER, COLORADO 80295

RECEIVED
FEB 05 1982
DIVISION OF
OIL, GAS & MINING

FEB 03 1982

Ref: 8WM:DW

Lee Spencer, UIC Engineer
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

Dear Mr. Spencer:

This letter will serve to confirm our telephone conversation of January 25th. We have given a preliminary technical review of the two, Class II, well applications attached with Thalia Pratt's letter of January 6. Although EPA does not have specific guidelines for UIC permit review, we have tried to identify what we feel are the deficiencies in the application. Our comment follows:

American Quasar Petroleum Co.:

The application should include information on the following:

1. A discussion of the water quality in the stump formation as it is the intended injection formation.

2. A discussion of the water quality above the Kelvin. This should include the identification of any USDW's.

3. A list of water wells in the area.

4. The justification for a 2500 PSI injection pressure limitation. What information is available to come up with this limitation?

5. Identification of the bottom of cement in the surface casing.

6. Geophysical logs, cement bond log and geologic cross sections.

7. A discussion concerning mechanical integrity testing and/or pressure monitoring.

8. A discussion as to whether or not the land lease holders were notified.

Energy Reserves Group, Inc.:

The application should include the following:

1. A discussion of the water quality overlying the injection horizon.

2. Geologic cross sections, geophysical logs and a cement bond log.

3. A discussion of the condition of the abandoned well.

4. A discussion of the storage facilities at the site.

5. A plan view of the site.

6. A list of water wells in the area.

7. A discussion as to whether or not the land/lease holders were notified.

8. A discussion as to why surface casing was set to 495 feet.

9. A discussion concerning mechanical integrity and/or pressure monitoring.

As a final note we are curious as to how you verify that no additional abandoned wells are in the injection area.

In the future, when our schedule allows, we are certainally willing to review selected permits and we encourage a continued rapport on this matter. If you have any questions concerning this letter, please do no hesitate to call me at (303) 837-2731.

Sincerely yours,

Michael Kuntz

Michael Kuntz,
Hydrologist

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

February 8, 1982

Mr. Phil Wagner
Production Engineer
Rocky Mountain District
Energy Reserves Group, Inc
P.O. Box 3280
Casper, Wyoming 82602

RE: Application for Approval of Class II Injection Well- Pearl Broadhurst No.5 SWSW Sec. 10 T7S-R23S Uintah Co

Dear Mr. Wagner,

The resubmission of your application of the Class II Injection Well was received December 29, 1982. In reviewing your application the water quality in the Green River "J" shows a TDS of 6013 mg/l. Pursuant to the definition this is classified as an Underground Source of Drinking Water. Therefore the Division must set a hearing before the Board of Oil, Gas and Mining in March and the Board is authorized, subject to EPA approval, to exempt certain aquifers from the classification as a USDW under the conditions as prescribed in Rule I-5(c). It is generally felt that you should be able to make a showing under item (2)(a)(b)&(c). The Division assumes that you are interested in pursuing this aquifer exemption and will notify EPA immediately as well as set the matter for the Board Hearing.

In addition due to EPA's requirments for some proposed additions to our Rules we are enclosing this version. Please take this opportunity to provide the following additional items:

1. USGS has noted per the enclosed letter that you should not exceed an injection pressure of 1033 psi. If you still wish to use 2000 psi you must justify the use of this pressure.

2 Pursuant to proposed Rule I-5(b)(5)(i) and the USGS comments the applicant must provide a procedure for controlling injection rates and pressures such as a relief valve, regulator or other pressure control device.

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

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3 Pursuant to Rule I-5(b), the applicant has indicated that USDW's are not present in the area that could potentially be contaminated by injection. Please refer to the definition of USDW as technically the injection formation waters qualify and assure the Division that this is correct in the strata above the Green River to the surface. Any Formation testing such as an analysis of a swab conducted in any of these formations showing water quality above the injection zone would be extremely helpful refer to Rule I-5(b)(7). Additionally, a geologic crosssection, should be provided of the formations from the surface to below the injection zone. This crosssection should include the appropriate geological data on the injection zone and confining zones including the lithologic description, geologic name, thickness, depth and lateral extent; and the same information of any known underground sources of drinking water which may be affected by injection. (see Rule I-5(b)(5)(iv) & (v).

4 Pursuant to Rule I-5(b)(5)(vi), the applicant must provide the Division with the qualitative analysis of representative sample of water from the injection zone (J & K) and the projected quantity of injected fluids for the well.

5 Pursuant to Rule I-5(b)(6), the applicant must provide contingency plans to cope with all shut-ins or well failures so as to prevent migration of polluting fluids into any underground source of drinking water.

6 The applicant should provide any data on the abandoned well to demonstate no possiblility of conduit such as completion forms and the known condition of the well.

7 The applicant should provide the discussion of the mechanical integrity testing to be done on the well and the Division requires that the applicant notify the Division of the time and date of the testing so that if possible a representative of the Division could be present.

The Division is concerned with the delays in approval that Energy Reserves has to tolerate. Due to the constant changes of the Rules, as EPA and other agencies review and approve, the Division is compassionate with your experience thus far. The Division is moving toward resolution of the program as swiftly as the process will allow. Please realize that construction of the injection well can be accomplished without approval, however, prior to injection of any fluids the Board or Director must approve. Please feel free to call Thalia Pratt or Gilbert Hunt at the Division (801) 533-5771.

Yours Truly,

Thalia R. Pratt

Thalia R. Pratt, UIC Specialist

Doc # 0073A
TRP/tp
Attachments: USGS Letter
Revised Rules and Regs
UIC Forms

Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602
Phone 307 265 7331

Energy Reserves Group

February 22, 1982

State of Utah
Natural Resources & Energy
Oil, Gas & Mining
4241 State Office Building
Salt Lake City, Utah 84114

RECEIVED
FEB 24 1982
DIVISION OF
OIL, GAS & MINING

Attn: Thalia R. Pratt

RE: Application for Approval
Class II Injection Well
USA Pearl Broadhurst #5
SW SW Sec. 10-T7S-R23E
Uintah County, Utah

Dear Ms. Pratt:

In regards to your letter dated February 8, 1982, the additional requirements for Underground Injection Control for the subject Class II Well is provided:

1. Energy Reserves Group (ERG) will not exceed an injection pressure of 1450 psi. The frac gradient for the Green River Formation in the Walker Hollow area varies from 0.60 psi/ft to 0.80 psi/ft. ERG assumed a 0.70 psi/ft frac gradient minus the hydrostatic pressure of water to arrive at the injection pressure of 1450 psi.

2. ERG has purchased a portable water injection plant with the proper shutdown sensing equipment to apply with Rule I-5 (b)(5)(i). The plant will be equipped with the following shutdown devices:
   a. Pump-high discharge pressure. (Manually set).
   b. Pump-low discharge pressure.
   c. Pump-crankcase oil level.
   d. Pump-lubricator oil level.
   e. Low tank level.
   f. Engine-low oil pressure.
   g. Engine-high water temperature.

The plant is built with pump relief piping with an adjustable relief valve. Pressure is the controlling factor and along with the rate they are regulated by the engine RPM, the pump fluid end size and the plunger size. The pump ERG purchased has a 2" plunger with a medium pressure fluid end with a maximum pressure rating of 1500 psi. The pump is capable of higher pressures, but with the added expense of changing plunger and fluid end sizes. ERG will also install a flow rate totalizer and pressure gauge to monitor both on a daily basic.

3. Geological data on the injection zone and confining zone:
   a. lithologic descriptions-No lithologic descriptions available for the subject well, but Attachment #1 is a representative description of the samples from the Walker Hollow area. The sample descriptions are from USA Pearl Broadhurst #15 one location to the west.

   b. geologic name, thickness & depth-Uintah Formation at surface to ± 2,800'. Green River Formation from ± 2,800' to TD. Green River Formation Zones: G zn ± 4,300', H zn ± 4,600', I zn ± 4,900', J zn ± 5,100' & K zn ± 5,350'.

   c. lateral extent-The Green River Formation is productive in the H,J & K zones in the Walker Hollow area, but the zones are stratigraphic traps resulting from lateral change that prevents continued migration of hydrocarbons and water in a potential reservoir bed. The same zones are productive to the south at Red Wash, to east at Exxon's Walker Hollow, to the west on Ken Luffs lease and the production to the north is minimal. In other works the zones are productive elsewhere, but they are not a continuous reservoir.

   There are no known underground sources of drinking water in area that would be affected by injection.

   Attachments #2 and #3 are water analysis from DST's from the I zone at 4,964' and a Upper Green River sand at 3,450'. These analysis are similiar to some of the J & K zone samples.

4. Projected quantity of injected fluid is 600 BWPD. I have attached a number of different water analysis from the J & K zones produced water.

5. To apply with Rule 1-5 (b)(6), ERG's measures to be taken with all shut-ins and well failures: If the well is temporarily shut-in, we should have ample tank space for the produced water, and if the tank space gets to be limited, we can always haul the water. We will also have emergency surface pits for water disposal. A downhole shut off value will be run above the permanent packer, if the well pressures up the well can be flowed back, and when the injection string is pulled the valve closes preventing water entering the producing horizon. There are not any USDW in the area, so a well failure should not cause any USDW contamination. If there is a well failure, ERG will take remedial action to correct the failure, if at all possible. The Green River H zone which is being rod pumped in the subject well, produces oil and water at a frequently measured rate, and if the injection zones communicate with the H zone the water cut should start increasing.

6. The abandoned well was operated by Chevron, so ERG has no data on the subject well. The State has better access to the data than ERG.

7. Mechanical integrity tests:
   ERG's subject well can not pressure tested at surface down the tubing-casing annulus, since the well is a dual completion and is presently being rod pumped above a permanent packer. When the permanent packer was installed a retrievable packer was set above, and pressure tested the permanent to 2500 psi--held o.k. The permanent packer will be pressure tested in the future when at all possible. Monitoring casing pressure in the subject well is not applicable, since it is a dual completion.

8. Aquifer exemption:
   At the subject lease there are 21 producing wells, that produce approximately 600 barrels of water per day from the Green River formation H, J & K zones. The produced water will be reinjected into the J & K zones so contamination of a USDW is unlikely. The Green River formation J & K zones do not currently serve as a source of drinking water. It is hydrocarbon producing, and it is at a depth of 5,325', which makes recovery of water for drinking purposes uneconomical. The J & K zones would never be used for USDW as long as the zones are hydrocarbon producing.

Sincerely yours,
ENERGY RESERVES GROUP, INC.

Bobby Patrick
Production Engineer
Rocky Mountain District

BP:erl

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

February 26, 1982

Mr. Ed Guynn
District Oil & Gas Supervisor
Minerals Management Service
2000 Administration Bldg.
1745 West 1700 South
Salt Lake City, UT 84104-3884

Re: Class II Injection Well
USA Pearl Broadhurst #5
Sec. 10, T7S, R23E
Uintah County, Utah

Dear Ed:

Please find enclosed a copy of Energy Reserve Group's response to our letter of February 8, 1982. I would appreciate your comments especially in regards to injection pressure and mechanical integrity.

Thank you for the help you have given us during the early stages of the UIC program.

Sincerely,

Gilbert L. Hunt

GLH/tp

Enclosures: (2)

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

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STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

Thalia — Please put in well file 7

M E M O R A N D U M
* * * * * * * * * *

TO: Cleon B. Feight, Director

FROM: Gilbert L. Hunt, UIC Geologist GLH

SUBJECT: Approval of Injection Well
Energy Reserves Group
USA Pearl Broadhurst #5
Uintah County, Utah

DATE: March 9, 1982

After reviewing Energy Reserves' application and submissions I would recommend approval be granted with a couple of conditions.

1) Energy Reserves Group states that the frac gradient in this area varies from .6 to .8. In determining their injection pressure of 1450 psi they used a frac gradient of .7. After talking to Ed Guynn, I recommend Energy Reserves Group start with an injection pressure of 850 psi (.6 frac gradient) and watch for an increase in the water cut in the producing zone above. If no increase is observed, then the injection pressure could be increased. In order to monitor this, Energy Reserves Group will need to provide the Division with data on the water-oil production, if we don't have it already.

2) Provided this area is exempt under Rule I-5(c) by the board and EPA.

In talking to Energy Reserves' engineer, they won't need to inject into this well until late April. Hopefully, this aquifer exemption problem will be taken care of by then.

cc: Thalia Pratt, DOGM

GLH/lk

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

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9-331
1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well [X] gas well [ ] other

2. NAME OF OPERATOR
Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR
P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 743' FSL & 564' FWL (SW/SW)
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
U-02651A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
USA Pearl Broadhurst

9. WELL NO.
5

10. FIELD OR WILDCAT NAME
Walker Hollow

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 10-T7S-R23E

12. COUNTY OR PARISH
Uintah

13. STATE
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
KB 5,290' (GRD + 12')

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	[ ]	[ ]
FRACTURE TREAT	[ ]	[ ]
SHOOT OR ACIDIZE	[ ]	[ ]
REPAIR WELL	[ ]	[ ]
PULL OR ALTER CASING	[ ]	[ ]
MULTIPLE COMPLETE	[ ]	[ ]
CHANGE ZONES	[ ]	[ ]
ABANDON*	[ ]	[ ]
(other) Workover		X

RECEIVED
MAR 18 1982
DIVISION OF
OIL, GAS & MINING

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

The subject well was converted to a water injection well in November 1971 for only 2.5 months, and has been temporarily abandoned since February 1972. From 7-15-81 to 7-29-81 the Green River "H" zone perfs (4,748'-4,828'), "J" zone perfs (5,325'-5,333'), and "K" zone perfs (5,388'-5,431') were swab tested to determine their productive possibilities. The "H" zone swab tested oil and the "J" & "K" zones swab tested 100% water.

From 12-10-82 to 12-17-81 the subject well was dually completed with the "H" zone equipped for production and the "J" & "K" zones equipped for lease water disposal as follows: Set a Baker Model "D" packer at 4,910' KB with 2-3/8" Duoline tubing latched in for an injection string. 2-3/8" Nu Lock production tubing latched in a parallel anchor set at 4,689' KB. Surface production equipment was installed and injection equipment is being installed. (OVER)

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Bobby Patrick TITLE Prod Engr- RMD DATE 3-15-82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

BEST COPY AVAILABLE

9-331
1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. Oil well ☒ Gas well ☐ other

2. NAME OF OPERATOR
Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR
P.O. Box 3230 - Casper, Wyoming 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 742' FSL & 564' FWL (SW/SW)
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
U-02651A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
USA Pearl

9. WELL NO.
5

10. FIELD OR WILDCAT NAME
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 17-T7S-R19E

12. COUNTY OR PARISH
Uintah

13. STATE
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, RT, GR, etc.)
5000' GL

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☐
SHOOT OR ACIDIZE	☐		☐
REPAIR WELL	☐		☐
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON*	☐		☐
(other) Workover	☐		☐

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.)*

The subject well was converted to a water injection well for only 2.5 months, and has been temporarily abandoned since 1-29-81. From 7-15-81 to 7-29-81 the Green River "H" zone (5,325'-5,330') and "K" zone perfs (5,390'-5,395') were tested to determine their productive possibility. The "J" & "K" zones swab tested oil and the "J" & "K" zones swab tested [illegible]

From 12-10-82 to 12-17-81 the subject well was converted to a water disposal as follows: Set a Baker Model "D" packer [illegible] Dualine tubing latched in for an injection string. [illegible] tubing latched in a parallel anchor set at 4,695' [illegible] was installed and injection equipment is being [illegible]

The subject well started pumping on 2-2-87 and production stabilized at 19 BOPD, 10 BWPD. The lease water disposal system will start injection, once the equipment is installed, and once approval is received from the State of Utah.

Subsurface Safety Valve: Manf. and Type _____

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

SIGNED Bobby Patrick TITLE Prod. Supr. - RMD DATE 2-18-87

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

GPO: 1976 O - 214-[illegible]

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

April 30, 1982

MEMO TO FILE

RE: Energy Reserves Group, Inc.
Disposal Well Application
Area of Review
USA Pearl Broadhurst #5
Sec. 10 T75, R23E
Uintah County, Utah

The ½ mile radius area of review around the USA Pearl Broadhurst #5 injection well contains several wells, seven producing and one shutin. In scrutinizing files for these wells the following was found. Two of the wells showed a considerable less cement used with the lower casing than did the rest. However, I don't feel this is of serious concern since both wells are approximately ½ mile from the proposed injection well. CBLs were available only for the injection well and the shutin well. These logs showed good bond for approximately 1000 feet above the injection zone. The cement used in the wells should be enough to put a several hundred foot plug above the producing zones between the outside casing and borehole wall. Chevron was contacted concerning their 189 (41-16B) well and its mechanical condition. They said there should be no problem with this well acting as a conduit to younger strata, refer to the Chevron letter in the file.

GLH:sc GLH

Chevron

Chevron U.S.A. Inc.
700 South Colorado Blvd., P. O. Box 599, Denver, CO 80201

R. H. Elliott
Area Superintendent

April 23, 1982

RWU No. 189 (41-16B)
Sec. 16, T7S, R23E
Uintah County, Utah

State of Utah
Natural Resources & Energy
Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

Attention: Mr. Gilbert L. Hunt

Gentlemen:

With regard to your letter of April 9, 1982, requesting information on the condition of the subject well, the following data may be of use to you.

RWU No. 189 was completed in May 1964 with 5-1/2", 15.5 #/ft J-55 casing set at 5387'. There has been no well work on this well since it was shut in in 1973, so the exact condition of the casing is unknown. However, considering the history of casing leaks in Red Wash Unit, it is reasonable to expect the casing to currently be intact.

The casing was cemented in place with 261 sacks of cement. A Schlumberger Cement Bond Log was run which showed the cement top to be at 4350'. The bond quality from the cement top to the uppermost perforation (4663') appears to be quite good.

Open perforations are located at 5342, 5317, 5301, 5233, 4768, 4756, 4707 (4-day tandem jets) and 4663-67 (two jets per foot). Perforations below 4700' are currently excluded by a packer with an expendable push out plug which was set in December 1967. The packer was tested to 3750 psi when it was set.

The proposed interval of injection in the U.S.A. Pearl Broadhurst #5, 4824-4794, correlates to intervals below the packer in RWU No. 189.

Assuming mechanical integrity of the wellbore in RWU No. 189, it should not serve as a conduit to a younger strata as a result or injection in the Broadhurst #5 well.

Very truly yours,

RHElliott

MKD:jg

RECEIVED
APR 30 1982
DIVISION OF
OIL, GAS & MINING

DETERMINATION OF PARTING PRESSURE

Broadhurst No. 5

Frac'd with crude down 7" casing at 28 BPM and 3000 psig. Average Depth is 5,378'.

Bottomhole Fracture Pressure = 3000 psig + 2329 psig - 140 psig
(Surface) (Hydrostatic) (Friction)

= 5189 psig

Fracture Gradient = .96 psig/ft

Broadhurst No. 6

Frac'd with gelled oil-water emulsion down 5-1/2" casing at 34 BPM and 3400 psig. Average Depth is 5,328'.

Bottomhole Fracture Pressure = 3400 psig + 2307 psig - 456 psig
(Surface) (Hydrostatic) (Friction)

= 5251 psig

Fracture Gradient = .99 psig/ft

Broadhurst No. 9

Frac'd with gelled Diesel & water at 39 BPM and 3450 psig down 5-1/2" casing. Average Depth is 5,358'.

Bottomhole Fracture Pressure = 3450 psig + 2320 psig - 590 psig
(Surface) (Hydrostatic) (Friction)

= 5180 psig

Fracture Gradient = .97

Average Bottomhole Fracture Pressure @ 5,378'

$$= \frac{5189 + (5251 + 50) + (5180 + 19)}{3}$$

= 5230 psig

Average Bottomhole Fracture Gradient $= \frac{5230}{5378} = .97$

Surface pressure required to frac the injection well

Injection is down 2-3/8" tubing to an average depth of 5378 ft. injection is estimated to be 1-1/4 BPM, or 600 bbls in 8 hrs.

Surface Pressure = 5230 psig - 2329 psig + 124 psig
(Parting pressure) (Hydrostatic) (Friction)

= 3025 psig

Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602
Phone 307 265 7331

Energy Reserves Group

May 13, 1982

State of Utah
Natural Resources & Energy
4241 State Office Building
Salt Lake City, Utah 84114

Attention: Mr. G.L. Hunt

Subject: Surface Injection Pressure
USA Pearl Broadhurst #5
Uintah County, Utah

Mr. Hunt:

Regarding our telephone conversation of Monday May 10, 1982 I am requesting an increase in our surface injection pressure at the above mentioned well. Attached is a summary of bottomhole pressures required to fracture the J and K zones of the Green River formation. Three wells were used to come up with a bottomhole parting pressure of 5230 psig or a fracture gradient of .97. These data were taken from three actual hydraulic fractures in the subject zones. These values are on the conservative side because the increased weight and improved friction characteristics of the frac fluid were not taken into account. Using these data a surface injection pressure of 3025 psig would be required to fracture the formation. We are presently limited to 1450 psig.

Although we hope we will not need to approach 3000 psi surface pressure to inject water, past history indicates it may be necessary. I am requesting approval to inject at 3000 psig.

RECEIVED
MAY 17 1982
DIVISION OF
OIL, GAS & MINING

Energy Reserves Group

Your prompt attention to this matter would be appreciated since the formation is already starting to pressure up on us. As previously requested we will supply the division with seven days of water-oil production data in addition to the monthly reports.

If you have any questions regarding this information please don't hesitate to call.

Sincerely,
ENERGY RESERVES GROUP, INC.

Lance R. Neiberger
District Engineer
Rocky Mountain District

cc: Lee McLean
Bobby Patrick
Well File

LRN:erl

Attachment

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

May 21, 1982

Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602

Attn: Lance Neiberger

RE: Surface Injection Pressure
USA Pearl Broadhurst #5
Uintah County, Utah

Gentlemen:

In regards to your letter of May 13, 1982, in which you requested an injection pressure of 3000 psig, the Division denies your request. It is Division policy to allow a safety factor of approximately 20 percent below the fracturing pressure, or .75 psi/ft frac gradient, whichever applies. Your figure of 3000 psig is 99 percent of the calculated fracturing pressure.

Permission is hereby granted from this office for a maximum injection pressure of 2420 psig which allows a safety factor of approximately 20 percent, neglecting the small change in friction loss.

If you have any questions, please call.

Sincerely,

DIVISION OF OIL, GAS & MINING

GILBERT L. HUNT
UIC GEOLOGIST

cc: Ron Firth, Chief Petroleum Engineer, DOGM

GLH:dc

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

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Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602
Phone 307 265 7331

Energy Reserves Group

June 8, 1982

State of Utah
Oil, Gas & Mining
4241 State Office Building
Salt Lake City, Utah 84114

Attn: Gilbert L. Hunt

RE: USA Pearl Broadhurst #5
Class II Injection Well
Sec. 10-T7S-R23E
Uintah County, Utah

Dear Gilbert:

This is in regards to your letter dated March 25, 1982, concerning 7 days of water-oil production in the subject well. The production in the H zone has stayed constant since water injection has began. The production average for both April & May was 8 BOPD/9 BWPD, so presently we have not seen communication between the injection & producing zones. ERG will provide DOGM monthly water cut information from the H zone in this well.

Please advise if further information is needed.

Sincerely yours,
ENERGY RESERVES GROUP, INC.

Bobby Patrick

Bobby Patrick
Production Engineer
Rocky Mountain District

BP:erl

RECEIVED
JUN 10 1982
DIVISION OF
OIL, GAS & MINING

Form OGC-1b

ENTRY

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

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.)

RECEIVED
JUN 22 1984
DIVISION OF OIL GAS & MINING

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR: P. O. Box 3280, Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: SW SW SW Section 10 T7S-R23E

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: U. S. A. Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Walker Hollow

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 10 T7S-R23E

14. PERMIT NO.: 43-047-15695

15. ELEVATIONS (Show whether DF, RT, GR, etc.):

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Well History			[ ]
(Other)			[ ]	(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.)*

The subject well was converted to a water injection well in November 1971 for only 2.5 months, and had been temporarily abandoned since February 1972. From 7-15-81 to 7-29-81 the Green River "H" zone perfs (4,748'-4,828'), "J" zone perfs (5,325'-5,333'), and "K" zone perfs (5,388'-5,431') were swab tested oil and the "J" & "K" zones swab tested 100% water.

From 12-20-81 to 12-17-81 the subject well was dually completed with the "H" zone equipped for production and the "J" & "K" zones equipped for lease water disposal as follows: Set a Baker Model "D" packer at 4,910' KB with 2 3/8" Duoline tubing latched in for an injection string. 2 3/8" NU Lock production tubing latched in a parallel anchor set at 4,689' KB. Surface production equipment was installed as was injection equipment. The well started pumping on 2-2-82 and injection started 5-7-82.

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

SIGNED Paul Bertoglio TITLE Petroleum Engineer DATE 6-20-84

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

913 North Foster Road
Post Office Box 3280
Casper, Wyoming 82602
Telephone (307) 265-7331
Fax (307) 266-1999

RECEIVED
OCT 24 1985
DIVISION OF OIL
GAS & MINING

BHP Petroleum (Americas) Inc

September 17, 1985

U.S.A. Pearl Broadhurst #5
T5. 23E. 10 Uintah Co.

Division of Oil, Gas, and Mining
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

Re: Corporate name change, ENERGY RESERVES GROUP, INC.

Gentlemen:

By authority of the enclosed copies and affidavit, please change your records to reflect the change of the name of ENERGY RESERVES GROUP, INC. to BHP Petroleum (Americas) Inc. for all former ERG operations in Utah.

Affected leases and numbers are as follows:

USA Pan American
Federal Lease #81-06579
(Utah entity #00220)

USA Pearl Broadhurst
Federal Lease #U-02651-A
(Utah entity #00225)

Roosevelt Unit - Wasatch
Federal Lease #I-109-IND-5248 and I-109-IND-5242
(Utah entity #00221)

If further information is needed, please contact me at the letterhead address or telephone number.

Thank you for your assistance.

BHP Petroleum (Americas) Inc.

Dale Belden

Dale Belden
District Clerk
Rocky Mountain District

DB/mz

Enclosure

OCT 25 1985

Form OGC-1b

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

13

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

WIW

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.)

JAN 29 1987

DIVISION OF OIL, GAS & MINING

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: BHP Petroleum (Americas) Inc.

3. ADDRESS OF OPERATOR: 5613 DTC Parkway Ste. 600, Englewood, CO 80111

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 743' FSL & 564' FWL (SW/SW)

5. LEASE DESIGNATION AND SERIAL NO.: U 02651A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Walker Hollow

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T7S, R23E

14. PERMIT NO.: 43-047-15695

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 5290' KB (GRD = 12')

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other)		TA	[X]	(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.)*

The subject well was shut-in January 20, 1987 due to uneconomic operations. The January 7, 1987 test rate was 5 BO & 3 BW. BHP proposes to leave the well shut-in until oil prices recover.

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

SIGNED Paul Adam TITLE Petroleum Engineer DATE 1/27/ 1987

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

64

Litton
Core Lab

April 9, 1987

RECEIVED
APR 22 1987
DIVISION OF
OIL, GAS & MINING

BHP PETROLEUM

Job No.: 63070-W87225-1
Sample I.D.: Pearl
Broadhurst
Remarks:

BHP Petroleum
P. Broadhurst #5
Sec. 10, T7S, R23E

DATE/TIME SAMPLED: 03-25-87/1100
DATE/TIME RECEIVED: 03-27-87/
DATE/TIME ANALYZED:

SAMPLED BY: Chuck Williams

Parameter	Result
Lab pH (@ 25 deg. C)	8.54
General Parameters	
Total Dissolved Solids (TDS)	5000 (mg/l)
Sulfate (SO_4)	38 (mg/l)
Chloride (Cl)	1050 (mg/l)
Dissolved Metals	
Calcium (Ca)	2.13 (mg/l)
Magnesium (Mg)	1.38 (mg/l)
Potassium (K)	8.1 (mg/l)
Sodium (Na)	2030 (mg/l)

Above tests were made in accordance with EPA Methods for Chemical Analysis of Water and Wastes

QA Results

Parameter	Detection Limit	Date/ Time Analyzed	Method	Analyst
Ca	0.01 mg/l	4/07/87-1400	215.1	JH
Mg	0.01 mg/l	4/07/87-1400	242.1	JH
Na	0.01 mg/l	4/07/87-1400	273.1	JH
K	0.01 mg/l	4/07/87-1400	258.1	JH
SO_4	5 mg/l	3/31/87-0924	375.2	LB
Cl	0.5 mg/l	3/31/87-1600	325.3	LB
TDS	10 mg/l	4/01/87-1038	160.1	DC
pH		4/07/87-1500	150.1	LB

Chemist: D. Lemme

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees assume no responsibility and make no warranty or representations as to the productivity, proper operations, or profitableness of any oil, gas, coal or other mineral, property, well or sand in connection with which such report is used or relied upon.

GENERAL
ATLANTIC

RESOURCES, INC.

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 14, 1993

RECEIVED
JUN 17 1993
DIVISION OF
OIL GAS & MINING

State of Utah
Oil & Gas Conservation Commission
Three Triad Center, Suite 350
355 West North Temple
Salt Lake City, Utah 84180-1203

RE: Change of Operator
Sundry Notices and
Reports on Wells

Gentlemen:

By Assignment dated April 30, 1993, effective January 1, 1993, General Atlantic Resources, Inc. ("GARI") purchased the interests of BHP Petroleum (Americas) Inc., Hamilton Brothers Oil Company, Hamilton Brothers Exploration Company and The Norwegian Oil Corporation (DNP-U.S.) collectively ("BHP"), in the properties referenced on the enclosed forms. BHP was the designated operator of said properties, resigning effective May 1, 1993. GARI has been acting as the operator in the interim while balloting was being conducted to determine the successor operator.

GARI has been named successor operator. Enclosed are executed forms for your review and approval reflecting this change. In the event you have questions or concerns relative to this transfer of operatorship, please contact Jim Lee Wolfe, Vice President of Operations or the undersigned at the letterhead address and/or call (303) 573-5100. Thank you for your timely attention in this matter.

Very truly yours,

GENERAL ATLANTIC RESOURCES, INC.

Lynn D. Becker, CPL
Landman

Enclosures

GENERAL ATLANTIC RESOURCES, INC. • 410 BUILDING • 410 17TH STREET, SUITE 1400 • DENVER, CO 80202
TELEPHONE (303) 573-5100

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION & SERIAL NO.: SEE BELOW

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.)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL ☐ GAS WELL ☐ OTHER

7. UNIT AGREEMENT NAME: SEE BELOW

2. NAME OF OPERATOR: BHP Petroleum (Americas) Inc. (PREVIOUS OPERATOR)

8. FARM OR LEASE NAME:

3. ADDRESS OF OPERATOR: 5847 San Felipe, Suite 3600, Houston, Texas 77057

9. WELL NO.: SEE ATTACHED

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface: Sections 9,10,13,18,19,20,21,23,25,26,27,28
At proposed prod. zone:

10. FIELD AND POOL, OR WILDCAT:

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

14. API NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.):

12. COUNTY: Uintah

13. STATE: Utah

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐
SHOOT OR ACIDIZE	☐	ABANDON	☐
REPAIR WELL	☐	CHANGE PLANS	☐
(Other)			

APPROX. DATE WORK WILL START _____

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
(Other) CHANGE OF OPERATOR			X

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

DATE OF COMPLETION 5/01/93

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.)

* Must be accompanied by a cement verification report.

EFFECTIVE DATE: January 1, 1993.
NEW OPERATOR: General Atlantic Resources, Inc.
ADDRESS: 410 17th Street, Suite 1400, Denver, Colorado 80202

RECEIVED
JUN 17 1993
DIVISION OF OIL GAS & MINING

LEASE:	LEASE #:
USA Pearl Broadhurst	UTU02651A
USA Pan American	UTSL065759
Roosevelt Unit Wasatch	892000886A

Attached is a list of the wells which make up the above leases along with their respective API numbers. This method of ownership change was suggested by Lisha Romero, Division of Oil, Gas and Mining, Salt Lake City, Utah.

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

SIGNED Carl Kolbe TITLE Regulatory Aff. Rep. DATE 4/27/93

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

See Instructions On Reverse Side

(3/89)

LEASE	WELL#	API NUMBER
USA Pearl Broadhurst	1 — Sec 9 T7S R23E	43-047-15692
" " "	2 — 10	43-047-15693
" " "	4 — 9	43-047-15694
" " "	5 — 10	43-047-15695
" " "	6 — 9	43-047-30705
" " "	7 — 9	43-047-30730
" " "	8 10	43-047-30696
" " "	9 10	43-047-30787
" " "	10 9	43-047-30839
" " "	11 — 11	43-047-30840
" " "	12 — 10	43-047-30841
" " "	13 — 9	43-047-30842
" " "	14 — 9	43-047-30904
" " "	15 — 9	43-047-30901
" " "	16 — 10	43-047-30903
" " "	17 — 10	43-047-30905
" " "	18 — 9	43-047-30939
" " "	19 — 9	43-047-30940
" " "	20 — 9	43-047-30941
" " "	21 — 9	43-047-30942
" " "	22 — 10	43-047-31025
USA Pan American	1 Sec 23 T5S R22E	43-047-15682
" " "	2 — 26	43-047-15683
" " "	3 — 26	43-047-15684
" " "	4 — 22	43-047-15685
" " "	5 — 26	43-047-15686
" " "	6 — 26	43-047-15687
" " "	7 — 25	43-047-15688
" " "	8 — 22	43-047-15689
" " "	9 — 27	43-047-15690
" " "	10 22	43-047-15691
Roosevelt Unit Wasatch	5W — Sec 20 T1S 1E	43-047-31254
" " "	6 — 20	43-047-31366
" " "	7 — 19	43-047-31402
" " "	9W — 28	43-047-31445
" " "	10W — 21	43-047-31446
" " "	C11 — 8	43-047-31500
" " "	Mary 278 13	43-047-31845

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

RECEIVED
SEP 15 1993
DIVISION OF
OIL, GAS & MINING

TRANSFER OF AUTHORITY TO INJECT - UIC FORM 5

Well name and number: USA PEARL BROADHURST #5

Field or Unit name: WALKER HOLLOW API no. 43-047-15695

Well location: QQ SW/SW section 10 township 7S range 23E county UINTAH

Effective Date of Transfer: 5/1/93

CURRENT OPERATOR

Transfer approved by:

Name CARL KOLBE Company BHP PETROLEUM (AMERICAS) INC.

Signature Carl Kolbe Address 5847 SAN FELIPE, SUITE 3600

Title REGULATORY AFFAIRS REPRESENTATIVE HOUSTON, TEXAS 77057

Date 8/16/93 Phone (713) 780-5000

Comments:

NEW OPERATOR

Transfer approved by:

Name Oscar L. Peters Company GENERAL ATLANTIC RESOURCES, INC.

Signature Oscar L. Peters Address 410 17TH STREET, SUITE 1400

Title Senior Operations Engineer DENVER, COLORADO 80202

Date September 7, 1993 Phone (303) 573-5100

Comments:

(State use only)
Transfer approved by [illegible] Title UIC Manager

Approval Date 9-16-93

(3/89)

rm 3160-5
une 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

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

RECEIVED
SEP 20 1993
DIVISION OF
OIL, GAS & MINING

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: USA U-02651-A

6. If Indian, Allottee or Tribe Name:

7. If Unit or CA, Agreement Designation:

1. Type of Well: [XX] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.: 5 (see att. exhibit A) Pearl Broadhurst

2. Name of Operator: General Atlantic Resources, Inc.

9. API Well No.: 43-047-15695 (see att. exhibit A)

3. Address and Telephone No.: 410 17th Street, Suite 1400, Denver, Colorado 80202 (303) 573-5100

10. Field and Pool, or Exploratory Area:

4. Location of Well (Footage, Sec., T., R., M., or Survey Description): (See attached exhibit A) Sections 9 and 10, Township 7 South-Range 23 East

11. County or Parish, State: Uintah County, Utah

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[XX] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[XX] Other change of operator	[ ] Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. 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.)*

On May 1, 1993 General Atlantic Resources, Inc. took over operations of the referenced well from BHP Petroleum (Americas) Inc.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by General Atlantic Resources, Inc. under their nationwide bond, BLM bond number C01023. They will be responsible for compliance under the lease terms and conditions for that portion of the lease associated with this notice.

VERNAL DIST.
ENG. 9-10-93
GEOL.
E.S.
PET.
A.M.

RECEIVED
AUG 23 1993

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

Signed: [signature] Title: Lynn D. Becker, Landman Date: August 20, 1993

(This space for Federal or State office use)

Approved by: [signature] Title: ASSISTANT DISTRICT MANAGER MINERALS Date: SEP 10 1993

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

RECEIVED
SEP 20 1993
DIVISION OF
OIL, GAS & MINING

TRANSFER OF AUTHORITY TO INJECT - UIC FORM 5

Well name and number: USA PEARL BROADHURST #5

Field or Unit name: WALKER HOLLOW API no. 43-047-15695

Well location: QQ SW/SW section 10 township 7S range 23E county UINTAH

Effective Date of Transfer: 5/1/93

CURRENT OPERATOR

Transfer approved by:

Name CARL KOLBE Company BHP PETROLEUM (AMERICAS) INC.

Signature Carl Kolbe Address 5847 SAN FELIPE, SUITE 3600

Title REGULATORY AFFAIRS REPRESENTATIVE HOUSTON, TEXAS 77057

Date 8/16/93 Phone (713) 780-5000

Comments:

NEW OPERATOR

Transfer approved by:

Name April J.M. Lahnum Company GENERAL ATLANTIC RESOURCES, INC.

Signature April J.M. Lahnum Address 410 17TH STREET, SUITE 1400

Title Production Technician DENVER, COLORADO 80202

Date September 16, 1993 Phone (303) 573-5100

Comments:

(State use only)
Transfer approved by _____ Title _____

Approval Date _____

(3/89)

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

Routing:

1-LEC/GIL
2-DTS/7-SJ
3-VLC 8-FILE
4-RJF
5-LEC
6-PL

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

☒ Change of Operator (well sold) ☐ Designation of Agent
☐ Designation of Operator ☐ Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 5-1-93)

TO (new operator) (address)
GENERAL ATLANTIC RES INC
410 17TH ST #1400
DENVER, CO 80202
LYNN BECKER, LANDMAN
phone (303) 573-5100
account no. N 0910

FROM (former operator) (address)
BHP PETROLEUM/AMERICAS INC
5847 SAN FELIPE #3600
HOUSTON, TX 77057
CARL KOLBE (713)780-5301
phone (713) 780-5245
account no. N 0390

Well(s) (attach additional page if needed):

Name: USA PEARL BH #1/GRRV	API: 43-047-15692	Entity: 225	Sec 9	Twp 7S	Rng 23E	Lease Type: U02651A
Name: *USA PEARL BH #2/GRRV	API: 43-047-15693	Entity: 225	Sec 10	Twp 7S	Rng 23E	Lease Type: "
Name: USA PEARL BH #4/GRRV	API: 43-047-15694	Entity: 225	Sec 9	Twp 7S	Rng 23E	Lease Type: "
Name: *USA PEARL BH #5/GR & WS	API: 43-047-15695	Entity: 225/9141	Sec 10	Twp 7S	Rng 23E	Lease Type: "
Name: BROADHURST #6/GRRV	API: 43-047-30705	Entity: 225	Sec 9	Twp 7S	Rng 23E	Lease Type: "
Name: BROADHURST #7/GRRV	API: 43-047-30730	Entity: 225	Sec 9	Twp 7S	Rng 23E	Lease Type: "
Name: BROADHURST #8/GRRV	API: 43-047-30696	Entity: 225	Sec 10	Twp 7S	Rng 23E	Lease Type: "

CONT.

OPERATOR CHANGE DOCUMENTATION

Lec 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). (Rec'd 6-17-93)

Lec 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). (Rec'd 6-17-93)

Lec 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) ____ If yes, show company file number: # 92898.

Lec 4. **(For Indian and Federal Wells ONLY)** The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of **Federal and Indian** well operator changes should take place prior to completion of steps 5 through 9 below.

Lec 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (9-28-93)

Lec 6. Cardex file has been updated for each well listed above. (9-28-93)

Lec 7. Well file labels have been updated for each well listed above. (9-28-93)

Lec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. (9-28-93)

Lec 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

- OVER -

PERATOR CHANGE WORKSHEET (CONTINUED) Initial each item when completed. Write N/A if item is not applicable.

NTITY REVIEW

Lec 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) ____ (If entity assignments were changed, attach copies of Form 6, Entity Action Form).

N/A 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only)

Lec/N/A 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.

__ 2. A copy of this form has been placed in the new and former operators' bond files.

__ 3. The former operator has requested a release of liability from their bond (yes/no) ___. Today's date _____ 19___. If yes, division response was made by letter dated _____ 19___.

LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

N/A 1. (Rule R615-2-10) The former operator/lessee of any **fee lease** well listed above has been notified by letter dated _____ 19___, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.

DTS 9-28-93

N/A 2. Copies of documents have been sent to State Lands for changes involving **State leases**.

FILMING

✓ 1. All attachments to this form have been microfilmed. Date: 10-12 19 93.

FILING

Lec 1. Copies of all attachments to this form have been filed in each well file.

Lec 2. The original of this form and the original attachments have been filed in the Operator Change file.

COMMENTS

930920 B/fm/Vernal Approved 9-10-93. (Lease ITU02651-A Only.) Other leases/wells will be handled on separate change.

IE71/34-35

FORM 10

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
355 West North Temple, 3 Triad, Suite 350, Salt Lake City, UT 84180-1203

MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

APRIL LAHNUM
GENERAL ATLANTIC RES INC
410 17TH ST STE 1400
DENVER CO 80202

UTAH ACCOUNT NUMBER: N0910

REPORT PERIOD (MONTH/YEAR): 12 / 94

AMENDED REPORT ☐ **(Highlight Changes)**

Well Name API Number	Entity	Location	Producing Zone	Well Status	Days Oper	Production Volumes OIL(BBL)	GAS(MCF)	WATER(BBL)
✓BROADHURST #17 4304730905	00225	07S 23E 10	GRRV			U02651-A		
✓BROADHURST #18 4304730939	00225	07S 23E 9	GRRV			"		
✓PEARL BROADHURST 19 4304730940	00225	07S 23E 9	GRRV			"		
✓BROADHURST #20 4304730941	00225	07S 23E 9	GRRV			"		
✓BROADHURST #21 4304730942	00225	07S 23E 9	GRRV			"		
✓PEARL BROADHURST 22 04731025	00225	07S 23E 10	GRRV			"		
USA PRL Brdhrst #2 43-047-15693	00225	7S 23E 10	GRRV - W/W			"		
USA PEARL BROADHURST 5 43-047-15695	09141	7S 23E 10	WSTC - W/W			"		
"			GRRV - TAZ					
					TOTALS			

COMMENTS:

hereby certify that this report is true and complete to the best of my knowledge.

Date:

Name and Signature:

Telephone Number:

(12/93)

UMC Petroleum Corporation

RECEIVED
JAN 5 1995
DIV OF OIL, GAS & MINING

January 23, 1995

State of Utah
Division of Oil, Gas and Mining
3 Triad Center, #350
Salt Lake City, Utah 84180-1203

Re: Change of Operator

Gentlemen,

On November 15, 1994, General Atlantic Resources, Inc. merged into UMC Petroleum Corporation. Enclosed please find a copy of the certificate of merger as well as State of Utah Form 9 with an attachment listing all wells and their locations.

UMC Petroleum Corporation will be operating these wells effective January 1, 1995. If there are any questions or you require additional information, please contact the undersigned at (303) 573-4732.

Sincerely,

UMC PETROLEUM CORPORATION

April J.M. Lahnum
Production Technician

ajml

{LETTERS/utah}

410 Building 410 17th Street, Suite 1400 Denver, Colorado 80202 (303) 573-5100
A Subsidiary of United Meridian Corporation

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

RECEIVED
JAN 25 1995
DIV. OF OIL, GAS & MINING

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.)

5. LEASE DESIGNATION & SERIAL NO.: UTU02651A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL [X] GAS WELL [ ] OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: UMC Petroleum Corporation

8. FARM OR LEASE NAME: USA Pearl Broadhurst

3. ADDRESS OF OPERATOR: 410 17th Street, Suite 1400, Denver, CO 80202

9. WELL NO.: (see attached exhibit A)

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface: (see attached exhibit A)
At proposed prod. zone: Sections 9 and 10, T7S, R23E

10. FIELD AND POOL, OR WILDCAT: Green River

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 9 & 10, T7S, R23E

14. API NO.: (see att. exhibit A)

15. ELEVATIONS (Show whether DF, RT, GR, etc.):

12. COUNTY: Uintah

13. STATE: UT

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]
(Other)			

APPROX. DATE WORK WILL START _____

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
(Other) Change of Operator			[XXX]

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

DATE OF COMPLETION _____

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.)

* Must be accompanied by a cement verification report.

On November 15, 1994, General Atlantic Resources, Inc. merged into UMC Petroleum Corporation. (See enclosed certificate of merger.)

UMC Petroleum Corporation will begin operating the referenced lease on January 1, 1995.

Bond coverage for lease activities is being provided by UMC Petroleum Corporation under their nationwide bond, BLM bond number B01843.

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

SIGNED April J.M. Lahnum TITLE Production Technician DATE January 20, 1995

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

See Instructions On Reverse Side

(3/89)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3100
U-02651A et al
(UT-923)

RECEIVED
APR - 5 1995
DIV OF OIL, GAS & MINING

MAR 2 4 1995

NOTICE

UMC Petroleum Corporation	:	Oil and Gas
1201 Louisiana, Suite 1400	:	U-02651A, U-51411,
Houston, Texas 77002-5603	:	U-55626, U-58530

Merger Recognized

Acceptable evidence has been filed in this office concerning the merger of General Atlantic Resources, Inc. into UMC Petroleum Corporation with UMC Petroleum Corporation being the surviving entity.

For our purposes, the merger is recognized effective November 15, 1994.

The oil and gas lease files identified above have been noted as to the merger. We are notifying the Minerals Management Service and all applicable Bureau of Land Management offices of the change by a copy of this notice.

A rider to UMC's bond (BLM Bond No. NM1773) assuming the liability accrued under General's bond (BLM Bond No. CO1023) was accepted effective March 7, 1995, the date the rider was filed.

/s/ ROBERT LOPEZ

Chief, Branch of Mineral
Leasing Adjudication

bc: Vernal District Office
Moab District Office
MMS—Data Management Division, MS 3113, P.O. Box 5860, Denver, CO 80217
UT-922 (Teresa Thompson)
Lisha Cordova, State of Utah, Division of Oil, Gas, and Mining, 3 Triad Center, Suite 350, Salt Lake City, Utah 84189-1204

GENERAL ATLANTIC RESOURCES, INC. - Well Location Report
Report Date: 01-18-1995 - Page 1
Reporting Field WALKER HOLLOW

EXHIBIT "A"

Utah Production	PRAMS I.D.	Company Identification #	State I.D.#	API Number	Lease Name/Number	Formation	Qtr/Qtr	Sec.	Twp.	Rge	County	Operator
WALKER HOLLOW Field												
PEARL BROADHURST #1	PEARL1	UT-017-01-001	00225	43-047-15692-00	UTU02651A	GREEN RIVER	NESE	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #10	PEARL10	UT-017-01-009	00225	43-047-30839-00	UTU02651A	GREEN RIVER	NWSW	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #11	PEARL11	UT-017-01-010	00225	43-047-30840-00	UTU02651A	GREEN RIVER	NWNE	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #12	PEARL12	UT-017-01-011	00225	43-047-30841-00	UTU02651A	GREEN RIVER	NWNW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #13	PEARL13	UT-017-01-012	00225	43-047-30842-00	UTU02651A	GREEN RIVER	NENE	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #14	PEARL14	UT-017-01-013	00225	43-047-30904-00	UTU02651A	GREEN RIVER	SENE	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #15	PEARL15	UT-017-01-014	00225	43-047-30901-00	UTU02651A	GREEN RIVER	SESE	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #16	PEARL16	UT-017-01-015	00225	43-047-30903-00	UTU02651A	GREEN RIVER	NWSW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #17	PEARL17	UT-017-01-016	00225	43-047-30905-00	UTU02651A	GREEN RIVER	SENW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #18	PEARL18	UT-017-01-017	00225	43-047-30939-00	UTU02651A	GREEN RIVER	NWNE	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #19	PEARL19	UT-017-01-018	00225	43-047-30940-00	UTU02651A	GREEN RIVER	NWNE	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #2 (WIW)	PEARL2	UT-017-01-002	00225	43-047-15693-00	UTU02651A	GREEN RIVER	SWNW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #20	PEARL20	UT-017-01-019	00225	43-047-30941-00	UTU02651A	GREEN RIVER	SESW	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #21	PEARL21	UT-017-01-020	00225	43-047-30942-00	UTU02651A	GREEN RIVER	SESW	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #22	PEARL22	UT-017-01-021	00225	43-047-31025-00	UTU02651A	GREEN RIVER	SESW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #4	PEARL4	UT-017-01-003	00225	43-047-15694-00	UTU02651A	GREEN RIVER	SWSE	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #5 (WIW)	PEARL5A	UT-017-01-004	00225	43-047-15695-00	UTU02651A	GREEN RIVER	SWSW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #6	PEARL6	UT-017-01-005	00225	43-047-30705-00	UTU02651A	GREEN RIVER	NESW	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #7	PEARL7	UT-017-01-006	00225	43-047-30730-00	UTU02651A	GREEN RIVER	SWSW	9	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #8	PEARL8	UT-017-01-007	00225	43-047-30696-00	UTU02651A	GREEN RIVER	NESW	10	7S	23E	UINTAH	GARI-BHP
PEARL BROADHURST #9	PEARL9	UT-017-01-008	00225	43-047-30787-00	UTU02651A	GREEN RIVER	NENW	10	7S	23E	UINTAH	GARI-BHP

State of Delaware

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"GENERAL ATLANTIC RESOURCES, INC.", A DELAWARE CORPORATION,

WITH AND INTO "UMC PETROLEUM CORPORATION" UNDER THE NAME OF "UMC PETROLEUM CORPORATION", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE THE FIFTEENTH DAY OF NOVEMBER, A.D. 1994, AT 11:10 O'CLOCK A.M.

Edward J. Freel, Secretary of State

AUTHENTICATION: 7306080

DATE: 11-17-94

2257442 8100M

944221473

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 11:10 AM 11/15/1994
944219417 - 2257442

CERTIFICATE OF MERGER

OF

GENERAL ATLANTIC RESOURCES, INC., A DELAWARE CORPORATION

AND

UMC PETROLEUM CORPORATION, A DELAWARE CORPORATION

UMC Petroleum Corporation, a Delaware corporation, certifies that:

1. Constituent Corporations. The constituent business corporations participating in the merger herein certified are:

(a) General Atlantic Resources, Inc., which is incorporated under the laws of the State of Delaware; and

(b) UMC Petroleum Corporation, which is incorporated under the laws of the State of Delaware.

2. Approval of Agreement and Plan of Merger. An Agreement and Plan of Merger dated as of August 9, 1994 ("Agreement and Plan of Merger"), has been approved, adopted, certified, executed and acknowledged by each of the aforesaid constituent corporations in accordance with the provisions of Section 251 of the General Corporation Law of the State of Delaware.

3. Surviving Corporation. The surviving corporation (the "Surviving Corporation") in the merger herein certified is UMC Petroleum Corporation, a Delaware corporation.

4. Certificate of Incorporation. The certificate of incorporation of UMC Petroleum Corporation, a Delaware corporation, shall be the certificate of incorporation of the Surviving Corporation, except that Article 4 thereof is hereby amended and restated in its entirety as follows:

> 1. Authorized Shares. The total authorized capital stock of the corporation shall consist of Common Stock. The aggregate number of shares of Common Stock that the corporation shall have authority to issue is three thousand (3,000) with the par value of one cent ($.01) per share.

5. Agreement and Plan of Merger on File. The executed Agreement and Plan of Merger is on file at the principal place of business of the Surviving Corporation, the address

of which as of the date hereof is as follows:

1201 Louisiana Street
Suite 1400
Houston, Texas 77002

6. Copies of Agreement and Plan of Merger. A copy of the Agreement and Plan of Merger will be furnished by the Surviving Corporation, on request and without cost, to any stockholder of any of the aforesaid constituent corporations.

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Merger on behalf of UMC Petroleum Corporation on this 15th day of November, 1994.

UMC PETROLEUM CORPORATION, a Delaware corporation

By: _____
Name: John B. Brock
Title: President and Chief Executive Officer

Attest:

By: _____
Name: Marya Ingram
Title: Corporate Secretary

DOGMTD

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

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

5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE

RECEIVED
MAR 2 9 1995

7. If Unit or CA, Agreement Designation
UTU02651A

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
Pearl Broadhurst

2. Name of Operator
UMC Petroleum Corporation

9. API Well No.
(see attachment)

3. Address and Telephone No.
410 17th Street, Suite 1400, Denver, CO 80202 (303) 573-5100

10. Field and Pool, or Exploratory Area
Walker Hollow

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
(see attachment)

11. County or Parish, State
Uintah, UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☐ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other Change of Operator	☐ Dispose Water
		(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. 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.)*

On November 15, 1994, General Atlantic Resources, Inc. merged with UMC Petroleum Corporation (See enclosed certificate of merger.)

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by UMC Petroleum Corporation under their nationwide bond, B01843. They will be reponsible for compliance under the lease terms and conditions for that portion of the lease associated with this notice.

Attachment lists all wells associated with the referenced agreement number, their location, and API well numbers.

RECEIVED
VERNAL DIST.
ENG. WPB 3/2/95
APR 7 1995
E.S.
DIV OF OIL, GAS & MINING
A.M.

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

Signed April J.M. Lahnum Title Production Technician Date March 15, 1995

(This space for Federal or State office use)

NOTED

Approved by _____ Title _____ Date APR 0 6 1995

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Utah Production

	State I.D.#	API Number	Lease Name/Number	Formation	Qtr/Qtr	Sec.	Twp.	Rge	County
WALKER HOLLOW Field									
PEARL BROADHURST #1	00225	43-047-15692-00	UTU02651A	GREEN RIVER	NESE	9	7S	23E	UINTAH
PEARL BROADHURST #10	00225	43-047-30839-00	UTU02651A	GREEN RIVER	NWSW	9	7S	23E	UINTAH
PEARL BROADHURST #11	00225	43-047-30840-00	UTU02651A	GREEN RIVER	NWNE	10	7S	23E	UINTAH
PEARL BROADHURST #12	00225	43-047-30841-00	UTU02651A	GREEN RIVER	NWNW	10	7S	23E	UINTAH
PEARL BROADHURST #13	00225	43-047-30842-00	UTU02651A	GREEN RIVER	NENE	9	7S	23E	UINTAH
PEARL BROADHURST #14	00225	43-047-30904-00	UTU02651A	GREEN RIVER	SENE	9	7S	23E	UINTAH
PEARL BROADHURST #15	00225	43-047-30901-00	UTU02651A	GREEN RIVER	SESE	9	7S	23E	UINTAH
PEARL BROADHURST #16	00225	43-047-30903-00	UTU02651A	GREEN RIVER	NWSW	10	7S	23E	UINTAH
PEARL BROADHURST #17	00225	43-047-30905-00	UTU02651A	GREEN RIVER	SENW	10	7S	23E	UINTAH
PEARL BROADHURST #18	00225	43-047-30939-00	UTU02651A	GREEN RIVER	NWNE	9	7S	23E	UINTAH
PEARL BROADHURST #19	00225	43-047-30940-00	UTU02651A	GREEN RIVER	NWNE	9	7S	23E	UINTAH
PEARL BROADHURST #2	00225	43-047-15693-00	UTU02651A	GREEN RIVER	SWNW	10	7S	23E	UINTAH
PEARL BROADHURST #20	00225	43-047-30941-00	UTU02651A	GREEN RIVER	SESW	9	7S	23E	UINTAH
PEARL BROADHURST #21	00225	43-047-30942-00	UTU02651A	GREEN RIVER	SESW	9	7S	23E	UINTAH
PEARL BROADHURST #22	00225	43-047-31025-00	UTU02651A	GREEN RIVER	SESW	10	7S	23E	UINTAH
PEARL BROADHURST #4	00225	43-047-15694-00	UTU02651A	GREEN RIVER	SWSE	9	7S	23E	UINTAH
PEARL BROADHURST #5	00225	43-047-15695-00	UTU02651A	GREEN RIVER	SWSW	10	7S	23E	UINTAH
PEARL BROADHURST #6	00225	43-047-30705-00	UTU02651A	GREEN RIVER	NESW	9	7S	23E	UINTAH
PEARL BROADHURST #7	00225	43-047-30730-00	UTU02651A	GREEN RIVER	SWSW	9	7S	23E	UINTAH
PEARL BROADHURST #8	00225	43-047-30696-00	UTU02651A	GREEN RIVER	NESW	10	7S	23E	UINTAH
PEARL BROADHURST #9	00225	43-047-30787-00	UTU02651A	GREEN RIVER	NENW	10	7S	23E	UINTAH

UMC Petroleum Corporation

RECEIVED
1995
DIV. OF OIL, GAS & MINING

March 7, 1995

State of Utah Natural Resources
Oil, Gas and Mining
#3 Triad Center, Suite 350
Salt Lake City, UT 84180-5340

Attention: Lisha Cordova

RE: Walker Hollow Field, Pearl Broadhurst #2 & #5 WIW, Uintah County.

Dear Ms. Cordova,

Enclosed are the completed form-5 for the transfer of authority to inject for the subject wells.

If you have any questions or need additional information, I can be reached at (303) 573-4721.

Sincerely,

United Meridian Corporation
Operations Department

Scott M. Webb
Regulatory Coordinator

410 Building 410 17th Street, Suite 1400 Denver, Colorado 80202 (303) 573-5100
A Subsidiary of United Meridian Corporation

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

RECEIVED
APR 10 1995
DIV OF OIL, GAS & MINING

TRANSFER OF AUTHORITY TO INJECT - UIC FORM 5

Well name and number: USA Pearl Broadhurst #5 WIW

Field or Unit name: Walker Hollow Field API no. 43-047-15695

Well location: QQ SWWS section 10 township 7S range 23E county Uintah

Effective Date of Transfer: 1/1/95

CURRENT OPERATOR

Transfer approved by:

Name Jim Lee Wolfe Company General Atlantic Resources, Inc.

Signature Jim Lee Wolfe Address 410 17th Street, Suite 1400

Title Vice President Operations Denver, CO 80202

Date 4/7/95 Phone (303) 573-5100

Comments:

NEW OPERATOR

Transfer approved by:

Name Jim Lee Wolfe Company UMC Petroleum Corporation

Signature Jim Lee Wolfe Address 410 17th Street, Suite 1400

Title Vice President Operations Denver, CO 80202

Date 4/7/95 Phone (303) 573-5100

Comments:

(State use only)
Transfer approved by [illegible] Title Environ. Manager

Approval Date 4-17-95

(3/89)

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

Date: APRIL 6, 1995

To: KATHY SEDGWICK
UMC PETROLEUM CORPORATION
FAX #(303)573-0813

From: LISHA CORDOVA
Division of Oil, Gas and Mining
350 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Enclosed is the information you requested regarding:

_____ Utah Code Ann. 40-6-1 et seq., (1953 as amended)
_____ Utah Admin. R.649-1 et seq. (Oil and Gas Conservation General Rules)
_____ General Report Forms
_____ Guidance Document - Reserve Pits, etc.
_____ Guidance Document - Cleanup Levels/Soils
_____ Guidance Document - Casing Setting Depth
_____ Disposal Strategy - E & P Wastes
_____ Listing of Approved Disposal Facilities
X Other: TRANSFER OF AUTHORITY TO INJECT - UIC FORM 5

Message: PLEASE SUBMIT UIC F5 FOR THE USA PRL BROADHURST #2/WATER INJECTION WELL AND THE USA PEARL BROADHURST #5/WATER INJECTION WELL.
(GENERAL ATLANTIC RES INC/UMC PETROLEUM CORPORATION)
THANK YOU!

If you have any questions, please contact me at (801)538-5340.

Sincerely, Lisha Cordova

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

Routing:

1-~~LEC~~ GIL	
2-LWP 7-SJ	✓
3-~~DTS~~ 8-PL	✓
4-VLC 9-FILE	
5-RJF	✓
6-LWP	✓

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

XXX Change of Operator (MERGER) ☐ Designation of Agent
☐ Designation of Operator ☐ Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 11-15-94)

TO (new operator) UMC PETROLEUM CORPORATION
(address) 410 17TH ST STE 1400
DENVER CO 80202
APRIL LAHNUM (915)683-3003
phone (303) 573-5100
account no. N9215

FROM (former operator) GENERAL ATLANTIC RES INC
(address) 410 17TH ST STE 1400
DENVER CO 80202
APRIL LAHNUM
phone (303) 573-5100
account no. N0910

Well(s) (attach additional page if needed):

Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
SEE ATTACHED	43047-15695					

OPERATOR CHANGE DOCUMENTATION

Yes 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). (Rec'd 1-25-95)

Yes 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). (Rec'd 1-25-95)

Yes 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) _____ If yes, show company file number: #152682. (eff. 6/91)

Yes 4. **(For Indian and Federal Wells ONLY)** The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of **Federal and Indian** well operator changes should take place prior to completion of steps 5 through 9 below.

Yes 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (4-6-95)

LWP 6. Cardex file has been updated for each well listed above. 4-18-95

LWP 7. Well file labels have been updated for each well listed above. 4-18-95

Yes 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. (4-6-95)

Yes 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

OVER

OPERATOR CHANGE WORKSHEET (CONTINUED) Initial each item when completed. Write N/A if item is not applicable.

ENTITY REVIEW

Lec 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) ____ (If entity assignments were changed, attach copies of Form 6, Entity Action Form).

N/A 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only)

N/A/Lec 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.

___ 2. A copy of this form has been placed in the new and former operators' bond files.

___ 3. The former operator has requested a release of liability from their bond (yes/no) ___. Today's date _____ 19___. If yes, division response was made by letter dated _____ 19___.

LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

N/A 1. (Rule R615-2-10) The former operator/lessee of any **fee lease** well listed above has been notified by letter dated _____ 19___, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.

DTS 4/18/95

N/A 2. Copies of documents have been sent to State Lands for changes involving **State leases**.

FILMING

✓ 1. All attachments to this form have been microfilmed. Date: May 2 1995.

FILING

___ 1. Copies of all attachments to this form have been filed in each well file.

___ 2. The original of this form and the original attachments have been filed in the Operator Change file.

COMMENTS

950131 Reg. UIC F5 (2) wells.

9502 Trust Lands Admin. "accepted merger".

950324 B&M/SL Aprv. eff. 11-15-94.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

RECEIVED
JUL 23 1998
DIV. OF OIL, GAS & MINING

In Reply Refer To:
3100
U-02651A et al
(UT-932)

JUL 21 1998

NOTICE

Ocean Energy, Inc. 1201 Louisiana, Suite 1400 Houston, TX 77002-5603 (713)654-9110	: : :	Oil and Gas: U-02651A, U-09712A, U-020691A,U-8894A, U-8895A, U-8897A,U-40401, U-64058

Merger Recognized

Acceptable evidence has been filed in this office concerning the merger of UMC Petroleum Corporation into Ocean Energy, Inc. with Ocean Energy, Inc. being the surviving entity.

For our purposes, the merger is recognized effective May 15, 1998, the effective date set by the New Mexico State Office.

The oil and gas lease files identified above have been noted as to the merger. The list was compiled from your list of leases, and a list of leases obtained from our Automated Land and Mineral Record System (ALMRS). We have not abstracted the lease files to determine if the entity affected by the merger holds an interest in the leases identified nor have we attempted to identify leases where the entity is the operator on the ground maintaining no vested record title or operating rights interests. We are notifying the Minerals Management Service and all applicable Bureau of Land Management offices of the change by a copy of this notice. If additional documentation for changes of operator are required by our Field Offices, you will be contacted by them.

By recognition of the merger, the principal is automatically changed by operation of law from UMC Petroleum Corporation to Ocean Energy, Inc. on Bond No. BO1843 (BLM Bond No. NM1773). A rider amending the principal's name from UMC Petroleum Corporation to Ocean Energy, Inc. has been filed in the New Mexico State Office, examined, and found to be satisfactory.

ROBERT LOPEZ
Robert Lopez
Group Leader,
Minerals Adjudication Group

cc: Moab District Office
Vernal Field Office
MMS-Reference Data Branch, MS 3130, P.O. Box 5860, Denver, CO 80217
State of Utah, DOGM, Attn: Lisha Cordova (Ste. 1210) P.O. Box 145801, SLC, UT 84114

07/31/98 D E T A I L W E L L D A T A menu: opt 00

api num:	4304715695	prod zone: WSTC	sec	twnshp	range	qr-qr
entity:	9141 : USA P BROADHURST #5		10	7.0 S	23.0 E	SWSW

well name: USA PEARL BROADHURST 5
operator: N9215 : UMC PETROLEUM CORPORATION meridian: S
field: 700 : WALKER HOLLOW
confidential flag: confidential expires: alt addr flag:

* * * application to drill, deepen, or plug back * * *

lease number:	U-02651-A	lease type: 1	well type: OW
surface loc:	0743 FSL 0564 FWL	unit name:	
prod zone loc:	0743 FSL 0564 FWL	depth: 5900	proposed zone: GR-WS
elevation:	5290'RDB	apd date: 600430	auth code:
* * completion information * *		date recd:	la/pa date:
spud date:	640426	compl date: 711209	total depth: 5907'
producing intervals: 5325-5431'			
bottom hole:	0743 FSL 0564 FWL	first prod: 711101	well status: WIW
24hr oil:	24hr gas:	24hr water:	gas/oil ratio:
* * well comments:		directionl:	api gravity:

DUAL COMPL;SEE OTHER SCREEN:711209 CONV WIW:820507 COMM INJ:880114 COMPL DATE FR 5-26-64:930928 FR N0390 5/93:950406 FR N0910 11/94:

opt: 21 api: 4304715695 zone: date(yymm): 9600 enty acct: P0379

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

Routing:	
1-LEC	6-LEC KR
2-GLH	7-KAS
3-DTS	8-SJ
4-VLD CDW	9-FILE
5-JRB	

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

XXX Change of Operator (well sold) ☐ Designation of Agent
☐ Designation of Operator XXX Operator Name Change Only

The operator of the well(s) listed below has changed, **effective:** 4-1-98 **(MERGER)**

TO: (new operator)	OCEAN ENERGY INC	**FROM:** (old operator)	UMC PETROLEUM CORPORATION
(address)	PO BOX 549	(address)	PO BOX 549
	NEWCASTLE WY 82701-0549		NEWCASTLE WY 82701-0549
	Phone: (307)746-4052		Phone: (307)746-4052
	Account no. N3220 (7-31-98)		Account no. N9215

WELL(S) attach additional page if needed:

Name:	API:	Entity:	S	T	R	Lease:
SEE ATTACHED	43-047-15695		10	07S	23E	

OPERATOR CHANGE DOCUMENTATION

Lec 1. (r649-8-10) Sundry or other legal documentation has been received from the **FORMER** operator (attach to this form). (Rec'd 9-3-98)

Lec 2. (r649-8-10) Sundry or other legal documentation has been received from the **NEW** operator (Attach to this form). (Rec'd 9-3-98)

Lec 3. The **Department of Commerce** has been contacted if the new operator above is not currently operating any wells in Utah. Is the company **registered with the state?** (yes/no) _____ If yes, show company file number: Co209299. (eff. 3-23-98)

Lec 4. **FOR INDIAN AND FEDERAL WELLS ONLY**. The BLM has been contacted regarding this change. Make note of BLM status in comments section of this form. BLM approval of **Federal** and **Indian** well operator changes should ordinarily take place prior to the division's approval, and before the completion of **steps 5 through 9** below.

Lec 5. Changes have been entered in the **Oil and Gas Information System** (3270) for each well listed above. (7-31-98) * UIC Quattro & DBASE

Chl 6. **Cardex** file has been updated for each well listed above. (8-3-98)

Chl 7. Well **file labels** have been updated for each well listed above. (8-3-98)

Lec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" **memo** for distribution to Trust Lands, Sovereign Lands, UGS, Tax Commission, etc. (7-31-98)

Lec 9. A folder has been set up for the **Operator Change file**, and a copy of this page has been placed there for reference during routing and processing of the original documents.

dons\wpdocs\forms\operchng

- OVER -

OPERATOR CHANGE WORKSHEET (continued) - Initial each item when completed. Write N/A if item is not applicable.

ENTITY REVIEW

Lee 1. (r649-8-7) **Entity assignments have been reviewed** for all wells listed above. Were entity changes made? (yes/no) ____ If entity assignments were changed, attach copies of Form 6, Entity Action Form.

N/A/Lee 2. Trust Lands, Sovereign Lands, Tax Commission, etc., have been **notified** through normal procedures of entity changes.

BOND VERIFICATION - (FEE WELLS ONLY)

N/A/Lee 1. (r649-3-1) The **NEW** operator of any fee lease well listed above has furnished a proper bond.

__ 2. A **copy of this form** has been placed in the new and former operator's bond files.

__ 3. The **FORMER** operator has requested a release of liability from their bond (yes/no) _____, as of today's date _____. If yes, division response was made to this request by letter dated _____.

LEASE INTEREST OWNER NOTIFICATION OF RESPONSIBILITY

N/A/Lee 1. Copies of documents have been sent on _____ to _____ at Trust Lands for changes involving State leases, in order to remind that agency of their responsibility to review for proper bonding.

N/A/Lee 2. (r649-2-10) The former operator of any fee lease wells listed above has been contacted and informed by letter dated _____ 19 __, of their responsibility to notify all interest owners of this change.

FILMING

VS 1. All attachments to this form have been **microfilmed**. Today's date: 12.8.98.

FILING

__ 1. **Copies** of all attachments to this form have been filed in each **well file**.

__ 2. The **original of this form**, and the **original attachments** are now being filed in the Operator Change file.

COMMENTS

_____

_____

_____

_____

_____

_____

_____

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

RECEIVED
SEP 3 1998
DIV OF OIL, GAS & MINING

TRANSFER OF AUTHORITY TO INJECT - UIC FORM 5

Well name and number: Pearl Broadhurst #5 Federal Lease # U-025651-A

Field or Unit name: Walker Hollow Field API no. 43-047-15695

Well location: QQ SWSW section 10 township 7S range 23E county Uintah

Effective Date of Transfer: April 1, 1998

CURRENT OPERATOR

Transfer approved by:

Name Scott M. Webb

Signature

Title Regulatory Coordinator

Date 9/2/98

Company UMC Petroleum Corporation

Address 410 17th St., STE 1400
Denver, CO. 80202

Phone (303) 573-4721

Comments:

NEW OPERATOR

Transfer approved by:

Name Scott M. Webb

Signature

Title Regulatory Coordinator

Date 9/2/98

Company Ocean Energy, Inc.

Address 410 17th St., STE 1400
Denver, CO 80202

Phone (303) 573-4721

Comments:

(State use only)
Transfer approved by

Title Tech. Services Manager

Approval Date 9/9/98

(3/89)

Ocean Energy

September 2, 1998

Lisha Cordova
Utah Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

RECEIVED
SEP 3 1998
DIV OF OIL, GAS & MINING

RE: Merger of UMC Petroleum Corporation and Ocean Energy, Inc.
Pearl Broadhurst #2, #4, #5 & #14.

Dear Ms. Cordova:

Effective April 1, 1998, UMC Petroleum Corporation merged with Ocean Energy, Inc. Effective June 30, 1998, all onshore wells were transferred to its wholly owned subsidiary, Ocean Energy Resources, Inc. Enclosed is the requested UIC Form 5's for the subject change of operation for the original merger and the subsequent re-organization in June 30 1998. All wells previously operated by UMC Petroleum in Utah are now operated by Ocean Energy Resources, Inc.

There has been no change in personnel with whom you are already familiar. Furthermore, the address for all notices, revenues and remittances, notifications and general correspondence remains the same:

Ocean Energy, Resources, Inc.
410 17th Street, Suite 1400
Denver, Colorado 80202

Please distribute this notice to any other applicable departments within your organization that should be aware of this change.

If you have any questions, please feel free to contact the undersigned at (303) 573-4721.

Sincerely,

Scott M. Webb
Regulatory Coordinator

UNITED STATES OF AMERICA

State of Louisiana

Fox McKeithen

SECRETARY OF STATE

As Secretary of State, of the State of Louisiana, I do hereby Certify that

the annexed and following is a True and Correct copy of a Merger as shown by comparison with document filed and recorded in this Office on March 27, 1998.

RECEIVED
SEP 3 1998
DIV OF OIL, GAS & MINING

In testimony whereof, I have hereunto set my hand and caused the Seal of my Office to be affixed at the City of Baton Rouge on,

April 17, 1998

Fox McKeithen

CGR

Secretary of State

STATE OF LOUISIANA
UNION JUSTICE CONFIDENCE
SECRETARY OF STATE

CERTIFICATE SS 102 S (R-3/88)

CERTIFICATE OF MERGER

of
UMC Petroleum Corporation, a Delaware corporation
into
Ocean Energy, Inc., a Louisiana corporation

Pursuant to Section 112 of the Louisiana Business Corporation Law (the "LBCL"), Ocean Energy, Inc., a Louisiana corporation ("OEI"), hereby adopts the following Certificate of Merger regarding the merger (the "Merger") of UMC Petroleum Corporation, a Delaware corporation ("UMCPC" and, together with OEI, the "Constituent Corporations"), with and into OEI, with OEI as the surviving corporation (the "Surviving Corporation").

1. Ocean Energy, Inc., a Louisiana corporation, and UMC Petroleum Corporation, a Delaware corporation, are the parties to the Merger.

2. The Agreement and Plan of Merger, dated March 27, 1998 (the "Merger Agreement"), has been approved, adopted, certified, executed and acknowledged by the Constituent Corporations in accordance with Section 112 of the LBCL.

3. The Merger is effective at 3:02 p.m., Central Standard Time, on March 27, 1998.

4. The name of the Surviving Corporation shall be Ocean Energy, Inc.

5. Article III of the Articles of Incorporation of Ocean Energy, Inc. is amended in connection with the Merger to increase the authorized capital of the Surviving Corporation and, as a result of the amendment, Article III shall be and read as follows: *The aggregate number of shares which the corporation shall have authority to issue is 3,000 shares without par value, all of which shares shall be of one class and shall be designated as Common Stock.* The Articles of Incorporation of the Surviving Corporation as amended by the amendment to Article III shall be its articles of incorporation.

6. The executed Merger Agreement is on file at the principal place of business of the Surviving Corporation, 1201 Louisiana, Suite 1400, Houston, Texas 77002.

7. A copy of the Merger Agreement will be furnished by the Surviving Corporation, on request and without cost, to any shareholder of UMC Petroleum Corporation or Ocean Energy, Inc., the parties to the Merger.

This Certificate of Merger is dated this 27th day of March, 1998.

OCEAN ENERGY, INC.

By: _____

Name: Robert K. Reeves

Title: Executive Vice President,
General Counsel and Secretary

STATE OF TEXAS §
§
COUNTY OF HARRIS §

BEFORE ME, the undersigned authority, personally came and appeared Robert K. Reeves, who being duly sworn, declared and acknowledged before me that he is the Executive Vice President, General Counsel and Secretary of Ocean Energy, Inc., a Louisiana corporation, and acknowledged to me that he was authorized to and executed the foregoing Certificate of Merger of UMC Petroleum Corporation into Ocean Energy, Inc. in such capacity for the purposes therein expressed, and as his, and said corporation's free act and deed.

IN WITNESS WHEREOF, the said appearer, witnesses and I, notary, have hereunto affixed our hands on this 27th day of March, 1998 at Houston, Texas.

WITNESS:

Robert K. Reeves

KINLOCH GILL III
NOTARY PUBLIC
State of Texas
Comm. Exp. 09-19-2000

Notary Public in and for
the State of Texas

State of Delaware

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"UMC PETROLEUM CORPORATION", A DELAWARE CORPORATION,

WITH AND INTO "OCEAN ENERGY, INC." UNDER THE NAME OF "OCEAN ENERGY, INC.", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF LOUISIANA, AS RECEIVED AND FILED IN THIS OFFICE THE TWENTY-SEVENTH DAY OF MARCH, A.D. 1998, AT 12:22 O'CLOCK P.M.

Edward J. Freel, Secretary of State

2257442 8100M

981130659

AUTHENTICATION: 9012828

DATE: 04-06-98

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 12:22 PM 03/27/1998
981119273 - 2257442

CERTIFICATE OF MERGER

Merger of UMC Petroleum Corporation, a Delaware corporation
With and Into
Ocean Energy, Inc., a Louisiana corporation

Pursuant to the Provisions of Section 252 of the Delaware General Corporation Law, the undersigned certifies as follows concerning the merger (the "Merger") of UMC Petroleum Corporation, a Delaware corporation, with and into Ocean Energy, Inc., a Louisiana corporation (together with UMC Petroleum Corporation, the "Constituent Corporations"), with Ocean Energy, Inc. as the surviving corporation (the "Surviving Corporation").

1. The Agreement and Plan of Merger, dated March 27, 1998 (the "Merger Agreement"), has been approved, adopted, certified, executed and acknowledged by the Constituent Corporations in accordance with Section 252 of the Delaware General Corporation Law.

2. The Merger contemplated in the Merger Agreement and this Certificate of Merger will be effective at 3:02 p.m., Central Standard Time, on March 27, 1998.

3. The name of the Surviving Corporation shall be Ocean Energy, Inc.

4. Article III of the Articles of Incorporation of Ocean Energy, Inc. is amended in connection with the Merger to increase the authorized capital of the Surviving Corporation and, as a result of the amendment, Article III shall be and read as follows: *The aggregate number of shares which the corporation shall have authority to issue is 3,000 shares without par value, all of which shares shall be of one class and shall be designated as Common Stock.* The Articles of Incorporation of the Surviving Corporation as amended by the amendment to Article III shall be its articles of incorporation.

5. The executed Merger Agreement is on file at the principal place of business of the Surviving Corporation, 1201 Louisiana, Suite 1400, Houston, Texas 77002.

6. A copy of the Merger Agreement will be furnished by the Surviving Corporation, on request and without cost, to any stockholder of UMC Petroleum Corporation or Ocean Energy, Inc.

7. The Surviving Corporation may be served with process in the State of Delaware in any proceeding for enforcement of any obligation of the Constituent Corporations, as well as for enforcement of any obligation of the Surviving Corporation arising from the Merger, including any suit or other proceeding to enforce the right of any stockholder as determined in appraisal proceedings pursuant to the provisions of Section 262 of the Delaware General Corporation Law, and the Surviving Corporation does hereby irrevocably appoint the Secretary of State of

Delaware as its agent to accept service of process in any such suit or other proceedings. The address to which a copy of such process shall be mailed by the Secretary of State of Delaware is c/o Ocean Energy, Inc., 1201 Louisiana, Suite 1400, Houston, Texas 77002, Attention: Secretary, until the Surviving Corporation shall have hereafter designated in writing to the Secretary of State of Delaware a different address for such purpose.

Dated this 27th day of March, 1998.

OCEAN ENERGY, INC.

By:_____
Name: Robert K. Reeves
Title: Executive Vice President,
General Counsel and Secretary

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION & SERIAL NO.
U-025651-A

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.)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

1. OIL WELL ☐ GAS WELL ☐ OTHER Injection Well

7. UNIT AGREEMENT NAME

2. NAME OF OPERATOR
Ocean Energy Resources, Inc.

8. FARM OR LEASE NAME
USA Pearl Broadhurst

3. ADDRESS OF OPERATOR
410 17th Street, Suite 1400, Denver, Colorado 80202

9. WELL NO.
5

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface 743' FSL & 564' FWL SW SW
At proposed prod. zone

10. FIELD AND POOL, OR WILDCAT
Walker Hollow Field

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
10 -7S-R23E

14. API NO. 43-047-15695

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

12. COUNTY Uintah

13. STATE UT

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐
SHOOT OR ACIDIZE	☐	ABANDON	☐
REPAIR WELL	☐	CHANGE PLANS	☐
(Other)			

APPROX. DATE WORK WILL START _____

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
(Other) Change Of Operator			XX

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

DATE OF COMPLETION _____

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.)

Change of Operator: Effective Date January 1, 1999.* Must be accompanied by a cement verification report.

Former Operator: Ocean Energy, Resources, Inc. (303) 573-5100
410 17th Street, Suite 1400
Denver, Colorado 80202

New Operator: Citation Oil & Gas Corp. (281) 469-9664
8223 Willow Place South
Suite 250
Houston, Texas 77070-5623

RECEIVED
JAN 13 1999
DIV. OF OIL, GAS & MINING

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

SIGNED [signature] TITLE Regulatory Coordintor DATE 1/6/99

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

See Instructions On Reverse Side

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

RECEIVED
JAN 13 1999
DIV. OF OIL, GAS & MINING

TRANSFER OF AUTHORITY TO INJECT - UIC FORM 5

Well name and number: USA Pearl Broadhurst #5 Fed Lease # U-025651-A

Field or Unit name: Walker Hollow Field API no. 43-047-15695

Well location: QQ SWSW section 10 township 7S range 23E county Uintah

Effective Date of Transfer: 1/1/99

CURRENT OPERATOR

Transfer approved by:

Name Scott M. Webb

Signature

Title Regulatory Coordinator

Date 1/5/99

Company Ocean Energy Resources, Inc.

Address 410 17th Street, Suite 1400
Denver, Colorado 80202

Phone (303) 573-5100

Comments: Effective January 1, 1999
Change of Operation of well.

NEW OPERATOR

Transfer approved by:

Name Robert T. Kennedy

Signature

Title V.P. Land

Date 1-8-99

Company Citation Oil & Gas Corp.

Address 8223 Willow Place South
Suite 250
Houston, Texas 77070-5623

Phone (281) 469-9664

Comments: Effective January 1, 1999
Change of Operation of well.

(State use only)
Transfer approved by Title Tech. Serv. Manager

Approval Date 6-21-99

(3/89)

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION & SERIAL NO.
U-025651-A

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.)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

1. OIL WELL ☐ GAS WELL ☐ OTHER Injection Well

7. UNIT AGREEMENT NAME

2. NAME OF OPERATOR
Citation Oil & Gas Corp.

8. FARM OR LEASE NAME
USA Pearl Broadhurst

3. ADDRESS OF OPERATOR
8223 Willow Place South, Suite 250, Houston, TX 77070-5623

9. WELL NO.
5

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface
743' FSL & 564' FWL SW SW
At proposed prod. zone

10. FIELD AND POOL, OR WILDCAT
Walker Hollow Field

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
10-T7S-R23E

14. API NO.
43-047-15695

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

12. COUNTY
Uintah

13. STATE
UT

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐
SHOOT OR ACIDIZE	☐	ABANDON	☐
REPAIR WELL	☐	CHANGE PLANS	☐
(Other)			

APPROX. DATE WORK WILL START _____

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
(Other) Change Of Operator			XX

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

DATE OF COMPLETION _____

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.)

Change of Operator: Effective Date January 1, 1999.* Must be accompanied by a cement verification report.

Former Operator: Ocean Energy, Resources, Inc. (303) 573-5100
410 17th Street, Suite 1400
Denver, Colorado 80202

New Operator: Citation Oil & Gas Corp. (281) 469-9664
8223 Willow Place South
Suite 250
Houston, Texas 77070-5623

RECEIVED
JAN 14 1999
DIV. OF OIL, GAS & MINING

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

SIGNED Robert J. [illegible] TITLE Vice President Land DATE 1-8-99

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

See Instructions On Reverse Side

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Vernal Field Office

170 South 500 East Phone: (435) 781-4400
Vernal, Utah 84078-2799 Fax: (435) 781-4410

IN REPLY REFER TO:

3160
UT08300

February 17, 1999

Citation Oil & Gas Corporation
Attn: Sharon Ward
P O Box 690688
Houston, TX 77269-0688

Re: USA Pearl Broadhust Wells 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22
Sec. 9 & 10, T7S, R23E
Lease U-02651-A
Uintah County, Utah

Dear Ms. Ward:

This correspondence is in regard to the self-certification statement submitted requesting a change in operator for the referenced well. After a review by this office, the change in operator request is approved. Effective immediately, Citation Oil & Gas Corporation is responsible for all operations performed on the referenced well. All liability will now fall under your bond, BLM Bond No. MT0630, for all operations conducted on the referenced well on the leased land.

If you have any other questions concerning this matter, please contact Margie Herrmann or Pat Sutton of this office at (435) 781-4492.

Sincerely,

Howard B. Cleavinger II
Assistant Field Manager for

Minerals Resources

cc: Ocean Energy, Inc.
Amoco Production Co.
Utah Div. Oil, Gas & Mining

From: <Margie_Herrmann@ut.blm.gov>
To: <nrogm.krisbeck@state.ut.us>
Date: Tue, Jun 1, 1999 11:18 AM
Subject: Change of Operator

Here goes again! Let me know if you receive it.
Thank you,
Margie

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

Routing:	
1-KDR ✓	6-KAS ✓
2-GLH ✓	7-SJ
3-JRB ✓	8-FILE
4-CDW ✓	
5-KDR ✓	

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

☒ Change of Operator (well sold) ☐ Designation of Agent
☐ Designation of Operator ☐ Operator Name Change Only

The operator of the well(s) listed below has changed, **effective:** 1-1-99

TO: (new operator) CITATION OIL & GAS CORP
(address) 8223 WILLOW PL. SOUTH STE 250
HOUSTON, TX 77070-5623

Phone: (281)469-9664
Account no. N0265

FROM: (old operator) OCEAN ENERGY RESOURCES INC
(address) 410 17TH STREET STE 1400
DENVER, CO 80202

Phone: (303)573-5100
Account no. N3220

WELL(S) attach additional page if needed:

Name:	API:	Entity:	S	T	R	Lease:
SEE ATTACHED	43-047-15695		10	7S	23E	

OPERATOR CHANGE DOCUMENTATION

KDR 1. (r649-8-10) Sundry or other legal documentation has been received from the **FORMER** operator (attach to this form). (Rec'd 1-13-99)

KDR 2. (r649-8-10) Sundry or other legal documentation has been received from the **NEW** operator (Attach to this form). (Rec'd 1-14-99)

N/A 3. The **Department of Commerce** has been contacted if the new operator above is not currently operating any wells in Utah. Is the company **registered with the state?** (yes/no) _____ If yes, show company file number: _____.

KDR 4. **FOR INDIAN AND FEDERAL WELLS ONLY.** The BLM has been contacted regarding this change. Make note of BLM status in comments section of this form. BLM approval of **Federal** and **Indian** well operator changes should ordinarily take place prior to the division's approval, and before the completion of **steps 5 through 9** below. (Rec'd 6-1-99)

KDR 5. Changes have been entered in the **Oil and Gas Information System** (3270) for each well listed above. (6-10-99)

KDR 6. **Cardex** file has been updated for each well listed above.

DR 7. Well **file labels** have been updated for each well listed above. (*new filing system)

KDR 8. Changes have been included on the monthly "Operator, Address, and Account Changes" **memo** for distribution to Trust Lands, Sovereign Lands, UGS, Tax Commission, etc. 6-10-99

DR 9. A folder has been set up for the **Operator Change file**, and a copy of this page has been placed there for reference during routing and processing of the original documents.

c:\dons\wpdocs\forms\operchng

- OVER -

OPERATOR CHANGE WORKSHEET (continued) - Initial each item when completed. Write N/A if item is not applicable.

ENTITY REVIEW

LDR 1. (r649-8-7) **Entity assignments have been reviewed** for all wells listed above. Were entity changes made? (yes/no) ____ If entity assignments were changed, attach copies of Form 6, Entity Action Form.

LDR 2. Trust Lands, Sovereign Lands, Tax Commission, etc., have been **notified** through normal procedures of entity changes.

BOND VERIFICATION - (FEE WELLS ONLY)

N/A 1. (r649-3-1) The **NEW** operator of any fee lease well listed above has furnished a proper bond.

__ 2. A **copy of this form** has been placed in the new and former operator's bond files.

__ 3. The **FORMER** operator has requested a release of liability from their bond (yes/no) ____, as of today's date _____. If yes, division response was made to this request by letter dated _____.

LEASE INTEREST OWNER NOTIFICATION OF RESPONSIBILITY

N/A 1. Copies of documents have been sent on _____ to _____ at Trust Lands for changes involving State leases, in order to remind that agency of their responsibility to review for proper bonding.

__ 2. (r649-2-10) The former operator of any fee lease wells listed above has been contacted and informed by letter dated _____ 19 __, of their responsibility to notify all interest owners of this change.

FILMING

YS 1. All attachments to this form have been **microfilmed**. Today's date: 8.3.99.

FILING

__ 1. **Copies** of all attachments to this form have been filed in each **well file**.

__ 2. The **original of this form**, and the **original attachments** are now being filed in the Operator Change file.

COMMENTS

990514 left message w/ Marjie (BLM) regarding approval? 990601 Rec'd e-mail ~~approval~~ approval from Marjie (BLM)

Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

5. Lease Serial No.
U02651A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
USA Pearl Broadhurst #8

2. Name of Operator
CITATION OIL & GAS CORP.

9. API Well No.
43-047-~~30940~~ 30696

3a. Address
P.O. Box 690688, Houston, Texas 77269-0688

3b. Phone No. *(include area code)*
~~(281) 517-7800~~

10. Field and Pool, or Exploratory Area
Walker Hollow Green River

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
1846 FSL & 1967 FWL NE SW Sec. 10, 7S, 23E

RECEIVED
DEC 12 2003
By

11. County or Parish, State
Uintah County, UT

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☒ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other **Additional**
	☐ Change Plans	☐ Plug and Abandon	☒ Temporarily Abandon	**information to**
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	**TA request**

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Citation requests permission to retain this wellbore in a temporarily abandoned status. Citation plans to recomplete and/or reactivate, or P&A this wellbore by the end of 2007. Citation has budgeted recompletion / reactivation of three wells on the combined WHU and Pearl Broadhurst properties for 2004, as well as three P&A's. This is subject to final approval by Citation's upper management. Citation plans to drill additional wells on the WHU in 2004, and also plans to reduce our inactive well count on the two properties by two to four wells in 2005..

ATTACHMENT C-5 (1-4)

CONDITIONS OF APPROVAL ATTACHED

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Sharon Ward

Title
Regulatory Administrator

Signature
Sharon Ward

Date
December 8, 2003

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
Kirk Fleetwood

Title
Petroleum Engineer

Date
1/7/04

Office

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

OPERATOR

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number: **UTU 02651A**

SUNDRY NOTICES AND REPORTS ON WELLS

6. If Indian, Allottee or Tribe Name:

Do not use this form for proposals to drill new wells, deepen existing wells, or to re-enter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

7. Unit Agreement Name:

1. Type of Well: OIL ☐ GAS ☐ OTHER: ☒

8. Well Name and Number: **USA Pearl Broadhurst #5**

2. Name of Operator: **Citation Oil & Gas Corp.**

9. API Well Number: **43-047-~~30904~~** 15695

3. Address and Telephone Number: **P.O. Box 690688, Houston, Texas 77269-0688 (281) 517-7194**

10. Field and Pool, or Wildcat: **Walker Hollow Green River**

4. Location of Well
Footages: **743' FSL & 564' FWL**
QQ, Sec., T., R., M.: **SW SW; Sec. 10, T7S, R23E**
County: **Uintah**
State: **Utah**

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandonment	☐ New Construction	☐ Abandonment*	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recompletion	☐ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☐ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☐ Vent or Flare	☐ Fracture Treat	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☐ Other	
☒ Other **Well Integrity**			
Approximate date work will start **Upon Approval**		Date of work completion	

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Citation Oil & Gas Corp. requests approval to regain mechanical integrity in this well per the attached procedure.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

13. Name & Signature: Debra Harris **Debra Harris** Title: **Prod./Regulatory Coord.** Date: **5/21/2004**

(This space for State use only)

RECEIVED
MAY 25 2004
DIV. OF OIL, GAS & MINING

(12\92) (See Instructions on Reverse Side)

Pearl Broadhurst #5 WIW
Proposed Procedure To Obtain A Wellbore M.I.T.
05/17/04

Relative Data:

Casing: 7", 23 lb/ft, J-55
ID 6.366"
Drift 6.241"
Capacity 0.03936 bbl/ft
Burst 4360 psi; 80% = 3488 psi

Tubing: 2-7/8", 6.5 lb/ft, J-55, 8rd, EUE
Capacity 0.00579 bbl/ft
Burst 7260 psi; 80% 5808 psi
Collapse 7680 psi; 80% 6144 psi
Yield 99,660 lbs; 80% 79,728 lbs

7" x 2 7/8" Annular capacity 0.0313 BBLS/ft KB = 12 ft (AGL)

1. MIRU rig. ND WH. NU BOP. Unseat Baker Model "Lok-Set" inj PKR @ 4896' & POOH. Send PKR in for redressing.

2. PU & RIH W/the following: Baker Model "Lok-Set" inj PKR, 1 – 2 7/8" x 2.25" ID SN, 16 jts of 2 7/8" J-55 6.5# 8rd EUE tbg, Baker Model "Snap-Set" PKR, & 135 jts 2 7/8" J-55 6.5# 8rd EUE tbg.

3. Pump 60 BBLS of PKR fluid dn ann. Set Baker Model "Lok-Set" inj PKR. Set Baker Model "Snap-Set" PKR. Open backside & load ann W/PKR fluid.

4. Test csg to 1000 psi for 30 min.

5. Notify EPA of M.I.T. test for well.

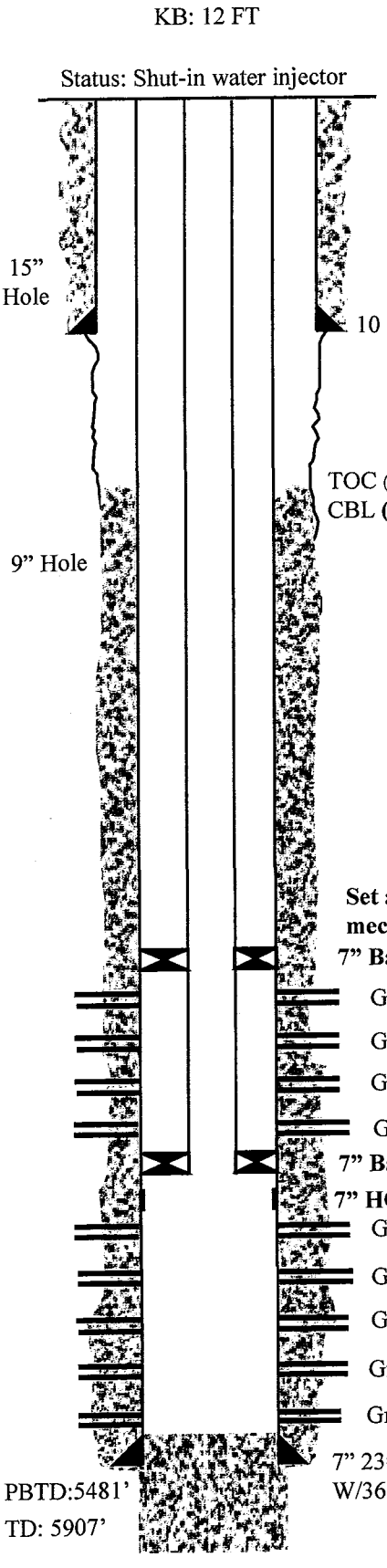
6. Perform M.I.T. test on tbg-csg ann W/EPA representative on location. Leave well SI until further notice.

M:\WORD60\JOHNLONG\PROCEDUR\Pearl Broadhurst\Others\Pearl Broadhurst #05 WIW - EPA Work.doc

5/14/04

CITATION OIL & GAS CORP.
PROPOSED PEARL BROADHURST #5 WIW
743' FSL & 564 FWL, SW SW, Section 10, T-7-S, R-23-E
UINTAH CO., UTAH

TUBING DETAIL			
Qty	Description	Length	Depth
---	KB (used)	12.00	12.00
135	2 7/8" J-55 6.5#, 8rd EUE IPC tbg	4,367.00	4,379.00
1	Baker Snap-Set PKR	1.10	4,380.10
16	2 7/8" J-55 6.5#, 8rd EUE IPC tbg	511.00	4,891.10
1	2 7/8" SN	1.10	4,892.20
1	Baker Lok-Set PKR	4.00	4,896.20
1	2 7/8" tbg collar	0.45	4,896.65



10 3/4" 32.75# H-40 csg 494' cmt'd W/353 sx

TOC @ 4226' By CBL **(5/64)**

Set additional PKR above open backside perfs for isolation, then retest wellbore for mechanical integrity.

7" Baker Snap Set PKR @ +/-4380'

Green River G: 4392 – 4408 & 14 – 29' (4 JSPF) **(9/90)**

Green River H2: 4748 - 52' (3 JSPF) **(12/71)**

Green River H4: 4794' (5 JSPF) **(6/64)**

Green River H5: 4828' (5 JSPF) **(6/64)**

7" Baker Lok-Set PKR @ 4896'

7" HOWCO Frac Liner F/4942 – 5007'.

Green River J6: 5325' (4 JSPF) **(3/66)**

Green River J7: 5333' (4 JSPF) **(3/66)**

Green River K1: 5388 & 97' (4 SPF) **(3/66)**

Green River K2: 5412' (4 JSPF) **(3/66)**

Green River K3: 5431' (4 SPF) **(3/66)**

7" 23# J-55 F/surf – 144' over 7" 20# J-55 F/144 – 4373' over 7" 23# J-55 F/4373 - 5567' cmt'd W/360 sx

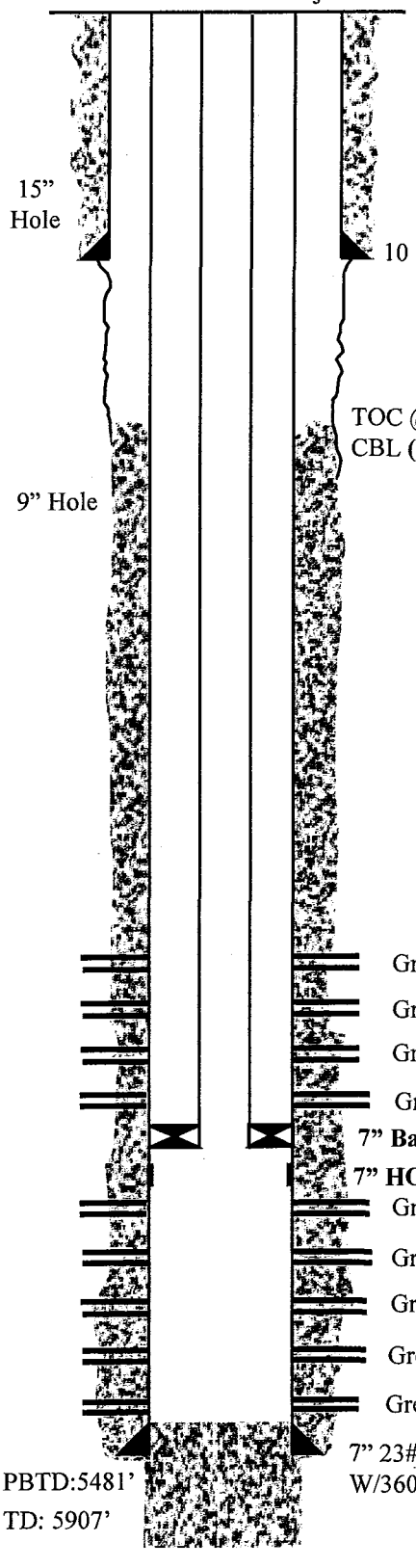
5/14/04

CITATION OIL & GAS CORP.
PEARL BROADHURST #5 WIW
743' FSL & 564 FWL, SW SW, Section 10, T-7-S, R-23-E
UINTAH CO., UTAH

KB: 12 FT

Status: Shut-in water injector

TUBING DETAIL			
Qty	Description	Length	Depth
---	KB (used)	12.00	12.00
151	2 7/8" J-55 6.5#, 8rd EUE IPC tbg	4,879.32	4,891.32
1	2 7/8" SN	1.10	4,892.42
1	Baker Lok-Set PKR	4.00	4,896.42
1	2 7/8" tbg collar	0.45	4,896.87



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Green River K3: 5431' (4 SPF) **(3/66)**

7" 23# J-55 F/surf – 144' over 7" 20# J-55 F/144 – 4373' over 7" 23# J-55 F/4373 - 5567' cmt'd W/360 sx

INSPECTION FORM 5 STATE OF UTAH
DIVISION OF OIL GAS AND MINING

INJECTION WELL - INSPECTION RECORD

Well Name: Pearl Broadhurst #5 API Number: 43-047-15695
Qtr/Qtr: SW/SW Section: 10 Township: 7S Range: 23E
Company Name: Citation Oil & Gas

Lease: State ____ Fee ____ Federal X Indian ____
Inspector: David Hackford Date: 5/10/99

Injection Type:

Disposal: ____ Enhanced Recovery: X Other: ____

Injecting: No Shut-In: No

Rate: 0 (bpd) Totalizer: 885 bbls.

Gauges: Tubing: yes

Casing: yes Casing Pressure: 0 (psig)
Tubing Pressure: 1700 (psig) Housekeeping: Fair

Equipment Condition: Good

COMMENTS: One 400 bbl. Upright tank on site, not in use.

WF Regulatory

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466
Phone 800-227-8917
http://www.epa.gov/region08

JUN 3 0 2004

RECEIVED JUL 8 2004

Ref: 8ENF-UFO

CERTIFIED MAIL 7003-2260-0001-7778-4680
RETURN RECEIPT REQUESTED

Ms. Debra Harris
Production/Regulatory Coordinator
Citation Oil and Gas Corporation
P.O. Box 690688
Houston, TX 77269-0688

Re: UNDERGROUND INJECTION CONTROL (UIC)
Approval to Rework:
Walker Hollow #30 W.I.W.
EPA ID No. UT20000-02544
Disapproval to Rework:
Walker Hollow #4 W.I.W.
EPA ID No. UT20000-02539, and
Pearl Broadhurst #5 W.I.W.
EPA ID No. UT20000-02392
Walker Hollow Field
Unitah County, Utah

Dear Ms. Harris:

My staff have received and reviewed your May 21, 2004, request to rework three Class II injection wells in the Walker Hollow Field. The plan to repair the above-referenced Walker Hollow #30 W.I.W. is approved. That plan describes means to repair a leak in the longstring casing whose estimated location is between the top of cement behind the longstring casing at 4430 feet and the base of the surface casing at 416 feet below surface.

The other two plans in the May 21, 2004, request included proposed rework procedures for the above-referenced Walker Hollow #4 W.I.W. and the Pearl Broadhurst #5 W.I.W. These plans are not approved. The reason for disallowing these procedures is the fact that the plans call for the installation of two packers in each well, each set of packers designed to span approximately 400-500 feet of perforations in the longstring casing, located above the target

XC: MB
TD
BH
FAX: RMA - KK, Bob C., John L.

Printed on Recycled Paper

injection zone. The use of packers is limited to one packer per injection tubing per well, and the packer must be set at a depth of no greater than 100 feet from the injection zone. This allows mechanical integrity testing of the entire length of the annulus in the well to within 100 feet of the injection zone. Each well's injection zone, as authorized by rule (i.e. "grandfathered"), is the Green River Formation, and is located at the following depths:

Well Name	Injection Zone Depths
Walker Hollow 4 W.I.W.	5231' to 5775'
Pearl Broadhurst 5 W.I.W.	5325' to 5431'

The rework procedures must contain a means to set a packer within 100 feet of the top of each rule-authorized injection zone. The alternatives you have include, but may not be limited to, (1) squeezing perforations located above the injection zone perforations, (2) vertically expanding the injection zone to include perforations above the current injection zone perforations (this would require an EPA-issued UIC permit), and (3) plugging the wells. If you decide to seek a UIC permit, please notify Dan Jackson, UIC Permits Team Leader, Mail Code 8P-W-GW, 999 18th Street, Suite 300, Denver, CO 80202. He can assist you with the UIC permitting process.

Within thirty (30) days of receipt of this letter, please submit a letter describing what action you intend to take regarding the wells, including a time frame in which you anticipate the work to be completed. (By Aug. 7, 2004 - Reply)

If you choose to plug and abandon any well, a plugging and abandonment plan must be submitted to EPA for approval prior to the plugging operation.

If you have any questions about this matter, please feel free to contact Nathan Wiser of my staff at (303) 312-6211. Please direct all correspondence to the attention of Al Craver at Mail Code 8ENF-UFO.

Sincerely,

Elisabeth Evans

Elisabeth Evans
Director
Technical Enforcement Program

cc: Maxine Natchees, Chairwoman
Ute Indian Tribe

Elaine Willie, Environmental Coordinator
Ute Indian Tribe

Citation
OIL & GAS CORP.

August 5, 2004

Dan Jackson
U. S. Environmental Protection Agency
Region VIII
999 18th Street, Suite 300
Denver, Colorado 80202-2466

RE: Permit Application for Water Injection Well
USA Pearl Broadhurst #5
Walker Hollow Field, Lease UTU 02651A
Section 10-Township 7S-Range 23E
Uintah County, Utah

Dear Mr. Jackson:

Citation Oil & Gas Corp. requests a approval to amend the permit on the USA Pearl Broadhurst #5. Citation proposes to increase the interval from 4392' to 5431' to allow for future targeting of shallower zones.

Enclosed please find Citation Oil & Gas Corp.'s application for amendment.

If you require additional information, please contact the undersigned, at 281-517-7309.
Thank you.

Sincerely,

Sharon Ward

Sharon Ward
Regulatory Administrator
Citation Oil & Gas Corp.

RECEIVED
AUG 09 2004
DIV. OF OIL, GAS & MINING

UIC FORM 1

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR INJECTION WELL

Name of Operator: Citation Oil & Gas Corp.	Utah Account Number: N 0265	Well Name and Number: U S A Pearl Broadhurst 5
Address of Operator: P O Box 690688 CITY Houston STATE TX ZIP 77269	Phone Number: (281) 517-7800	API Number: 047-15695
Location of Well: Footage: 743 FSL & 564 FWL County: Uintah; QQ, Section, Township, Range: SW S 10 7S 23E State: UTAH		Field or Unit Name: Walker Hollow Field; Lease Designation and Number: UTU 02651A

Is this application for expansion of an existing project? Yes ☐ No ☑

Will the proposed well be used for:

Enhanced Recovery?	Yes ☑	No ☐
Disposal?	Yes ☐	No ☐
Storage?	Yes ☐	No ☐

Is this application for a new well to be drilled? Yes ☐ No ☑

If this application is for an existing well, has a casing test been performed? Yes ☑ No ☐
Date of test: 12/12/1992

Proposed injection interval: from 4,392 to 5,431

Proposed maximum injection: rate 1,000 bpd pressure 1,312 psia

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY

Proposed injection zone contains oil ☑, gas ☑, and / or fresh water ☐ within ½ mile of the well.

List of attachments: See EPA application as attachment to amend current permit

ATTACH ADDITIONAL INFORMATION AS REQUIRED BY CURRENT UTAH OIL AND GAS CONSERVATION GENERAL RULES

RECEIVED
AUG 09 2004
DIV. OF OIL, GAS & MINING

I hereby certify that this report is true and complete to the best of my knowledge.

Name (Please Print) Sharon Ward Title Regulatory Administrator

Signature Sharon Ward Date 8/5/2004

(5/2002)

INSTRUCTIONS

This form shall be submitted by the well operator prior to the commencement of operations for injecting any fluid into a well for the purpose of enhanced recovery, disposal, or storage within the state of Utah, in accordance to the Utah Oil and Gas Conservation General Rules. Approvals or orders authorizing injection wells shall be valid for the life of the well, unless revoked by the board for just cause, after notice and hearing.

Send to:

Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

CITATION OIL & GAS CORP.

APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL

U.S.A. PEARL BROADHURST #5

WALKER HOLLOW (GREEN RIVER) FIELD

LEASE # UTU-02651A

EPA ID NO. UT20000-02392

AUGUST 5, 2004

RECEIVED
AUG 09 2004
DIV. OF OIL, GAS & MINING

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COVER PAGE
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EPA LETTER DATED JUNE 30, 2004
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ATTACHMENT A-2	AREA OF REVIEW LIST OF WELLS
ATTACHMENT A-3	LISTING OF SURFACE OWNERS
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ATTACHMENT C-2	COMPLETION/SUNDRIES -WELLBORE DIAGRAM – USA PEARL BROADHURST 2
ATTACHMENT C-3	COMPLETION/SUNDRIES -WELLBORE DIAGRAM – USA PEARL BROADHURST 4
ATTACHMENT C-4	COMPLETION/SUNDRIES -WELLBORE DIAGRAM – USA PEARL BROADHURST 5
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ATTACHMENT C-7	COMPLETION/SUNDRIES -WELLBORE DIAGRAM – USA PEARL BROADHURST 15
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ATTACHMENT D-4	INJECTION SCALING TENDENCY ANALYSIS CHART
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ATTACHMENT H	CONSTRUCTION DETAILS
ATTACHMENT H-1	WELLBORE SCHEMATIC OF USA PEARL BROADHURST 5
ATTACHMENT H-2	SITE PLAN OF USA PEARL BROADHUSRT 5
ATTACHMENT I	PROPOSED PLUGGING AND ABANDONMENT PROCEDURE
ATTACHMENT I-1	EPA FORM 7520-14 – PLUGGING AND ABANDONMENT PLAN
ATTACHMENT I-2	WELLBORE SCHEMATIC OF PROPOSED PLUGGING PLAN
ATTACHMENT I-3	WORK PROCEDURE FOR PLUGGING AND ABANDONMENT
ATTACHMENT J	NECESSARY RESOURCES
ATTACHMENT K	STATE APPLICATION UIC FORM 1
ATTACHMENT L	ELECTRIC LOG STRIP

OMB No. 2040-0042 Approval Expires 1/31/05

United States Environmental Protection Agency

Underground Injection Control Permit Application

(Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)

I. EPA ID Number		T/A	C
U			

Read Attached Instructions Before Starting

For Official Use Only

Application approved mo day year	Date received mo day year	Permit Number	Well ID	FINDS Number

II. Owner Name and Address

Owner Name: USA Pearl Broadhurst 5

Street Address: Section 10-Twp 7S-Rng 23E

Phone Number:

City: Uintah County,

State: UT

ZIP CODE:

III. Operator Name and Address

Owner Name: Citation Oil & Gas Corp.

Street Address: 8223 Willow Place South

Phone Number: (281) 517-7800

City: Houston

State: TX

ZIP CODE: 77070

IV. Commercial Facility

- [ ] Yes
- [x] No

V. Ownership

- [ ] Private
- [x] Federal
- [ ] Other

VI. Legal Contact

- [ ] Owner
- [x] Operator

VII. SIC Codes

VIII. Well Status *(Mark 'X')*

- [ ] A. Operating — Date Started mo day year:
- [x] B. Modification/Conversion
- [ ] C. Proposed

IX. Type of Permit Requested *(Mark 'x' and specify if required)*

- [x] A. Individual
- [ ] B. Area

Number of Existing Wells	Number of Proposed Wells	Name(s) of field(s) or project(s)
	1	Walker Hollow Field

X. Class and Type of Well *(see reverse)*

A. Class(es) (enter code(s))	B. Type(s) (enter code(s))	C. If class is "other" or type is code 'x,' explain	D. Number of wells per type (if area permit)
	R		

XI. Location of Well(s) or Approximate Center of Field or Project

Latitude Deg	Min	Sec	Longitude Deg	Min	Sec	Township and Range Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line
40	218	97	109	32		10	7S	23E	SW	743	S	564	W

XII. Indian Lands (Mark 'x')

- [ ] Yes
- [x] No

XIII. Attachments

(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)

For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A--U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.

XIV. Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

A. Name and Title *(Type or Print)*: Sharon Ward Regulatory Administrator

B. Phone No. *(Area Code and No.)*: (281) 517-7309

C. Signature: Sharon Ward

D. Date Signed: 8-5-04

Pearl Broadhurst #5 WIW
Proposed Procedure To Obtain A Wellbore M.I.T.
05/17/04

Relative Data:

Casing: 7", 23 lb/ft, J-55
ID 6.366"
Drift 6.241"
Capacity 0.03936 bbl/ft
Burst 4360 psi; 80% = 3488 psi

Tubing: 2-7/8", 6.5 lb/ft, J-55, 8rd, EUE
Capacity 0.00579 bbl/ft
Burst 7260 psi; 80% 5808 psi
Collapse 7680 psi; 80% 6144 psi
Yield 99,660 lbs; 80% 79,728 lbs

7" x 2 7/8" Annular capacity 0.0313 BBLS/ft KB = 12 ft (AGL)

1. MIRU rig. ND WH. NU BOP. Unseat Baker Model "Lok-Set" inj PKR @ 4896' & POOH. Send PKR in for redressing.

2. PU & RIH W/the following: Baker Model "Lok-Set" inj PKR, 1 – 2 7/8" x 2.25" ID SN, 16 jts of 2 7/8" J-55 6.5# 8rd EUE tbg, Baker Model "Snap-Set" PKR, & 135 jts 2 7/8" J-55 6.5# 8rd EUE tbg.

3. Pump 60 BBLS of PKR fluid dn ann. Set Baker Model "Lok-Set" inj PKR. Set Baker Model "Snap-Set" PKR. Open backside & load ann W/PKR fluid.

4. Test csg to 1000 psi for 30 min.

5. Notify EPA of M.I.T. test for well.

6. Perform M.I.T. test on tbg-csg ann W/EPA representative on location. Leave well SI until further notice.

M:\WORD60\JOHNLONG\PROCEDUR\Pearl Broadhurst\Others\Pearl Broadhurst #05 WIW - EPA Work.doc

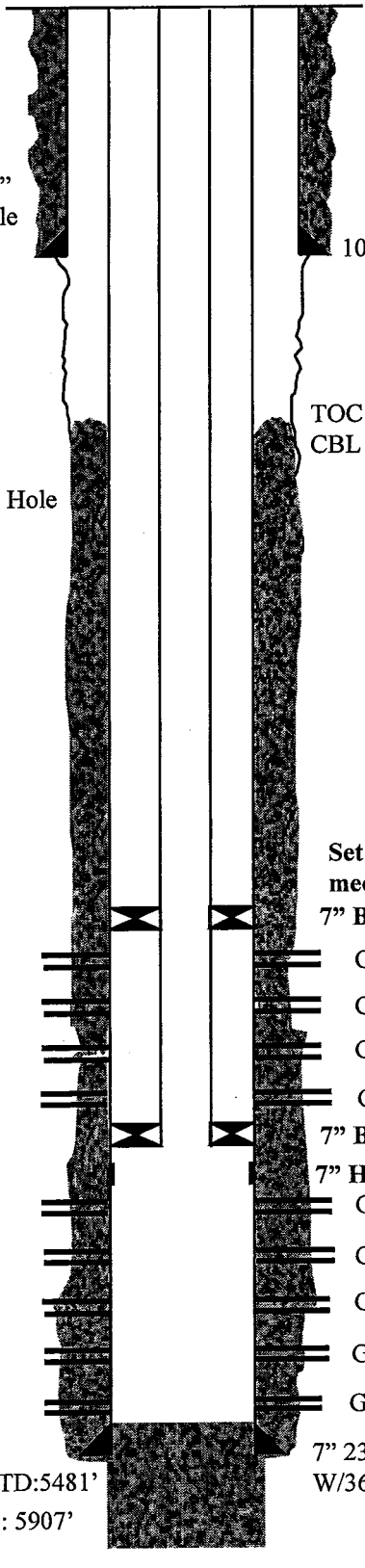
5/14/04

CITATION OIL & GAS CORP.
PROPOSED PEARL BROADHURST #5 WIW
743' FSL & 564 FWL, SW SW, Section 10, T-7-S, R-23-E
UINTAH CO., UTAH

TUBING DETAIL			
Qty	Description	Length	Depth
---	KB (used)	12.00	12.00
135	2 7/8" J-55 6.5#, 8rd EUE IPC tbg	4,367.00	4,379.00
1	Baker Snap-Set PKR	1.10	4,380.10
16	2 7/8" J-55 6.5#, 8rd EUE IPC tbg	511.00	4,891.10
1	2 7/8" SN	1.10	4,892.20
1	Baker Lok-Set PKR	4.00	4,896.20
1	2 7/8" tbg collar	0.45	4,896.65

KB: 12 FT

Status: Shut-in water injector



15" Hole

10 3/4" 32.75# H-40 csg 494' cmt'd W/353 sx

TOC @ 4226' By CBL **(5/64)**

9" Hole

Set additional PKR above open backside perfs for isolation, then retest wellbore for mechanical integrity.

7" Baker Snap Set PKR @ +/-4380'

Green River G: 4392 – 4408 & 14 – 29' (4 JSPF) **(9/90)**

Green River H2: 4748 - 52' (3 JSPF) **(12/71)**

Green River H4: 4794' (5 JSPF) **(6/64)**

Green River H5: 4828' (5 JSPF) **(6/64)**

7" Baker Lok-Set PKR @ 4896'

7" HOWCO Frac Liner F/4942 – 5007'.

Green River J6: 5325' (4 JSPF) **(3/66)**

Green River J7: 5333' (4 JSPF) **(3/66)**

Green River K1: 5388 & 97' (4 SPF) **(3/66)**

Green River K2: 5412' (4 JSPF) **(3/66)**

Green River K3: 5431' (4 SPF) **(3/66)**

7" 23# J-55 F/surf – 144' over 7" 20# J-55 F/144 – 4373' over 7" 23# J-55 F/4373 - 5567' cmt'd W/360 sx

PBTD:5481'

TD: 5907'

CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
USA PEARL BROADHURST 5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

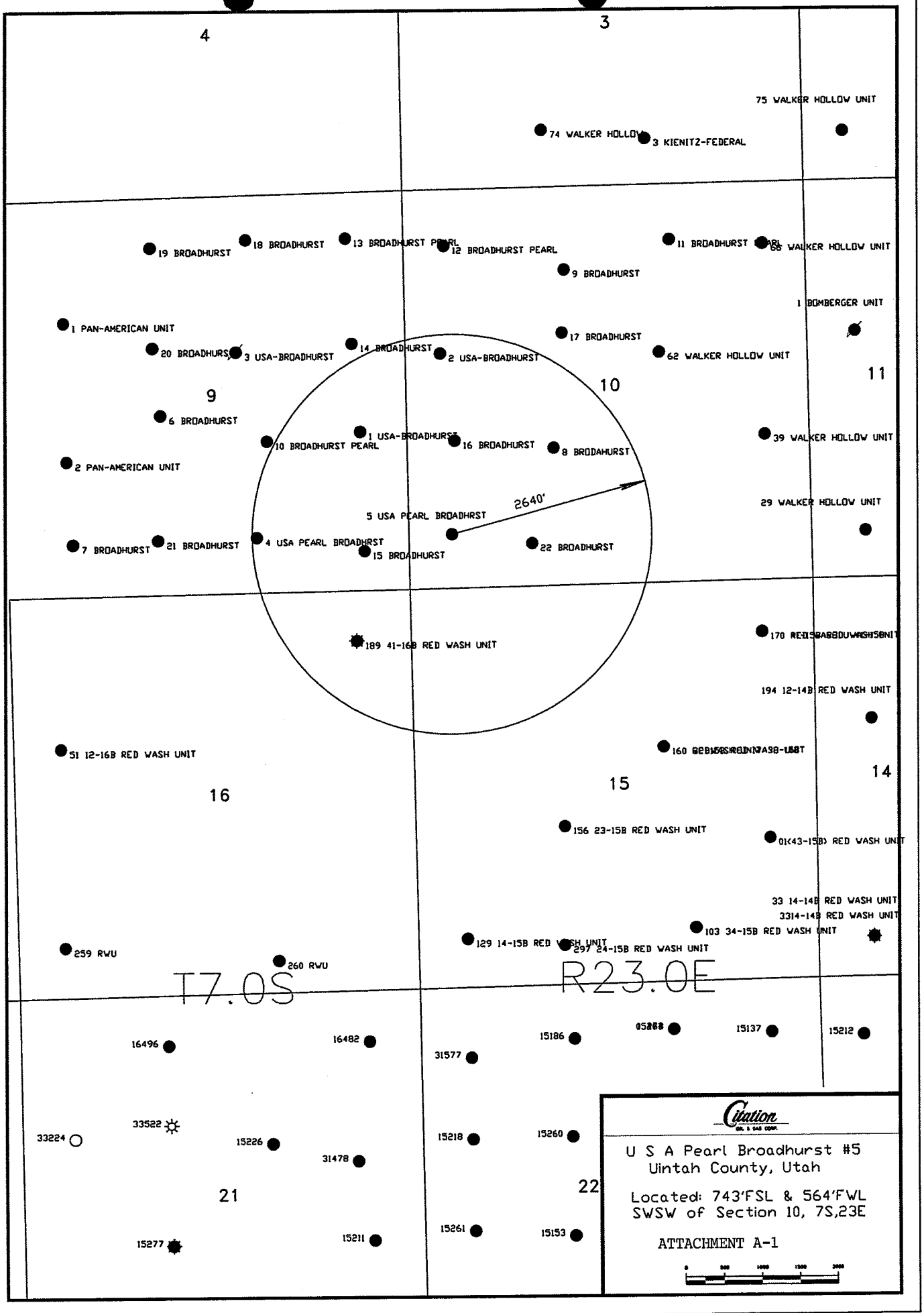
ATTACHMENT A

AREA OF REVIEW METHODS

Give the methods and, if appropriate, the calculations used to determine the size of the area of review (fixed radius or equation). The area of review shall be a fixed radius of ¼ mile from the well bore unless the use of an equation is approved in advance by the Director.

The area of review shall be a fixed radius of ½ mile from the USA Pearl Broadhurst 5. Citation Oil & Gas Corp. has chosen to use a fixed radius of ½ mile to satisfy the requirements of both the EPA and the State of Utah.

Attachment A-1	One-half Mile Radius Map
Attachment A-2	Area of Review List of Wells
Attachment A-3	Listing of Surface Owners
Attachment A-4	Certification for Surface Owner Notification
Attachment A-5	Well Location Plat
Attachment A-6	Name(s) and Address(s) of Surface Owners


4
3
75 WALKER HOLLOW UNIT
74 WALKER HOLLOW
3 KIENITZ-FEDERAL
19 BROADHURST
18 BROADHURST
13 BROADHURST PEARL
12 BROADHURST PEARL
11 BROADHURST PEARL
68 WALKER HOLLOW UNIT
9 BROADHURST
1 BOMBERGER UNIT
1 PAN-AMERICAN UNIT
17 BROADHURST
20 BROADHURST
3 USA-BROADHURST
14 BROADHURST
2 USA-BROADHURST
62 WALKER HOLLOW UNIT
11
10
9
6 BROADHURST
1 USA-BROADHURST
10 BROADHURST PEARL
16 BROADHURST
8 BRODAHURST
39 WALKER HOLLOW UNIT
2 PAN-AMERICAN UNIT
2640'
29 WALKER HOLLOW UNIT
5 USA PEARL BROADHRST
7 BROADHURST
21 BROADHURST
4 USA PEARL BROADHRST
15 BROADHURST
22 BROADHURST
189 41-16B RED WASH UNIT
170 RED WASH UNIT
194 12-14B RED WASH UNIT
51 12-16B RED WASH UNIT
160
14
16
15
156 23-15B RED WASH UNIT
01(43-15B) RED WASH UNIT
33 14-14B RED WASH UNIT
3314-14B RED WASH UNIT
103 34-15B RED WASH UNIT
129 14-15B RED WASH UNIT
297 24-15B RED WASH UNIT
259 RWU
260 RWU
T7.0S
R23.0E
16496
16482
15186
15137
15212
31577
33522
33224
15226
31478
15218
15260
21
22
15277
15211
15261
15153
Citation
OIL & GAS CORP.
U S A Pearl Broadhurst #5
Uintah County, Utah
Located: 743'FSL & 564'FWL
SWSW of Section 10, 7S,23E
ATTACHMENT A-1

USA PEARL BROADHURST #5
1/2 MILE AREA OF REVIEW
WALKER HOLLOW FIELD
UINTAH COUNTY, UTAH

ATTACHMENT A-2

API	43-047-15692	43-047-15693	43-047-15694	43-047-15695	43-047-30696
OPERATOR	CITATION OIL & GAS CORP	CITATION OIL & GAS CORP	CITATION OIL & GAS CORP	CITATION OIL & GAS CORP	CITATION OIL & GAS CORP
WELL NAME	USA PEARL BROADHURST 1	USA PEARL BROADHURST 2	USA PEARL BROADHURST 4	USA PEARL BROADHURST 5	USA PEARL BROADHURST 8
TYPE	Oil Well	Water Injection	Oil Well	Water Injection	Oil Well
STATUS	Producing Well	Active Well	Producing Well	Active Well	Shut_In
LEASE NO.	U 02651A	U 02651A	U 02651A	U 02651A	U 02651A
BOND NO.	MT0630	MT0630	MT0630	MT0630	MT0630
FIELD	WALKER HOLLOW	WALKER HOLLOW	WALKER HOLLOW	WALKER HOLLOW	WALKER HOLLOW
County	UINTAH	UINTAH	UINTAH	UINTAH	UINTAH
TWP/RNG	7S-23E	7S-23E	7S-23E	7S-23E	7S-23E
Section	9	10	9	10	10
Qtr/Qtr	NESE	SWNW	SWSE	SWSW	NESW
FOOTAGES	2130 FSL 575 FEL	2140 FNL 500 FWL	760 FSL 1980 FEL	743 FSL 564 FWL	1846 FSL 1967 FWL
ELEVATION	0	5121	0	0	5180
PERFORATIONS	4692-5412	4693-5340	4743-5386	4392-5431	4618-5342
TD	5902	5800	5900	5907	5500

API	43-047-30839	43-047-30901	43-047-30903	43-047-31025	43-047-15292
OPERATOR	CITATION OIL & GAS CORP	CITATION OIL & GAS CORP	CITATION OIL & GAS CORP	CITATION OIL & GAS CORP	QEP UINTA BASIN INC.
WELL NAME	USA PEARL BROADHURST 10	USA PEARL BROADHURST 15	USA PEARL BROADHURST 16	USA PEARL BROADHURST 22	RWU ST 189 (41-16B)
TYPE	Oil Well	Oil Well	Oil Well	Oil Well	Oil Well
STATUS	Producing Well	Shut_In	Shut_In	Shut_In	Producing Well
LEASE NO.	U 02651A	U 02651A	U 02651A	U 02651A	ML 3037
BOND NO.	MT0630	MT0630	MT0630	MT0630	N/A
FIELD	WALKER HOLLOW	WALKER HOLLOW	WALKER HOLLOW	WALKER HOLLOW	RED WASH
County	UINTAH	UINTAH	UINTAH	UINTAH	UINTAH
TWP/RNG	7S-23E	7S-23E	7S-23E	7S-23E	7S-23E
Section	9	9	10	10	16
Qtr/Qtr	NWSE	SESE	NWSW	SESW	NENE
FOOTAGES	2029 FSL 1819 FEL	552 FSL 555 FEL	1977 FSL 662 FWL	593 FSL 1649 FWL	635 FNL 685 FEL
ELEVATION	5118	5182	5181	5244	5206
PERFORATIONS	4670-5370	3736-5358	5241-5343	5247-5352	4706-5746
TD	5550	5517	5487	5650	5401

CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
USA PEARL BROADHURST #5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

ATTACHMENT A – 3

USA PEARL BROADHURST #5
UINTAH COUNTY, UTAH
TOWNSHIP 7 SOUTH, RANGE 23 EAST

Legal Description		**Surface and Mineral Ownership**
Section 9:	E/2	**Federal – 100%**
Section 10:	W/2, NW NE SE, E/2 NE, SW NE	**Federal – 100%**
Section 15:	N/2	**Federal – 100%**
Section 16:	NE/4	**QUESTAR MARKET RESOURCES**

CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
U.S.A. PEARL BROADHURST #5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

ATTACHMENT A – 4

CERTIFICATION FOR SURFACE OWNER NOTIFICATION

RE: Application for Approval of Class II Injection Well
USA Pearl Broadhurst #5

I hereby certify that a copy of the injection application has been provided to all surface owners within a one-half mile radius of the proposed injection well.

Signed: Sharon Ward
Citation Oil & Gas Corp.
Sharon Ward
Regulatory Administrator

Sworn to and subscribed before me this 5th day of August, 2004.

Notary Public in and for the State of Texas: Renee Harrell

My Commission expires: 3-2-07

RENEE HARRELL
NOTARY PUBLIC
STATE OF TEXAS
EXPIRES
3-2-2007

Citation
OIL & GAS CORP.

August 5, 2004

Questar Market Resources
1050 17TH Street Suite 500
Denver, CO 80265

RE: Permit Application to Amend Water Injection Well
USA Pearl Broadhurst #5
Walker Hollow Field, Lease UTU 02651A
Section 10-Township 7S-Range 23E
Uintah County, Utah

Dear Sir:

Citation has applied to the EPA and State of Utah for an approved permit to amend the injection interval in the above well.

It is our understanding that you own or operate property within a ½ mile radius of the referenced surface location. Under law, we are required to notify all interested parties within a ½ mile radius of any proposed injection well. This letter will serve as your notification as a surface owner within the "Area of Review".

If you require additional information, please contact the undersigned, at 281-517-7309 or email me at sward@ cogc.com.

Sincerely,

Sharon Ward

Sharon Ward
Regulatory Administrator
Citation Oil & Gas Corp.

P.O. Box 690688 • Houston, TX 77269-0688 • 281/517-7800

Citation
OIL & GAS CORP.

August 5, 2004

BLM Vernal District
170 South 500 East
Vernal, UT 84078

RE: Permit Application to Amend Water Injection Well
USA Pearl Broadhurst #5
Walker Hollow Field, Lease UTU 02651A
Section 10-Township 7S-Range 23E
Uintah County, Utah

Dear Sir:

Citation has applied to the EPA and State of Utah for an approved permit to amend the injection interval in the above well.

It is our understanding that you own or operate property within a ½ mile radius of the referenced surface location. Under law, we are required to notify all interested parties within a ½ mile radius of any proposed injection well. This letter will serve as your notification as a surface owner within the "Area of Review".

If you require additional information, please contact the undersigned, at 281-517-7309 or email me at sward@ cogc.com.

Sincerely,

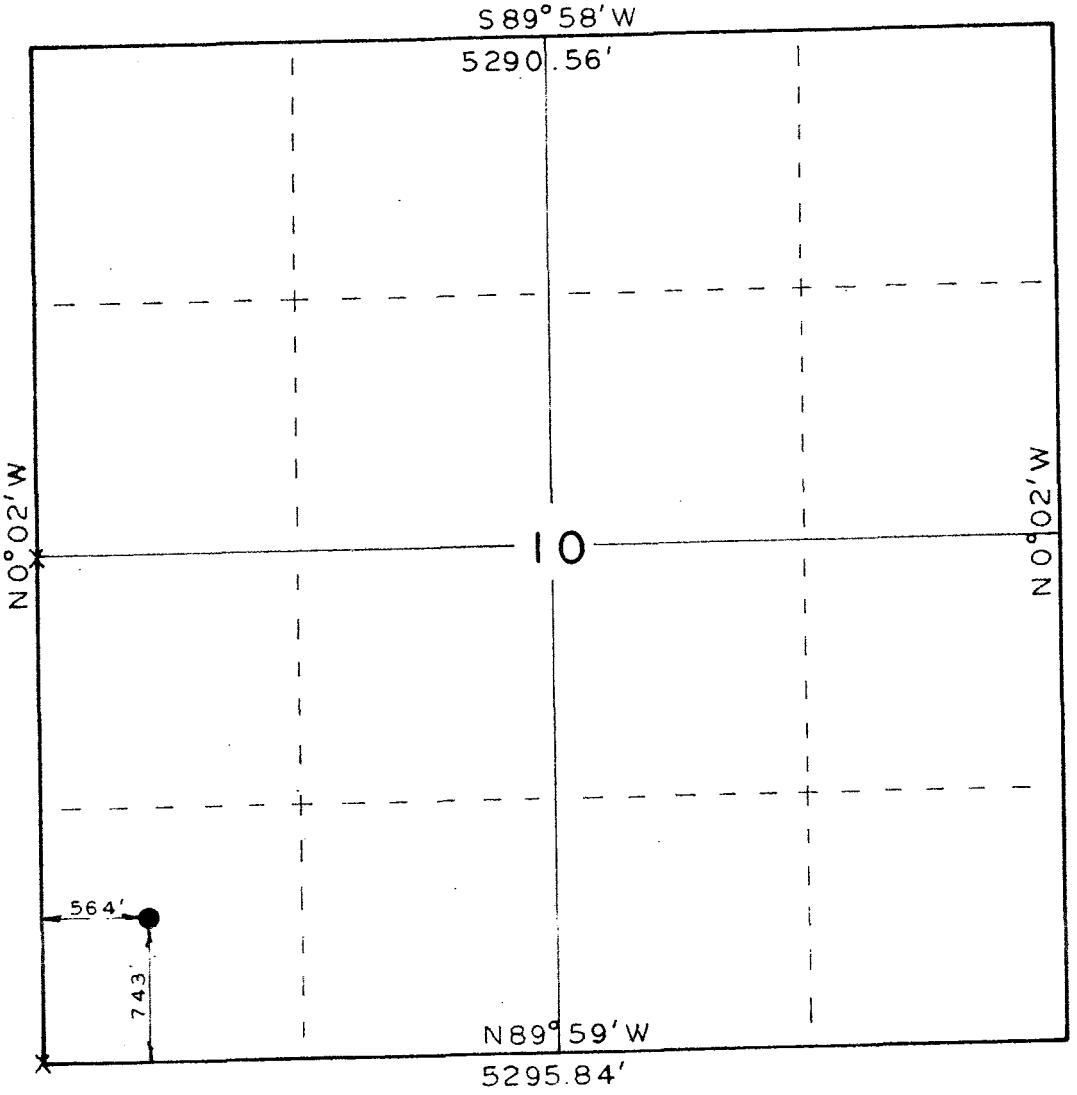
Sharon Ward

Sharon Ward
Regulatory Administrator
Citation Oil & Gas Corp.

P.O. Box 690688 • Houston, TX 77269-0688 • 281/517-7800

ATTACHMENT A-5

T 7S, R 23E, SLB&M



X = Corners located (brass caps)

Scale: 1" = 1000'

Nelson J. Marshall

By. ROSS CONSTRUCTION CO.
Vernal, Utah

PARTY Gene Stewart L. C. Kay Ray Stewart WEATHER Windy	**SURVEY** PAN AMERICAN PET. CORP. PEARL A. BROADHURST WELL NO. 5, LOCATED AS SHOWN IN THE SW 1/4, SW 1/4, SEC. 10, T 7 S, R 23 E, SLB&M. UINTAH COUNTY, UTAH.	DATE 4/17/64 REFERENCES GLO Township plat Approved 11/29/194 FILE PAN AM

CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
U.S.A. PEARL BROADHURST #5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

ATTACHMENT A – 6

NAMES AND ADDRESSES OF SURFACE OWNERS

TOWNSHIP 7 SOUTH, RANGE 23 EAST
SECTION 9: E/2
SECTION 10: W/2, NW NE SE, E/2 NE, SW NE
SECTION 15: N/2

1. USA

TOWNSHIP 7 SOUTH, RANGE 23 EAST
SECTION 16: NE

2. QUESTAR MARKET RESOURCES
   1050 17TH STREET SUITE 500
   DENVER, CO 80265

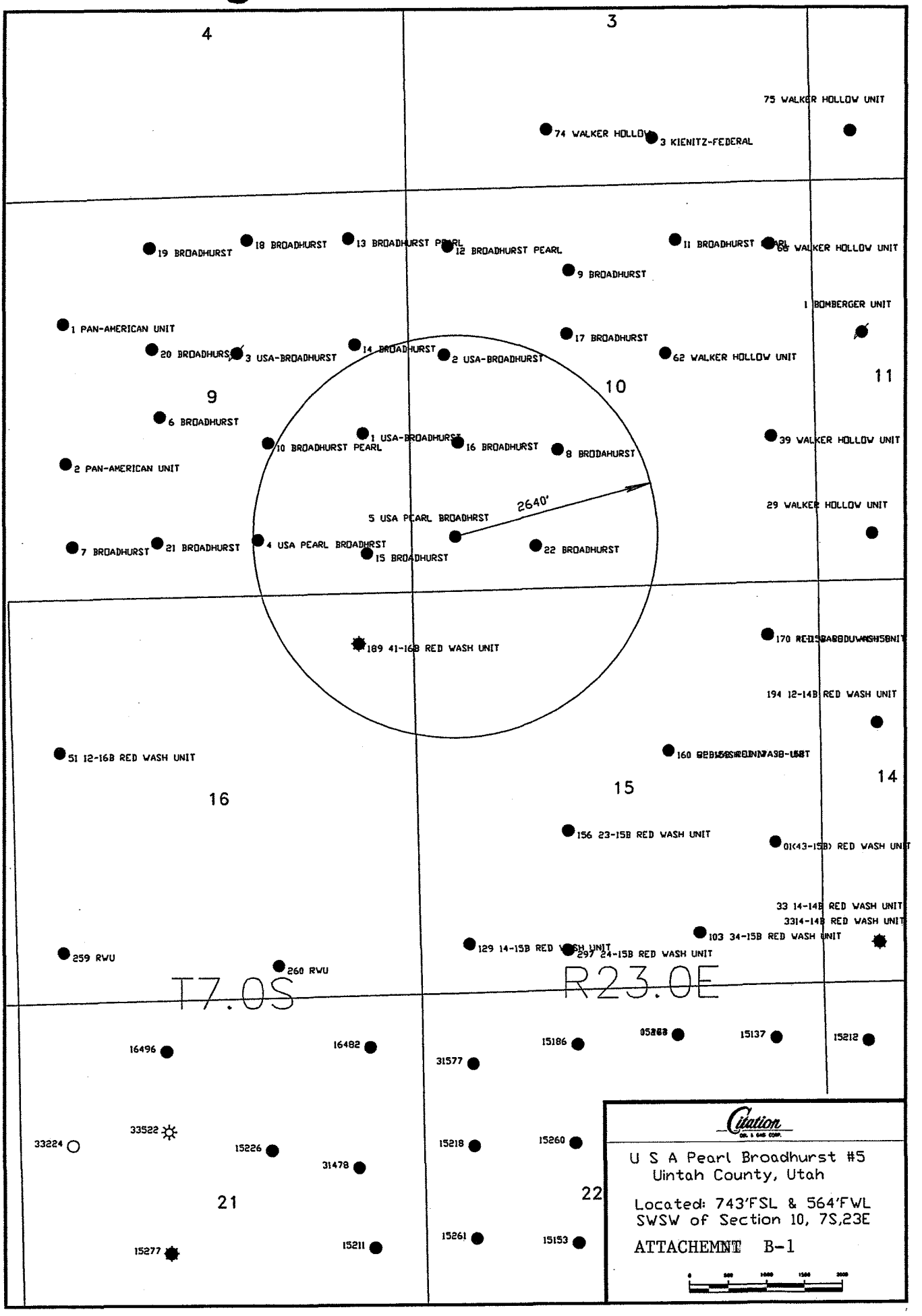
CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
U.S.A. PEARL BROADHURST #5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

ATTACHMENT B

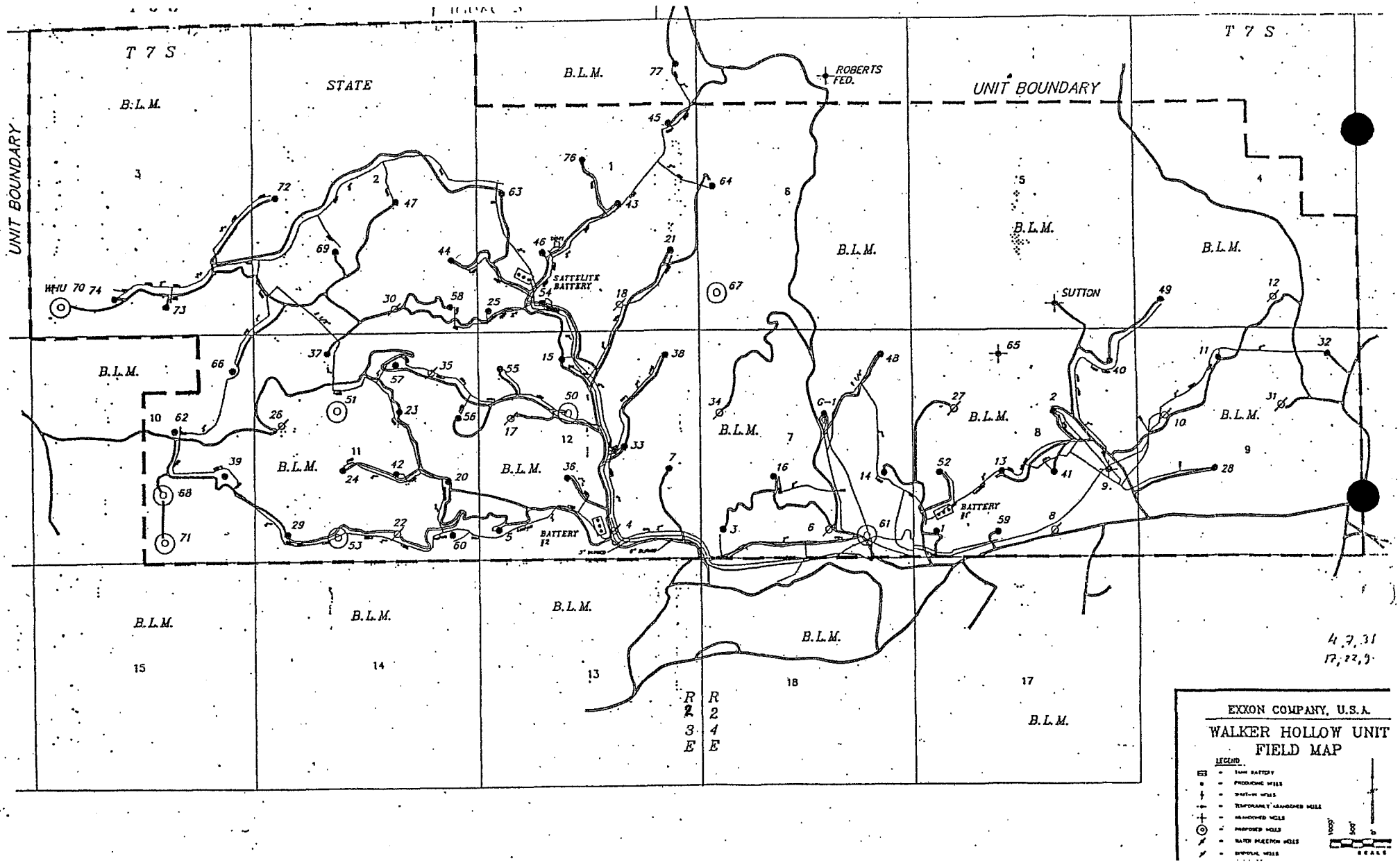
Submit a topographic map, extending one mile beyond the property boundaries, showing the injection well(s) or project area for which a permit is sought and the applicable area of review.

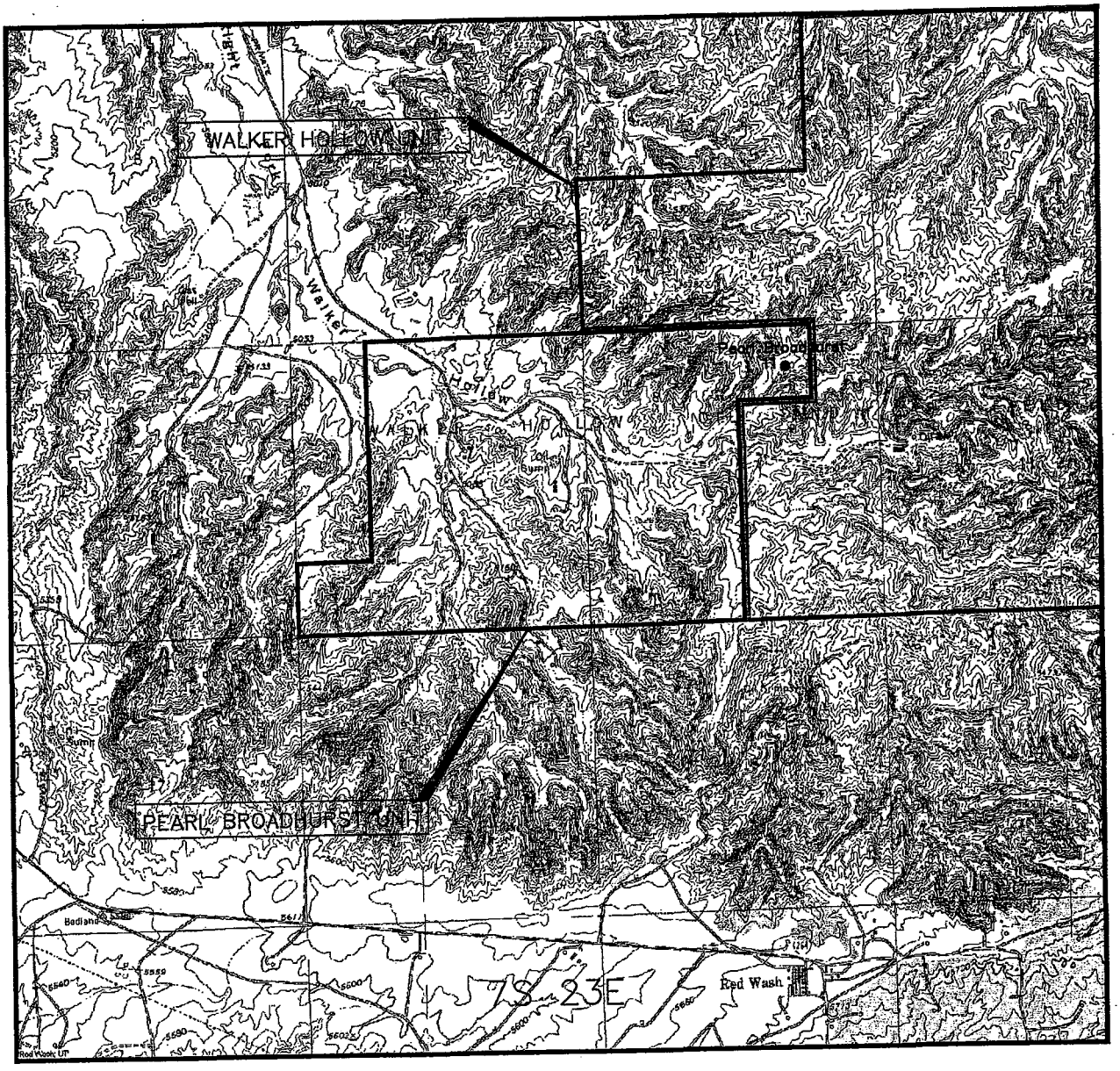
There are no hazardous waste, treatment, storage or disposal facilities within a one-mile radius of the property boundaries.

Attachment B-1	Area of Review
Attachment B-2	Proposed and Existing Water Lines
Attachment B-3	Topo map


4
3
75 WALKER HOLLOW UNIT
74 WALKER HOLLOW
3 KIENITZ-FEDERAL
19 BROADHURST
18 BROADHURST
13 BROADHURST PEARL
12 BROADHURST PEARL
11 BROADHURST
66 WALKER HOLLOW UNIT
9 BROADHURST
1 BOMBERGER UNIT
1 PAN-AMERICAN UNIT
17 BROADHURST
20 BROADHURST
3 USA-BROADHURST
14 BROADHURST
2 USA-BROADHURST
62 WALKER HOLLOW UNIT
11
9
10
6 BROADHURST
1 USA-BROADHURST
10 BROADHURST PEARL
16 BROADHURST
8 BRODAHURST
39 WALKER HOLLOW UNIT
2 PAN-AMERICAN UNIT
2640'
29 WALKER HOLLOW UNIT
5 USA PEARL BROADHRST
7 BROADHURST
21 BROADHURST
4 USA PEARL BROADHRST
15 BROADHURST
22 BROADHURST
189 41-16B RED WASH UNIT
194 12-14B RED WASH UNIT
51 12-16B RED WASH UNIT
14
16
15
156 23-15B RED WASH UNIT
01(43-15B) RED WASH UNIT
33 14-14B RED WASH UNIT
3314-14B RED WASH UNIT
103 34-15B RED WASH UNIT
129 14-15B RED WASH UNIT
297 24-15B RED WASH UNIT
259 RWU
260 RWU
T7.0S
R23.0E
16496
16482
15186
15137
15212
31577
33522
33224
15226
15218
15260
31478
21
22
15277
15211
15261
15153
Citation
U S A Pearl Broadhurst #5
Uintah County, Utah
Located: 743'FSL & 564'FWL
SWSW of Section 10, 7S,23E
ATTACHEMNT B-1

ATTACHMENT B-2





ATTACHMENT B-3

Citation
OIL & GAS CORP.

PEARL BROADHURST
N 40 13.40 W -111 19.47
Unitah County, Utah

ONE MILE BEYOND PROPERTY BOUNDRY

0 2000 4000 6000 8000

CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
U.S.A. PEARL BROADHURST #5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

ATTACHMENT C

CORRECTIVE ACTION PLAN AND WELL DATA

Submit a tabulation of data reasonably available form public records or otherwise known to the applicant on all wells within the area of review, including those on the map required in Attachment B, which penetrate the proposed injection zone.

Attachment C-1	Completion Form - Wellbore Diagram – USA Pearl Broadhurst 1
Attachment C-2	Completion Form - Wellbore Diagram – USA Pearl Broadhurst 2
Attachment C-3	Completion Form - Wellbore Diagram – USA Pearl Broadhurst 4
Attachment C-4	Completion Form - Wellbore Diagram – USA Pearl Broadhurst 5
Attachment C-5	Completion Form - Wellbore Diagram – USA Pearl Broadhurst 8
Attachment C-6	Completion Form - Wellbore Diagram – USA Pearl Broadhurst 10
Attachment C-7	Completion Form - Wellbore Diagram – USA Pearl Broadhurst 15
Attachment C-8	Completion Form - Wellbore Diagram – USA Pearl Broadhurst 16
Attachment C-9	Completion Form - Wellbore Diagram – USA Pearl Broadhurst 22
Attachment C-10	Completion Form - Wellbore Diagram – RWU ST 189 (41-16B)

Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

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.)

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: #1

10. FIELD AND POOL, OR WILDCAT: Walker Hollow Field

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 9 T7S-R23E

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR: P. O. Box 3280 Casepr, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface: 2130' FSL & 575' FEL (NE/SE)

RECEIVED MAY 31 1985 RMD CASPER

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): KB 5197' (GRD +14')

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[X]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			
(Other)				(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.)*

Energy Reserves Group, Inc. completed the workover on the subject well as follows from May 13, to May 18, 1985.

1. MI RUSU. Pull rods and pump. Release tbg anchor. Install BOPE. TOOH.
2. PU 5 1/2" casing scraper and TIH to 5500'. TOOH.
3. Reperforate the following Green River intervals 5402'-12', 5366'-72', 5307'-10', 5297'-01', 4796'-02', and 4764'-78'. Perforate the following Green River intervals 5378'-80', 4732'-34' and 4692'-98'. All perforations will be at 3 JSPF.
4. PU 5 1/2" casing scraper and TIH to 5440'. TOOH.
5. Acidize each 1 ft perforated interval w/1 bbl of 15% HCl acid plus additives using Baker Service Tools "SAP" tool.
6. Swab back acid.
7. TIH w/tubing and tubing anchor. Set tubing anchor at ± 4650' and land tubing at ± 5340' ND BOPE.
8. TIH w/pump and rods. RD MOSU.
9. Start well pumping.

MAY 1985

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

SIGNED Bobby Patrick TITLE Petroleum Engineer DATE 5-20-85

Bobby Patrick

(This space for Federal or State office use)

APPROVED BY NOTED TITLE DATE MAY 29 1985

CONDITIONS OF APPROVAL, IF ANY:

OPERATOR

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

ATTACHMENT C-1 (1-3)

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Pan American Petroleum Corporation

3. ADDRESS OF OPERATOR: P. O. Box 40, Casper, Wyoming 82602

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: NE SE Sec. 9
At top prod. interval reported below: 2130 FSL, 575 FEL
At total depth:

5. LEASE DESIGNATION AND SERIAL NO.: Salt Lake, U-02651A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: USA Pearl Broadhurst
9. WELL NO.: 1
10. FIELD AND POOL, OR WILDCAT: Walker Hollow
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 9-T7S-R23E

14. PERMIT NO.: None Assigned — DATE ~~ISSUED~~ Approved: 10-11-63
12. COUNTY OR PARISH: Uintah — 13. STATE: Utah

15. DATE SPUDDED: 10-23-63 — 16. DATE T.D. REACHED: 11-17-63 — 17. DATE COMPL. (*Ready to prod.*): 12-27-63 — 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*: 5195 RDB — 19. ELEV. CASINGHEAD: -0-

20. TOTAL DEPTH, MD & TVD: 5902 — 21. PLUG, BACK T.D., MD & TVD: 5850 — 22. IF MULTIPLE COMPL., HOW MANY*: - — 23. INTERVALS DRILLED BY: → — ROTARY TOOLS: Gr. to TD — CABLE TOOLS: -0-

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: 4770-5407 Green River

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: Gamma Ray Sonic, IES, Microlaterolog, Correlation

27. WAS WELL CORED: Yes

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36	502	12-1/4"	302	
5-1/2"	14		7-7/8"		
5-1/2"	15.5	5898	7-7/8"	360	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*): Super Quad Jets

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5407	4800
5371	4770
5308	
5300	

33.* PRODUCTION

DATE FIRST PRODUCTION: 12-26-63 — PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*): Pumping — WELL STATUS (*Producing or shut-in*): Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
12-26-63	24	open	→	881	440	27	500 E

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
		→				

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): Used on lease and vented — TEST WITNESSED BY:

35. LIST OF ATTACHMENTS: One (Acid and Frac Jobs, Coring and DST's)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

SIGNED: Original Signed By: J. B. JONES — J. B. Jones — TITLE: District Services Supervisor — DATE: 1-24-64

*(See Instructions and Spaces for Additional Data on Reverse Side)

ATTACHMENT C-1 (2-2)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "*Sacks Cement*": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.

38. GEOLOGIC MARKERS

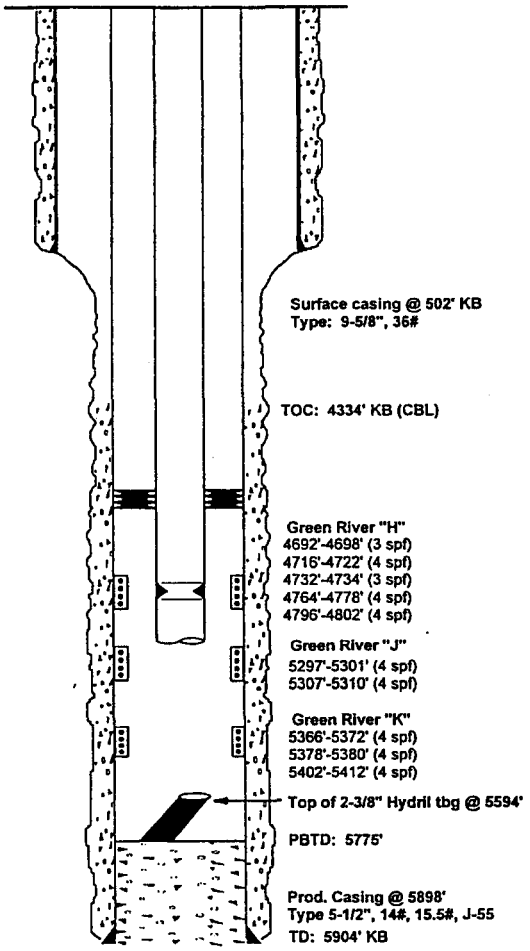
NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Green River	2847	5828
Wasatch	5828	5902

U.S. GOVERNMENT PRINTING OFFICE: 1963 O-683636

ATTACHMENT C-1 (3-3)

Pearl Broadhurst #1
Walker Hollow Field
NE SE Sec9-T7S-R23E
2130' FSL, 575' FWL
Elevation: 5184' GL, 5197' KB
Uintah County, Utah

Spud Date: 10/23/63
TD Date: 11/17/63
Completion Date: 12/27/63



Initial Completion
*Perf'd 5371'-5407' (gross) as shown. Acidized w/ 500 gal. mud acid & frac w/ 15,000 gal. #5 burner fluid & 15,000# 10/20, 27.6 BPM @ 3850#, ISI: 1900#.
*Perf'd 5300'-5308' (gross) as shown. Acidized w/ 500 gal. mud acid & frac w/ 10,000 gal. #5 burner fluid & 10,000# 10/20, 30.8 BPM @ 3750#, ISI: NA.
*Perf'd 4770'-4800' (gross) as shown. Acidized w/ 500 gal. mud acid & frac w/ 15,000 gal. #5 burner fluid & 15,000# 10/20, 38.6 BPM @ 3800#, ISI: 1400#.
*Put well on production; IPP: 881 BOPD, 440 MCFPD, 27 BWPD.

5/18/85: Reperfed existing perfs and added 4692'-5380' (gross) as shown.
Acidized all perfs w/ 1 bbl 15% HCl

Tubing Record

KB	13.00'
150 jts 2-7/8", EUE, 8rd, J-55 coated tbg	4688.94'
1 - 5.5" x 2.5" TAC	2.80'
24 jts 2-7/8", EUE, 8rd, J-55 coated tbg	732.18'
1 - SN	1.10'
1 jts 2-7/8", EUE, 8rd, J-55 coated tbg	30.33'
1 - notched collar	0.60'
End of tubing	5468.95'

Rod Record
1.5" x 22' polished rod
1 - 4' x 7/8" pony
1 - 8' x 7/8" pony
87 - 7/8" scrapered rods
133 - 3/4" plain rods
1 - 2' x 3/4" pony
2.5" x 1.5" x 12' x 12.5' x 15' RHAC

DST #1: 4712'-4725'
IF: 98# FF: 447#
ISI: 1701# FSI: 1701#

DST #2: 4752'-4767'
IF: 284# FF: 523#
ISI: 1886# FSI: 1678#

DST #3: 4783'-4800'
IF: 33# FF: 76#
ISI: 1865# FSI: 1657#

DST #4: 5266'-5283'
IF: 22# FF: 33#
ISI: 1145# FSI: 622#

DST#5: 5293'-5308'
IF: 76# FF: 175#
ISI: 2126# FSI: 2050#

DST #6: 5360'-5370'
IF: 33# FF: 98#
ISI: 2148# FSI: 2104#

DST #7: 5383'-5409'
IF: 142# FF: 360#
ISI: 2170# FSI: 2083#

Core #1: 4793'-4812.5'
Core #2: 5084'-5094'
Core #3: 5273'-5283'

12/12/94: CMJ

Mechanical Integrity Test
Casing or Annulus Pressure Test

U.S. Environmental Protection Agency
Underground Injection Control Program, UIC Implementation Section, 8WM-DW
999 18th Street, Suite 500, Denver, CO 80202-2466

EPA Witness: _____ Date ___/___/___ Time 1:05 am/pm
Test conducted by: Kent Dickers - Citation Oil & Gas
Others present: _____

Well: Pearl Broadhurst #2
Field: Walker Hollow Unit
Well Location: SW/4 NW/4 S-10, T07S-R23E

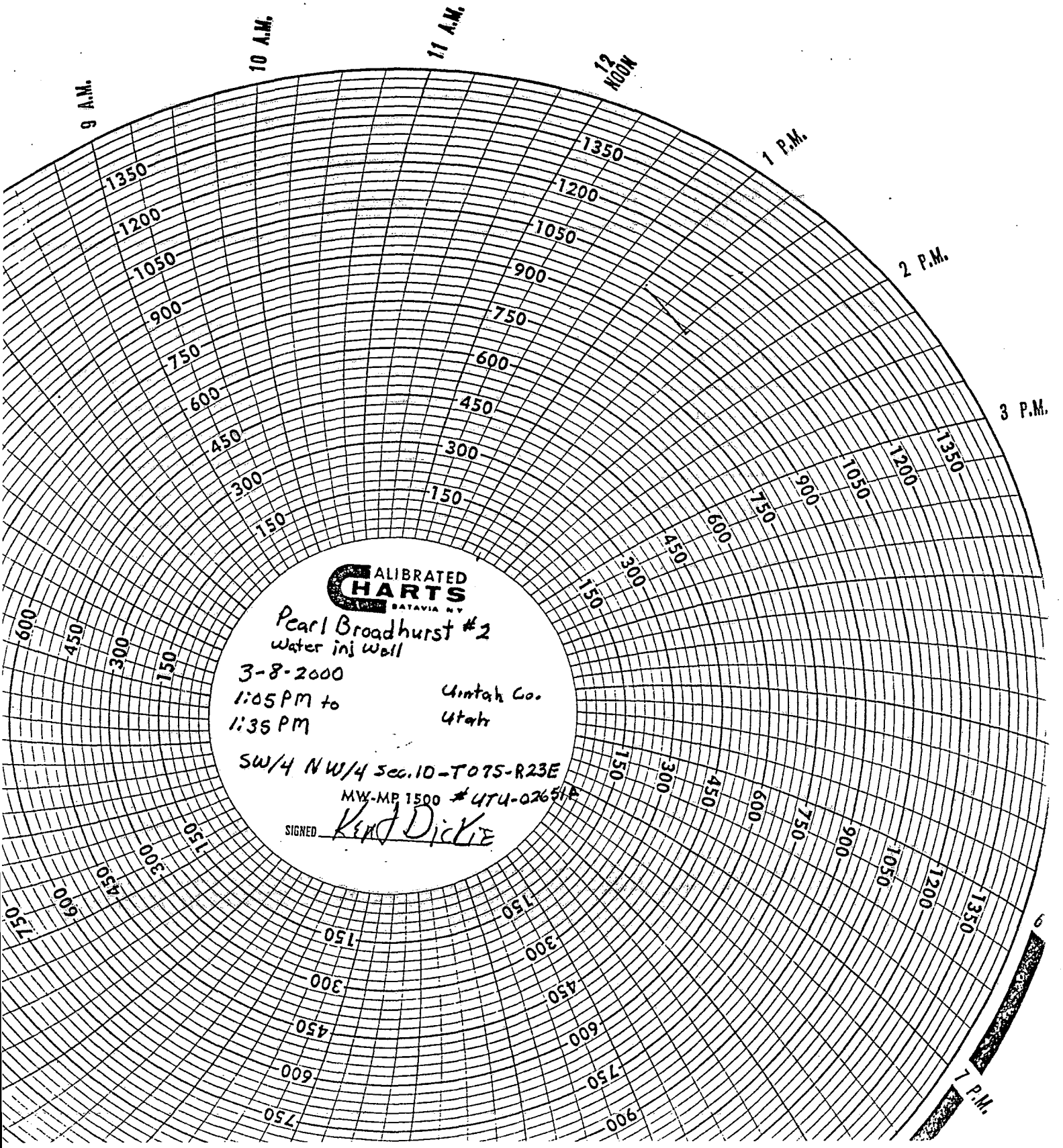
Well ID: UTU-02651A
Company: Citation Oil & Gas
Address:

Time	Test #1	Test #2	Test #3
0 min	990 psig	psig	psig
5			
10			
15	970		
20			
25			
30 min	945		
35			
40			
45			
50			
55			
60 min			
Tubing press	psig	psig	psig
Result (circle)	Pass Fail	Pass Fail	Pass Fail

Signature of EPA Witness: _____

See back of page for any additional comments & compliance followup.

ATTACHMENT C-2 (1-5)


9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
7 P.M.
CALIBRATED CHARTS BATAVIA N.Y.
Pearl Broadhurst #2
water inj well
3-8-2000
1:05 PM to
1:35 PM
Uintah Co.
Utah
SW/4 NW/4 Sec. 10-T07S-R23E
MW-MP 1500 # UTU-02651E
SIGNED Kent Dickie

FORM DOGM-UIC-2
(Rule I-5 (b) 2
(Revised 1983)

PLEASE TYPE OR USE BLACK INK ONLY

ATTACHMENT C-2 (2-5)

(To be filed within 30 days after drilling is completed)

COUNTY
LEASE NO.

DEPARTMENT OF NATURAL RESOURCES AND ENERGY
DIVISION OF OIL, GAS, AND MINING
Room 4241 State Office Building
Salt Lake City, Utah 84114

API NO. 43-047-05587

640 Acres
N
W X E
S
Locate Well Correctly and Outline Lease

COUNTY Uintah SEC. 10 TWP. 7S RGE. 23E
COMPANY OPERATING Energy Reserves Group, Inc.
OFFICE ADDRESS P. O. Box 3280
TOWN Casper STATE ZIP Wy. 82602
FARM NAME ~~Broadhurst~~ USA Pearl WELL NO. 2
DRILLING STARTED 12-16 19 63 DRILLING FINISHED 1-2 19 64
DATE OF FIRST PRODUCTION 2-3-64 COMPLETED 1-19-64
WELL LOCATED SW ¼ SW ¼ NW ¼
500 FT. FROM SL OF ¼ SEC. & 500 FT. FROM WL OF ¼ SEC.
ELEVATION DERRICK FLOOR 5121 GROUND 5110

TYPE COMPLETION
Single Zone
Multiple Zone X
Comingled

LOCATION EXCEPTION

OIL OR GAS ZONES

Name	From	To	Name	From	To
Green River "H"	4689	4728			
Green River "J"	5214	5263			
Green River "K"	5298	5346			

CASING & CEMENT

Casing Set				Csg. Test	Cement		
Size	Wgt.	Grade	Feet	Psi	Sax	Fillup	Top
10.75	32.75	H-40	515	1000	375	397.5ft^3	Surface
7	20&23	J-55	5798	*	360	453.6ft^3	4125

* NO RECORD OF CASING BEING TESTED DURING COMPLETION. AS STATED IN APPLICATION, CASING WILL BE TESTED TO 2500 PSI DURING CLEAN-OUT AND WORKOVER.

TOTAL DEPTH 5800'

PACKERS SET
DEPTH

NOTE: THIS FORM MUST ALSO BE ATTACHED WHEN FILING PLUGGING FORM DOGM-UIC-6

COMPLETION & TEST DATA BY PRODUCING FORMATION

	1	2	3
FORMATION	Green River "H"	Green River "J"	Green River "K"
SPACING & SPACING ORDER NO.	40 acre	40 acre	40 acre
CLASSIFICATION (DISPOSAL WELL, ENHANCED RECOVERY, LP GAS STORAGE)	Enhanced Recovery	Enhanced Recovery	Enhanced Recovery
PERFORATED	4693	5216	5301
INTERVALS	4800	5232	5319
		5242	5335
		5259	5340
ACIDIZED?	500 gal. 7 1/2% HCL	500 gal. 7 1/2% HCL	500 gal. 7 1/2% HCL
FRACTURE TREATED?	15,000 gal Ashley Crude w/15,000# 10-20 Sand	20,000 gal Crude w/ ~~20,000# 10-20~~ Sand	20,000 gal Ashley Crude w/20,000# 10-20 Sand
INITIAL TEST DATA	All Zones Tested Together		
Date	3-13-64		
Oil, bbl./day	143		
Oil Gravity	24.5°		
Gas, Cu. Ft./day	Not guaged CF	CF	CF
Gas-Oil Ratio Cu. Ft./Bbl.	N/A		
Water-Bbl./day	135		
Pumping or Flowing	Kobe Pump		
CHOKE SIZE	N/A		
FLOW TUBING PRESSURE	N/A		

A record of the formations drilled through, and pertinent remarks are presented on the reverse. (use reverse side)

Telephone (307)265-7331 Paul C. Bertoglio Petroleum Engineer
Name and title of representative of company

Date: 10-22-84

(SEE BACKSIDE OF PAGE)

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

---ooOoo---

IN THE MATTER OF THE APPLICATION OF ENERGY RESERVES GROUP, INC. FOR ADMINISTRATIVE APPROVAL TO CONVERT THE U.S.A. PEARL BROADHURST #2 WELL, SECTION 10, TOWNSHIP 7 SOUTH, RANGE 23 EAST, UINTAH COUNTY, UTAH, TO A WATER INJECTION WELL.	:	CAUSE NO. UIC-047

---ooOoo---

THE STATE OF UTAH TO ALL INTERESTED PARTIES IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that Energy Reserves Group, Inc., P.O. Box 3280, Casper, Wyoming, 82602, has requested administrative approval from the Division to convert the U.S.A. Pearl Broadhurst #2 well, located in the SW1/4 NW1/4 of Section 10, Township 7 South, Range 23 East, Uintah County, Utah to an enhanced recovery injection well.

The proposed operating data for the well is as follows:

Injection Interval: Green River Formation 4691' to 5346'
Maximum Estimated Surface Pressure: 1490 psig
Maximum Estimated Rate: 800 BWPD

If no objections are filed with the Division of Oil, Gas and Mining within fifteen days after publication of this Notice, administrative approval of this application will be granted by the Division Director. Objections, if any, should be mailed to: Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.

DATED this 21st day of November, 1984.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

Marjorie L. Larson
MARJORIE L. LARSON
Administrative Assistant

ATTACHMENT C-2 (3-5)

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Pan American Petroleum Corporation

3. ADDRESS OF OPERATOR: P. O. Box 40, Casper, Wyoming

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: SW NW Section 10, 2140' FNL, 500' FWL
At top prod. interval reported below
At total depth

14. PERMIT NO. | DATE ISSUED

5. LEASE DESIGNATION AND SERIAL NO: Salt Lake U-02651A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME: USA Pearl Broadhurst
9. WELL NO: 2
10. FIELD AND POOL, OR WILDCAT: Walker Hollow
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 10, T7S, R23E
12. COUNTY OR PARISH: Uintah
13. STATE: Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
12-16-63	1-2-64	1-19-64	5121' RDB, 5110' Gnd	

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
5800'	5717'		→	Surface-5800'	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: Green River 4693'-5340'

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: IES, Gamma Ray Sonic

27. WAS WELL CORED: No

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
10-3/4"	32.75#	515	15"	375 sacks	None
7"	20#, 23#	5798	9"	360 sacks	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*)
5340'-5335', 5319'-5301' with 5-way single plane jet. 5259'-5242'-5232'-5216' with 5-way single plant jet. 4693', 4800' with 5-way single plane jet.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5340'-5301'	500 gal mud acid, 20,000# 10-sa
5259'-5216'	500 gal mud acid, 20,000# 10-san
4693'-4800'	500 gal mud acid, 15,000# 10-20 sand

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
After load oil recovered 2-2-64	Pumping - Kobe	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
3-13-64	24	Open	→	143		135	

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
		→				

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

SIGNED S.G. Baker TITLE Division Clerk DATE 3-24-64

*(See Instructions and Spaces for Additional Data on Reverse Side)

ATTACHMENT C-2 (4-5)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
DST No. 1	4604'-4634'. ISI 45 minutes. Tool open 1 hour. FSI 1 hour. Weak to medium blow-throughout test. Recovered 15' Dolomite with few specks high pour-point oil and approximately 2# high pour-point bil (like axle grease). IHP 2355, ISIP 1570, IFP 30, FFP 44, FSIP 744, FHP 2341. Temperature 102° F. No evidence of gas on trip		

Water producing capacity of the well is not known except as indicated by the Drill Stem Test.

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Green River	2762	
"H" Zone	4600	
"I" Zone	4810	
"J" Zone	5124	
"K" Zone	5271	
Wasatch	5728	

U.S. GOVERNMENT PRINTING OFFICE : 1963—O-683636

Spud Date: 12/16/63
TD Date: 1/3/64
Completion Date: 1/19/64

ATTACHMENT G&2 (5-5)

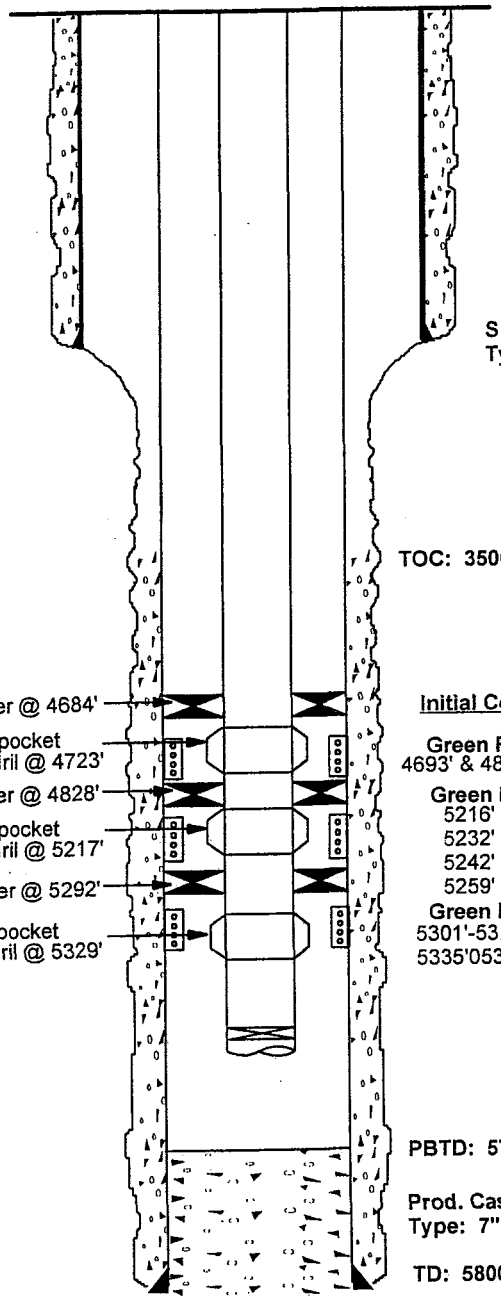
Pearl Broadhurst #2

Walker Hollow Field
C SW NW Sec10-T7S-R23E
2140' FNL, 500' FWL
Elevation: 5110' GL, 5121' KB
Uintah County, Utah

Initial Completion
Perf'd & treated "H", "J", & "K" as shown.

Workover History
9/8/75: Squeezed 4693' & 4800'.
12/17/84: Reperf'd "H", "J", & "K" zones, as shown
4/10/85: Began water injection.
2/4/94: Injecting wtr @ 333 BPD @ 1750#. Treated w/ 500 gal. Xylene & 1250 gal. 15% HCl. Injection @ 592 BPD @ 1750#.

Tubing Record
2-7/8", 6.5#, J-55, EUE, 8rd tbg to top of 1st packer (4684')
1st side pocket mandril @ 4723'
2nd packer @ 4828'
2nd pocket mandril @ 5217'
3rd packer @ 5292'
3rd side pocket mandril @ 5329'
Standing valve @ 5397'



Initial Completion	Stimulation
Green River "H" 4693' & 4800' (1 spf)	500 gal. mud acid 20,000# 10/20 sand
Green River "J" 5216' (1 spf) 5232' (1 spf) 5242' (1 spf) 5259' (1 spf)	500 gal. mud acid 20,000# 10/20 sand
Green River "K" 5301'-5319' (1 spf) 5335'05340' (1 spf)	500 gal. mud acid 15,000# 10/20 sand

Secondary Completion	Stimulation
Green River "H" 4691'-4695' (4 spf) 4720'-4728' (4 spf)	1 bbl acid / foot @ 5 BPM
Green River "J" 5234'-5238' (4 spf) 5240'-5246' (4 spf) 5256'-5262' (4 spf)	
Green River "K" 5298'-5302' (4 spf) 5317'-5321' (4 spf) 5334'-5336' (4 spf) 5340'-5346' (4 spf)	

DST #1: 4604'-4634'
IF: 32# FF: 46#
ISI: 1605# FSI: 768#

12/12/94: CMJ

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Pan American Petroleum Corporation

3. ADDRESS OF OPERATOR: P. O. Box 40, Casper, Wyoming 82602

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 760 FSL, 1980 FEL, SW SE Sec. 9 - T7S-R23E
At top prod. interval reported below
At total depth

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: USA Pearl Broadhurst
9. WELL NO.: 4
10. FIELD AND POOL, OR WILDCAT: Red Wash - Green River
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 9 - T7S-R23E
12. COUNTY OR PARISH: Uintah
13. STATE: Utah

14. PERMIT NO. | DATE ISSUED

15. DATE SPUDDED: 3-30-64
16. DATE T.D. REACHED: 4-19-64
17. DATE COMPL. (*Ready to prod.*): 7-7-64
18. ELEVATIONS (DF, RKB, RT, GR, ETC.): RDB 5192, Gnd. 5180
19. ELEV. CASINGHEAD:

20. TOTAL DEPTH, MD & TVD: 5900'
21. PLUG, BACK T.D., MD & TVD: 5486'
22. IF MULTIPLE COMPL., HOW MANY*:
23. INTERVALS DRILLED BY: → Surface - 5900'
ROTARY TOOLS | CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: 4743-5386, Green River
25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: IES, Gamma Ray Sonic
27. WAS WELL CORED: Yes

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
10-3/4"	32.75#	475	15"	490	None
7"	20, 23#	5534	9"	285	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*)
5386, 5366, 5345 w/5-Way Single Plane Jet.
4751, 4743 w/5-Way Single Plane Jet

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5386, 5366, 5345	500 gal 15% mud acid; 10,000# 10-20 sand; 8,000# Resin-hull mixture.
4751, 4743	500 gal 15% acid; 10,000# 10-20 sand; 6000# Resin, 2000# hulls.

33.* PRODUCTION

DATE FIRST PRODUCTION: 7-5-64
PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*): Pumping 1-3/4" pump
WELL STATUS (*Producing or shut-in*): Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
7-6-64	24		→	216	108	103	500

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
		→				

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)
TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

SIGNED: Original Signed E. O. Wise ~~E. O. WISE~~ TITLE: District Services Supervisor DATE: July 15, 1964

*(See Instructions and Spaces for Additional Data on Reverse Side)

ATTACHMENT C-3 (1-3)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Cored Intervals:			
			Core #1: 4661-4713. Recovered 52'.
			Core #2: 4713-4765. Recovered 57'.
			Core #3: 5269-5313. Recovered 44'.
			Core #4: 5313-5365. Recovered 52'.
			Core #5: 5365-5417. Recovered 52'.

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Log Tops:		
Green River	2804	
Wasatch	5798	

U.S. GOVERNMENT PRINTING OFFICE : 1963 O-683636

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

UNDERGROUND INJECTION CONTROL PERMIT

Cause No. UIC-157

Operator: UMC Petroleum Company

Wells: Pearl Broadhurst #4 and #14

Location: Section 9 Township 7 South, Range 23 East, Duchesne County

API No.: 43-047-15694 and 43-047-30904

Well Type: Enhanced Recovery (waterflood)

Stipulations of Permit Approval

1. Approval for conversion to Injection Well issued on February 10, 1995.
2. Maximum Allowable Injection Pressure: 1200 psig
3. Maximum Allowable Injection Rate: 1000 barrels of water per day
4. Injection Interval: 4700 feet to 4800 feet (Green River Formation)

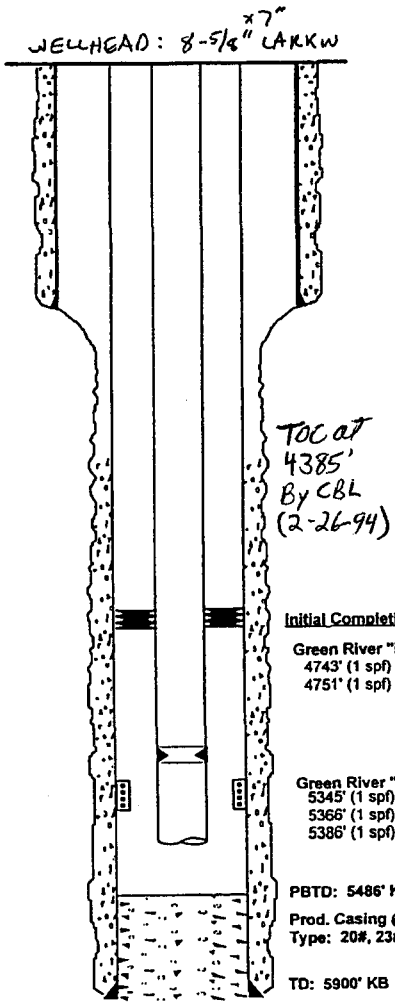
Approved by: R.J. Firth
Associate Director, Oil and Gas

2/10/95
Date

ATTACHMENT C-3 (3-3)

Pearl Broadhurst #4
Walker Hollow Field
SW SE Sec9-T7S-R23#
760' FSL, 1980' FEL
Elevation: 5180' GL, 5192' KB
Uintah County, Utah

Spud Date: 3/30/64
TD Date: 4/19/64
Completion Date: 7/7/64
IPP: 216 BO, 108 MCF, 105 BW



Tubing Record

KB	12.00'
1 - 2-7/8", 6.5#, J-55, EUE, 8rd coated tbg	31.73'
1 - 2-7/8", 6.5#, J-55, EUE, 8rd pup jt	10.05'
137 ~~141~~ jts 2-7/8", 6.5#, J-55, EUE, 8rd coated tbg	~~4627.26'~~ 4359.04
1 - 7" x 2-7/8" TAC	2.80'
25 ~~21~~ - 2-7/8" x ~~2.5" SN~~ 2-7/8" SN	~~4.40'~~ 825.74
1 - 2-7/8", 6.5#, J-55, EUE, 8rd coated tbg	~~32.95'~~ 33.03
1 - notched collar w/ pin	0.60'
End of tubing	~~5410.41'~~ 5411.11

Rod Record
1.5" x 22' polished rod
1 - 7/8" x 6' pony
1 - 7/8" x 4' pony
69 - 7/8" scrapered rods
144 - 3/4" rods
2.5" x 1.25" x 15' RHAC
top cup pump

Initial Completion

Green River "H"
4743' (1 spf)
4751' (1 spf)

Green River "K"
5345' (1 spf)
5366' (1 spf)
5386' (1 spf)

Stimulation

Frac
500 gal. 15% mud acid
10,000# 10/20 sand
6,000# Resin, 2000# balls
67 BPM @ 2300#

Frac
500 gal. 15% mud acid
10,000# 10/20 sand
8,000# Resin-ball mix
52.5 BPM @ 1900#, ISI: 1400#

Secondary Completion(9/25/84)
5270'-5274' (3 spf)
5344'-5346' (3 spf)
5364'-5368' (3 spf)
5383'-5388' (3 spf)
4768-72, 4749-54, 4741-44
Acidized each interval w/
50/50 mix 15% HCl & Xylene

Tertiary Completion (2/22/94)
4741'-4748' (4 spf)
4747'-4756' (4 spf)

PBTD: 5486' KB

Prod. Casing @ 5534'
Type: 20#, 23#

TD: 5900' KB

Core #1: 4661'-4713'
Core #2: 4713'-4765'
Core #3: 5269'-5313'
Core #4: 5313'-5365'
Core #5: 5365'-5417'

12/19/94: CMJ

9-331
1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MINERALS MANAGEMENT SERVICE
OIL & GAS OPERATIONS
RECEIVED
MAR 17 1982
SALT LAKE CITY, UTAH

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 Form 9-331-C for such proposals.)

5. LEASE: U-02651A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: USA Pearl Broadhurst
9. WELL NO.: 5
10. FIELD OR WILDCAT NAME: Walker Hollow
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 10-T7S-R23E
12. COUNTY OR PARISH: Uintah
13. STATE: Utah
14. API NO.:
15. ELEVATIONS (SHOW DF, KDB, AND WD): KB 5,290' (GRD 12')

1. oil well [X] gas well [ ] other

2. NAME OF OPERATOR: Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR: P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 743' FSL & 564' FWL (SW/SW)
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	[ ]	[ ]
FRACTURE TREAT	[ ]	[ ]
SHOOT OR ACIDIZE	[ ]	[ ]
REPAIR WELL	[ ]	[ ]
PULL OR ALTER CASING	[ ]	[ ]
MULTIPLE COMPLETE	[ ]	[ ]
CHANGE ZONES	[ ]	[ ]
ABANDON*	[ ]	[ ]
(other) Workover		X

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

RECEIVED
APR 1 2 1982
RMD CASPER

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.)*

The subject well was converted to a water injection well in November 1971 for only 2.5 months, and has been temporarily abandoned since February 1972. From 7-15-81 to 7-29-81 the Green River "H" zone perfs (4,748'-4,828'), "J" zone perfs (5,325'-5,333'), and "K" zone perfs (5,388'-5,431') were swab tested to determine their productive possibilities. The "H" zone swab tested oil and the "J" & "K" zones swab tested 100% water.

From 12-10-81 to 12-17-81 the subject well was dually completed with the "H" zone equipped for production and the "J" & "K" zones equipped for lease water disposal as follows: Set a Baker Model "D" packer at 4,910' KB with 2-3/8" Duoline tubing latched in for an injection string. 2-3/8" Nu-Lock production tubing latched in a parallel anchor set at 4,689' KB. Surface production equipment was installed and injection equipment is being installed. (OVER)

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

THE INJECTION PRESSURE SHOULD NOT EXCEED 1100 psi. So as not fracture the formation

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

SIGNED Bobby Patrick TITLE Prod Engr- RMD DATE 3-15-82

(This space for Federal or State office use)

APPROVED BY E. W. Guynn TITLE District Oil & Gas Supervisor DATE APR 8 1982
CONDITIONS OF APPROVAL, IF ANY:

opa.

*See Instructions on Reverse Side

ATTACHMENT C-4 (1-6)

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

May 10, 1982

RECEIVED
MAY 1 2 1982
RMD CASPER

Energy Reserves Group, Inc.
P.O. Box 3280
Casper, Wyoming 82602

Attn: Bobby Patrick

RE: Class II Injection Well Approval
USA Pearl Broadhurst #5
Sec. 10, T7S, R23E
Uintah County, Utah

Gentlemen:

This letter constitutes the Division's approval for the subject injection well.

Said approval is, however, conditional upon adhering to the provisions listed below and upon following the "Class II Underground Injection Control" program rules and regulations that were adopted January 29, 1982.

1. Not exceed maximum injection pressure of 1450 psi.
2. Provide DOGM monthly water cut information from the H producing zone in this well.
3. Install continuous recording equipment measuring the volume of fluids injected and injection pressures.

If you have any questions relative to the above, please contact us.

Sincerely,

Cleon B. Feight

CLEON B. FEIGHT
DIRECTOR

CBF:GLH:sc
Enclosure: UIC Regulations & Forms

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

an equal opportunity employer • please recycle paper

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

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.)

JAN 31 1972
U. S. GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

1. OIL WELL [ ] GAS WELL [X] OTHER Injection

2. NAME OF OPERATOR: Clinton Oil Company

3. ADDRESS OF OPERATOR: 217 North Water St. Wichita, Kansas

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface
SW SW SW Sec 10-T7S-R23E
743' FSL & 564' FWL

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Redwash-Green River

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 10-T7S-R23E

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): RDB-5290'

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF		PULL OR ALTER CASING		WATER SHUT-OFF		REPAIRING WELL	
FRACTURE TREAT		MULTIPLE COMPLETE		FRACTURE TREATMENT		ALTERING CASING	
SHOOT OR ACIDIZE		ABANDON*		SHOOTING OR ACIDIZING	X	ABANDONMENT*	
REPAIR WELL		CHANGE PLANS		(Other)			
(Other)				(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.)*

The H-2 zone of the Green River Fm was perforated on 12/29/71 from 4748-52 KB w/3SPF. Lower zones injection string was run as follows: Baker Mod BE Bypass flow regulator set at 4879', Baker Mod A-2 Locset pkr at 4846', Baker Mod BE Bypass flow regulator at 4809', Baker Mod "B" tandem tension pkr at 4875', Blanking plug seating nipple at 4772', and Sliding sleave at 4839'. All depths refer to KB.

Attempted to swab down annulus through tubing and sliding sleave. Unable to dry up H-2 gas zone. Closed sliding sleave and pulled blanking plug. Resumed injection down tubing w/500 BWPD going to J-6, J-7, K-1, K-2, and K-3 zones through regulator at 4879' and 500 BWPD to the H-4 and H-5 zones through regulator at 4809'.

H-2 zone is open to the annulus but temporarily abandoned. Fluid level measurements indicate no communication from the lower injection zones around pkr at 4875' or from behind the casing. Work completed 1/21/72.

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

SIGNED M. A. Stead TITLE District Prod. Engineer DATE 1/26/72

(This space for Federal or State office use)

APPROVED BY Accepted TITLE District Engineer DATE Feb 1, 1972

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

ATTACHMENT C-4 (2-6)

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

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.)

DEC 20 1971
U. S. GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

1. OIL WELL [ ] GAS WELL [X] OTHER Injection Well

2. NAME OF OPERATOR
Clinton Oil Company

3. ADDRESS OF OPERATOR
217 North Water Street, Wichita, Kansas 67202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
SW SW Sec 10-T7S-R23E
743 FSL & 564 FWL

5. LEASE DESIGNATION AND SERIAL NO.
U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
USA Pearl Broadhurst

9. WELL NO.
5

10. FIELD AND POOL, OR WILDCAT
Redwash-Green River

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 10-T7S-R23E

12. COUNTY OR PARISH
Uintah

13. STATE
Utah

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
RDB - 5290' GL-5287'

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF		FULL OR ALTER CASING		WATER SHUT-OFF		REPAIRING WELL	
FRACTURE TREAT		MULTIPLE COMPLETE		FRACTURE TREATMENT		ALTERING CASING	
SHOOT OR ACIDIZE	X	ABANDON*		SHOOTING OR ACIDIZING		ABANDONMENT*	
REPAIR WELL		CHANGE PLANS		(Other)			
(Other)							

(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.)*

As per Sundry notice filed 12/9/71, well was converted to injection. Baker Mod "B" tandem tension packer now set at 4743' KB will be moved to approximately 4773' KB. The H_2 zone will be perforated from 4749 - 52' KB and produced thru the annulus as a gas source for lease fuel. Injection operations will continue down tubing as before and into the same zones.

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

SIGNED [signature] TITLE Dist. Prod. Engineer DATE 12/15/71

(This space for Federal or State office use)

APPROVED BY [signature] TITLE DISTRICT ENGINEER DATE DEC 23 1971

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

ATTACHMENT C-4 (3-6)

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.
U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

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.)

RECEIVED
DEC 3 1971
U.S. GEOLOGICAL SURVEY
SALT LAKE CITY, UTAH

1. OIL WELL [ ] GAS WELL [X] OTHER Injection Well

7. UNIT AGREEMENT NAME

2. NAME OF OPERATOR
Clinton Oil Company

8. FARM OR LEASE NAME
USA Pearl Broadhurst

3. ADDRESS OF OPERATOR
217 North Water Street, Wichita, Kansas 67202

9. WELL NO.
5

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
SW SW SW Sec 10-T7S-R23E
743' FSL & 564' FWL

10. FIELD AND POOL, OR WILDCAT
Redwash-Green River

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 10-T7S-R23E

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
RDB 5290 GL 5278

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]
(Other)			

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
(Other) Converting to Injection			[X]

(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.)*

As per Sundry notice filed September 2, 1971 and approved September 9, 1971 well was converted to injection effective November 1, 1971. Injection is down a single string of 2 7/8" tubing. 500 barrels of water per day is injected into perforations at 5325' in the J6 zone. 5333' in the J7 zone, 5397' in the K1 zone, 5412' in the K2 zone and 5431' in the K3 zone, through a Baker Model BE Bypass Flow Regulator under a Baker Model A-2 Locset packer set at 4844' KB. An additional 500 barrels of water per day is injected into perforations at 4794' in the H4 zone and 4828' in the H5 zone through a Baker Model BE Bypass Flow Regulator at 4809' KB and under a Baker Model "B" tandem tension packer at 4743' KB.

See attached drawing

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

SIGNED [signature] TITLE District Production Engineer DATE December 3, 1971

(This space for Federal or State office use)

APPROVED BY [signature] TITLE ACTING DISTRICT ENGINEER DATE DEC 9 1971

CONDITIONS OF APPROVAL, IF ANY:

ATTACHMENT C-4 (4-6)

*See Instructions on Reverse Side

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Red Wash - Green River

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 10 - T7S-R23E

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Pan American Petroleum Corporation

3. ADDRESS OF OPERATOR: P. O. Box 40, Casper, Wyoming 82602

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 743 FSL, 564 FWL, SW SW Sec. 10-T7S-R23E
At top prod. interval reported below
At total depth

14. PERMIT NO. | DATE ISSUED

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
4-26-64	5-17-64	5-26-64	RDB 5290, Grd. 5278	

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
5907'	5481'		→	Surface - 5907	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: 4828-4794 Green River

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: IES, Gamma Ray Sonic, Microlaterlog

27. WAS WELL CORED: Yes

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
10-3/4"	32.75#	494'	15"	353 sacks	None
7"	20 and 23#	5567'	9"	360 sacks	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*)
4828 and 4794 with single-plane 5-way jets

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4828-4794	500 gal Regular MCA Acid 10,000# 10-20 Sand 8,000# Resin & Walnut Hulls

33.* PRODUCTION

DATE FIRST PRODUCTION: After load oil recovered, 6-26-64
PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*): Pumping - 2-1/2"
WELL STATUS (*Producing or shut-in*): Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
6-25-64	24		→	52		0	

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
		→				

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

Original Signed
SIGNED E. O. WISE E. O. Wise TITLE District Services Superintendent DATE July 13, 1964

*(See Instructions and Spaces for Additional Data on Reverse Side)

Form OGCC No. P-9 to follow.

ATTACHMENT C-4 (5-6)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Cored Intervals:			
			Core #1: 4725-4777, Cut 52', Recovered 50'.
			Core #2: 4777-4829, Cut 52', Recovered 52'.
			Core #3: 5310-5360, Cut 50', Recovered 49'.
			Core #4: 5360-5412, Cut 52', Recovered 49'.
			Core #5: 5412-5462, Cut 50', Recovered 35'.
No drill stem tests were taken on this well.			

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Log Tops:		
Green River	2877	
Wasatch	5840	

U.S. GOVERNMENT PRINTING OFFICE : 1963 O-683636

5/14/04

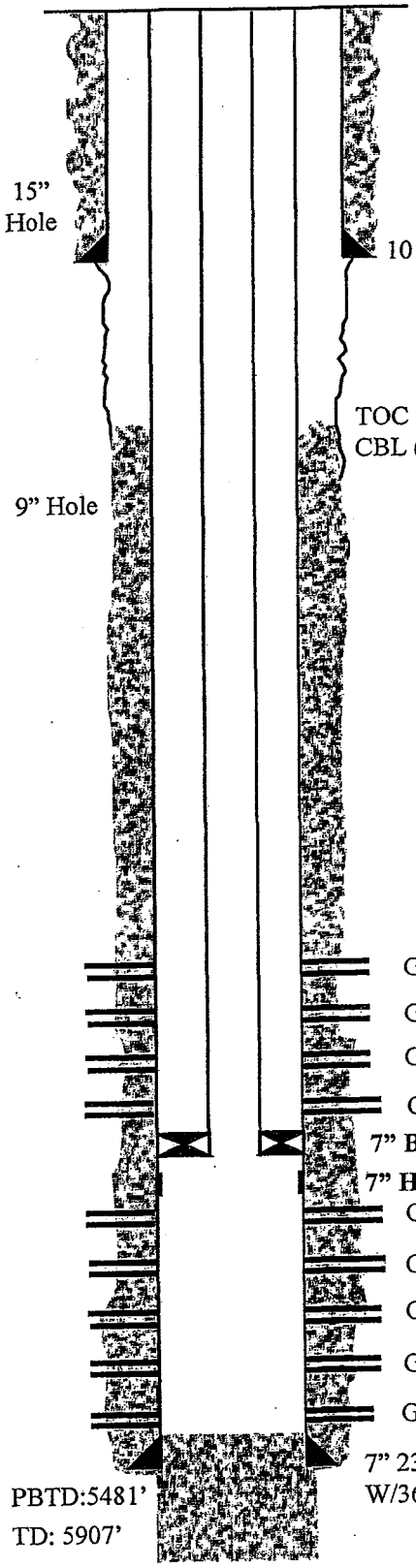
CITATION OIL & GAS CORP.
PEARL BROADHURST #5 WIW
743' FSL & 564 FWL, SW SW, Section 10, T-7-S, R-23-E
UINTAH CO., UTAH

ATTACHMENT E-4 (6-6)

KB: 12 FT

Status: Shut-in water injector

TUBING DETAIL			
Qty	Description	Length	Depth
---	KB (used)	12.00	12.00
151	2 7/8" J-55 6.5#, 8rd EUE IPC tbg	4,879.32	4,891.32
1	2 7/8" SN	1.10	4,892.42
1	Baker Lok-Set PKR	4.00	4,896.42
1	2 7/8" tbg collar	0.45	4,896.87



15" Hole

10 3/4" 32.75# H-40 csg 494' cmt'd W/353 sx

TOC @ 4226' By CBL **(5/64)**

9" Hole

Green River G: 4392 – 4408 & 14 – 29' (4 JSPF) **(9/90)**

Green River H2: 4748 - 52' (3 JSPF) **(12/71)**

Green River H4: 4794' (5 JSPF) **(6/64)**

Green River H5: 4828' (5 JSPF) **(6/64)**

7" Baker Lok-Set PKR @ 4896'

7" HOWCO Frac Liner F/4942 – 5007'.

Green River J6: 5325' (4 JSPF) **(3/66)**

Green River J7: 5333' (4 JSPF) **(3/66)**

Green River K1: 5388 & 97' (4 SPF) **(3/66)**

Green River K2: 5412' (4 JSPF) **(3/66)**

Green River K3: 5431' (4 SPF) **(3/66)**

7" 23# J-55 F/surf – 144' over 7" 20# J-55 F/144 – 4373' over 7" 23# J-55 F/4373 - 5567' cmt'd W/360 sx

PBTD:5481'

TD: 5907'

Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.
U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

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.)

7. UNIT AGREEMENT NAME

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR
Energy Reserves Group, Inc.

8. FARM OR LEASE NAME
USA Pearl Broadhurst

3. ADDRESS OF OPERATOR
P. O. Box 3280, Casper, Wyoming 82602

9. WELL NO.
8

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
1846' FSL & 1967' FWL (NE/SW)

RECEIVED
MAY 31 1985
RMD CASPER

10. FIELD AND POOL, OR WILDCAT
Walker Hollow Field

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 10 T7S-R23E

14. PERMIT NO.
43-047-30696

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
KB 5192' (GRD + 12')

12. COUNTY OR PARISH
Uintah

13. STATE
Utah

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[X]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			
(Other)				(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.)*

Energy Reserves Group, Inc., completed the workover on the subject well as follows from April 26 to May 7, 1985.

1. MI RUSU. Pull rods and pump. Release tbg anchor. Install BOPE. TOOH.
2. PU 5 1/2" casing scraper and TIH to 5353'. TOOH.
3. Reperforate the following Green River intervals 5340'-42', 5333'-37', 5302'-05', 5239'-40 5233'-35' and 5228'-29'. Perforate the following Green River intervals 5292'-95', 4730'-33' and 4618'-22'. All perforations will be at 3 JSPF.
4. PU 5 1/2" casing scraper and TIH to 5353'. TOOH.
5. Acidize each 1 ft perforated interval w/1 bbl of 15% HCl acid plus additives using Baker Service Tools "SAP" tool.
6. Swab back acid.
7. TIH w/tubing and tubing anchor. Set tubing anchor at ± 4550' and land tubing at ± 5340'. ND BOPE.
8. TIH w/pump and rods. RD MOSU.
9. Start well pumping.

MAY 1985

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

SIGNED Bobby Patrick
Bobby Patrick
TITLE Petroleum Engineer
DATE 5-17-85

(This space for Federal or State office use)

APPROVED BY NOTED
TITLE
DATE MAY 29 1985
CONDITIONS OF APPROVAL, IF ANY:

ATTACHMENT C-5 (2-4)

RATOR

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR: P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 1846' FSL & 1967 FWL (NE/SW)
At top prod. interval reported below
At total depth

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: U.S.A. Pearl Broadhurst
9. WELL NO.: 8
10. FIELD AND POOL, OR WILDCAT: Walker Hollow
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 10-T7S-R23E
12. COUNTY OR PARISH: Uintah
13. STATE: Utah
14. PERMIT NO.: DATE ISSUED:

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
5-15-80	6-3-80	11-6-80	K.B. 5,192' (GRD + 12')	----------

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
5,500' K.B.	5,366' K.B.	NA	→	Surface to T.D	-------

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
Green River "J" and "K" sands (5,229'-5,341' K.B.)

25. WAS DIRECTIONAL SURVEY MADE: NO

26. TYPE ELECTRIC AND OTHER LOGS RUN
Compensated Neutron-Formation Density, Dual Induction & Compensated Sonic

27. WAS WELL CORED: NO

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	505' KB	12-1/4"	375 sx Class "B" w/3% Salt + 2% $CaCl_2$ & 1/4#/sx Celloflake	-0-
5-1/2"	14 & 15.5#	5,500' KB	7-7/8"	950 sx 50-50 Pozmix w/8% Gel (See Back)	-0-

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
		None		

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	5,347' K.B.	none

31. PERFORATION RECORD (*Interval, size and number*)
5,465'-68', 5,430', 5,420', 5,416', 5,340'-41', 5,335'-36' & 5,303'-05' w/1 JSPF (Green River "K" sand); 5,240'-41', 5,234'-35' & 5,229'-30' w/1 JSPF (Green River "J" sand)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5,416-5,468' KB	Cement Squeeze: (See Back)
5,303'-5,341'KB	Breakdown 1: (See Bac)
5,229'-5,241' KB	Breakdown 2: (See Back)
5,229'-5,341' KB	Fracture: (See Back)

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
10-25-80	Pumping - 2-½" x 1-½" x 14' RHBC pump	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
11-6-80	24	-----	→	51	NA	18	NA

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
-----	----------	→	51	NA	18	28.8

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)
VENTED DURING TEST

TEST WITNESSED BY: RAY RADKE

35. LIST OF ATTACHMENTS
DST SUMMARY & SAMPLE DECRIPTION

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

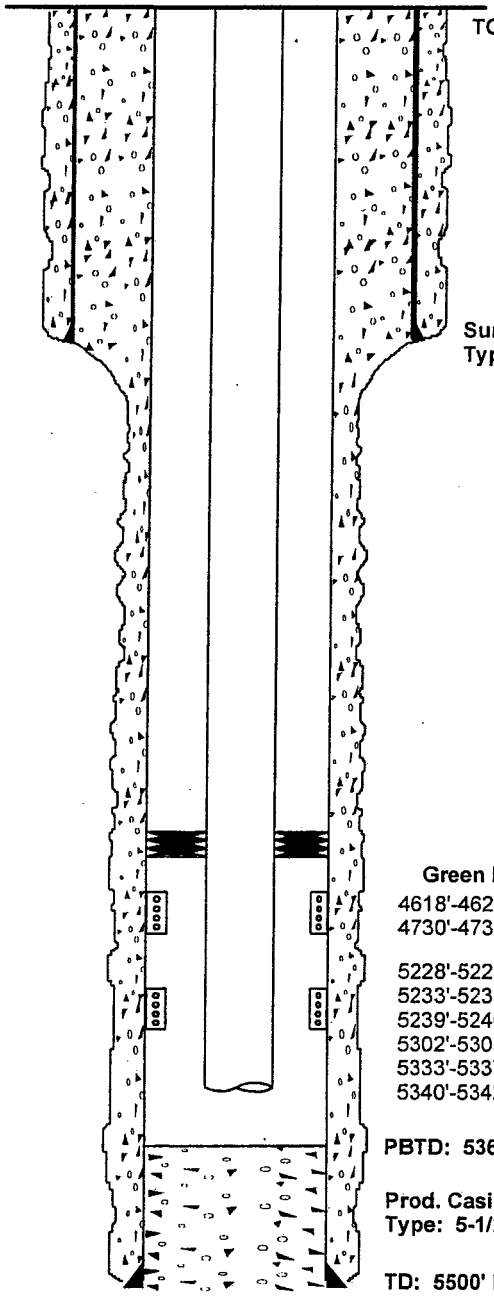
SIGNED Bobby Patrick TITLE Prod Engineer- RMD DATE 11-10-80

*(See Instructions and Spaces for Additional Data on Reverse Side)

ATTACHMENT C-5 (3-4)

ATTACHMENT C-5 (4-4)

Pearl Broadhurst #8
Walker Hollow Field
SE NW Sec10-T7S-R23E
1846' FSL, 1967' FWL
Elevation: 5180' GL, 5192' KB
Uintah County, Utah



TOC: surface

Surface Casing @ 505' KB
Type: 8-5/8", 24#

Green River
4618'-4622' (3 spf)
4730'-4733' (3 spf)

5228'-5229' (3 spf)
5233'-5235' (3 spf)
5239'-5240' (3 spf)
5302'-5305' (3 spf)
5333'-5337' (3 spf)
5340'-5342' (3 spf)

5292-95 ?

PBTD: 5366' KB

Prod. Casing @ 5500' KB
Type: 5-1/2", 14#, 15.5#

TD: 5500' KB

Spud Date: 5/14/80
TD Date: 6/2/80
Completion Date: 11/06/80

Initial Completion
Perf'd Green River "J" (5229'-5241') & "K" (5303'-5341')
Fraced same w/ the following:
10,000 gal. Super "K-1" pad
22,500 gal. Super "K-1" w/ 33,750# 20/40 sand
7,500 gal. Super "K-1" w/ 22,500# 10/20 sand
ISI: 3800#, Rate: 35 BPM @ 3000#
Put well on production w/ IP of 51 BOPD & 18 BWPD.

Workover History
5/17/85: Reperf'd existing Green River perfs & added new perfs shown on diagram. Acidized each 1-ft interval w/ 1 bbl 15% HCl
1/31/90: Well TA'd.

Tubing Detail (as of Oct. 7, 1987)
2 - 2-7/8" x 10' pup jts
142 jts 2-7/8", EUE, 8rd, 6.5# coated tbg
1 - 5.5" x 2-7/8" TAC
26 jts 2-7/8", EUE, 8rd, 6.5# coated tbg
1 - SN
1 - 2-7/8", EUE, 8rd, 6.5# coated tbg
1 - Notched collar w/ pin

Rod Detail (as of Oct. 7, 1987)
1.5" x 22' polished rod
1 - 7/8" x 4' pony
1 - 7/8" x 6' pony
76 - 7/8" rods
135 - 3/4" rods
1 - 3/4" x 2' pony
2.5" x 1.75" x 12' x 17' RHAC pump

12/8/94: CMJ

Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

5. Lease Serial No.
UTU02651A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

RECEIVED
MAR 16 2001

8. Well Name and No.
USA Pearl Broadhurst #10

2. Name of Operator
CITATION OIL & GAS CORP.

9. API Well No.
43-047-30839

3a. Address
P.O. Box 690688, Houston, Texas 77269-0688

3b. Phone No. *(include area code)*
(281) 517-7800

10. Field and Pool, or Exploratory Area
Walker Hollow Green River

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
2029' FSL & 1819' FEL; Sec. 9, T7S, R23E; NW SE

11. County or Parish, State
Uintah County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☒ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☒ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	_____
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	_____

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

MIRU; POOH with rods, pump & tubing. Set pkr @5206' & swab tested perfs. SWI - SITP 25#. RU & pumped 4500 gals 7.5% HCl with additives & rock salt diverter down tubing. Displ'd to top perf with 2% KCl - ISIP 750#. Rel'd pkr, TOH and TIh with production tubing, pump & rods. PT to 800 psi - OK. Well back on production 3/11/2001. As of 3/13/2001 producing 21 BOPD with 1190 BWPD.

ATTACHMENT C-6 (1-5)

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

Name *(Printed/Typed)*
Debra Harris

Title
Production/Regulatory Coordinator

Signature
Debra Harris

Date
3/14/2001

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by **NOTED**

Title

Date MAR 29 2001

Office

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

OPERATOR NB, KK, DH, TLC, SEW

Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

5. Lease Serial No.
UTU02651A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
USA Pearl Broadhurst #10

2. Name of Operator
CITATION OIL & GAS CORP.

9. API Well No.
43-047-30839

3a. Address
P.O. Box 690688, Houston, Texas 77269-0688

3b. Phone No. *(include area code)*
(281) 517-7800

10. Field and Pool, or Exploratory Area
Walker Hollow Green River

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
2029' FSL & 1819' FEL; Sec. 9, T7S, R23E; NW SE

11. County or Parish, State
Uintah County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☒ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☒ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other **Add perforations**
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

MIRU. ND WH / NU BOP. Pulled tubing; tagged PBTD @5309'. RIH with bit & drilled out cement and retainer to 5320'. Circ'd hole clean. Drilled out cement to 5493'. POOH and RIH with bit & scraper to 5450'. POOH and RU WLS. Ran GR-CCL 5490' - 4400'. Perforated 5252' - 5370' (4 spf) and RD. Swab tested perfs and POOH. RIH with production tubing. ND BOP / NU WH. RIH with 2" RHBC on rods. Well on production 4:00 PM 11/7/00. As of 11/9/00, well producing 11 BO & 334 BW in 24 hrs.

ATTACHMENT C-6 (2-5)

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Debra Harris

Title
Production/Regulatory Coordinator

Signature Debra Harris

Date
11/10/00

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [ ] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other Recompletion

2. NAME OF OPERATOR: Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR: P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 2,029' FSL & 1,819' FEL (NW/SE)
At top prod. interval reported below
At total depth

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: USA Pearl Broadhurst
9. WELL NO.: 10
10. FIELD AND POOL, OR WILDCAT: Walker Hollow
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Section 9-T7S-R23E
12. COUNTY OR PARISH: Uintah
13. STATE: Utah
14. PERMIT NO. / DATE ISSUED:

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
1-01-81	1-16-81	3-17-81	K.B. 5,129' (GR + 13')	----------

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
5,550' K.B.	5,310' K.B.	NA	→	0-TD	----------

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
Green River "H" Zone 4,670'-92'

25. WAS DIRECTIONAL SURVEY MADE: NO

26. TYPE ELECTRIC AND OTHER LOGS RUN:

27. WAS WELL CORED: NO

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#/ft	470' KB	12-1/4"	360 sx 'G' w/2% $CaCl_2$ 1/4# Flocele/sx	-0-
5-1/2"	14 & 15.5#/ft	5,542' KB	7-7/8"	500 sx 'G' w/3% D-79 Extender & 10#/sk D-42	-0- (OVER)

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	5,286'	none

31. PERFORATION RECORD (*Interval, size and number*)
4,670'-74' & 4,687'-92'
w/2 JSPF (20 holes)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4,670'-92'	BD w/750 gal NOWSCO 7-1/2% MRA acid + additives & 26 ball sealers. Frac'd w/30,000 gals NOWSCO Super E Oil

(OVER)

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
3-17-82	Pumping 2-1/2" X 1-3/4" X 12' X 14' X 16'	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
4-12-82	24	-----	→	70	NA	194	NA

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
-----	--------	→	70	NA	194	± 28°

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)
VENTED DURING TEST

TEST WITNESSED BY: DURRELL KARREN

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED [signature] TITLE PRODUCTION TECH - RMD DATE 4-16-82

*(See Instructions and Spaces for Additional Data on Reverse Side)

ATTACHMENT C-6 (3-5)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
			Continued from other side - Cementing 5-1/2" - Kolite LCM, followed by 375 sx "Self Stress" cmt w/0.75% D-65 Thinner & 10#/sk D-42. Frac'd w/17,000# 20-40 sand & 27,000# 10-20 sand.

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-683636

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR: P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 2,029' FSL & 1,819' FEL (NW/SE)
At top prod. interval reported below
At total depth

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 10

10. FIELD AND POOL, OR WILDCAT: Walker Hollow

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 9-T7S-R23E

14. PERMIT NO. / DATE ISSUED:

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
1-01-81	1-16-81	3-17-81	K.B. 5,129' (GRD + 13')	----------

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
5,550' K.B.	5,310' K.B.	NA	→	Surface to TD	----------

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
5,258'-5,274' Green River "J" Zone

25. WAS DIRECTIONAL SURVEY MADE: NO

26. TYPE ELECTRIC AND OTHER LOGS RUN
Compensated Neutron-Formation Density, Dual Induction, Compensated Sonic & Repeat Formation Tester

27. WAS WELL CORED: NO

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#/ft	470' KB	12-1/4"	360 sx "B" w/2% $CaCl_2$ & 1/4# Flocele/sk.	-0-
5-1/2"	14 & 15.5#/ft	5,542' KB	7-7/8"	500 sx "G" w/3% (See Back)	-0-

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
		None		

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	5,286'	None

31. PERFORATION RECORD (*Interval, size and number*)
5,368'-70', 5,361'-63', 5,348'-50' & 5,328'-30' w/1 JSPF & 0.43" dia hole (Green River "K" Sand)
5,272'-74' & 5,258'-60' w/1 JSPF & 0.43" dia hole (Green River "J" Sand)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5,258'-5,370'	Cement Squeeze: See Back
	Breakdown: See Back
	Fracture: See Back

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
3-17-81	Pumping 2-1/2" x 1-3/4" x 14' Rod Pump	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
4-7-81	24	----	→	13	NA	25	NA

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
-------	--------	→	13	NA	25	± 28.5°

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)
VENTED DURING TEST

TEST WITNESSED BY: DURRELL KARREN

35. LIST OF ATTACHMENTS
SAMPLE DESCRIPTIONS & REPEAT FORMATION TEST PRESSURE SUMMARY

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

SIGNED Bobby Patrick TITLE Production Engineer - RMD DATE 4-16-81

*(See Instructions and Spaces for Additional Data on Reverse Side)

ATTACHMENT C-6 (4-5)

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37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
No DST's run.			See Attached Continued from other side - Cementing 5-1/2" - D-79 Extender & 10#/sk D-42 Kolite LCM, followed by 375 sx "Self Stress" cmt w/0.75% D-65 Thinner & 10#/sk D-42. Cement Squeeze - Sqz'd perfs 5,328'-5,370' w/35 sx Class "G" plus additives to 2000 psi. Breakdown - BD perfs 5,258'-5,274' twice (once before squeeze and once after squeeze) w/500 gals. 7½% HCl w/additives. Fracture - Frac'd perfs 5,258'-5,274' w/ 27,000 gals. Halliburton "Super E" (2/3 Ashley Creek crude & 1/3 2% KCl water plus additives) w/ 28,000# 20-40 sd & 15,000# 10-20 sd.

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
LOG TOPS		
Uintah	Surface	
Green River	2,799'	
"G" Zone	4,308'	
"H" Zone	4,625'	
"I" Zone	4,836'	
"J" Zone	5,148'	
"K" Zone	5,294'	
T.D. Logger	5,555'	
Driller	5,550'	

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-683636

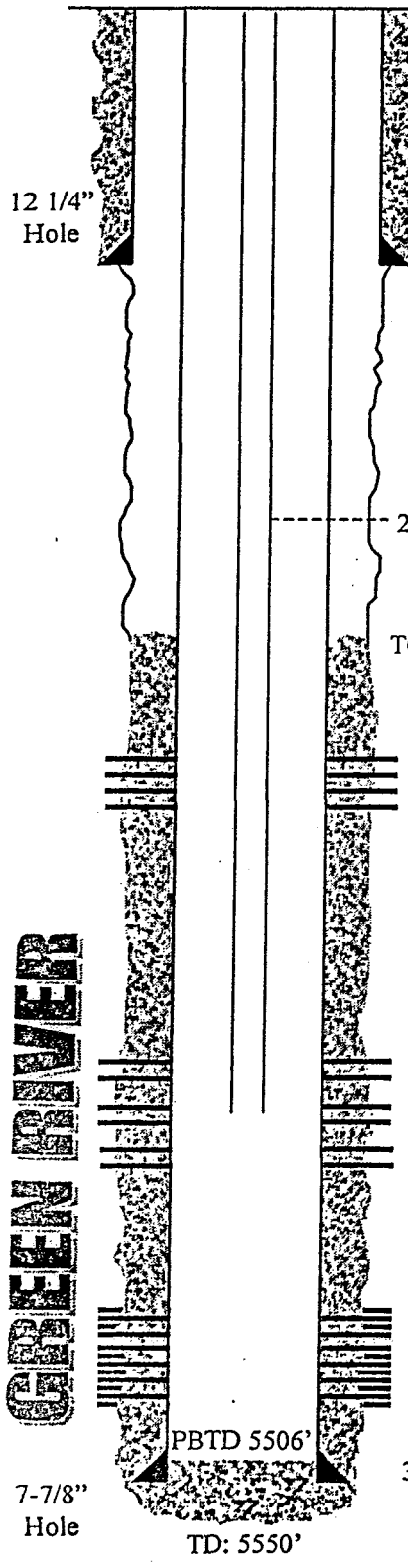
GPO 680-378

ATTACHMENT C-6
(5-5)

CITATION OIL & GAS CORP.
WALKER HOLLOW PEARL BROADHURST #10
(NW/SE) Sec. 9-T7S-R23E
UINTAH CO., UTAH

API:

KB: 13 FT
GL: 5118 FT
Status: Shut in



TUBING DETAIL			
Qty	Description	Length	Depth
	K.B.	13	13
164	2 7/8", 6.5#, J-55, tbg sub	5284.51	5297.51
1	5.5"X2.5" TAC	2.4	5299.91
3	2 7/8", 6.5#, J-55, tbg	97.51	5397.42
1	SN	1.1	5398.52
1	2 7/8", 6.5#, J-55 tbg	32.48	5431
1	notched collar	0.45	5431.45

ROD DETAIL			
Qty	Description	Length	Depth
1	1 1/2" Pish rd w / 1/75" slv		
2	2' X 1" Pony rods		
80	Grade D 1" sucker rods	2000	2000
79	Grade D 7/8" sucker rods	1975	3975
46	Grade D 3/4" sucker rods	1150	5125
10	Grade D 1" sucker rods	250	5375
1	2" pump		

CASING DETAIL			
Size	Weight	Grade	Depth
8-5/8"	24	K-55	0-470
5-1/2"	14	K-55	0-5542

3/19/82 Green River "H"
4670'-74' (2 Jspf)
4687'-92' (2 Jspf)
Acidize w/ 750 gal 7.5%
MRA & ball sealers

3/23/82 Frac "H":
30,000 gal Super-E
17,000 # 20-40 sand
27,000 # 10-20 sand

Green River "J"
10/00: 5252'-62' 4 Jspf
3/81: 5258'-60' (1 Jspf)
10/00: 5270'-81' 4 Jspf
3/81: 5272'-74' (1 Jspf)

3/81 Stimulation:
Broke "J" perfs w/ 500 gal 7.5% HCL w/ ball sealers. Re-acidize w/ 500 gal 7.5% HCL.

3/81 Frac "J":
9,000 gal Super-E pad
18,000 gal Super-E fluid
28,000 # 20-40 sand
15,000 # 10-20 sand

10/00 GR "K"
5326'-31' 4 Jspf
5342'-48' 4 Jspf
5360'-64' 4 Jspf
5366'-70' 4 Jspf

3/81 Green River "K"
5328'-30' (1 Jspf) Sqz'd
5348'-50' (1 Jspf) Sqz'd
5361'-63' (1 Jspf) Sqz'd
5368'-70' (1 Jspf) Sqz'd

3/81: 5 1/2" 14# K-55 @ 5542' w/ 875 sx

All depths KB unless noted.
Updated: 1-05-01 MW

Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

5. Lease Serial No.
UTU02651A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
CITATION OIL & GAS CORP.

3a. Address
P.O. Box 690688, Houston, Texas 77269-0688

3b. Phone No. *(include area code)*
(281) 517-7800

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
522' FSL & 555' FEL; Sec. 9, T7S, R23E; SE SE

8. Well Name and No.
USA Pearl Broadhurst #15

9. API Well No.
43-047-30901

10. Field and Pool, or Exploratory Area
Walker Hollow Green River

11. County or Parish, State
Uintah County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☒ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☒ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other **Add perforations**
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

MIRU and POOH with rods, pump and tubing. RIH with bit & scraper - tagged fill @5375' with btm perf @5361'. POOH & RU Schl. Ran GR-CCL from 5370' - 4000'. Perf'd 4758' - 63'; 4747'-51'; 4726'-32' and 4716'-22' with 4" csg gun, 4 spf. Started hydro-test in hole to 6000 psi with RBP and pkr; set RBP @5052' & pkr @5003' - tst'd RBP to 1000 psi - OK. Set RBP @5358' & pkr @5126' - acidized with 6000 gals 7.5% double FE acid with 10% xylene. POOH and TIH with production tubing - SN @5169'; end of tubing @5301'. TIH with pump and rods. Returned to production on 5/14/2001.

ATTACHMENT C-7 (1-3)

RECEIVED
MAY 21 2001

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

Name *(Printed/Typed)*
Debra Harris

Title
Production/Regulatory Coordinator

Signature
Debra Harris

Date
5/15/2001

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
NOTED

Title

Date
JUN - 5 2001

Office

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

OPERATOR
MR KK SEW DU RK

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE (See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 15

10. FIELD AND POOL, OR WILDCAT: Walker Hollow

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 9-T7S-R23E

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR: P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 552' FSL & 555' FEL (SE/SE)
At top prod. interval reported below
At total depth

14. PERMIT NO. | DATE ISSUED

12. COUNTY OR PARISH: Uintah | 13. STATE: Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
4-11-81	4-26-81	7-12-81	KB 5,195' (GR + 13')	----------

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
5,517' KB	5,463' KB	NA	→	0-TD	---------

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
Green River "J" zone - 5,199'-5,259' KB
Green River "K" zone - 5,272'-5,358' KB

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: Dual Induction; Comp Densilog/Neutron; Acoustilog

27. WAS WELL CORED: No

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8" OD	24#	497' KB	9-7/8"	365 sx "G" + additives	-0-
5-1/2" OD	14#	5,503' KB	7-7/8"	880 sx HOWCO "Light" + additives & 440 sx 50-50 Pozmix + additive	-0-

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
		None		

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	5,232' KB	None

31. PERFORATION RECORD (*Interval, size and number*)
5,199', 5,240'-41', 5,251', 5,257'-59' w/1 JSPF (7 perfs)
5,272'-73', 7,311.5', 5,353', 5,355', 5,357'-58' w/1 JSPF (7 perfs)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5,199'-5,358'	BD w/1000 gal. 7-½% "MSR-100" acid + add. & ball sealers. Frac'd w/48,000 gal "Stratafrac" w/56,000# 20-40 sand & 33,000# 10-20 sand.

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
7-12-81	Pumping 2-1/2" x 1-3/4" x 12' Rod Pump	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
7-21-81	24		→	58	NA	6	NA

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
------	------	→	58	NA	6	± 28°

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): VENTED DURING TEST

TEST WITNESSED BY: BOB PETERSON

35. LIST OF ATTACHMENTS: SAMPLE DESCTIPTIONS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED PWagner TITLE Production Engineer - RMD DATE 7-22-81

*(See Instructions and Spaces for Additional Data on Reverse Side)

ATTACHMENT C_7 (2-3)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
No DST's			Sample Description Attached

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
LOG TOPS		
Uintah	surface	
Green River	2,800'	
"G" zone	4,310'	
"H" zone	4,594'	
"I" zone	4,843'	
"J" zone	5,112'	
"K" zone	5,300'	
TD	5,519'	

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-683636

ATTACHMENT C-7 (3~~3~~) 1

Pearl Broadhurst #15
Walker Hollow Field
SE SE Sec9-T7S-R23E
552' FSL, 555' FEL
Elevation: 5182' GL, 5195' KB
Uintah County, Utah

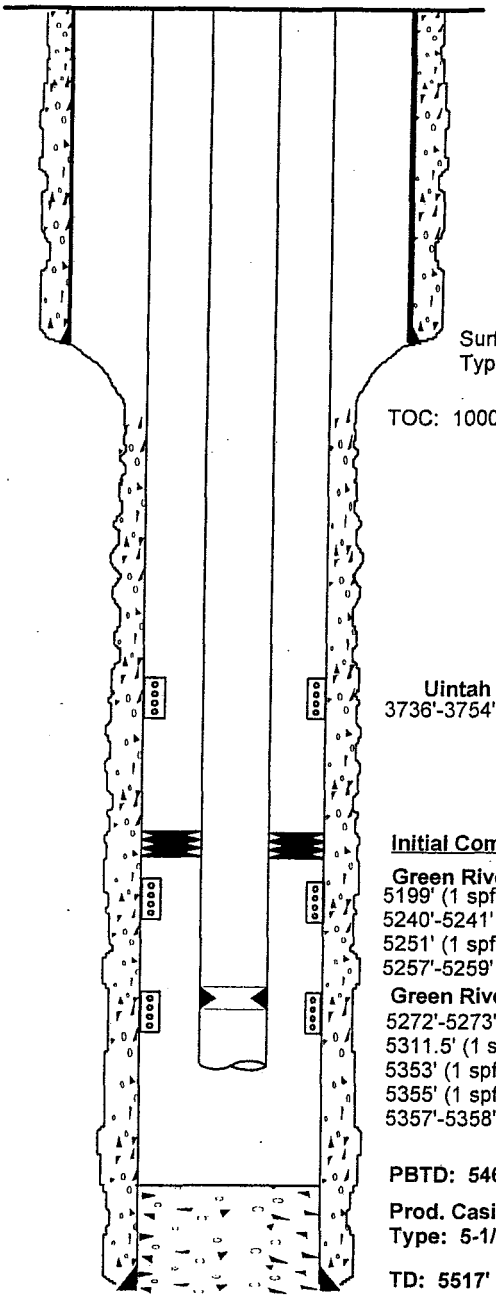
Spud Date: 4/11/81
TD Date: 4/26/81
Completion Date: 7/21/81

Tubing Record

KB	13.00'
163 jts 2-7/8", EUE, J-55, 8rd coated tbg	5197.01'
1 - 5.5" x 2.5" TAC	2.80'
4 jts 2-7/8", EUE, J-55, 8rd coated tbg	127.78'
1 - SN	1.10'
1 jt 2-7/8, EUE, J-55, 8rd perf sub	6.10'
1 jt 2-7/8", EUE, J-55, 8rd coated tbg	32.38'
End of tubing	5380.18'

1.5" x 22' polished rod
1 - 7/8" x 4' pony
2 - 7/8" x 6' ponies
86 - 7/8" scrapered rods
126 3/4" plain rods
1 - 3/4" x 2' pony
2.5" x 1.75" x 16' RHAC pump

Workover History
3/2/94: Perf'd & treated Uintah sand as shown



Surface Casing @ 497'
Type: 8-5/8", 24#

TOC: 1000' KB

Uintah
3736'-3754' (4 spf)

Stimulation
Broke Formation
500 gal. Xylene, 750 gal. 7.5% MSR
5 BPM @ 1600#, ISI: 630#

Initial Completion

Green River "J"
5199' (1 spf)
5240'-5241' (1 spf)
5251' (1 spf)
5257'-5259' (1 spf)

Green River "K"
5272'-5273' (1 spf)
5311.5' (1 spf)
5353' (1 spf)
5355' (1 spf)
5357'-5358' (1 spf)

Stimulation

Broke Formation ("J" & "K" sands)
1000 gal. 7.5% MSR-100
8 BPM @ 2500#, ISI: 800#

Frac
10,000 gal. Strata-Frac II pad
38,000 gal. Strata-Frac II fluid
56,000# 20/40 sand
33,000# 10/20 sand
23 BPM @ 5400#

PBTD: 5463'

Prod. Casing @ 5503'
Type: 5-1/2", 14#

TD: 5517' KB

12/12/94: CMJ

Well

AUG 1 8 1981

9-331
1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RMD CASPER

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 Form 9-331-C for such proposals.)

1. oil well [X] gas well [ ] other

2. NAME OF OPERATOR
Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR
P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1,977' FSL & 662' FWL (NW/SW)
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
USA Pearl Broadhurst

9. WELL NO.
16

10. FIELD OR WILDCAT NAME
Walker Hollow

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 10-T7S-R23E

12. COUNTY OR PARISH
Uintah

13. STATE
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
KB 5,194' (GRD + 13')

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	[ ]	[ ]
FRACTURE TREAT	[ ]	[ ]
SHOOT OR ACIDIZE	[ ]	[ ]
REPAIR WELL	[ ]	[ ]
PULL OR ALTER CASING	[ ]	[ ]
MULTIPLE COMPLETE	[ ]	[X]
CHANGE ZONES	[ ]	[ ]
ABANDON*	[ ]	[ ]
(other) Top of Cement		x

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

On July 30, 1981 a Cement Bond Log indicated the top of cement to be at ± 1,250' K.B. on the subject well.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Bobby Patrick TITLE Prod. Engr - RMD DATE 8-7-81

(This space for Federal or State office use)

APPROVED BY [signature] TITLE FOR E. W. GUYNN DISTRICT ENGINEER DATE AUG 1 0 1981

CONDITIONS OF APPROVAL, IF ANY:

Accepted

Oper

*See Instructions on Reverse Side

ATTACHMENT C-8 (1-5)

9-331
1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well [X] gas well [ ] other

2. NAME OF OPERATOR
Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR
P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1,977' FSL & 662' FWL (NW/SW)
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Broadhurst

9. WELL NO.
16

10. FIELD OR WILDCAT NAME
Walker Hollow

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 10-T7S-R23E

12. COUNTY OR PARISH
Uintah

13. STATE
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
G.L. 5,181'; K.B. 5,194'

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	[ ]	[ ]
FRACTURE TREAT	[ ]	[ ]
SHOOT OR ACIDIZE	[ ]	[ ]
REPAIR WELL	[ ]	[ ]
PULL OR ALTER CASING	[ ]	[ ]
MULTIPLE COMPLETE	[ ]	[ ]
CHANGE ZONES	[ ]	[ ]
ABANDON*	[ ]	[ ]
(other) Well History		X

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)*

The above referenced well was drilled to 5,487' & ran logs.

Ran 137 jts 5-1/2" O.D., 14#, K-55, R-3, ST&C new casing set @ 5,486' K.B. Cemented w/1180 sx of HOWCO Lite cement w/3% Salt; 10# Gilsonite & 1/4# Flocele/sx; followed by 600 sx of 50-50 Pozmix w/2% Gel; 0.6% Halad-9; 5% KCl & 1/4# Flocele/sx. Plug down @ 6:30 AM 5-16-81.

12-18-81 - W.O.C.T.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED L.C. Gillespie TITLE Drlg Supt - RMD DATE 5-18-81

(This space for Federal or State office use)

APPROVED BY _____ TITLE FOR E. W. GUYNN DISTRICT ENGINEER DATE MAY 22 1981
CONDITIONS OF APPROVAL, IF ANY:

ATTACHMENT C-8 (2-5)

open

*See Instructions on Reverse Side

9-331
1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well [X] gas well [ ] other

2. NAME OF OPERATOR
Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR
P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1,977' FSL & 662' FWL (NW/SW)
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Broadhurst

9. WELL NO.
16

10. FIELD OR WILDCAT NAME
Walker Hollow

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 10-T7S-R23E

12. COUNTY OR PARISH
Uintah

13. STATE
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
G.L. 5,181'; K.B. 5,194'

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	[ ]	[X]
FRACTURE TREAT	[ ]	[ ]
SHOOT OR ACIDIZE	[ ]	[ ]
REPAIR WELL	[ ]	[ ]
PULL OR ALTER CASING	[ ]	[ ]
MULTIPLE COMPLETE	[ ]	[ ]
CHANGE ZONES	[ ]	[ ]
ABANDON*	[ ]	[ ]
(other)		

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

RECEIVED
MAY 8 1981
RMD CASPER

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.)*

The above referenced well was spudded @ 8:00 PM 4-30-81.

Drld 12-1/4" hole to 500'.

Ran 12 jts 8-5/8" O.D., 24#, K-55, R-3, ST&C new casing, set @ 500'. Cemented w/365 sx of Class "G" cement w/2% $CaCl_2$ & 1/4# Flocele/sx. Plug down @ 12:45 PM 5-1-81. Good cement returns.

N.U. & pressure tested BOPE to 1200 psi--held o.k.

5-04-81 - Drlg 7-7/8" hole @ 1,850'.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED R.C. Hillegas TITLE Drlg. Supt.-RMD DATE 5-4-81

(This space for Federal or State office use)

APPROVED BY R.A. Henricks TITLE FOR E. W. GUYNN DISTRICT ENGINEER DATE MAY 6 1981

CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED

*See Instructions on Reverse Side

ATTACHMENT C-8 (3-5)

DPT

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR: P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 1,977' FSL & 662' FWL (NW/SW)
At top prod. interval reported below
At total depth

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 16

10. FIELD AND POOL, OR WILDCAT: Walker Hollow

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 10-T7S-R23E

14. PERMIT NO. / DATE ISSUED

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
4-30-81	5-15-81	9-27-81	KB 5,194' (GRD + 13')	----------

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
5,487' K.B.	5,447' K.B.	NA	→	0-TD	----------

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
Green River "J" zone 5,241'-44' K.B.
Green River "K" zone 5,300'-43' K.B.

25. WAS DIRECTIONAL SURVEY MADE: NO

26. TYPE ELECTRIC AND OTHER LOGS RUN: Compensated Neutron/Formation Densilog; Dual Induction & Acoustilog

27. WAS WELL CORED: NO

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	500' KB	12-1/4"	365 sx "G" w/2% $CaCl_2$ + 1/4# Flocele/sx	-0-
5-1/2"	14#	5,486' KB	7-7/8"	1180 sx HOWCO "Light" w/ 3% Salt, 10# Gilsonite/sx.	-0-

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
		None		

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	5,353' KB	None

31. PERFORATION RECORD (*Interval, size and number*)
Green River "J" zone 5,241'-44' w/1 JSPF (4 holes)
Green River "K" zone 5,300'-43' w/2 JSPF (17 holes)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5,241'-5,343'	BD 750 gals 7½% HCl + additives & ball sealers. Frac'd w/43,000 gals Super-E + 55,000# 20-40 sd & 24,000# 10-20 sd. (OVER)

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
9-27-81	Pumping 2-1/2" x 1-3/4" x 14' Rod Pump	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
10-5-81	24	--------	→	13	NA	19	NA

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
--------	--------	→	13	NA	19	± 28.8°

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): VENTED DURING TEST

TEST WITNESSED BY: DURRELL KARREN

35. LIST OF ATTACHMENTS: SAMPLE DESCRIPTION ATTACHED

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED: Rosie Rapp TITLE: PRODUCTION TECH - RMD DATE: 10-6-81

*(See Instructions and Spaces for Additional Data on Reverse Side)

ATTACHMENT C-8 (4-5)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
No DST's run			Sample Descriptions Attached Cementing - 5-1/2" - 1/4# Flocele/sx, followed by 600 sx 50-50 Pozmix w/2% Gel, 0.6% Halad-9 5% KCl & 1/4# Flocele/sx. Acidized - "K" zone w/300 gal 7½% HCl + additives @ matrix rates. Reacidized "K" zone w/1000 gal 7½% HCl + additives @ matrix rates.

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
LOG TOPS		
Uintah	Surface	
Green River	2,780'	
"G" Zone	4,362'	
"H" Zone	4,590'	
"I" Zone	4,822'	
"J" Zone	5,107'	
"K" Zone	5,263'	
Drillers TD	5,487'	
Loggers TD	5,487'	

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-683636

ATTACHMENT C-8 (5-5)

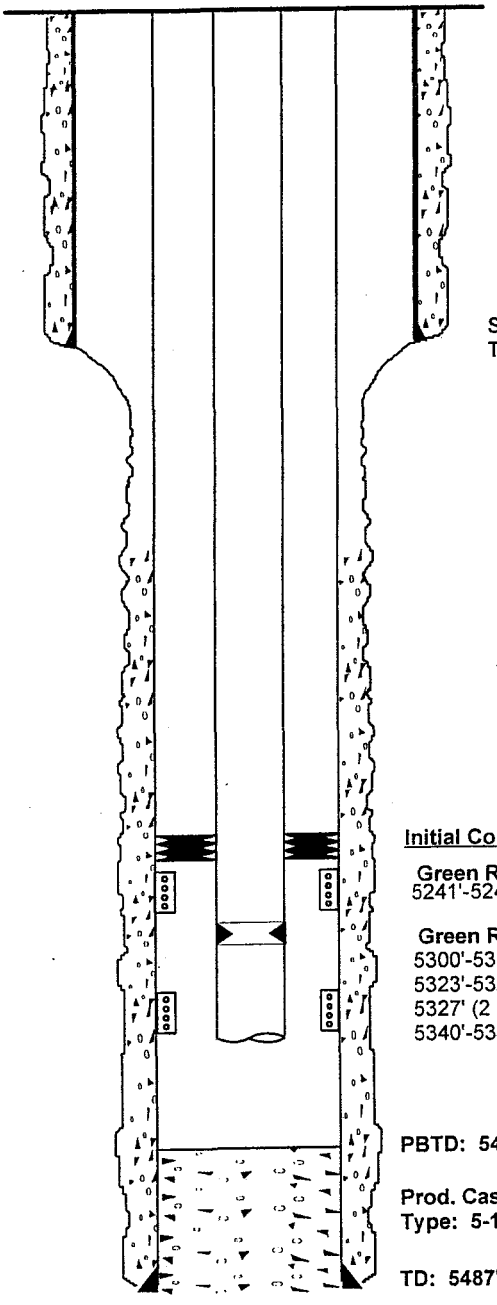
Pearl Broadhurst #16
Walker Hollow Field
NW SW Sec9-T7S-R23E
1977' FSL, 662' FWL
Elevation: 5181' GL, 5194' KB
Uintah County, Utah

Spud Date: 4/30/81
TD Date: 5/15/81
Completion Date: 10/5/81

Tubing Record
164 jts 2-7/8", J-55, 8rd, 6.5#, EUE coated tbg.....5166.18'
1 - 5-1/2" x 2-1/2" TAC.....2.78'
5 jts 2-7/8", J-55, 8rd, 6.5#, EUE coated tbg.....156.36'
1 - SN.....1.10'
1 jt 2-7/8", J-55, 8rd, 6.5#, EUE coated tbg.....31.55'
1 - notched collar.....0.44'

End of tubing.....5358.41'

Rod Record
1 - 7/8" x 2' pony
85 - 7/8" scrapered rods
127 - 3/4" slick rods
1 - 3/4" x 2' pony
2.5" x 1.75" x 15' pump



Surface Casing @ 500' KB
Type: 8-5/8", 24#

Initial Completion

Green River "J"
5241'-5244' (1 spf)

Green River "K"
5300'-5302' (2 spf)
5323'-5324' (2 spf)
5327' (2 spf)
5340'-5343' (2 spf)

Stimulation ("J" & "K" sands)

Broke Formation
750 gal. 7.5% HCl
Frac
43,000 gal. Super "E"
55,000# 20/40 sand
24,000# 10/20 sand

Stimulation ("K" sand)
1300 gal. 7.5% HCl

PBTD: 5447' KB

Prod. Casing @ 5486' KB
Type: 5-1/2", 14#

TD: 5487' KB

12/19/94: CMJ

Citation Oil and Gas Corp.
Temporary Abandonment Request

Well: Pearl Broadhurst #22 Location: SESW Sec. 10, T7S, R23E

Lease: UTU 02651A

CONDITIONS OF APPROVAL

In accordance with 43 CFR 3162.3-4 (c), Temporary Abandonment (TA) status can only be authorized for a 12 month period. Additional delays in abandoning the well may be authorized when justified, but the extensions can not exceed 12 months. For these reasons;

1. Temporary Abandonment (TA) status is granted until **December 1, 2004**, prior to that date you must do one of the following:

    a. Place the well back in service, either on production or another service use.

    b. Submit a proposal to permanently plug and abandon the well.

    c. Request an extension of TA status

2. Since this well has not been in production for an extended period of time, an additional extension will be predicated upon Citation Oil and Gas Corp. demonstrating that it is making progress in reducing the number of idle wells in the Walker Hollow Unit and the Pearl Broadhurst property.

Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

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.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: BHP PETROLEUM (AMERICAS) INC.

3. ADDRESS OF OPERATOR: 1560 Broadway, Ste. 1900, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 593' FSL & 1649' FWL (SE SW)

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: USA Pearl Broadhurst

9. WELL NO.: 22

10. FIELD AND POOL, OR WILDCAT: Walker Hollow

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 10, T7S, R23E

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 5244' GL, 5257' KB

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Recompletion			[X]
(Other)				(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.)*

MIRU CT on 4/13/89. TOOH w/rods & pump. NU BOPE. TOOH w/tubing. TIH w/bit & scraper. TIH & set CIBP @ 5202' KB, spotted 3 sx cmt on plug. TIH w/pkr & set @ 4827' KB. Press tested tbg to 3400 psi, annulus to 1000 psi. Both held OK. RU & perf Green River "I" from 4928-33, 4969-74, 5024-30, 5071-73, & 5079-86' w/4 SPF. Swab tested uneconomic rate. TOOH w/pkr. TIH & set CIBP @ 4895' KB. Spotted 3 sx cmt on plug. TIH w/pkr & set @ 4598' KB. Press. test annulus & tbg - OK. RU & perf Green River "H" from 4680-82, 4692-94, 4718-38, 4756-61, & 4767-72 w/4 SPF. Swab tested uneconomical rate. TOOH w/pkr. TIH & set CIBP @ 4664' KB. Spotted 3 sx cmt on plug. TIH w/pkr & set @ 4720' Press tested annulus & tbg - OK. RU & perf Green River "G" from 4344-50, 4458-66, 4534-40, & 4604-08 w/4 JSPF. Swab tested water, tr oil, and gas to surface. Isolated intervals of "G" zone w/pkr and plug & tested separately. The "G1" @ 4344-50 was acidized w/500 gal 15% HCL. Swabbed uneconomic rate from all zones. TIH w/tbg open ended and shut-in. BHP is therefore requesting approval to leave this well shut-in for future use in waterflood.

ATTACHMENT C-9 (2-4)

MAY 1989 RECEIVED

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

SIGNED Daniel H. Sallee TITLE Petroleum Engineer DATE 5/9/89

(This space for Federal or State office use)

APPROVED BY NOTED TITLE DATE MAY 19 1989

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR: P.O. Box 3280 - Casper, Wyoming 82602

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 593' FSL & 1,649' FWL (SE/SW)
At top prod. interval reported below
At total depth

5. LEASE DESIGNATION AND SERIAL NO.: U-02651-A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: USA Pearl Broadhurst
9. WELL NO.: 22
10. FIELD AND POOL, OR WILDCAT: Walker Hollow
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 10-T7S-R23E

14. PERMIT NO. | DATE ISSUED
12. COUNTY OR PARISH: Uintah
13. STATE: Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
9-28-81	10-9-81	12-18-81	5,257' K.B. (GR + 13')	----------

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
5,650' K.B.	5,610' K.B.	NA	→	0-TD	----------

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
Green River "J" Zone: 5,247'-5,259'
Green River "K" Zone: 5,333'-5,352'

25. WAS DIRECTIONAL SURVEY MADE: NO

26. TYPE ELECTRIC AND OTHER LOGS RUN: Dual Induction; Comp. Densilog-Comp. Neutron; Acoustilog

27. WAS WELL CORED: NO

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	494' KB	12-1/4"	400 sx "H" w/2% $CaCl_2$ & 1/4# Flocele/sx.	-0-
5-1/2"	14#	5,560' KB	7-7/8"	(See Back of Page)	-0-

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
	None			

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	5,386' KB	None

31. PERFORATION RECORD (*Interval, size and number*)
Green River "J" Perfs 5,247'-5,252' w/1 JSPF
Green River "K" Perfs 5,259', 5,333', 5,352' w/2 JSPF (12 perfs)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5,247'-5,352'	BD w/750 gal 7-1/2% HCl + additives & ball sealers. (See Back of Page)

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
12-10-81	Pumping - 2-1/2" x 1-3/4" x 14' Rod Pump	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
12-18-81	24	------	→	66	------	53	NA

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
------	----------	→	66	-------	53	± 28°

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): VENTED DURING TEST

TEST WITNESSED BY: DURRELL KARREN

35. LIST OF ATTACHMENTS: SAMPLE DESCRIPTIONS ATTACHED

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED R Wagner TITLE PROD. ENGR RMD DATE 12-18-81

*(See Instructions and Spaces for Additional Data on Reverse Side)

ATTACHMENT C-9 (3-4)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
No DST's			Sample Description Attached Cement: Production casing was cemented with 845 sx "Light" w/3% Salt, 10# Gilsonite & 1/4# Flocele/sk followed by 500 sx 50-50 Pozmix w/2% Gel; 0.6% Halad-9 & 1/4# Flocele/sk. [T.O.C. @ 1,570' KB] Fracture: Frac'd w/30,000 gal "Super-K" emulsion w/35,000# 20-40 sand & 15,000# 10-20 sand.

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
TOP LOGS		
Uintah	surface	
Green River	2,812'	
"G" Zone	4,422'	
"H" Zone	4,696'	
"I" Zone	4,952'	
"J" Zone	5,126'	
"K" Zone	5,268'	
Driller's T.D.	5,650'	

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-683636

ATTACHMENT C-9 (494)

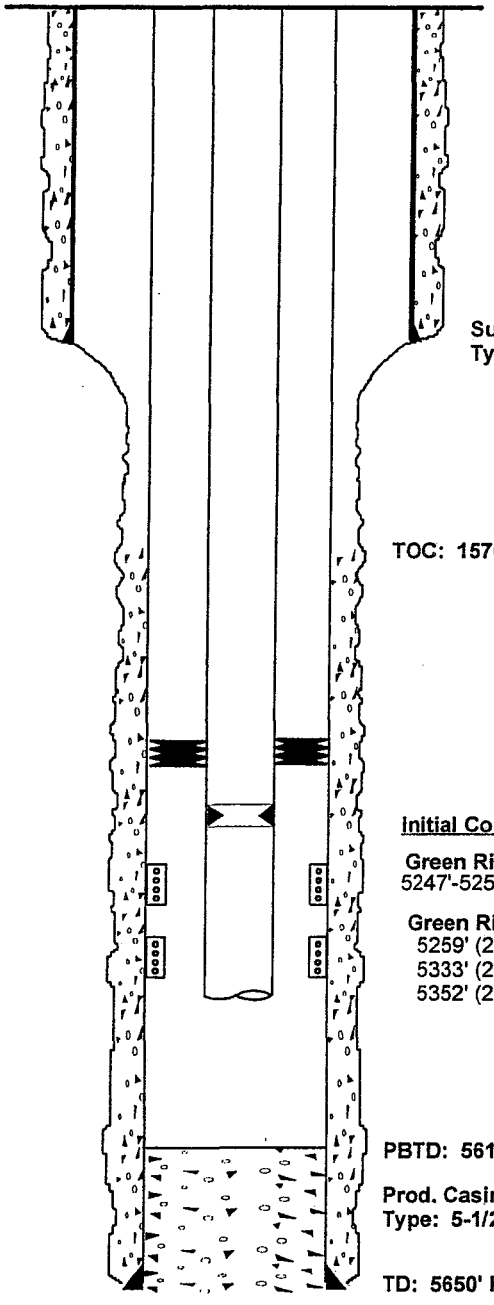
Pearl Broadhurst #22
Walker Hollow Field
SW SE Sec9-T7S-R23E
593' FSL, 1649' FWL
Elevation: 5244' GL, 5256' KB
Uintah County, Utah

Spud Date: 9/28/81
TD Date: 10/9/81
Completion Date: 12/18/81
IPP: 66 BO, 53 BW

Tubing Record
159 jts 2-7/8", EUE, J-55, 8rd, 6.5# tbg.....5182.53'
1 - 5-1/2" TAC.....2.80'
1 jt 2-7/8", EUE, J-55, 8rd, 6.5# tbg.....33.05'
1 - 2-7/8" SN.....1.10'
5 jts 2-7/8", EUE, J-55, 8rd, 6.5# tbg.....164.38'
1 - notched collar.....0.60'

End of tubing.....5393.16'

Rod Record
1.5" x 22' polished rod
2 - 7/8" x 6' pony
1 - 7/8" x 4' pony
1 - 7/8" x 2' pony
80 - 7/8" scrapered rods
127 - 3/4" plain rods
2.5" x 1.75" x 12' x 15' x 15.5' RHAC pump



Surface Casing @ 494' KB
Type: 8-5/8", 24#, K-55

TOC: 1570' KB

Initial Completion

Green River "J"
5247'-5252' (1 spf)

Green River "K"
5259' (2 spf)
5333' (2 spf)
5352' (2 spf)

Stimulation
Broke Perfs
750 gal. 7.5% HCl
Frac
30,000 gal. Super "K"
35,000# 20/40 sand
15,000# 10/20 sand

PBTD: 5610' KB

Prod. Casing @ 5650' KB
Type: 5-1/2", 14#, K-55

TD: 5650' KB

12/19/94: CMJ

PI/Dwights PLUS on C[redacted]Well Summary Report ATTACHM[redacted]T C-10 (1-3)

Date: 7/26/2004
Time: 11:20 AM

General Information

State	:	UTAH	Final Status	: GAS-WO
County	:	UINTAH	Drill Total Depth	: 5401
Field	:	RED WASH	Log Total Depth	:
Operator Name	:	CHEVRON U S A INC		
Lease Name	:	UNIT /41-16B/		
Well Number	:	189 Rwu #189	Spud Date	: DEC 14, 1967
API Number	:	43047152920001	Comp Date	: DEC 21, 1967
Regulatory API	:			
Init Lahee Class	:	D X	Hole Direction	: VERTICAL
Final Lahee Class	:	DG	Reference Elevation	: 5218 KB
Permit Number	:		Ground Elevation	: 5206
Geologic Province	:	UINTA BASIN	KB Elevation	: 5218
Formation at TD	:	652GRRV GREEN RIVER		
Oldest Age Pen	:	652 TERTIARY EOCENE		
Producing Formation	:	652GRRV GREEN RIVER		
Township	:	7 S	Section	: 16 SEC
Range	:	23 E	Spot	: NW NE NE
Base Meridian	:	SALT LAKE		

Additional Location Information

Footage Location	:	635 FNL 684 FEL CONGRESS SECTION		
Latitude	:	40.2150100	Latitude (Bot)	:
Longitude	:	-109.3244600	Longitude (Bot)	:
Lat./Long. Source	:	US		

Initital Potential Tests

Test	Top Form	Base Form	Top Depth	Base Depth	Choke	GOR	Oil Grav	Prod Method	Test Method
001	652GRRV	652GRRV	4663	4667				PERF	FLOWING

IP Volume

Test	Oil Amount	Oil Unit	Oil Desc	Cond Amount	Cond Unit	Cond Desc	Gas Amount	Gas Unit	Gas Desc	Wtr Amount	Wtr Unit	Wtr Desc
001							1140	MCFD				

IP Perforation

Test	Top	Base	Type	Method	Top Form	Base Form	Status	Count	Density	Per
001	4663	4667		PERF	652GRRV	652GRRV			2	FT

Log Data

Run No	Log Type	Top	Base	Log MD	Max Temp
01	NE	4150	5374		
01	NE	2150	2900		
01	PLPD	4150	5374		
01	PLPD	2150	2900		
01	AV	4150	5374		
01	AV	2150	2900		

Casing Data

Size	Base Depth	Cement	Unit
5 1/2 IN	5390	261	SACK

Form approved.
Budget Bureau No. 42-R355.4.

U. S. LAND OFFICE Salt Lake City
SERIAL NUMBER ML-3037
LEASE OR PERMIT TO PROSPECT

Form 9-330 R 23 E

						X
			16			

T 7 S

LOCATE WELL CORRECTLY

FORMATION RECORD—Continued

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company California Oil Co., Western Div. Address P. O. Box 455, Vernal, Utah
Lessor or Tract ML-3037 Field Red Wash State Utah
Well No. (41-16E) 189 Sec. 16 T. 7S R. 23E Meridian SLBM County Uintah
Location 635 ft. [illegible] S. of N Line and 685 ft. [illegible] W. of E Line of Section 16 Elevation 5206.5'

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed R. W. PATTERSON Original Signed by R. W. PATTERSON
Title Unit Superintendent

Date July 24, 1964

The summary on this page is for the condition of the well at above date.

Commenced drilling April 24, 1964 Finished drilling May 31, 1964

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 4706 to 4708
No. 2, from 4755 to 4757
No. 3, from 4766 to 4768
No. 4, from 5232 to 5234
No. 5, from 5300 to 5302
No. 6, from 5315 to 5321
No. 7, from 5739 to 5746

IMPORTANT WATER SANDS

No. 1, from None to
No. 2, from to
No. 3, from to
No. 4, from to

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From	Perforated To	Purpose
10-3/4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
5-1/2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
							5317 & 5342		

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10-3/4	232.91	165	Displace		
5-1/2	5387.40	261	Displace		

PLUGS AND ADAPTERS

Length Depth set

ATTACHMENT C-10 (2-3)

Adapters—Material ..... Size .....

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from [redacted] feet to 5401 feet, and from ..... feet to ..... feet

Cable tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

DATES

It is of the greatest importance to have a complete history with the reasons for the work and its results. If there were [illegible] of shots. If plugs or bridges were [illegible] 60 PD

Put to producing [redacted], 19[redacted]

The production for the first 24 hours was [redacted] barrels of fluid of which [redacted] % was oil; ..... % emulsion; [redacted] % water; and ..... % sediment. 49 BWPD

Gravity, °Bé. [redacted] API

If gas well, cu. ft. per 24 hours .....

Gallons gasoline per 1,000 cu. ft. of gas .....

Rock pressure, lbs. per sq. in. .....

EMPLOYEES

[redacted], Driller

[redacted], Driller

[redacted], Driller

[redacted], Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	2780	2780	Shale and Sand
2780	5401	2621	Sand and Shale
Formation	Depth	Datum	
[illegible]	2780	(+[illegible])	
G	[illegible]	([illegible])	
H	[illegible]	([illegible])	
I	[illegible]	(+[illegible])	
J	[illegible]	(+[illegible])	
K	[illegible]	([illegible])	

FROM—	TO—	TOTAL FEET	FORMATION

OVER

16—63004-5

FORMATION RECORD—Continued

ATTACHMENT C-10 (3-3)

CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
U.S.A. PEARL BROADHURST #5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

ATTACHMENT D

NAME AND DEPTH OF USDWs

For Class II wells, submit geologic name and depth to bottom of all underground sources of drinking water, which may be affected by the injection.

Due to the location and depth of the well, it will not affect any source of drinking water. See attachment D-1 through D-4 showing pertinent water analysis.

Attachment D-1	Water Analysis of the Formation Fluid to be injected and produced water. Both produced and injected water are from the U S A Pearl Broadhurst lease.
Attachment D-2	Deposit Indicators
Attachment D-3	Injection Scaling Tendency Analysis Report
Attachment D-4	Injection Scaling Tendency Analysis chart

ONDEO Nalco

ATTACHMENT D-1

Water Analysis Report

Field : Pearl Broadhurst	Sample Date : 6/3/2003
County : Uintah	Formation :
Location : Battery	Rock Type :
Lab ID : Citation Oil and Gas	Depth :
Comments : @ Triplex	

CATIONS	mg/l	meq/l
Potassium	0.0	0.00
Sodium	1,581.0	68.77
Calcium	40.0	2.00
Magnesium	7.6	0.63
Iron	0.8	0.03
Barium	10.0	0.15
Strontium	0.0	0.00
SUM +	1,639.4	71.58

ANIONS	mg/l	meq/l
Sulfate	15.0	0.31
Chloride	1,110.0	31.31
Carbonate	120.0	4.00
Bicarbonate	2,196.0	36.00
Bromide	0.0	0.00
Organic Acids	0.0	0.00
Hydroxide	0.0	0.00
SUM -	3,441.0	71.62

Solids

Total Dissolved Solids @180°C	6,758	mg/l
Total Solids, Calc less CO_2	3,691	mg/l
Total Solids, Calculated	5,080	mg/l
Total Solids, NaCl equivalents	3,632	mg/l
Chloride as NaCl	1,830	mg/l
NaCl% of Total Dissolved Solids	49.58	%
Accuracy	0.03	Sigma

Sample Conditions

pH, s.u. (Field)	8.45	s.u.
Sample Pressure	6.00	psia
Mole% CO_2, Gas	1.30	%
pH, s.u. (from CO_2)	8.46	s.u.
Surface Temp	60	°F
Downhole Temp	130	°F
Ionic Strength	0.076	μ

Dissolved Gases

Bisulfide ion, HS^-	0.0	mg/l
Hydrogen Sulfide, H_2S	0.0	mg/l
Total Sulfide	0.0	mg/l

Dissolved O_2, aq	0.0	ppb
Measured CO_2, aq	0.0	mg/l
Calculated CO_2, aq	8.6	mg/l

Other Properties

Calcium Hardness as $CaCO_3$	99.9	mg/l
Magnesium Hardness as $CaCO_3$	32.1	mg/l
Total Hardness as $CaCO_3$	132.0	mg/l
Hardness, grains	7.69	grains/gallon

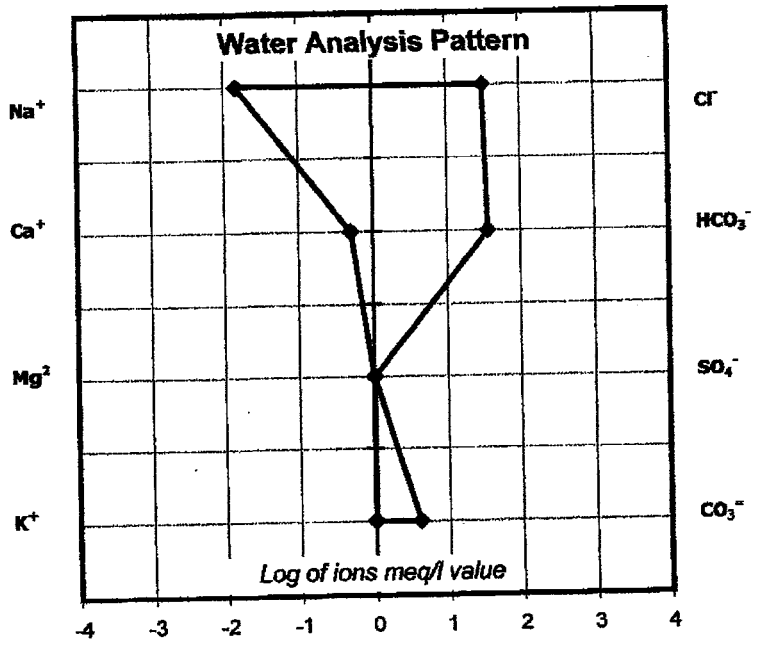
Specific Gravity	1.003	measured
Specific Gravity	1.004	calculated
Resistivity, 68°F	1.479	ohm-cm
Conductivity 25°C	6,760	μmhos/cm

Microbiological

Sulfate Reducing	nd
Aerobic Bacteria	nd

Scaling Conditions

Calcium Carbonate	$CaCO_3$	+
Calcium Sulfate	$CaSO_4$	- - -
Barium Sulfate	$BaSO_4$	+
Strontium Sulfate	$SrSO_4$	-



Probable Mineral Residue, Dry

Calculation error = 0.1 %

COMPOUND	mg/l
NaHCO3	2,753.9
NaCl	1,829.8
Ca(HCO3)2	161.8
Mg(HCO3)2	45.8
BaSO4	17.0
Na2SO4	11.8

Note: nd denotes 'Not Determined'
Analyzed by: Creg Wilkins
Approved:
04/10/00 v940MDCarney

ONDEO Nalco

ATTACHMENT D-2

Deposit Indicators

Field : Pearl Broadhurst	Sample Date : 6/3/2003
County : Uintah	Formation :
Location : Battery	Rock Type :
Lab ID : Citation Oil and Gas	Depth :
Comments :	

CATIONS	mg/l	meq/l
Potassium	0.0	0.00
Sodium	1,581.0	68.77
Calcium	40.0	2.00
Magnesium	7.6	0.63
Iron	0.8	0.03
Barium	10.0	0.15
Strontium	0.0	0.00
SUM +	1,639.4	71.58

ANIONS	mg/l	meq/l
Sulfate	15.0	0.31
Chloride	1,110.0	31.31
Carbonate	120.0	4.00
Bicarbonate	2,196.0	36.00
Bromide	0.0	0.00
Organic Acids	0.0	0.00
Hydroxide	0.0	0.00
SUM -	3,441.0	71.62

Solids

Total Dissolved Solids @180°C	6,758	mg/l
Total Solids, Calc less CO_2	3,691	mg/l
Total Solids, Calculated	5,080	mg/l
Total Solids, NaCl equivalents	3,632	mg/l
Chloride as NaCl	1,830	mg/l
NaCl% of Total Dissolved Solids	49.58	%
Accuracy	0.03	Sigma

Sample Conditions

pH, s.u. (Field)	8.45	s.u.
Sample Pressure	6.00	psia
Mole% CO_2, Gas	1.30	%
pH, s.u. (from CO_2)	8.46	s.u.
Surface Temp	60	°F
Downhole Temp	130	°F
Ionic Strength	0.076	μ

Dissolved Gases

Bisulfide Ion	0.0	mg/l
Hydrogen Sulfide	0.0	mg/l
Total Sulfide	0.0	mg/l

Dissolved O_2, aq	0.0	ppb
Measured CO_2, aq	0.0	mg/l
Calculated CO_2, aq	8.6	mg/l

Other Properties

Calcium Hardness as $CaCO_3$	99.9	mg/l
Magnesium Hardness as $CaCO_3$	32.1	mg/l
Total Hardness as $CaCO_3$	132.0	mg/l

Specific Gravity	1.003	measured
Specific Gravity	1.004	calculated
Resistivity, 68°F	1.479	ohm meter
Conductivity 25°C	6,760	μmhos/cm

Potential Deposit Indicators

Saturation Levels

Calcite	$CaCO_3$	2.15
Aragonite	$CaCO_3$	1.88
Witherite	$BaCO_3$	0.00
Strontianite	$SrCO_3$	0.35
Magnesite	$MgCO_3$	0.33
Anhydrite	$CaSO_4$	0.45
Gypsum	$CaSO_4*2H_2O$	0.95
Barite	$BaSO_4$	125.38
Celestite	$SrSO_4$	0.41
Silica	SiO_2	0.00
Iron Hydroxide	$Fe(OH)_3$	0.00
Siderite	$FeCO_3$	0.00
Iron Sulfide	FeS	0.00

Free Ion Momentary Excess

(Lbs / 1000 bbls)

Calcite	$CaCO_3$	0.17
Aragonite	$CaCO_3$	0.15
Witherite	$BaCO_3$	(8.16)
Strontianite	$SrCO_3$	(0.73)
Magnesite	$MgCO_3$	(0.53)
Anhydrite	$CaSO_4$	(214.01)
Gypsum	$CaSO_4*2H_2O$	(11.43)
Barite	$BaSO_4$	0.71
Celestite	$SrSO_4$	(10.85)
Silica	SiO_2	(31.24)
Iron Hydroxide	$Fe(OH)_3$	(0.17)
Siderite	$FeCO_3$	(0.06)
Iron Sulfide	FeS	(0.00)

Bound Ions	Total	Free
Calcium	457.80	317.89
Barium	1.20	1.20
Carbonate	2.21	0.54
Sulfate	1,390.0	1,054.0

Note: nd denotes 'Not Determined'
Analyzed by: Creg Wilkins
Approved: Michael D. Carney
04/10/00 v940MDCarney

ONDEO Nalco

ATTACHMENT D-3

Injection Scaling Tendency Analysis Report

Pearl Broadhurst Battery

Calculations based on FIXED CO2 mg/L concentration = 9 mg/L

Location : Battery	Analyzed by : Greg Wilkins
Field : Pearl Broadhurst	Sample Date : 6/3/2003
County : Uintah	Lab ID : Citation Oil and Gas
Formation :	Sigma : 0.03
Comments : 0	

Probable Mineral Residue, Dry	
Compound	mg/L
NaHCO3	2,753.9
NaCl	1,829.8
Ca(HCO3)2	161.8
Mg(HCO3)2	45.8
BaSO4	17.0
Na2SO4	11.8

CATIONS		mg/L	meq/L	ANIONS		mg/L	meq/L
Sodium	Na^+	1,581.0	68.77	Chloride	Cl^-	1,110.0	31.31
Potassium	K^+	0.0	0.00	Bromide	Br^-	0.0	0.000
Calcium	Ca^{++}	40.0	2.00	Sulfate	$SO_4^{=}$	15.0	0.31
Magnesium	Mg^{++}	7.6	0.63	Bicarbonate	HCO_3^-	2,196.0	36.00
Barium	Ba^{++}	10.0	0.15	Carbonate	$CO_3^{=}$	120.0	4.00
Strontium	Sr^{++}	0.0	0.00	Organic Acids as Acetate		0.0	0.00
Iron	Fe^{++}	0.8	0.03	Hydroxide	OH^-	0.0	0.00
	SUM+	1,639.4	71.58		SUM-	3,441.0	71.62

TDS (calc'd)=	5,080 mg/l	Bisulfide ion	0.0 mg/l	Dissolved O_2, aq	0.0 nd	Surface Temp	60 °F
TDS@180°C=	6,758 mg/l	Hydrogen Sulfide	0.0 mg/l	FIELD CO_2, aq	0.0 mg/l	Downhole Temp	130 °F
Calc Mole%CO_2=	1.30 %	Total Sulfides	0.0 mg/l	Calc CO_2, aq	8.6 mg/l	Ionic Strength	0.076 μ
						Field pH, s.u. =	8.45

	Location	Temperature °F	Pressure psia	pH calculated	SI $CaCO_3$	$CaSO_4$ ∞ $2H_2O$ Gypsum	$CaSO_4$ ∞ $\frac{1}{2}H_2O$ Hemi hydrate	$CaSO_4$ Anhydrite	SI $BaSO_4$	SI $SrSO_4$	
1	A	60	30.0	8.46	+1.70	-3.47	-3.29	-3.89	+0.99		1
2	B	80	30.0	8.46	+1.88	-3.46	-3.30	-3.73	+0.92		2
3	C	85	30.0	8.46	+1.93	-3.46	-3.30	-3.69	+0.90		3
4	D	90	30.0	8.46	+1.98	-3.46	-3.30	-3.64	+0.88		4
5	E	95	30.0	8.46	+2.03	-3.46	-3.30	-3.60	+0.86		5
6	F	100	30.0	8.46	+2.08	-3.45	-3.30	-3.56	+0.85		6
7	G	110	30.0	8.46	+2.18	-3.44	-3.29	-3.48	+0.81		7
8	H	120	30.0	8.47	+2.28	-3.43	-3.29	-3.40	+0.79		8
9	I	130	30.0	8.47	+2.38	-3.42	-3.28	-3.31	+0.76		9
1	Max formation temp	110	10.0	8.46	+2.18	-3.42	-3.29	-3.48	+0.82		1
2	Max formation temp	110	20.0	8.46	+2.18	-3.45	-3.29	-3.48	+0.81		2
3	Max formation temp	110	25.0	8.46	+2.18	-3.45	-3.29	-3.48	+0.81		3
4	Max formation temp	110	50.0	8.46	+2.17	-3.45	-3.30	-3.48	+0.81		4
5	Max formation temp	110	100.0	8.46	+2.17	-3.45	-3.30	-3.48	+0.81		5
6	Max formation temp	110	250.0	8.46	+2.16	-3.46	-3.31	-3.49	+0.80		6
7	Max formation temp	110	500.0	8.45	+2.14	-3.47	-3.33	-3.49	+0.79		7
8	Max formation temp	110	600.0	8.45	+2.13	-3.48	-3.34	-3.50	+0.78		8
9	Max formation temp	110	700.0	8.44	+2.13	-3.48	-3.34	-3.50	+0.78		9
10	Max formation temp	110	800.0	8.44	+2.12	-3.49	-3.35	-3.50	+0.77		10
11	Max formation temp	110	900.0	8.44	+2.11	-3.49	-3.36	-3.51	+0.77		11
12	Max formation temp	110	1,000.0	8.44	+2.10	-3.50	-3.36	-3.51	+0.76		12
13	Max formation temp	110	1,250.0	8.43	+2.08	-3.51	-3.38	-3.52	+0.75		13

Calculations based upon Oddo Tomson Equations, v1.04.17.96

4/10/2000 v940MDCarney

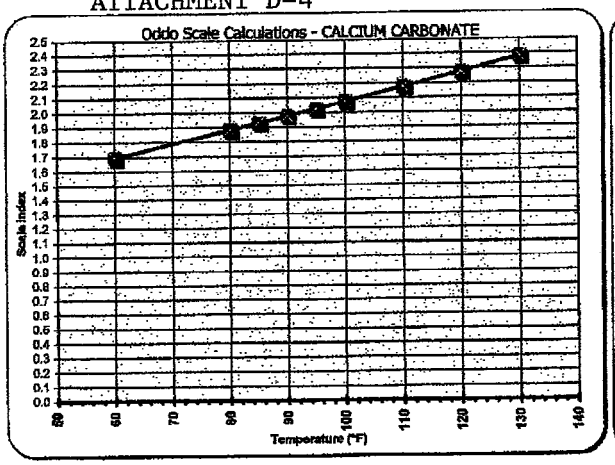
ONDEO Nalco

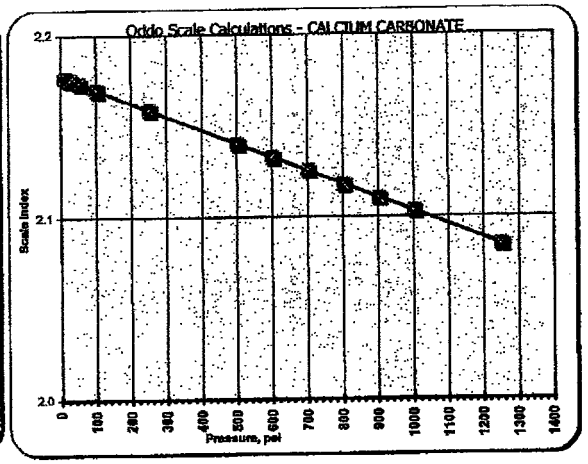
ATTACHMENT D-4

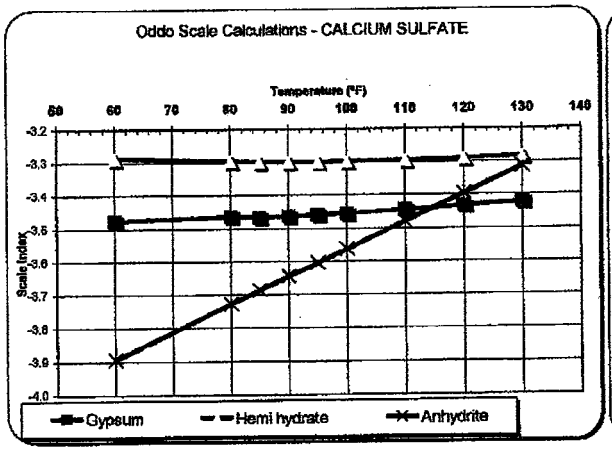
Injection Scaling Tendency Analysis Report

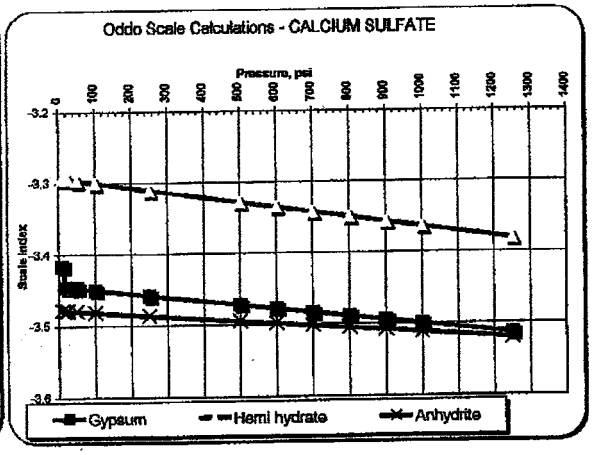
Pearl Broadhurst Battery

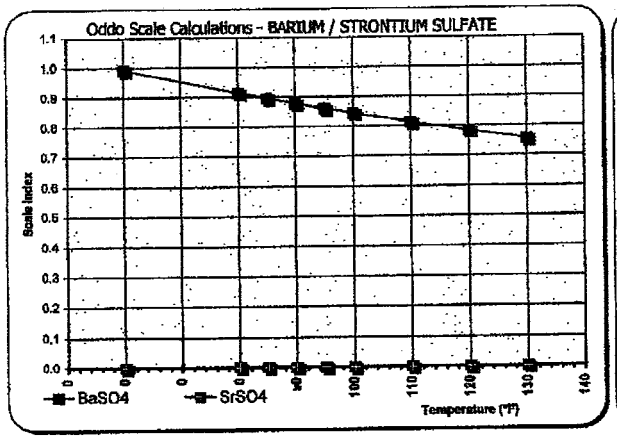
Calculations based on FIXED CO2 mg/L concentration = 9 mg/L

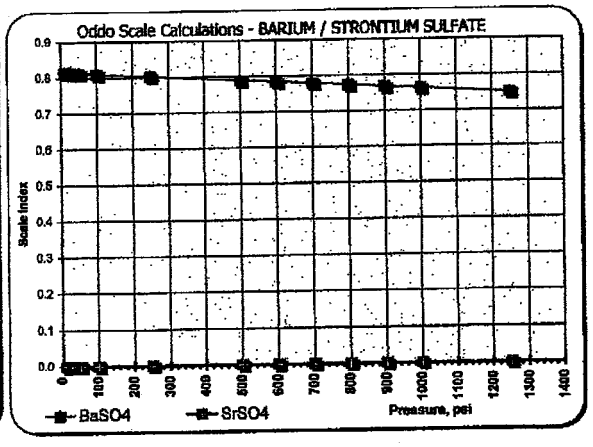












CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
U.S.A. PEARL BROADHURST #5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

ATTACHMENT E

GEOLOGICAL DATA ON INJECTION AND CONFINING ZONES

For class II wells, submit appropriate geological data on the injection zone and confining zones, including lithologic description, geological name, thickness, and depth and fracture pressure.

The proposed injection well produced from and will inject into seven (7) sandstone sequences found in the Green River Formation.

In an Exxon study dated December, 1986, thirty-six (36) sandstone sequences were identified in the Green River Formation in the productive depths at the Walker Hollow Unit. Nomenclature from this study has been adopted by Citation Oil and Gas. The Green River sandstone sequences were deposited in a lacustrine environment. The sandstone is predominately very fine to fine grained and is characterized as forming coarsening upward sequences. Low energy shale deposits mark the bottom portion of the Green River sequences. These low energy intervals provide an impermeable barrier to flow between sandstone intervals. Shale barriers are also found interbedded with porous sandstone in the sandstone sequences. Likewise, these shale intervals also provide barriers to flow. Core evaluation indicates that reservoir quality porosity in the sandstone ranges from 10% to 20% and averages approximately 15%. Likewise, the permeability ranges from 1md to 750md and averages approximately 25md. Overall, sequence thicknesses are very consistent across the Walker Hollow Unit area.

The proposed injection is targeted for the Du 4a, and Du 4a2 sequences in the Parachute Creek Member of the Green River Formation. Additionally, the Du 5a, Du 5b, Du 8b, Du 8d, and DL 1a sequences in the Garden Gulch Member of the Green River Formation are targeted for injection. Maximum sonic porosity ranges from 15% to 20% in these sandstone sequences.

Table I summarizes the characteristics of the injection zone sequences and the barrier that form the confining strata:

Table I: Injection Zone and Confining Strata Characteristics

Sequence	Lithology	Zone Type	Top	Base	Thickness
Du 4a	Shale	Confining Strata	4386'	4392'	6'
Du 4a	Sandstone	Injection Zone	4392'	4410'	18'
Du 4a	Shale	Confining Strata	4410'	4414'	4'
Du 4a2	Sandstone	Injection Zone	4414'	4430'	16'
Du 4a2	Shale	Confining Strata	4430'	4442'	12'
Du 5a	Shale	Confining Strata	4740'	4748'	8'
Du 5a	Sandstone	Injection Zone	4748'	4754'	6'
Du 5a	Shale	Confining Strata	4754'	4770'	16'
Du 5a	Shale	Confining Strata	4780'	4793'	13'
Du 5b	Sandstone	Injection Zone	4794'	4800'	6'
Du 5b	Shale	Confining Strata	4800'	4814'	14'
Du 5b	Sandstone	Injection Zone	4814'	4832'	18'
Du 5b	Shale	Confining Strata	4832'	4840'	8'
Du 8b	Shale	Confining Strata	5316'	5322'	6'
Du 8b	Sandstone	Injection Zone	5322'	5334'	12'
Du 8b	Shale	Confining Strata	5334'	5340'	6'
Du 8c	Shale	Confining Strata	5354'	5389'	35'
Du 8d	Sandstone	Injection Zone	5389'	5398'	9'
Du 8d	Shale	Confining Strata	5398'	5406'	8'
Du 8d	Sandstone	Injection Zone	5406'	5424'	18'
Du 8d	Shale	Confining Strata	5424'	5428'	4'
DL 1a	Sandstone	Injection Zone	5428'	5436'	8'
DL 1a	Shale	Confining Strata	5436'	5450'	14'

It is believed that all of the confining strata are impermeable shale sequences that will effectively seal off the oil, gas, and water of the injection zone from any strata directly above or below it.

ATTACHMENT E-1

FORMATION TOPS

Well: Pearl Broadhurst #5

Location: 743' FSL & 564' FWL of Section 10, Twp. 7S, Rng. 23E
Uintah County, Utah

KB: 5161'

Formation	Depth (ft)	Subsea Depth (ft)
Uinta	0'	5161'
Green River	2,868'	2293''
Du 4	4,389'	772'
Du 5	4,724'	437'
Du 6	4,926'	235'
Du 7	5051'	110'
Du 8	5,249'	-88'
Du 8b	5,309'	-148'
Du 8c	5,339'	-178'
Du 8d	5,388'	-227'
DL 1a	5,428'	-267'
K	5,449'	-288'
Total Depth	5,907'	-498'

CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
U.S.A. PEARL BROADHURST #5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

ATTACHMENT E-2

PROPOSED MAXIMUM INJECTION PRESSURE
FRACTURE CALCULATED

Frac Interval (feet) Top	Bottom	Avg. Depth (feet)	ISIP (psi)	Calculated Frac Gradient (psi/ft)	Pmax
5325	5431	5378	1600	0.733	1312

Calculation of Maximum Surface Injection Pressure
Pmax = (Frac Grad –(0.433*1.003)) x Depth of Top Perf
where pressure gradient for fresh water is .433 psi/ft and
Specific gravity of the injected water is 1.003.

Frac Gradient = (ISIP + (0.433*Top Perf.)) / Top Perf.

Top perf within permitted interval: 4392'

CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
U.S.A. PEARL BROADHURST #5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

ATTACHMENT F

DRILLING AND COMPLETION DATA

Attachment F-1	Drilling and Completion Reports Dated 4/18/64 – 6/26/64
Attachment F-2	Well History Summary

FORM 984 5-59
PRINTED IN U.S.A.

PAN AMERICAN PETROLEUM CORPORATION

ATTACHMENT F-1
(1-10)

SCOUT TICKET

STATE utah COUNTY PARISH Uintah AREA FIELD Walker Hollow

SECTION _____ BLOCK TWP _____ SURVEY RANGE _____

COMPANY Pan American Petroleum

LEASE Broadhurst WELL NO. 5

AFE NO. & TYPE _____

LOCATION SWSW Sec. 10 - T7S - R23E

FEET FROM LINE: N _____ E _____ S 743 W 564

WI	☐	RI	☐
OWWO	☐	AFE	☐
OFFSET WI	☐	OFFSET RI	☐
OTHER	☐		
WC	☐	IMP	☐

PROPERTY NO. _____
QTR _____
MAP NO. _____

DATE SPUDDED 830pm. 4/26/64 PROPOSED DEPTH _____ ELEV Gnd. 5278 RDB 5290

DATE COMPLETED _____ TD _____

PFS _____ IP _____

CH _____ TP _____ GOR _____ GTY _____

PFS _____ IP _____

CH _____ TP _____ GOR _____ GTY _____

CASING: 10 3/4" 32.75# H-40 @ 494 Good Pet. WITH 353 sx reg. Class A 2% CaCl2 SX 1/4# Jelflake

_____ @ _____ WITH _____ SX

_____ @ _____ WITH _____ SX

OTHER _____

R23E

SAMPLE TOPS		ELECTRIC LOG TOPS		
FORMATION	DEPTH	FORMATION	DEPTH OPERATOR	DEPTH PAN AM

DATE	REMARKS
4/18/64	Loc. Staked 660' FSL X 662 FWL C SWSW Sec. 10 - T7S - R23E
4/19/64	BR X Grading Loc. Loc. Moved 83' N X 98' west of C SWSW Sec. 10 - T7S - R23E due to terrain. 743' FSL 564' FWL Sec. 10.
4/20 to 4/26	BR X Grading Loc.
4/26 to 4/27	MIRT X RURT
4/27/64	T.D. 430' drl. 15" Surface hole. Spudded 8:30 pm. 4/26/64 Drl X water Gnd Elev. 5278 RDB Elev. 5290 12' RDB to Gnd. Bit #1 Hughes OSC-3 retip 430' - 10 hrs Still drl. Drl. 9 hrs. Survey 1/2 hr. RURT 11 hrs. Dil rat hole 3 1/2 hr.
4/28/64	T.D. 495 WOC Clay X Sh. 465' last 24 hrs. Dev. 1/2° - 491 Ran 480' 10 3/4" 32.75# H-40 CsA 494. Cmt X 353 sx. reg.

Bradhurst No. 5

ATTACHMENT F-1

(2-10)

DATE	REMARKS
4/28	(Cont) Class A cmt. 2% Ca Cl x 1/4# Jel flake per cmt. Est. 12 bbls cmt circ to surface. Lg. 2½ min. ½ returns 6 min and full returns rest of job. Plug down 8:30 pm. 4/22/64 Tag esg. Yellow ROB 1380' Dil. 2¾ hrs. Trip 1¾ hrs. Rig on short trip 3½ hrs. WO Csg. 2 hrs. Circ. ½ hr. RC 4 hrs. Nipple up 1½ hr.
4/29/64	T.D. 1655 Dil. Sh. 1160' last 24 hrs. Dev. ½° - 779, 3/4° 1170, ¼° - 1495 Drl. x water Bit #2 OSC3A 9" 495-1201 706' - 4¼ hrs. WOB 25,000 Rpm 180 pp 600 Test BOP & Csg to 1000# held OK, Dil. 10¼ hrs. Trip 1¾ hrs. Test Csg 1½ hr. Dil. Cmt x Shoe ½ hr. Nipple up 7½ hrs. Dil. Mouse hole 2½ hr
4/30/64	T.D. 2965 Dil. Sh+Lime 310 ft last 24 hrs. Dev. - ½° - 2220, ½ - 2880
	Bit #3 DT 1201 - 2222 1021' 17¾ hr.
Est. GR. 2845	" " 4 OSC3 2222 - 2888 666' 8 " 38000 170 Rpm 700
	Dil. 18¾ hrs Trip 5½ hr x water WOB 25000 Rpm 180 pp 650
5/1/64	T.D. 3268 Sh. for Rep. Broken Rotary Shaft. 30 Gal pill + Hyseal. 303' Sh x Sh ½° - 3146 Dil. 11 hrs. Trip 4½ hrs Rep 7 hrs, Circ for Rep 1¼ hrs, Survey 1¼ hrs, 60% - 6¾ D.C.
	Bit #5 OSC1G 2888 - 32 346' WOB 50000 115 Rpm 12 hrs pp 700
5/2/64	T.D. Dil 3610 342' Fine Sh 3/4° - 3515 Dil. 14¾ hrs Trip 4¼ hrs Rep. 5 hrs Mud 8.8 vis 30 24 6¾" DC 698' Bit #6 SV-2 3234 - 3516 55,000 100 rpm 11¾ hr. 700# 282'.
	Bit #7 in hole.
5/3/64	T.D. 3973 Trip Sh x Sh 363' last 24 hrs. Dev. 1¼° - 3777 Drl. 19¼ hrs, Trip 4¼ hrs, C.O to T.D. ½ hr. Mud wt. 9.0, vis 37, W.L. 18, F.C. 2/32, pH 7.5
	Bit No. 7 9" OWV 3516-3777 261' 18 hrs.
	" " 8 " VS-1 3777-3973 196' - 9¾ hrs.
	WOB 55600, Rpm 90-100, pp 700
5/4/64	T.D. 4365 Drl. Sh x Sh 392' last 24 hrs. Drl. 20½ hr Trip 3½ hr. mud wt. 9.6, vis 38, W.L. 12.2, F.C. 2/32, pH 8.0 LCM 4%
	Bit No. 9 9" SV-2 3973-4195 222' - 16¾ hrs.
	WOB 55000, Rpm 95 pp 700.
5/5/64	T.D. 4583' Sh x Sh Mostly Sh. 218' 24 hrs. Dev. 1¼° - 4387 Drl. 18 hrs. Trip 6 hrs.
	Mud wt. 9.5 vis 38 W.L. 9.8 F.C. 2/32, pH 8.0 LCM 3%
	Bit No. 10 OSC - 4195-4387 192' 12 hrs
	" " 11 " 4387-4568 181' 14 hrs.
	WOB 55,000 #, Rpm 90-95 pp 700
5/6/64	T.D. 4777 laying down Core No. 1 4725-4777 194' last 24 hrs. Mud wt. 9.5, vis 42, W.L. 6.5, F.C. 2/32, pH 9.0, LCM 3%, oil 3%
	Bit No. 12 SV-2 4568-4725 157' 13 hrs. 55,000#, 70, 700#
	Core head #1 diamond 4725-4777 52' 7½ hrs 20,000#, 84, 900#
	Dev. 1¼° - 4387
	2 New zones not developed in previous wells. From Samples.
(+898)	① 4392-4408 ss vfg to Coarse poor to fair por. good brown oil stain. Gas kick 50 to 90 units.
(+876)	② 4414-4428 ss vfg to Med. g. poor to fair por. good brown oil stain. Gas kick 70 to 80 units.
5/7/64	T.D. 4829 Rm at 4804 52' last 24 hrs
	Mud wt. 9.4, vis 44, W.L. 7.6, F.C. 2/32, pH 9.0, LCM 10% oil 2%
	Bit #13 9" VHG 4725-4777 Rm 52' - 4¾ hrs
	WOB 15000 Rpm 90, pp 700.
	LC ½ hr, Rm 7 hr. Crg. 6¼ hr. Trip 8¼ hr. Circ. ½ hr. Lay down Core 1½ hr.

Broadhurst well 5'

5/7/64 (Cont.)

Core #1 4725-4777 Cut 52' Rec. 50'
4727-32 ss vfg shy poor por
4732-43 sh grey
4743-50-1/2 ss vfg fair por, light brn oil stain (4757)
4750-1/2-73 sh gry interbedded silt
4773-74 ss vfg poor por, mottled brn oil stain
4774-77 sh gray green
Core #2 4777-4829

5/8/64 - TD 5000 Drl 171' 24 hrs. sh x ss. Dev. 1-1/2 at 4777
Mud 9.3, Vis 43, WL 7.5, FC 2/32, PH 9.0, LCM 8%
Bit #13 RR YHG 4777-4829 52' 4-3/4 hrs.
Bit #14 OWC 4829-4996 167' 15-1/4 hrs.
WOB 60,000, RPM 60, PP 750. Drl 15 hrs. Trip 6 hrs. Rm 3 hrs
Core #2 4777-4829 Cut 52' Rec. 52'
4777-82 sh grey, green thin lenses of tan lms
4782-84 lm Tan, Scattered dark brn oil stain bottom foot
4784-87 ss vf to fg abundance grn sh laminations x inclusions Mottled to fairly even brn oil stain
4787-89-1/2 ss medium gr good por solid drk brn oil sat
4789-1/2-95-1/2 ss vf to fg abundance grn sh . Inclusions x laminations mottled to solid brn oil sat.
4795-1/2 -4820 Interbedded siltstone x shale
4820-25 ss vf to fg fair por, brn oil stain
4825-26 ss vf to coarse grain conglomerate tight N.S.
4826-29 sh gray

- 5/9/64 - TD 5205 Drl sn x sh 205' last 24 hrs. Dev. 1-1/2 at 5160 Mud 9.4, Vis 40, WL 7.8, FC 2/32, PH 9, LCM 7% Oil 1% Bit #15 9" M-4 4996-5162 166' 16-1/4 hrs. WOB 60,000, RPM 60, PP 800 Drl 19-1/2 hrs, Trip 4-1/2 hrs.
5/10/64 - TD 5335 Crg sh x sh 130' last 24 hrs. Mud 9.5, Vis 45, WL 7.2, PH 9.5, LCM 7%, Oil 4% Bit #16 YS 5162-5259 92 ft. 11-1/4 hrs. Bit #17 OWV 5259-5310 51' 5 hrs. WOB 60,000, RPM 60, PP 800 Drl 12-1/2 hrs
Crg 3-1/2 hrs, Trip 7 hrs. Crig. 1 hr.
5/11/64 - TD 5412 Trip to pull Core #4 ss x sh 77' 24 hrs.
Mud 9.5, Vis 44, WL 70, FC 2/32, PH 9.5, LCM 8%, Oil 3%
Core Bit #3 RR 6-11/16" diamond 5310-5360 50' 8 hrs.
WOB 20,000, RPM 84, PP 950
Bit #18 YHG 5310-5360 50' Rm 3-3/4 hrs. WOB 20,000, RPM 100, PP 700
Core Bit #4 RR Diamond 5360-5412 52' 8 hrs. WOB 20,000 RPM 84, PP 950
RM 3-3/4 hrs. Crg. 14-1/4 hrs, Trip 6 hrs.
Core #3 5310-5360 Cut 50' Rec. 49'
5310-25 ss vf to mg some coarse g Fair to good por scattered dark gray shale laminations (6" dark shale 5318-5318-1/2)
5325-43 interbedded siltstone x sh
5343-52 sh dark gray x brn cast
5352-59 siltstone lt gray w/dark gray shale laminations
5359-60 lost

"Small Hunt No. 3"

ATTACHMENT F-1

(4-10)

5/12/64 • TD 5462 Re[redacted] at 5444 sh x sn. 50 ft. in [redacted] 24 hrs.
Mud 9.5, Vis 42, WL 6.8, WFC 2/32, PH 8.5, LCM 4 Oil 2%
Core #3 5412-5462 50 ft. in 6 hrs. Core #4 5360-5412
Cut 52 ft. rec. 49 ft.

5360-5372	sh grey to grey green x interbedded light grey siltstone
5372-76-1/2	sn vfg abundance of sh laminations, poor por mottled to solid brown oil stain
5376-1/2-81	siltstone light grey hard calcarious x dark grey sh streaks. spotted brown oil stain in bottom foot
5381-83	sn vfg poor to fair por. solid brown oil stain
5383-92-1/2	Interbedded siltstone x shale grey
5392-1/2-95-1/2	sn vfg fair por, solid brown oil saturation
5395-1/2-5400-1/2	sn vfg abundance of shale laminations and inclusions. Mottled to fairly even brown oil stain, poor to fair por.
5400-1/2-5405	siltstone light grey x shale laminations
5405-5406	sn vfg shaley poor por mottled brown oil stain
5409-5412	assumed lost

5/13/64 • TD 5585 Trip sn x sh Mud 9.4, Vis 43, WL 7.2, FC 2/32
PH 9, LCM 5%, Oil trace. Surveys 3 at 5585, 1-1/2 at 5160
Core No. 5 5412-5462 Cut 50 ft. Rec. 35 ft.

5412-15	sh dark grey
5415-17	sn vfg shaley poor por uneven brown oil stain
5417-19-1/2	sn vfg fair por, solid brown oil stain
5419-1/2-22	sn vfg abundance of shale laminations, poor por, uneven brown oil stain
5422-29	siltstone light grey with dark grey shale laminations
5429-34	shale dark grey
5434-47	sn light grey vfg to fg becoming coarse and conglomerate at base abundance of clay No show
5447-62	Assumed lost

5/14/64 • TD 5760 Drl sh Made 175' last 24 hrs. Mud 9.5, Vis 42
WL 7.5 FC 2/32, PH 9.2, LCM 6% Bit #21 MAH 5585-5740
155' in 16-1/2 hrs. WOB 64,000# RPM 60 PP 850#
Drl 18-1/2 hrs. Trip 4-3/4 hrs. Cut drlg line 3/4 hr.

5/15/64 • TD 5894 Drl sn x sh 134 ft. in 24 hrs. Dev. 1-1/2 at
5850 Mud 9.5, Vis 56, WL 7.6, FC 2/32, PH 9, LCM 8%

• 5/16/64 • TD 5907 sn x sh Running casing Mud 9.5, Vis 60
WL 7.2 FC 2/32, PH 9.0, LCM 5% Bit #23 OWC 5851-5907
56' in 6-3/4 hrs. WOB 64,000#, RPM 60, PP 850# Drl 3/4 hrs.
Trip 4-1/4 hrs, Circ. for logs x csg 4 hrs, Logging 10 hr,
Laying down DP x DC 4-1/4 hrs., RU to run csg 3/4 hr.
5/17/64 • TD 5907 MERT Ran 176 jt. 7" OD 20# x 23# csg,
landed at 5567 RDB x cmt x 360 sx 50-50 pozmix cmt x 2/10
of 1% HR-4, 2% gal, 1% CFR-2, 17.7# salt per sx, and 1/4#
per sx Flocele. Ran 10 BW, 500 gal. MCA (15%) x 30 BW
spacer ahead of cement. Avg. Rate 13 BPM. Max. rate 17
BPM while mixing x displacing cmt. Bumped plug x 1500#
Released pressure-floats held OK. Plug down at 2 HRx PM
5/16/64. Reciprocated csg 1-1/4 hrs, while circ. prior
to cmt, while mixing cmt x until 2 min. before plug
pumped. Stopped reciprocating when csg started sticking
Took 60,000# to lower csg on last down-stroke. Rig released
4 PM 5/16/64
5/18/64 • TD 5907 MERT

Attachment No. 5

5/19/64 * TD 5907 Cleaning up loc. & prep to MI pulling unit for completion

* TD 5907 Moving in tanks for completion

5/21 * TD 5907 Moving in pulling unit for completion in Green River

5/22 * TD 5907 Plan to move in pulling unit for completion this AM

* 5/23/64 - TD 5907 Prep to acidize Green River perf at 4828 & 4794 Moved in & RU pulling unit Ran cmt bond & correlation logs. Found good bond & top cmt at 4226 Ran 5 way single plane jet & perf 4794 & 4828 Ran tbg & pkr
5/24/64 - TD 5907 Rtg to complete well Ran 151' 2-7/8" tail pipe & RTTS pkr. With pkr at 4663 displaced annulus & 138 bbl. gelled water & followed 500 gal regular MCA acid. Spotted acid over perf, set pkr & pressured to 2000# on annulus & 5000# on tbg. Pressure gradually dropped to 4000# then broke to 2600#. Pmp acid @ 8 BPM @ 2800# Initial SIP 1100#, after 15 min. dropped to 6x 600#, after 30 min. 450, after 90 min. 0#. Opened tbg & followed back 3-1/2 bbl. Pulled tbg & found pkr & 12 jts. tbg left in hole. Ran overshot & rec fish Installed frac head Pmp 20 bbl. gelled water pad, followed & 10,000# 10-20 sn & 10,000 gal gelled water, followed & 8000# resin & walnut hulls in 8000 gal gelled water Displaced & 193 bbl slick $CaCl_2$ water Avg. rate 70.1 BPM at 2300# Max rate 78 BPM at 2250# Avg. HHP used 3951, HHp ordered 3600 HHP
5/25/64 - TD 5907 Setting pumping unit Oil frac Ran sand line tagged fillup at 5481 Ran tbg with seating nipple at 4857' Had one jt. tbg below nipple Spotted 25 bbl. Ashley Crude on perfs. Squeezed 1-1/2 bbl. per minute at 850#. ISI 500#, Bleed off Ran rods. Well on vacuum after 13 hrs.

5/26/64 * Installing pumping unit

5/27/64 " " "

5/28/64 Pmp. N.G. on pmp 5 pm 5/27/64

5/29/64 Pmp. Green River 15 hr. 45 BF 44 BLW X 1 BLO 80% BLW X 24 BLO to Rec. above test not representative since well not pmp. all time Had to bump pmp down to start and get to pmp.

ATTACHMENT F-1
(6-10)

Sweeton Area - Walker Hollow (1964) USA Pearl Broadhurst Well No. 5

4-20

USA PEARL BROADHURST WELL NO. 5/WALKER HOLLOW 4/20/64
LSTK 660' FSL X 662' FWL C SW SW SEC 10, T7S-R23E./BUILDING ROAD X GRADING LOC. LOC MOVED 83'N X 98'W of CENTER SW SW SEC 10, T7S-R23E DUE TO TERRAIN. LOC 743' FSL X 564' FWL SEC 10,

4-21 BRX Grading loc,

4-22 " " "

4-23 BRX loc,

4-24 BRX loc.

4-27

4/25/64, MIRT. 4/26/64, RURT. 4/27/64, TD 430', DRL 15" SURFACE HOLE. SPUD 8:30 P.M. 4/26/64. DRL X WT. GE 5278, RDB ELEV 5290. 12' RDB TO GROUND. BIT #1 HUGHES OSC3 RETIPPED FOR 430', 10 HR. STILL DRL. DRL 9 HR. SURVEY 1/2 HR, RURT 11 HR, DRL RAT HOLE 3-1/2 HR.

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4-28

TD 495, WOC. CLAY X SH. 105' IN 24 HR. DEV 1/2° @ 491. RAN 480' 10-3/4" 32.75# H-40 CSA 494. CMT X 353 SX REG CLASS A CMT, 2% CACL X 1/4# GEL FLAKE/SX CMT. EST 12 BBL CMT, CIRC TO SURFACE. LOST CIRC 2-1/2 MIN, 1/2 RETURNS FOR 6 MIN X FULL RETURNS REST OF JOB. PD 8:30 P.M. 4/27/64. T OF CSG BELOW RDB 13.80'. DRL 2-3/4 HR, TRIP 1-3/4 HR. RMG ON TRIP 3-1/2 HR. WO CSG 2 HR, CIRC 1/2 HR, RC 4 HR. WOC 8 HR. NIPPLED UP 1-1/2 HR.

4-29

TD 1655, DRL SH. 1160' LAST 24 HR. DEV 1/2° @ 779, 3/4 @ 1170, 1/4 @ 1495. DRL X WT. BIT #2 OSC3A, 495-1201, 706' IN 4-1/4 HR. WT ON BIT 25,000, RPM 180, PP 600. TST BOP X CSG TO 1000#, HELD OK. DRL 10-1/4 HR, TRIP 1-3/4 HR, TST CSG 1-1/2 HR, DRL CMT X SHOE 1/2 HR. NIPPLE UP 7-1/2 HR, DRL MOUSE HOLE 2-1/2 HR.

4-30

TD 2965, DRL SN, SH X WT. 1310' LAST 24 HR. DEV 1/2° @ 2220, 1/2 @ 2880. BIT #3 JT, 1201-2222, 1021' IN 12-3/4 HR. WT ON BIT 25,000, RPM 180, BIT #4 OSC3, 2222-2888, 666' IN 8 HR. WT ON BIT 38,000, RPM 170, PP 700. DEL 18-3/4 HR. TRIP 5-1/4 HR.

5-1

TD 3268. SD FOR RIG REP. SPOTTED 30 SX GEL TILL X HYSEAL BEFORE COMING OUT FOR REC. 303' LAST 24 HR, SN X SH. DEV 1/2° @ 3146. DRL 11 HR, TRIP 4-1/2 HR, REP 7 HR. CIRC FOR REP 1-1/4 HR, SURVEY 1/4 HR. BIT #5 OSCIG, 2888-3234. 346' IN 12 HR. WT ON BIT 45,000, RPM 115, PP 700.

5-4

5/2/64, TD 3610, DRL 342', 24 HR SH. 3/4° @ 3515. MUD 8.8, VIS 30, BIT #6 SV-2 3234-3516, 282' IN 11-3/4 HR. WT ON BIT 55,000, RPM 100, PP 700. DRL 14-3/4 HR, TRIP 4-1/4 HR. REP 5 HR. 5/3/64, TD 3973, TRIP SN X SH. 363' LAST 24 HR. DEV 1-1/4° @ 3777. DRL 19-1/4 HR, TRIP 4-1/4 HR, CO TO TD 1/2 HR. MUD 9, VIS 37, WL 18, FC 2/32, pH 7.5. BIT #7 OWV 3516-3777, 261' IN 14 HR. BIT #8 YS-1, 3777-3973 196' IN 9-3/4 HR. WT ON BIT 55,000, RPM 90-100, PP 700. 5/4/64, TD 4365 DRL. 392' LAST 24 HR, SN X SH. DRL 20-1/2 HR, TRIP 3-1/2 HR. MUD 9.6, VIS 38, WL 12.2, FC 2/32, pH 8. LCM 4%. BIT #9 9" SV-2, 3973-4195, 222' IN 10-3/4 HR. WT ON BIT 55,000 RPM 95, PP 700.

USA Pearl Broadhurst No. 5

TD 4583, SN X SH, MOSTLY SN. 218' LAST 24 HR. DEV 1/4° @ 4387. DRL 18 HR, TRIP 6 HR. MUD 9.5, VIS 38, WL 9.8, FC 2/32, pH 8, LCM 3%. BIT #10 9" OSC-3, 4195-4387, 192' IN 12 HR. BIT #11 9" OSC-3, 4387-4568, 181' IN 14 HR. WT ON BIT 55,000, RPM 90-95, PP 700.

TD, 4777'. LAYING DOWN CORE NO. 1, 4725-4777', SD X SH. 194' LAST 24 HRS. MUD 9.5, VIS 4.2, WL 6.5, FC 2/32, pH 9, LCM 3%, OIL 3% (Diesel). DEV 1-1/4° - 4387'. BIT #12, SV-2, 4568-4725'. 157' - 13 HRS. WEIGHT ON BIT, 55,000#. RPM,70. PMP PRESSURE 700. COREHEAD NO. 1, DIAMOND. 4725-4777'. 52', 7-1/2 HRS. WEIGHT ON BIT 20,000#. RPM 84. PMP PRESSURE 900. DRLG 11-1/4 HRS. TRIP 3-3/4 HRS. CORING 9 HRS. NEW ZONE SAMPLED FROM 4392-4408' - SDSTN, VERY FINE TO COARSE GRN, POOR TO FAIR POROSITY, GAS KICK - 50-90 UNITS, GOOD OIL STN. 4414-4428', SDSTN, FINE TO MED GRN, POOR TO FAIR POROSITY, GOOD BRN OIL STN, GAS KICK, 70-80 UNITS.

TD 4829. RMG @ 4804. 52' LAST 24 HR. MUD 9.4, VIS 44, WL 7.6, FC 2/32, pH 9, LCM 10%, OIL 2%. BIT #13 9" YHG, IN 4725, OUT 4777, 52' IN 4-3/4 HR. WT ON BIT 15,000, RPM 90, PP 700. LC 1/2 HR, RMG 7 HR. CRG 6-1/4 HR, TRIP 8-1/4 HR. CIRC 1/2 HR. LD CRG 1/2 HR. CRG #1 4725-4777. CUT 52', REC 50'. 4727-32 SS VFG, SHY. POOR POR. 4732-43, SH GRAY, 4743-50-1/2, SS VFG. FAIR POR, LIGHT BROWN OIL STAIN. 4750-1/2-73, SH,GRAY INTERBEDDED SILT. 4773-74 SS VFG, POOR POR, MOLTED BROWN OIL STAIN. 4774-77, SH GRAY GREEN. CRG #2, 4777-4829.

TD 5000, DRL, 171' 24 HR, SH X SN. DEV 1-1/2° @ 4777. MUD 9.3, VIS 43, WL 7.5, FC 2/32, pH 9, LCM 8%. BIT #13 RR YHG 4777-4829, 52' In 4-3/4 HR. BIT #14 OWC 4829-4996, 167' IN 15-1/4 HR. WT ON BIT 60,000, RPM 60, PP 750. DRL 15 HR, TRIP 6 HR, RMG 3 HR. CRG #2 4777-4829, CUT 52', REC 52'. 4777-82, SH GRAY GREEN, THIN LENSES OF TAN LAMINATIONS; 4782-84, LM, TAN SCATTERED DARK BROWN OIL STAINS, BTM FOOT. 4784-87, SS VF TO FG, ABUNDANT GREEN SH LAMINATIONS X INCLUSION. MOLTED TO FAIRLY EVEN BROWN OIL STAIN. 4787-89-1/2, SS MEDG, GOOD POR, SOLID DARK BROWN OIL SAT; 4789-1/2-95-1/2, SS VF TO FG, ABUNDANT GREEN SH INCLUSION X LAMINATIONS, MOLTED TO SOLID BROWN OIL SAT; 4795-1/2-4820, INTERBEDDED SILT STONE X SH; 4820-25 SS VF TO FG, FAIR POR, BROWN OIL STAIN; 4825-26, SS VF TO COARSE GRAIN CONGLOMERATE TYPE, NS; 4826-29, SH GRAY.

5/9/64, REPORT FOLLOWS THE REPORT FOR 5/11/64. [illegible] 5/10/64, TD 5335, CRG, SN X SH. 130' LAST 24 HR. MUD 9.5, VIS 45, WL 7.2, pH 9.5, LCM 7%, OIL 4%. BIT #16 YS, 5162-5259, 92' IN 11-1/4 HR. BIT #17, OWV 5259-5310. 51- IN 5 HR. WT ON BIT 60,000, RPM 60, PP 800. DRL 12-1/2 HR, CRG 3-1/2 HR, TRIP 7 HR, CIRC 1 HR. 5/11/64, TD 5412, TRIP TO PULL CRG #4. SN X SH, 77' IN 24 HR. MUD 9.5 VIS 44, WL 70, FC 2/32, PH 9.5, LCM 8%, OIL 3%. CRG BIT #3 RR 6-11/16 DIAMOND.* 5360-5412, 52' IN 8 HR. WT ON BIT 20,000, RPM 84, PP 950. RMG 3-3/4 HR, CRG 14-1/4 HR, TRIP 6 HR, CRG #3, 5310-5360. CUT 50', REC 49'. 5310-25, SS VF TO MED GRAIN. SOME COARSE GRAIN. FAIR TO GOOD POR. SCATTERED DARK GRAY SH LAMINATIONS (6" DR SH 5318-5318-1/2) 5325-43 INTERBEDDED SILT STONE X SH, 5343-52 SH DARK GRAY X BR CAST. 5352-59, SILT STONE, LIGHT GRAY X DR GRAY SH LAMINATIONS. 5359-60, LOST. 5/9/64, TD 5205, DRL SN X SH. 205' LAST 24 HR, DEV 1-1/2° @ 5160. MUD 9.4, VIS 40, WL 7.8, FC 2/32, pH 9.0, LCM 7% OIL 1%. BIT #15, 9" M-4, 4996-5162, 166' 16-1/4 HR, WT ON BIT 60,000, RPM 60, PP 800. DRL 19-1/2 HR, TRIP 4-1/2 HR. *5310-5360 50' IN 8 HR. WOB 20,000, RPM 84, PP 950, BIT #18 YHG 5310-5360 50' RMG 3-3/4 HR. WOB 20,000 RPM 100, PP 700. CRG BIT #4 RR DIA.

USA Carl Broadhurst No. 5-

5-12

TD 5462, RMG @ 5444 SH X SN. 50' LAST 24 HR. MUD 9.5, VIS 42, WL 6.8, FC 2/32, pH 8.5, LCM 6%, OIL 2%. CRG #5, 5412-5462, 50' IN 6 HR. CRG #4, 5360-5412, CUT 52', REC 49'. 5360-5372, SH GRAY TO GRAY-GREEN INTERBEDDED LIGHT GRAY SILT STONE; 5372-5376-1/2 SN VFG, ABUNDANCE OF SH LAMINATIONS, POOR POR, MOTTLED TO SOLID BROWN OIL STAIN; 5376-1/2 - 81, SILT STONE, LIGHT GRAY CALCARIOUS X DARK GRAY SH STREAKS, SPOTTED BROWN OIL STAIN IN BTM FOOT; 5381-5383, SN VFG, POOR TO FAIR POR, SOLID BROWN OIL STAIN; 5383-5392-1/2 INTERBEDDED SILT STONE X SH GRAY; 5392-1/2 - 5395-1/2, SN VFG, FAIR POR, SOLID BROWN OIL SAT 5395-1/2-5400-1/2 SN VFG, ABUNDANCE OF SH LAMINATIONS X INCLUSIONS MOTTLED TO FAIRLY EVEN BROWN OIL STAIN, POOR TO FAIR POR; 5400-1/2 - 5405, SILT STONE, LIGHT GRAY X SH LAMINATIONS; 5405-5406, SN VFG, SHY, POOR POR, MOTTLED BROWN OIL STAIN; 5406-5409, SILT STONE DARK GRAY SH LAMINATIONS; 5409-5412, ASSUMED LOST.

5-13

TD 5585. DRL SN X SH. MUD 9.4, VIS 43, WL 7.2, FC 2/32, pH 9, LCM 5%, OIL, TRACE. DEV 3° @ 5585'. CORE NO. 5, 5412-5462', CUT 50', REC 35'. 5412-15', SH, DARK GRAY. 5415-17', SN, VFG, SHY, POOR POR, UNEVEN BROWN OIL STAIN. 5417-19-1/2', SN, VFG, FAIR POR, SOLID BROWN OIL STAIN. 5419-1/2 - 22', SN, VFG, ABUNDANCE OF SH LAMINATIONS, POOR POR, UNEVEN BROWN OIL STAIN. 5422-29', SILTSTONE, LT GRAY X DARK GRAY SH LAMINATIONS. 5429-34', SH, DARK GRAY. 5434-47', SN, LT GRAY, VFG TO FG BECOMING COARSE X CONGLOMERATE @ BASE. ABUNDANCE OF CLAY, NS.. 5447-62', ASSUMED LOST.

5-14

TD 5760, DRL SH. MADE 175' LAST 24 HR. MUD 9.5, VIS 42, WL 7.5, FC 2/32, pH 9.2, LCM 6%. BIT #21 M4N, 5585-5740, 155' IN 16-1/2 HR. WT ON BIT 64,000, RPM 60, PP 850. DRL 18-1/2 HR, TRIP 4-3/4 HR. CUT DRL LINE 3/4 HR.

5-15

TD 5894, DRL SN X SH. 134' IN 24 HR. DEV 1-1/2° @ 5850. MUD 9.5, VIS 56, WL 7.6 FC 2/32 pH 9, LCM 8%.

5-16

5/16/64, TD 5907, SN X SH. RCSG. MUD 9.5, VIS 60, WL 7.2, FC 2/32, pH 9.0, LCM 5%. BIT #23 OWC 5851-5907, 56' IN 6-3/4 HR, WT ON BIT 64,000#, RPM 60, PP 850 DRL 3/4 HR, TRIP 4-1/4 HR, CIRC FOR LOGS X CSG 4 HR, LOGGING 10 HR, LD DP X DC 4-1/4 HR, RU TO RCSG 3/4 HR. 5/17/64, TD 5907, MORT. RAN 176 JTS 7" OD 20 X 23# CSG. LANDED @ 5567 RDB X CMT X 360 SX 50-50 POZMIX CMT X 2/10 OF 1% HR-4, 2% GEL, 1% CF4-2, 17.7# ST/SX X 1/4#/SX FLOCELE. RAN 10 BW, 500 GAL MCA (15%) X 30 BW SPACER AHEAD OF CMT. AVG RATE 13 BPM, MAX 17 BPM WHILE MIX X DISP CMT. BUMPED PLUG X 1500#, REL PR, FLOATS HELD OK. PD @ 2P.M. 5/16/64. RECIPROCATED CSG 1-1/4 HR WHILE CIRC PRIOR TO CMT WHILE MIX CMT X UNTIL 2 MIN BEFORE PLUG BUMPED. STOPPED RECIPROCATING WHEN CSG STARTED STICKING. TOOK 60,000# TO LOWER CSG ON LAST DOWN STUCK. RREL 5 P.M. 5/16/64. 5/18/64, TD 5907, MORT.

5-19 TD 5907, Cleaning up loc & prep to MO Rig for comp.

5-20 TD 5907. MO tanks for comp.

5-21 TD 5907. MO Rig for comp in Green Hill.

5-22 TD 5907. Plan to MOPU for comp this A.M.

USA Pearl Broulhurst Well No. 5

5-23

5/23/64, TD 5907, PREP TO ACD GREEN RIVER PERF @ 4828 X 4794. MI X RU PU. RAN CMT BOND X CORRELATION LOGS. FOUND GOOD BOND X T CMT @ 4226. RAN 5WAY SINGLE PLANE JET X PERF 4794 X 4828. RTG X PKR. 5/24/64, TD 5907. RTBG TO COMP WELL. RAN 151' 2-7/8" TAIL PIPE X RPTS PKR. WITH PKR @ 4663 DISP ANNULUS X 158 BBL GEL WT X FOLLOWED 500 GAL REG MCA ACID. SPOTTED ACD OVER PERF. SET PKR X PR TO 2000# ON ANNULUS X 5000# ON TBG. PR GRADUALLY DROPPED TO 4800 THEN BROKE TO 2600. PMP ACID @ 8 BPM @ 2800#. ISI 1100 AFTER 15 MIN DROPPED TO 600, AFTER 30 MIN 450, AFTER 90 MIN 0. OPEN TBG X FOLLOWED BACK 3-1/2 BBL. PTBG X FOUND PKR X 12 JTS. TBG LEFT IN HOLE. RAN OVERSHOT X REC FISH. INSTALLED FRACHEAD. PMP 20 BBL GEL WT PAD FOLLOWED X 10,000# 10-20 SN X 10,000 GAL GEL WT FOLLOWED X 8,000# RESIN X WALNUT HULLS X 8,000 GAL GEL WT. DISP X 193 BBL SLICK CACL WT. AVG RATE 7.01 BPM @ 2300. MAX RATE 78 BPM @ 2250#. AVG HYDROSTATIC PR USED 3951. HYP ORDER 3600. 5/25/64, TD 5907. SETTING PMP UNIT. OIL FRAC. RAN SN, LM. TAGGED FILLUP @ 5481. RTG X SEATING NIPPLE @ 4857, HAD 1 JTS TBG BELOW NIPPLE. SPOTTED 25 BBL ASHLEY CRUDE ON PERF. SQ 1-1/2 BPM @ 850#. ISI 600, BLED OFF, RAN RODS, WELL ON VACUUM AFTER 13 HR.

5-26 Installing pmp unit.

5-27 " " "

5-28 Pmp NG. On pmp 5 P.M. 5/27/64.

5-29 Pmp Green River, 15 hr. Pmp 45 BF X 44 BLW X 1 BO X 804 BLW to rec. 24 BO to rec. Above test not representative since well not pmp past time. Had to bump down on pmp to get it to pmp.

5-30 Pmp 24 hr, Green River, 205 BF, 60 BO X 145 BW. Oil 24 BO X 36 BNO. 659 BLW to rec.

6-2 5/31/64, 24 hr test, pmp Green River. 190 BF X 35 BLW X 155 BO. Very little gas. 624 BLW to rec. 6/1/64, pmp Green River, 146 BO, no wt. 624 BLW to rec. 6/2/64, pmp Green River 24 hr, 190 BO X 0 BW, 624 BLW yet to rec.

6-3 24 hr. pmp tst, Green River, 165 BO X 5 BW.

6-4 PMP Green River, 73 BO in 12 hr. 619 BLW to rec.

6-5 PMP Green River, 108 BO in 20 hr, 619 BLW remains to be rec.

6-6 PMP, Green River, 19 hr, PMP 144 BO X 31 BW.

6-7 PMP GREEN RIVER, 144 BO X 31 BW.

6-8 PMP GREEN RIVER, 150 BO X 17 BW.

6-9 HOT OILING TO START UP AFTER MAGNETO REP.

6-10 PMP NG. On pmp @ 2:30 PM 6/9/64

USA PEARL BROADHURST WELL NO. 5
(Cont'd.)

6-11 PMP 234 BO ON 19-1/2 HR TST.
6-12 PMP 341 BF, 10% WT, 24 hr.
6-13 PMP 44 BF, 10% WT, in 10 Hr.
6-15 6/14/64: PMP 219 BO X 11 BW IN 24 HR (219 BO INCLUDED 128 BLO).
6/15/64: PMP NG.
6-16 Changing Stroke x Hot Oiling.
6-17 PMP 140 BO x 20 BW in 19 Hr.
6-18 PMP 118 BO in 24 hr.
6-19 PMP 24 Hr, 70 BF, 1% WT.
6-20 PMP 65 BO.
6-21 PMP 57 BO x 1 BW in 24 hrs.
6-22 PMP 50 BO x 0 BW in 24 hrs.
6-23 TD 5907, PBD 5481. Green River. Pmp 37 BO.
6-24 TD 5907, PBD 5481. Green River. Pmp 50 BO.
6-25 TD 5907, PBD 5481. Green River. Pmp, NG.
6-26 TD 5907, PBD 5481. Pmp Green River, 24 hr. 52 BO x 0 BW. Comp as pmp Oil Well 6/26/64. RDB 5290 Elev. Tm @ TD Wasatch. Green River T 2877. Final Report.

Well History Summary

Well: Pearl Broadhurst #5

API: 43-047-15695

Location: 743' FSL & 564' FWL, SW SW, Section 10, T-7-S, R-23-E, Uintah Co., Utah

Elevations: 5278' GL 5290' KB

TD: 5907'

PBTD: 5481'

Casing: - 10 3/4" 32.75# H-40 csg @ 494' cmt'd W/353 sx (15" Hole)

- 7" 23# J-55 F/surf – 144' over 7" 20# J-55 F/144 – 4373' over 7" 23# J-55 F/4373' – 5567' cmt'd W/360 sx (9" Hole)

Tubing: 170 jts 2 7/8" 6.5# J-55 8rd tbg

Initial Completion: 6/64 Perf Green River "H4" @ 4794' & "H5" @ 4828' (5 JSPF). Acidize new perfs W/500 gals MCA @ 8 BPM & 2800 psi max. Sd-wtr frac dn csg W/a total of 10000# 10-20 sd & 8000# of resin & walnut hulls in 18000 gals gelled wtr in two stages using BS to divert @ 78 BPM & 2250 psi max.

Initial Potential: 52 BOPD + 0 BWPD

Logs: Induction Electric Log-SP, GR, Sonic-GR, CCL Log, & Continuous Dipmeter Log.
Injection profile logs: 10/95 & 12/00.

Cores: 4725 – 4829' (2 cores in interval) & 5310 – 5462' (3 cores throughout continuous core interval)

Well Status: SI water injection well

Updated: 5/14/04

Perforations: Green River G: 4392 – 4408 & 14 - 29' (4 JSPF) **(9/90)**
Green River H2: 4748 - 52' (3 JSPF) **(12/71)**
Green River H4: 4794' (5 JSPF) **(6/64)**
Green River H5: 4828' (5 JSPF) **(6/64)**
Green River J6: 5325' (4 SPF) **(3/66)**
Green River J7: 5333' (4 JSPF) **(3/66)**
Green River K1: 5388 & 97' (4 SPF) **(3/66)**
Green River K2: 5412' (4 SPF) **(3/66)**
Green River K3: 5431' (4 JSPF) **(3/66)**

History Summary:

3/65 SI well for low prod.

Pearl 5 History

4/65	RTP well.
5/65	PC. Run tracer survey to find out why prod was low.
7/65	RP – 7th – 7/8" rod FS – body break.
7/65	Install bottom hole heater to increase prod.
9/65	RP – 19th – 7/8" rod FS – bottom threads stripped.
10/65	PC. Had to strip OOH.
11/65	POOH W/bottom hole heater. Project considered a failure. Only increased prod by 2 BOPD.
11/65	PC. Install dn hole catalytic heater to increase prod.
2/66	Run temp profile on catalytic heater. RP @ pull rod on pump & PC.
3/66	CO well to 5467'. POOH & LD hole catalytic heater. Project considered a failure. Perf Green River "J6" @ 5325' & "J7" @ 5333' (4 JSPF) & Green River "K1" @ 5388 & 97' & "K2" @ 5412', & "K3" @ 5431' (4 JSPF). Set HOWCO 7" x 65' x 17-29#/ft Frac Liner over Perfs @ 4794 & 4828'. Acidize new perfs W/500 gals MCA @ 6 BPM & 2200 psi. Sd-oil frac dn csg using 8 - 1 1/4" RCN BS to divert W/a total of 30000# 10-20 sd in 30000 gals of Ashley crude containing 3650 gals adomite then flush W/200 BBLS Ashley crude @ 28 BPM & 3000 psi max. ISIP = 1600 psi, 5 min = 1400 psi, 10 min = 1350 psi, & 15 min = 1300 psi. Attempt to retrieve HOWCO liner but liner got stuck F/4942 – 5007'. Prior prod = SI. Prod after = 126 BOPD + 129 MCFPD + 49 BWPD.
6/66	Well not making any prod. Had to Strip OOH. Replace 9 – 3/4" rods.
4/67	RP. Rods unscrewed on 131st RFS.
8/69	RP @ pull rod on pump & PC.
10/71	Convert well to injection @ a rate of 1000 BWIPD into all open Green River perfs.
2/72	SI well.
12/71	Perf Green River "H2" F/4748 - 52' (3 JSPF) to complete for gas production. Acidize W/500 gals 15% MA. Zone tested wet. Return well to inj W/H2 interval open on the backside above inj PKR. No backside production. ($7,353)
2/72	Discontinue inj & attempt to produce H2 gas zone perfs.
9/73	POOH & LD prod equip. RIH W/20 jts 2 7/8" tbg. SI well as uneconomic to produce. ($1,200)
7/81	CO well to top of frac liner @ 4942'. Unsuccessfully attempt to fish frac liner to 80,000# OSW. Liner did not move. RIH & tag top of fill in well @ 5435'. CO well to 5450'. Swab test all sets of perfs individually. Injectivity test "J" & "K" perfs. SI well for evaluation. ($47,870)

Pearl 5 History

12/81	Dually complete well as a producer F/perfs 4748 – 52' and an injector in all perfs below. SI well. ($102,160)
2/82	PWOP @ 19 BOPD + 10 BWPD. Start inj @ 1440 BWIPD @ 1350 psi.
12/82	POOH W/prod equip. POOH W/inj assy. Test for tbg, PKR or csg leak. Found PKR to be leaking back above PKR to csg. Replace bad PKR. RIH W/inj & prod equip. Hang well on. ($91,903)
6/84	Acidize injection perfs W/1500 gals 15% HCl & 110 gals Checkersol combined @ 1 BPM & 2300 psi max.
10/84	PC.
12/85	PC.
1/86	PC.
1/87	SI well.
8/89	Strip OOH. PC. ($12,745)
9/90	Strip OOH W/prod equip. POOH W/inj equip. RIH W/B&S to 4664'. Set RBP @ 4645' W/4 sx sd on top. Perf Green River "G" F/4392 – 4408 & 14 - 29' (4 JSPF). Acidize new perfs W/1500 gals 15% HCl using 186 BS evenly spaced throughout job to divert @ 4.8 BPM & 1750 psi max. PWOP. Prod after WO = 3 BOPD + 8 BWPD. ($42,950)
11/90	POOH W/prod equip. RIH & retrieve RBP. Reset RBP @ 4910' W/3 sx sd on top. RIH W/prod equip. ($4,550)
11/90	SI well as uneconomic to produce @ 2 BOPD + 155 BWPD.
11/91	POOH W/prod equip. Retrieve RBP @ 4910' & reset @ 4325'. Test csg F/surf – 4325' to 500 psi – OK. RIH W/B&S & CO well to 4937'. RIH W/inj equip. Utilize well as a backup disposal well. ($15,200)
10/95	Run RA tracer survey. ($900)
11/00	Acidize well W/1680 gals 7 1/2% HCl. Return well to inj.
5/01	Acidize well W/4000 gals 7 1/2% HCl @ 1.8 BPM & 1320 psi. Return well to inj.

CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
U.S.A. PEARL BROADHURST #5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

ATTACHMENT G

OPERATING DATA

Submit the following proposed operating data for each well, (including all those to be covered by area permits):

(1) Average and maximum daily rate and volume of the fluids to be injected.
(2) Average and maximum injection pressure.
(3) Nature of annulus fluid.

(And for class II wells)

(4) Source and analysis of the physical and chemical characteristics of the injection fluid.

(1) Estimated average daily rate is **162** BPD, estimated maximum daily rate is **1000** BPD.

(2) The average and maximum surface pressure will be determined upon testing not to exceed 1312 psi.

(3) The nature of the annular fluid is packer fluid (chemically enhanced water) to protect against casing and tubing corrosion.

(4) The injected fluid is produced water from the USA Pearl Broadhurst lease. (See attachments D-1 through D-4 for analysis)

CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
U.S.A. PEARL BROADHURST #5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

ATTACHMENT H

CONSTRUCTION DETAILS

Submit schematic or other appropriate drawings of the surface and subsurface construction details of the well.

Attachment H-1	Wellbore Schematic of USA Pearl Broadhurst 5
Attachment H-2	Site Plan of USA Pearl Broadhusrt 5

5/14/04

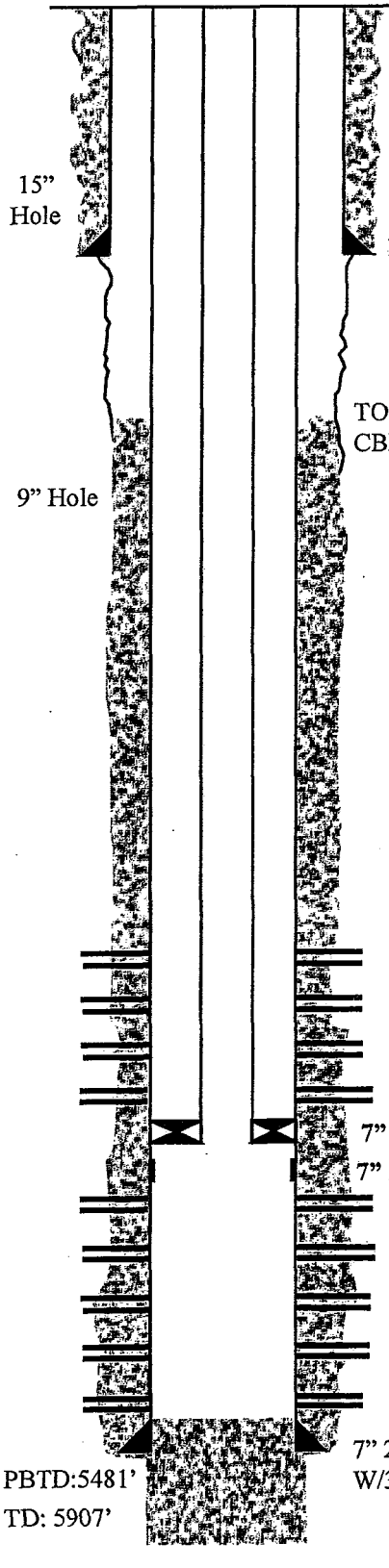
CITATION OIL & GAS CORP.
PEARL BROADHURST #5 WIW
743' FSL & 564 FWL, SW SW, Section 10, T-7-S, R-23-E
UINTAH CO., UTAH

ATTACHMENT H-1

KB: 12 FT

Status: Shut-in water injector

TUBING DETAIL			
Qty	Description	Length	Depth
---	KB (used)	12.00	12.00
151	2 7/8" J-55 6.5#, 8rd EUE IPC tbg	4,879.32	4,891.32
1	2 7/8" SN	1.10	4,892.42
1	Baker Lok-Set PKR	4.00	4,896.42
1	2 7/8" tbg collar	0.45	4,896.87



15" Hole

10 3/4" 32.75# H-40 csg 494' cmt'd W/353 sx

TOC @ 4226' By CBL **(5/64)**

9" Hole

Green River G: 4392 – 4408 & 14 – 29' (4 JSPF) **(9/90)**

Green River H2: 4748 - 52' (3 JSPF) **(12/71)**

Green River H4: 4794' (5 JSPF) **(6/64)**

Green River H5: 4828' (5 JSPF) **(6/64)**

7" Baker Lok-Set PKR @ 4896'

7" HOWCO Frac Liner F/4942 – 5007'.

Green River J6: 5325' (4 JSPF) **(3/66)**

Green River J7: 5333' (4 JSPF) **(3/66)**

Green River K1: 5388 & 97' (4 SPF) **(3/66)**

Green River K2: 5412' (4 JSPF) **(3/66)**

Green River K3: 5431' (4 SPF) **(3/66)**

7" 23# J-55 F/surf – 144' over 7" 20# J-55 F/144 – 4373' over 7" 23# J-55 F/4373 - 5567' cmt'd W/360 sx

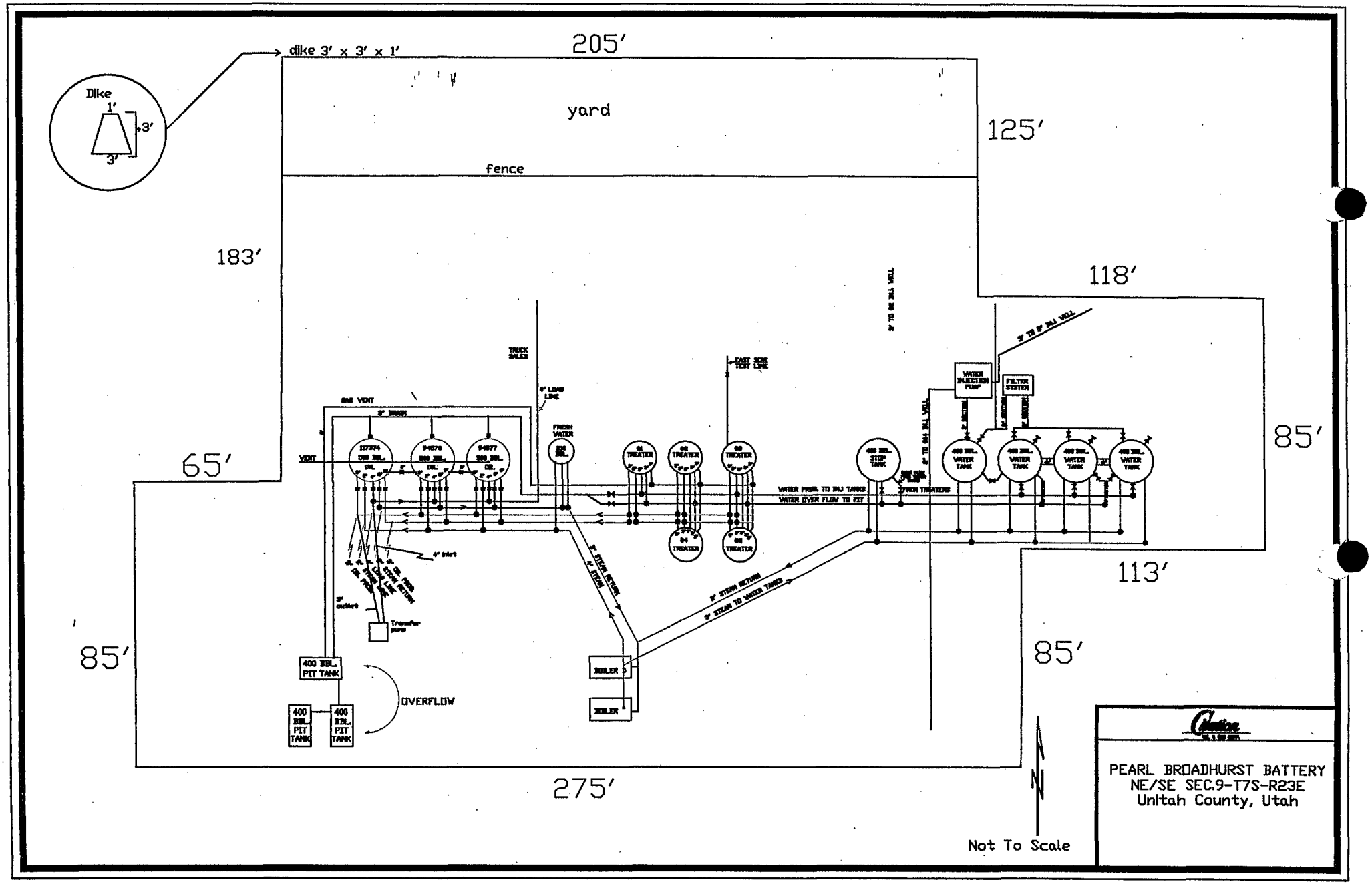
PBTD:5481'

TD: 5907'

ATTACHMENT H-2

Site Security Plan Located at: Citation Oil & Gas Corp.
8223 Willow Place South
Houston, Tx 77070

Citation Oil & Gas Corp
1016 East Lincoln
Gillette, Wy 82716



CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
U.S.A. PEARL BROADHURST #5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

ATTACHMENT I

PROPOSED PLUGGING AND ABANDONMENT PROCEDURE

Submit a plan for plugging and abandonment of the well. Submit this information on EPA Form 7520-14, Plugging and Abandonment Plan.

Attachment I-1	EPA FORM 7520-14 – Plugging and Abandonment Plan
Attachment I-2	Wellbore Schematic of Proposed Plugging Plan
Attachment I-3	Work Procedure for Plugging and Abandonment

ATTACHMENT I-1 OMB No. 2040-0042 Approval Expires 1/31/05

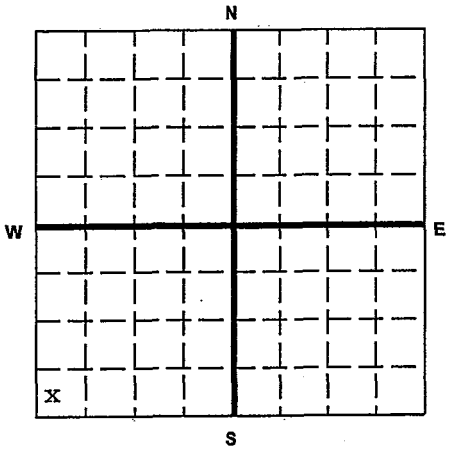
United States Environmental Protection Agency
Washington, DC 20460

PLUGGING AND ABANDONMENT PLAN

Name and Address of Facility
USA Pearl Broadhurst 5 SW SW Section 10, Twp 7S, Rng 23E
Uintah County, Utah

Name and Address of Owner/Operator
Citation Oil & Gas Corp. 8223 Willow Place South, Houston, Texas 77070

Locate Well and Outline Unit on Section Plat - 640 Acres



State	County	Permit Number
Utah	Uintah	43-047-15695

Surface Location Description
___ 1/4 of ___ 1/4 of SW 1/4 of SW 1/4 of Section 10 Township 7S Range 23E

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 743 ft. frm (N/S) S Line of quarter section
and 564 ft. from (E/W) W Line of quarter section.

TYPE OF AUTHORIZATION
- [x] Individual Permit
- [ ] Area Permit
- [ ] Rule

Number of Wells 1

Lease Name USA Pearl Broadhurst

WELL ACTIVITY
- [ ] CLASS I
- [x] CLASS II
  - [ ] Brine Disposal
  - [x] Enhanced Recovery
  - [ ] Hydrocarbon Storage
- [ ] CLASS III

Well Number 5

CASING AND TUBING RECORD AFTER PLUGGING

SIZE	WT (LB/FT)	TO BE PUT IN WELL (FT)	TO BE LEFT IN WELL (FT)	HOLE SIZE
10 3/4	32.75	494'	494'	15"
7	20 & 23	5567'	5567'	9"

METHOD OF EMPLACEMENT OF CEMENT PLUGS
- [x] The Balance Method
- [ ] The Dump Bailer Method
- [ ] The Two-Plug Method
- [ ] Other

CEMENTING TO PLUG AND ABANDON DATA:	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Size of Hole or Pipe in which Plug Will Be Placed (inche	7"	7"	7"	7"	7X10 3/4		
Depth to Bottom of Tubing or Drill Pipe (ft	4375'	2200'	544'	100'	50'		
Sacks of Cement To Be Used (each plug)	250	35	40	18	12		
Slurry Volume To Be Pumped (cu. ft.)							
Calculated Top of Plug (ft.)	4200'	2000'	350'	4'	4'		
Measured Top of Plug (if tagged ft.)							
Slurry Wt. (Lb./Gal.)							
Type Cement or Other Material (Class III)	Poz 50/50	Poz 50/50	Poz 50/50	Poz 50/50	Poz 50/50		

LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (if any)

From	To	From	To
4408	5431		

Estimated Cost to Plug Wells
$45,000

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

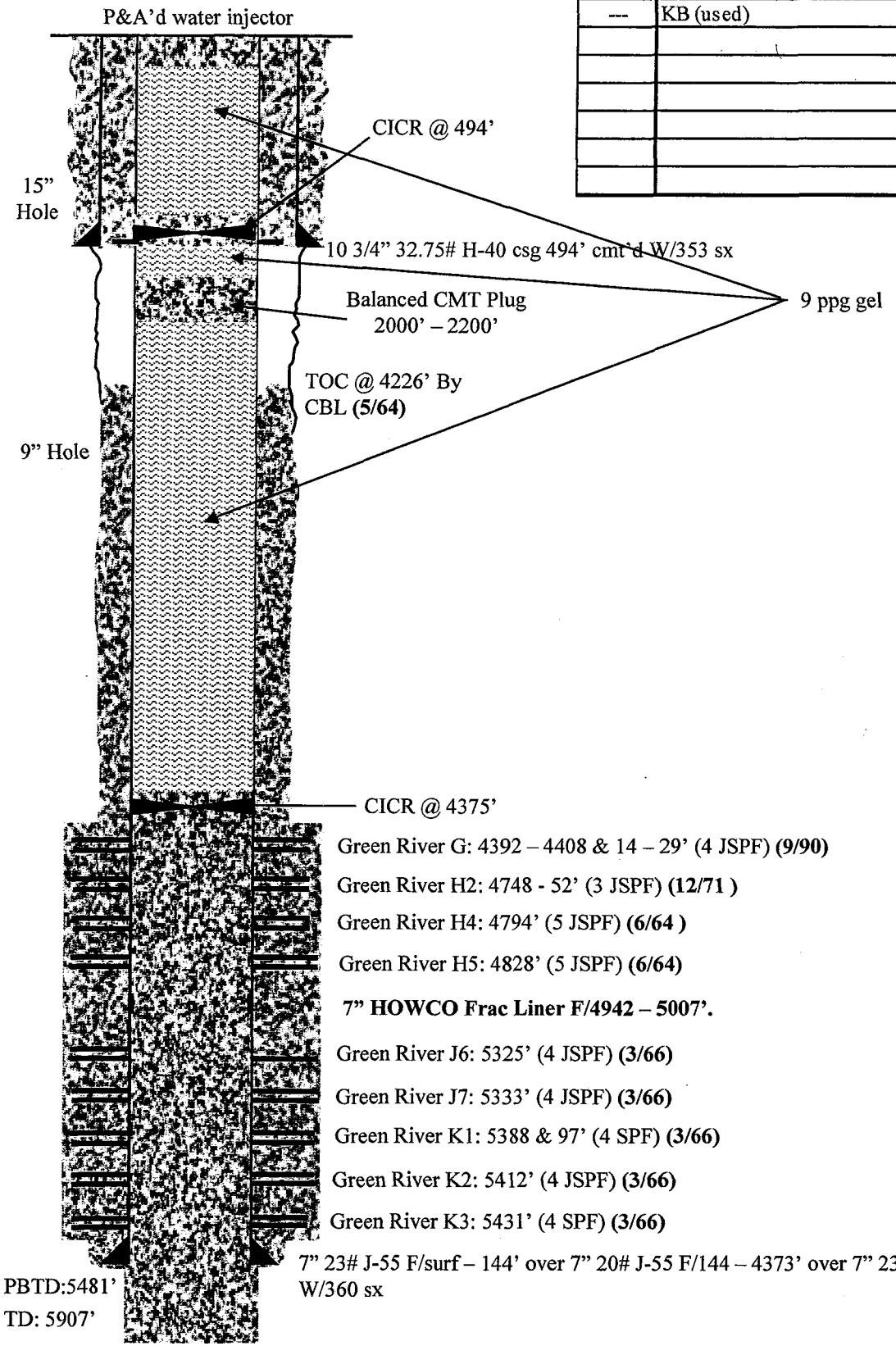
Name and Official Title *(Please type or print)*	Signature	Date Signed
Sharon Ward Regulatory Administrator	Sharon Ward	8-5-04

8/4/04

CITATION OIL & GAS CORP.
PROPOSED PEARL BROADHURST #5 WIW
743' FSL & 564 FWL, SW SW, Section 10, T-7-S, R-23-E
UINTAH CO., UTAH

ATTACHMENT I-2

TUBING DETAIL			
Qty	Description	Length	Depth
---	KB (used)	12.00	12.00



CITATION OIL & GAS CORPORATION
PEARL BROADHURST – PB #5
P&A PROCEDURE

ATTACHMENT I-3

DATE: 8-4-04 **WELL NO.** PB #5

1. Load & pressure test csg to 300 psi.

2. MIRU. ND wellhead. NU BOP. POOH & LD Inj PKRs & tbg. PU bit & scraper for 7", 23# csg & +/-143 jts 2 7/8" tbg for plugging operations. Round trip bit & scraper to 4400'.

3. If leaks were detected in Step 1., POOH W/tbg & tools. PU & RIH W/PKR & identify csg leak(s). Cmt SQZ'ing provisions will be made accordingly. Otherwise, proceed to step 4.

4. TIH W/CICR on 2 7/8" tubing & set @ +/-4375' KB. Establish inj. rate & press. Mix & pump 250 total sx cmt. SQZ under CICR W/240 sx 50/50 Pozmix containing 2% gel. Sting out of CICR and dump 10 sx cmt on top of CICR.

5. Pull end of tbg to +/-4200'. Reverse clean W/9 ppg gel.

6. Pull end of tbg to +/-2200' & spot a 35 sack (200') balanced cmt plug from 2200 – 2000'.

7. Pull end of tbg to +/-1900'. Reverse clean W/9 ppg gel. TOOH.

8. RU wireline & perf 4 SQZ holes @ 544'.

9. TIH W/CICR on 2 7/8" tubing & set @ 494' KB. Establish inj. rate & press. Mix & pump 40 total sx cmt. SQZ under CICR W/30 sx 50/50 Pozmix containing 2% gel. Sting out of CICR and dump 10 sx cmt on top of CICR.

10. Pull end of tbg to 350' & reverse circ clean W/9 ppg gel.

11. Spot an 18 sack cmt plug from 100' - surface inside 7" csg.

12. If possible, using 1" tbg, spot 12 sx cmt (50') into annulus between 7" & 10 3/4" csg.

13. Cut off csg 4' below GL & install marker as per BLM specifications.

14. Reclaim location as per BLM specifications.

CITATION OIL & GAS CORP.
APPLICATION FOR APPROVAL OF CLASS II INJECTION WELL
U.S.A. PEARL BROADHURST #5
WALKER HOLLOW (GREEN RIVER) FIELD
LEASE # UTU-02651A

ATTACHMENT J

Submit evidence such as a surety bond or financial statement to verify that the resources necessary to close, plug, or abandon the well are available.

The USA Pearl Broadhurst #5 is currently included in our Financial Surety on file with the United States Environmental Protection Agency Region VIII, 999 18th Street, Suite 500, Denver, CO 80202-2466

ATTACHMENT K

UIC FORM 1

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR INJECTION WELL

Name of Operator Citation Oil & Gas Corp.	Utah Account Number N 0265	Well Name and Number U S A Pearl Broadhurst 5
Address of Operator P O Box 690688 CITY Houston STATE TX ZIP 77269	Phone Number (281) 517-7800	API Number 047-15695
Location of Well Footage : 743 FSL & 564 FWL County : Uintah QQ, Section, Township, Range: SW S 10 7S 23E State : UTAH		Field or Unit Name Walker Hollow Field Lease Designation and Number UTU 02651A

Is this application for expansion of an existing project? Yes ☐ No ☑

Will the proposed well be used for:

Enhanced Recovery?	Yes ☑	No ☐
Disposal?	Yes ☐	No ☐
Storage?	Yes ☐	No ☐

Is this application for a new well to be drilled? Yes ☐ No ☑

If this application is for an existing well, has a casing test been performed? Yes ☑ No ☐
Date of test: 12/12/1992

Proposed injection interval: from 4,392 to 5,431

Proposed maximum injection: rate 1,000 bpd pressure 1,312 psig

Proposed injection zone contains oil ☑, gas ☑, and / or fresh water ☐ within ½ mile of the well.

List of attachments: See EPA application as attachment to amend current permit

ATTACH ADDITIONAL INFORMATION AS REQUIRED BY CURRENT UTAH OIL AND GAS CONSERVATION GENERAL RULES

I hereby certify that this report is true and complete to the best of my knowledge.

Name (Please Print) Sharon Ward Title Regulatory Administrator

Signature Sharon Ward Date 8/5/2004

(5/2002)

SCHLUMBERGER INDUCTION-ELECTRICAL LOG
SCHLUMBERGER WELL SURVEYING CORPORATION
Houston, Texas

COMPANY PAN AMERICAN PETROLEUM CORPORATION
WELL U.S.A. PEARL BROADHURST NO. 5 NO. 5
FIELD WALKER HOLLOW
COUNTY UINTAH STATE UTAH

COUNTY
FIELD or LOCATION
WELL
COMPANY

LOCATION SW SW
Sec. 10 Twp. 7S Rge. 23E

Other Services: SGR, LDD

Permanent Datum: G.L., Elev. 5278
Log Measured From K.B., 12 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev.: K.B. 5290
D.F.
G.L. 5278

Date	5-15-64			
Run No.	ONE			
Depth—Driller	5907			
Depth—Logger	5914			
Btm. Log Interval	5913			
Top Log Interval	496			
Casing—Driller	10 3/4" @ 495	@	@	@
Casing—Logger	496			
Bit Size	9"			
Type Fluid in Hole	FRESH GEL			
Dens. / Visc.	9.5 / 56			
pH / Fluid Loss	9.0 / 7.0 ml	ml	ml	ml
Source of Sample	FLOW LINE			
R_m @ Meas. Temp.	1.60 @ 70 °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	1.34 @ 73 °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	2.10 @ 70 °F	@ °F	@ °F	@ °F
Source: R_{mf} R_{mc}	PRESS / Chart			
R_m @ BHT	1.02 @ 110 °F	@ °F	@ °F	@ °F
Time Since Circ.	2 HOURS			

Scale Changes

Type Log	Depth	Scale Up Hole	Scale Down Hole

Equipment Data

Run No.	Tool Type	Tool Position	Other
ONE	6FF40	—	

in Mud Type or Additional Samples
mple No.
Driller
d in Hole
Visc.
uid Loss ml
of Sample
eas. Temp. @ °F @ °F
eas. Temp. @ °F @ °F
eas. Temp. @ °F @ °F
mf R_{mc}
HT @ °F @ °F
HT @ °F @ °F
HT @ °F @ °F

RMF = 0.91 @ BHT
RMC = 1.36 @ BHT

ED S.O.: 1 1/2"
ed: CART. No. 74 F
PANEL No. 212 F
SONDE No. 55 M
TAP NO. 170 D SGR-4

CONDUCTIVITY millimhos/m = 1000 / ohms. m²/m

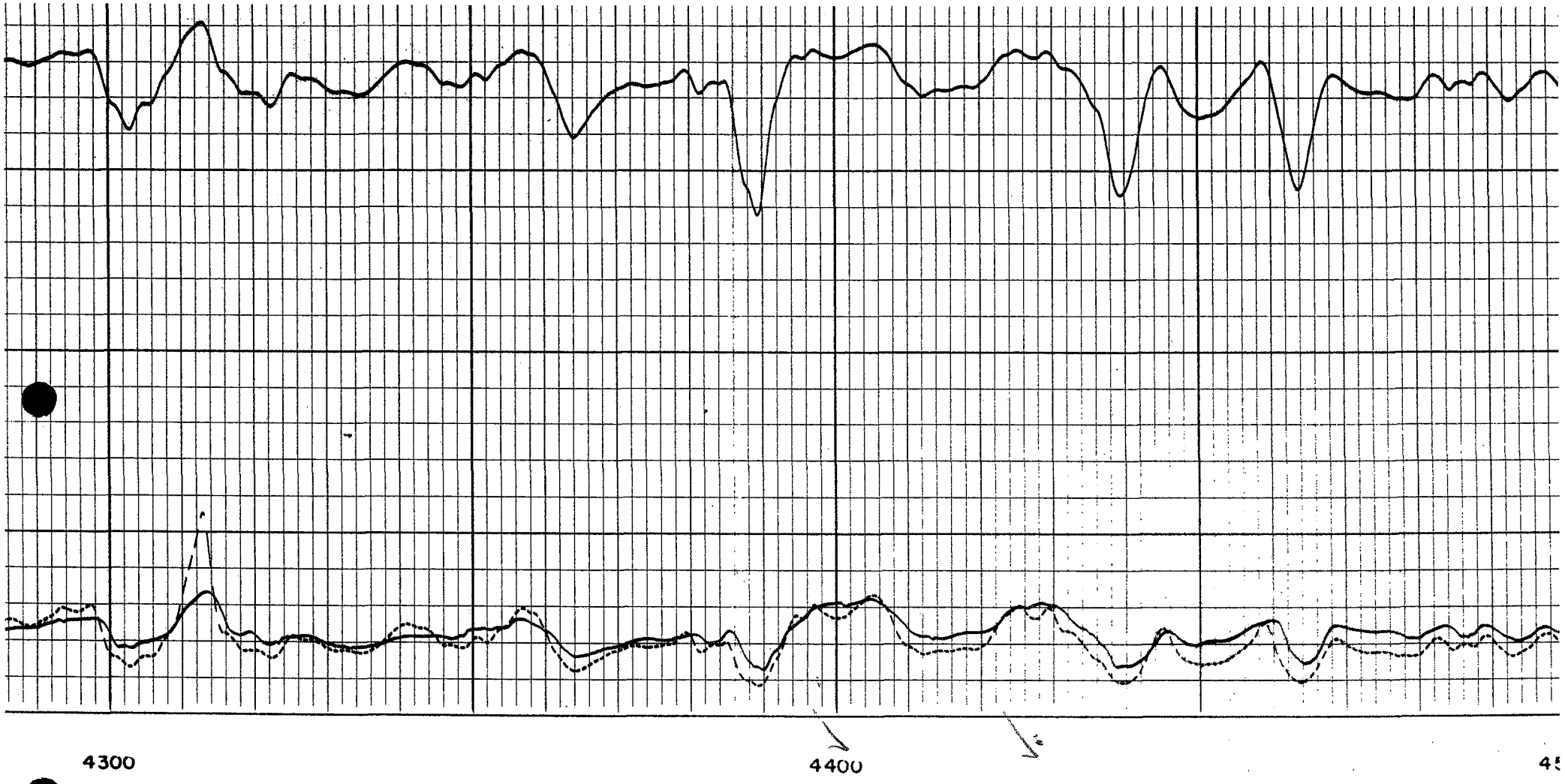
6-FF40 INDUCTION
400 200 0
600 400

RESISTIVITY -ohms. m²/m
A-16"-M SHORT NORMAL

DEPTHS

NTANEOUS-POTENTIAL millivolts
10 − +

ATTACHMENT L (8pgs)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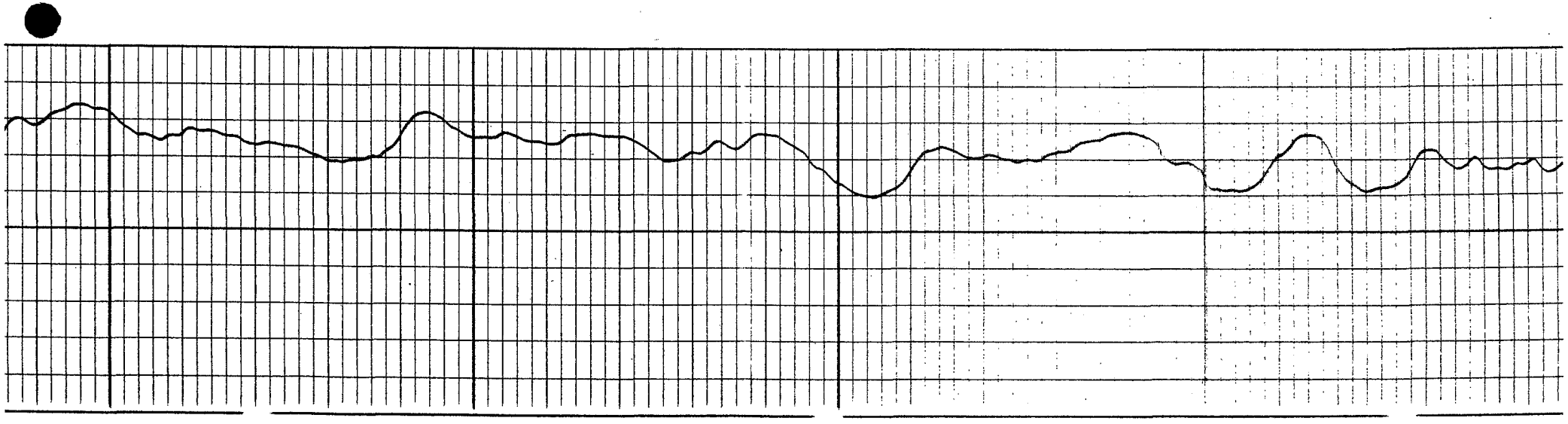

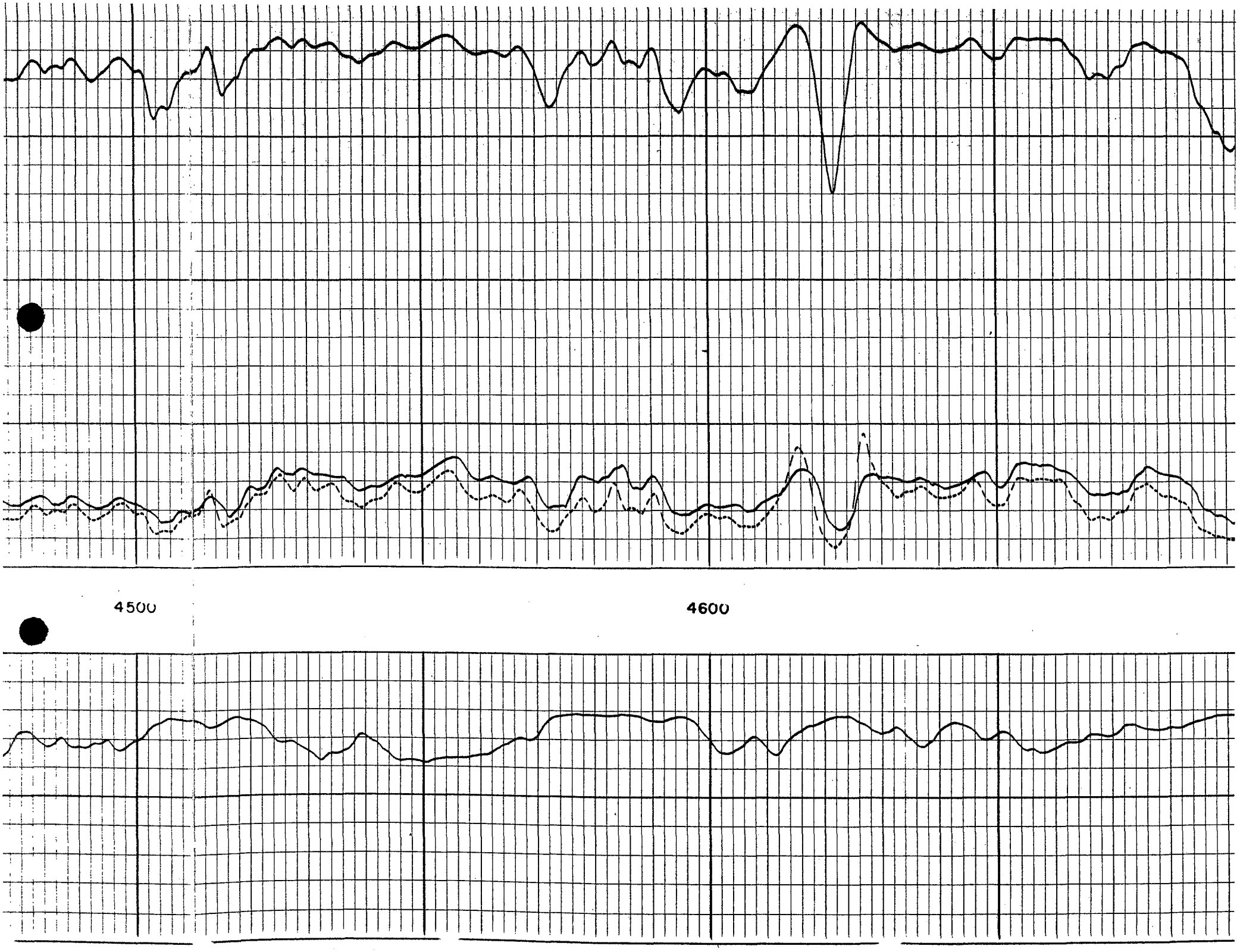
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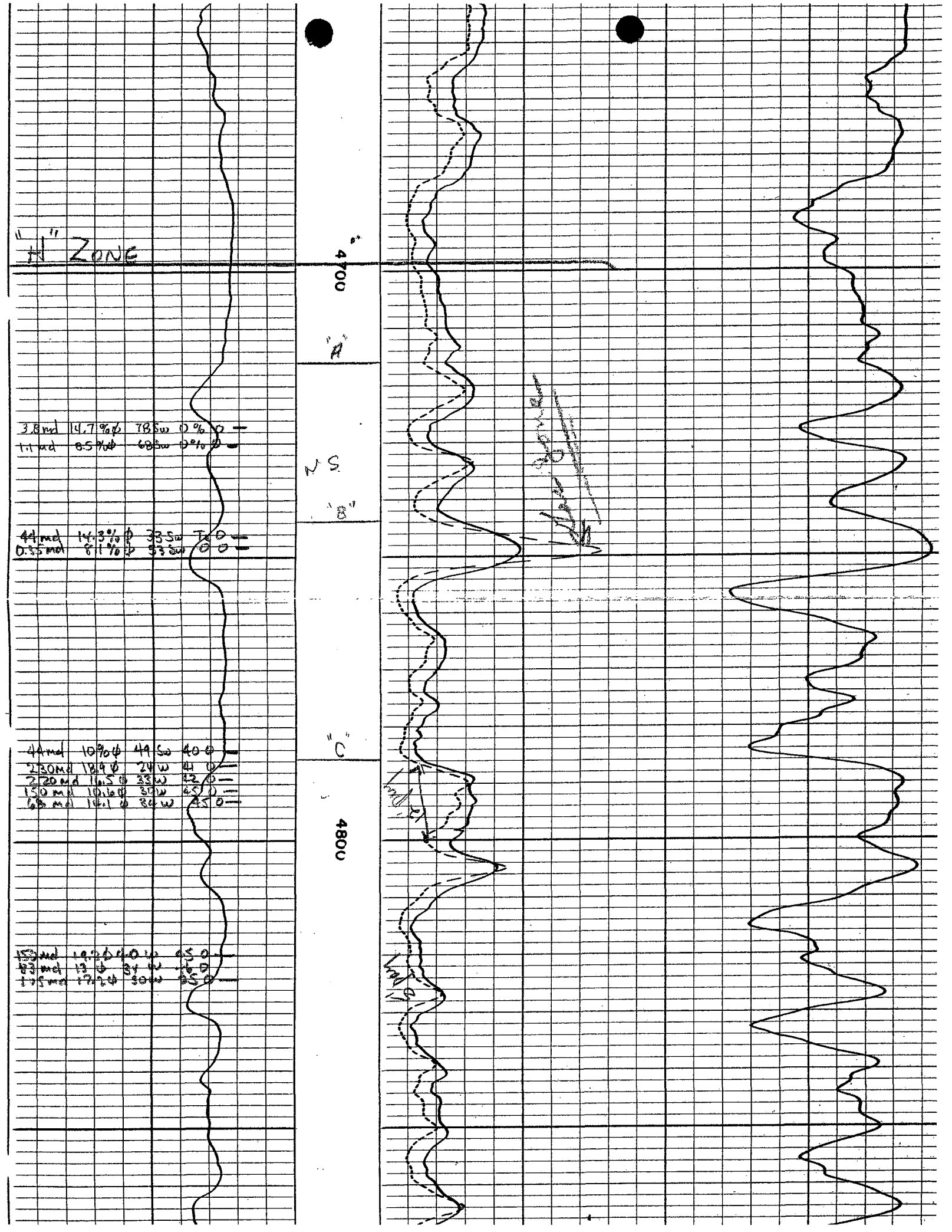
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"B"
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230md 18.9φ 24w 41 0 —
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150md 10.6φ 37w 65 0 —
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125md 17.2φ 50w 85 0 —

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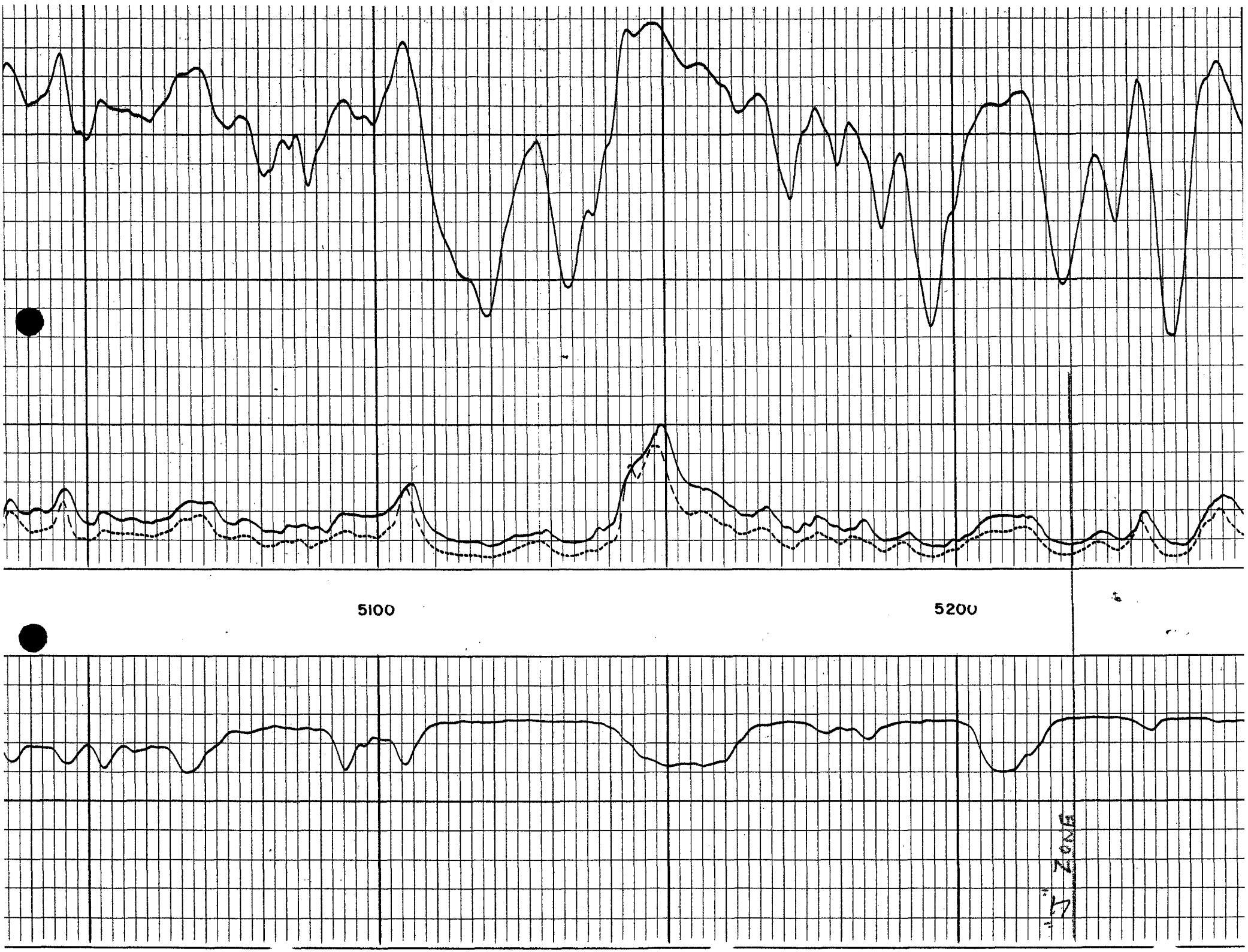
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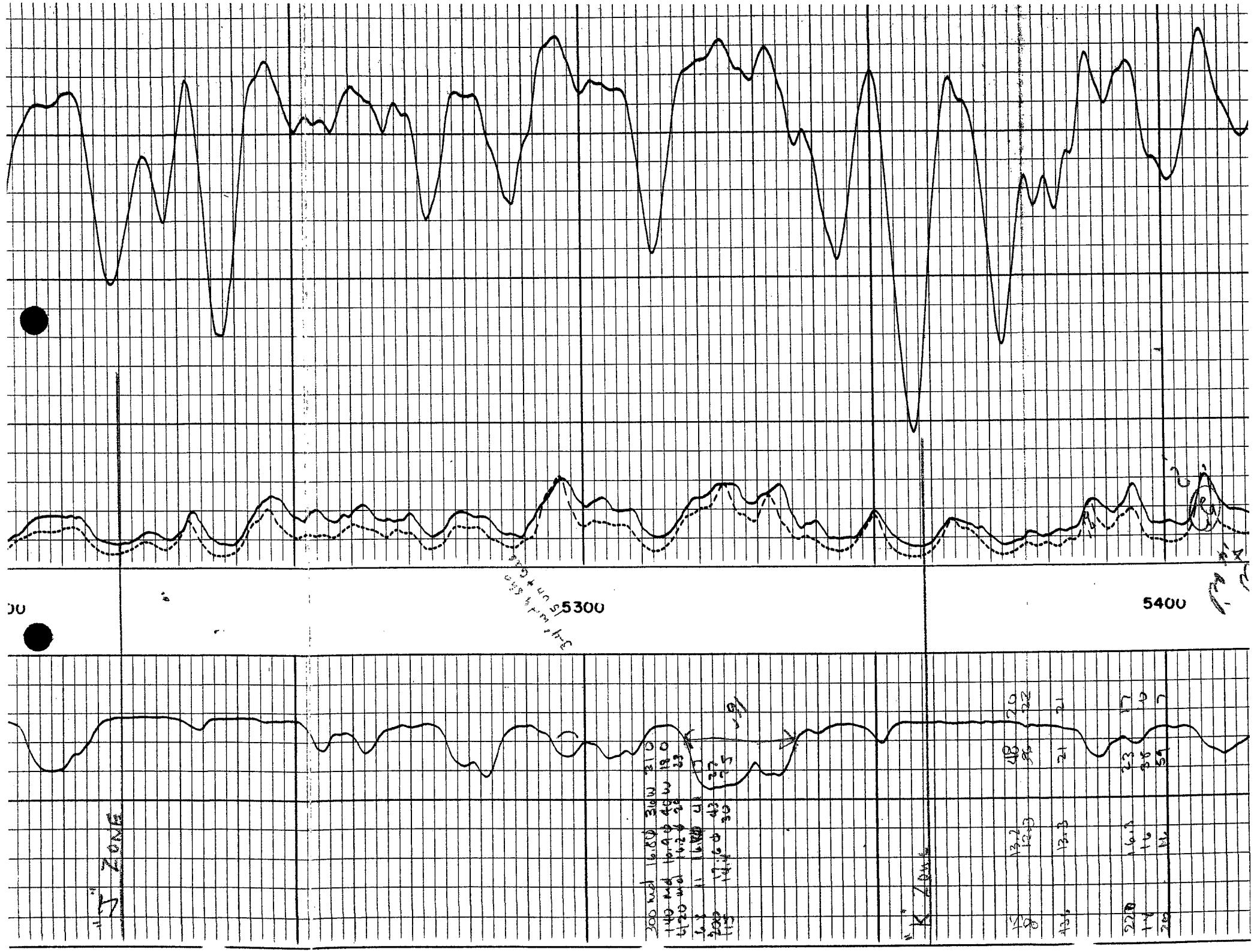
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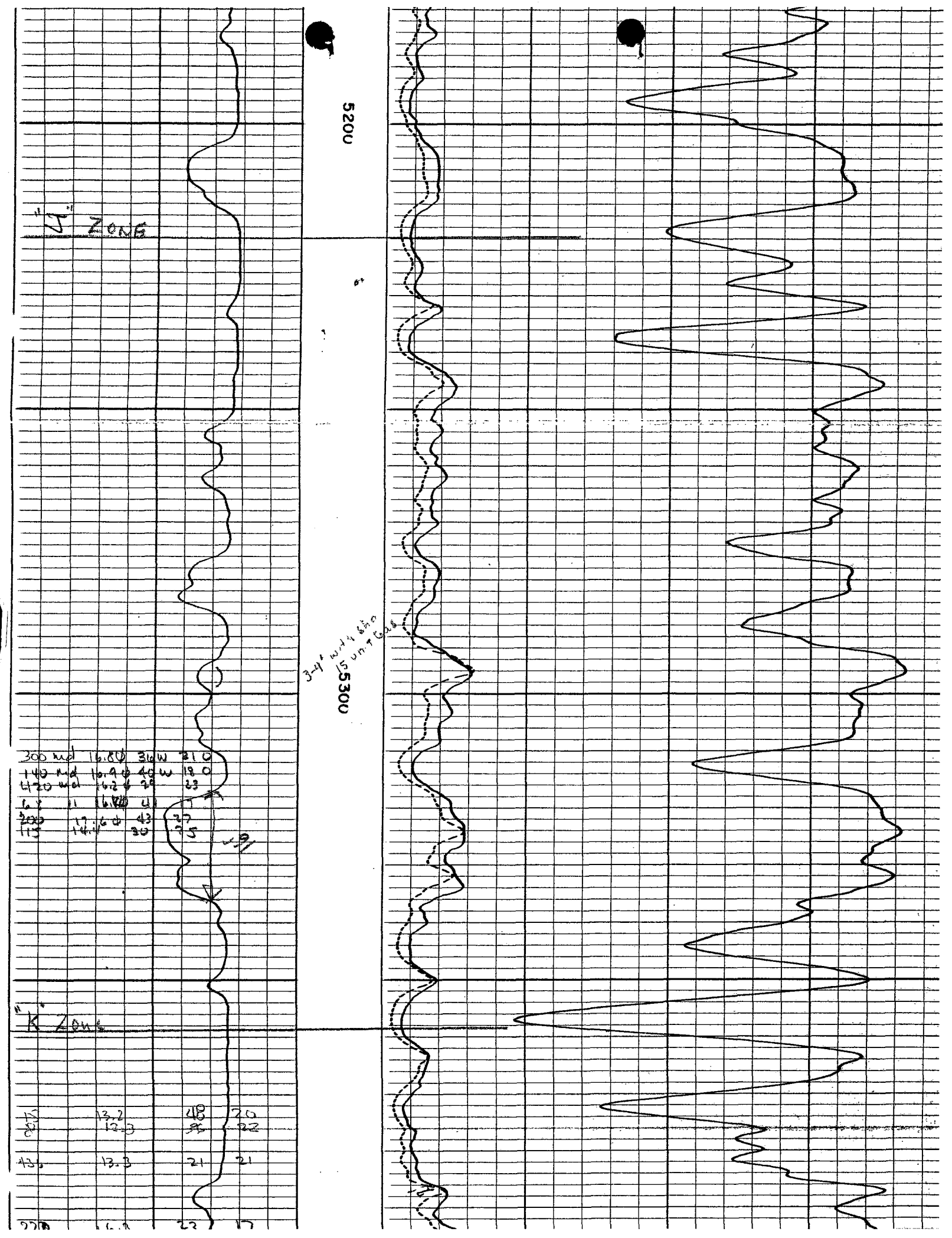
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18th STREET - SUITE 300
DENVER, CO 80202-2466
http://www.epa.gov/region08

AUG 29 2005

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

Sharon Ward
Citation Oil and Gas Corporation
P.O. Box 690688
Houston, TX 77269-0688

Re: FINAL Permit
EPA UIC Permit No. UT20981-02392
USA Pearl Broadhurst 5 Well
Uintah County, UT

Dear Ms. Ward:

Enclosed is your copy of the FINAL Underground Injection Control (UIC) Permit for the proposed USA Pearl Broadhurst 5 injection well. A Statement of Basis, which discusses development of the conditions and requirements of the Permit, also is included.

The Public Comment period ended on JUL 21 2005. There were no comments on the Draft Permit received during the Public Notice period, and therefore the Final Permit becomes effective on the date of issuance. All conditions set forth herein refer to Title 40 Parts 124, 144, 146, and 147 of the Code of Federal Regulations (CFR) and are regulations that are in effect on the date that this Permit becomes effective.

Please note that under the terms of the Final Permit, you are authorized only to construct the proposed injection well, and must fulfill the "Prior to Commencing Injection" requirements of the Permit, Part II Section C Subpart 1 and obtain written Authorization to Inject prior to commencing injection. It is your responsibility to be familiar with and to comply with all provisions of the Final Permit.

The Permit and the authorization to inject are issued for the operating life of the well unless terminated (Part III, Section B). The EPA will review this Permit at least every five (5) years to determine whether action under 40 CFR § 144.36(a) is warranted.

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SEP 01 2005
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If you have any questions on the enclosed Final Permit or Statement of Basis, please call Dan Jackson of my staff at (303) 312-6155, or toll-free at (800) 227-8917, ext. 6155.

Sincerely,

for Stephen S. Tuber
Assistant Regional Administrator
Office of Partnerships and Regulatory Assistance

enclosure:
Final UIC Permit
Statement of Basis
Form 7520-7 Application to Transfer Permit
Form 7520-11 Monitoring Report
Form 7520-14 Plugging Plan
Form 7520-12 Well Rework Record

cc:
without enclosures:
Maxine Natchees, Chairperson
Uintah and Ouray Business Committee
PO Box 190
Fort Duchesne, Utah 84026

Mr. Henry Maddux, Field Supervisor
U.S. Fish and Wildlife Service Utah Field Office
2369 West Orton Circle
West Valley City, Utah 84119

Mr. Chester Mills, Superintendent
BIA Uintah and Ouray Agency
P.O. Box 130
Fort Duchesne, UT 84026

with enclosures:
Elaine Willie
Environmental Coordinator
Ute Indian Tribe
PO Box 460
Fort Duchesne, Utah 84026

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Mr. William Stringer, Manager
U.S. Bureau of Land Management Vernal Field Office
170 South 500 East
Vernal, Utah 84078

Mr. Gilbert Hunt
Acting Associate Director
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114

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EPA

UNDERGROUND INJECTION CONTROL PROGRAM

PERMIT

PREPARED: July 2005

Permit No. UT20981-02392

Class II Enhanced Oil Recovery Injection Well

USA Pearl Broadhurst 5
UINTAH County, UT

Issued To

Citation Oil _Gas Corporation
8223 Willow Place South
Suite 250
Houston, TX 77070

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Part I. AUTHORIZATION TO CONSTRUCT AND OPERATE

Under the authority of the Safe Drinking Water Act and Underground Injection Control (UIC) Program regulations of the U. S. Environmental Protection Agency (EPA) codified at Title 40 of the Code of Federal Regulations (40 CFR) Parts 2, 124, 144, 146, and 147, and according to the terms of this Permit,

Citation Oil & Gas Corporation
8223 Willow Place South
Suite 250
Houston, TX 77070

is authorized to construct and to operate the following Class II injection well or wells:

USA Pearl Broadhurst 5
743 FSL 564 FWL, SWSW S10, T7S, R23E
UINTAH County, UT

Permit requirements herein are based on regulations found in 40 CFR Parts 124, 144, 146, and 147 which are in effect on the Effective Date of this Permit.

This Permit is based on representations made by the applicant and on other information contained in the Administrative Record. Misrepresentation of information or failure to fully disclose all relevant information may be cause for termination, revocation and reissuance, or modification of this Permit and/or formal enforcement action. This Permit will be reviewed periodically to determine whether action under 40 CFR 144.36(a) is required.

This Permit is issued for the life of the well or wells unless modified, revoked and reissued, or terminated under 40 CFR 144.39 or 144.40. This Permit may be adopted, modified, revoked and reissued, or terminated if primary enforcement authority for this program is delegated to an Indian Tribe or a State. Upon the effective date of delegation, all reports, notifications, questions and other compliance actions shall be directed to the Indian tribe or State Program Director or designee.

Issue Date: AUG 29 2005

Effective Date AUG 29 2005

for Stephen S. Tuber
Assistant Regional Administrator*
Office of Partnerships and Regulatory Assistance

*NOTE: The person holding this title is referred to as the "Director" throughout this Permit.

PART II. SPECIFIC PERMIT CONDITIONS

Section A. WELL CONSTRUCTION REQUIREMENTS

These requirements represent the approved minimum construction standards for well casing and cement, injection tubing, and packer.

Details of the approved well construction plan are incorporated into this Permit as APPENDIX A. Changes to the approved plan that may occur during construction must be approved by the Director prior to being physically incorporated.

1. Casing and Cement.

The well or wells shall be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water. The well casing and cement shall be designed for the life expectancy of the well and of the grade and size shown in APPENDIX A. Remedial cementing may be required if shown to be inadequate by cement bond log or other attempted demonstration of Part II (External) mechanical integrity.

2. Injection Tubing and Packer.

Injection tubing is required, and shall be run and set with a packer at or below the depth indicated in APPENDIX A. The packer setting depth may be changed provided it remains below the depth indicated in APPENDIX A and the Permittee provides notice and obtains the Director's approval for the change.

3. Sampling and Monitoring Devices.

The Permittee shall install and maintain in good operating condition:

(a) a "tap" at a conveniently accessible location on the injection flow line between the pump house or storage tanks and the injection well, isolated by shut-off valves, for collection of representative samples of the injected fluid; and

(b) one-half (1/2) inch female iron pipe fitting, isolated by shut-off valves and located at the wellhead at a conveniently accessible location, for the attachment of a pressure gauge capable of monitoring pressures ranging from normal operating pressures up to the Maximum Allowable Injection Pressure specified in APPENDIX C:

  (i) on the injection tubing; and

  (ii) on the tubing-casing annulus (TCA); and

(c) a pressure actuated shut-off device attached to the injection flow line set to shut-off the injection pump when or before the Maximum Allowable Injection Pressure specified in APPENDIX C is reached at the wellhead; and

(d) a non-resettable cumulative volume recorder attached to the injection line.

4. Well Logging and Testing

Well logging and testing requirements are found in APPENDIX B. The Permittee shall ensure the log and test requirements are performed within the time frames specified in APPENDIX B. Well logs and tests shall be performed according to current EPA-approved procedures. Well log and test results shall be submitted to the Director within sixty (60) days of completion of the logging or testing activity, and shall include a report describing the methods used during logging or testing and an interpretation of the test or log results.

5. Postponement of Construction or Conversion

The Permittee shall complete well construction within one year of the Effective Date of the Permit, or in the case of an Area Permit within one year of authorization of the additional well. Authorization to construct and operate shall expire if the well has not been constructed within one year of the Effective Date of the Permit or authorization and the Permit may be terminated under 40 CFR 144.40, unless the Permittee has notified the Director and requested an extension prior to expiration. Notification shall be in writing, and shall state the reasons for the delay and provide an estimated completion date. Once Authorization has expired under this part, the complete permit process including opportunity for public comment may be required before Authorization to construct and operate may be reissued.

6. Workovers and Alterations

Workovers and alterations shall meet all conditions of the Permit. Prior to beginning any addition or physical alteration to an injection well that may significantly affect the tubing, packer or casing, the Permittee shall give advance notice to the Director and obtain the Director's approval. The Permittee shall record all changes to well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workover, logging, or test data to EPA within sixty (60) days of completion of the activity.

A successful demonstration of Part I MI is required following the completion of any well workover or alteration which affects the casing, tubing, or packer. Injection operations shall not be resumed until the well has successfully demonstrated mechanical integrity and the Director has provided written approval to resume injection.

Section B. MECHANICAL INTEGRITY

The Permittee is required to ensure each injection well maintains mechanical integrity at all times. The Director, by written notice, may require the Permittee to comply with a schedule describing when mechanical integrity demonstrations shall be made.

An injection well has mechanical integrity if:

(a) There is no significant leak in the casing, tubing, or packer (Part I); and

(b) There is no significant fluid movement into an underground source of drinking water throught vertical channels adjacent to the injection well bore (Part II).

1. Demonstration of Mechanical Integrity (MI).

The operator shall demonstrate MI prior to commencing injection and periodically thereafter. Well-specific conditions dictate the methods and the frequency for demonstrating MI and are discussed in the Statement of Basis. The logs and tests are designed to demonstrate both internal (Part I) and external (Part II) MI as described above. The conditions present at this well site warrant the methods and frequency required in Appendix B of this Permit.

In addition to these regularly scheduled demonstrations of MI, the operator shall demonstrate internal (Part I) MI after any workover which affects the tubing, packer or casing.

The Director may require additional or alternative tests if the results presented by the operator are not satisfactory to the Director to demonstrate there is no movement of fluid into or between USDWs resulting from injection activity. Results of MI tests shall be submitted to the Director as soon as possible but no later than sixty (60) days after the test is complete.

PART I (Internal) MI - Internal MI will be demonstrated prior to beginning injection and at least once every five years thereafter. Demonstration of Part I MI also is required prior to resuming injection following any workover or operation that affects the casing, tubing or packer. Part I MI may be demonstrated by a standard tubing-casing annulus pressure test using the maximum allowable injection pressure (MAIP) or 1000 psi, whichever is less, with a ten (10) percent or less pressure loss over thirty (30) minutes. Part II (External) MI - Cementing records and/or evaluation of the cement bond log for this well indicate adequate cement exists behind pipe to prevent significant movement of fluid out of the approved injection zone through vertical channels adjacent to the injection well bore. Therefore, further testing for Part II MI will not be required.

2. Mechanical Integrity Test Methods and Criteria

EPA-approved methods shall be used to demonstrate mechanical integrity. Ground Water Section Guidance No. 34 "Cement Bond Logging Techniques and Interpretation", Ground Water Section Guidance No. 37, "Demonstrating Part II (External) Mechanical Integrity for a Class II injection well permit", and Ground Water Section Guidance No. 39, "Pressure Testing Injection Wells for Part I (Internal) Mechanical Integrity" are available from EPA and will be provided upon request.

The Director may stipulate specific test methods and criteria best suited for a specific well construction and injection operation.

3. Notification Prior to Testing.

The Permittee shall notify the Director at least 30 days prior to any scheduled mechanical integrity test. The Director may allow a shorter notification period if it would be sufficient to enable EPA to witness the mechanical integrity test. Notification may be in the form of a yearly or quarterly schedule of planned mechanical integrity tests, or it may be on an individual basis.

4. Loss of Mechanical Integrity.

If the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity becomes evident during operation (such as presence of pressure in the TCA, water flowing at the surface, etc.), the Permittee shall notify the Director within 24 hours (see Part III Section E Paragraph 11(e) of this Permit) and the well shall be shut-in within 48 hours unless the Director requires immediate shut-in.

Within five days, the Permittee shall submit a follow-up written report that documents test results, repairs undertaken or a proposed remedial action plan.

Injection operations shall not be resumed until after the well has successfully been repaired and demonstrated mechanical integrity, and the Director has provided approval to resume injection.

Section C. WELL OPERATION

INJECTION BETWEEN THE OUTERMOST CASING PROTECTING UNDERGROUND SOURCES OF DRINKING WATER AND THE WELL BORE IS PROHIBITED.

Injection is approved under the following conditions:

1. Requirements Prior to Commencing Injection.

Well injection, including for new wells authorized by an Area Permit under 40 CFR 144.33 (c), may commence only after all well construction and pre-injection requirements herein have been met and approved. The Permittee may not commence injection until construction is complete, and

(a) The Permittee has submitted to the Director a notice of completion of construction and a completed EPA Form 7520-10 or 7520-12; all applicable logging and testing requirements of this Permit (see APPENDIX B) have been fulfilled and the records submitted to the Director; mechanical integrity pursuant to 40 CFR 146.8 and Part II Section B of this Permit has been demonstrated; and

(i) The Director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the Permit; or

(ii) The Permittee has not received notice from the Director of his or her intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in Paragraph 1a, in which case prior inspection or review is waived and the Permittee may commence injection.

2. *Injection Interval.*

Injection is permitted only within the approved injection interval, listed in APPENDIX C. Additional individual injection perforations may be added provided that they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6.

The injection zones consist of multiple sands within the Green River Formation between the gross depths of 4392 ft to 5436 ft. The upper injection zone, from 4392 ft to 4430 ft, is within the Parachute Creek Member and an upper portion of the Garden Gulch Member of the Green River Formation. The lower injection zone, from 4724 ft to 5436 ft, is within the Garden Gulch Member of the Green River Formation.

3. *Injection Pressure Limitation*

(a) The permitted Maximum Allowable Injection Pressure (MAIP), measured at the wellhead, is found in APPENDIX C. Injection pressure shall not exceed the amount the Director determines is appropriate to ensure that injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to USDWs. In no case shall injection pressure cause the movement of injection or formation fluids into a USDW.

(b) The Permittee may request a change of the MAIP, or the MAIP may be increased or decreased by the Director in order to ensure that the requirements in Paragraph (a) above are fulfilled. The Permitee may be required to conduct a step rate injection test or other suitable test to provide information for determining the fracture pressure of the injection zone. Change of the permitted MAIP by the Director shall be by modification of this Permit and APPENDIX C.

4. *Injection Volume Limitation.*

Injection volume is limited to the total volume specified in APPENDIX C.

5. *Injection Fluid Limitation.*

Injected fluids are limited to those identified in 40 CFR 144.6(b)(2) as fluids used for enhanced recovery of oil or natural gas, including those which are brought to the surface in connection with conventional oil or natural gas production that may be commingled with waste waters from gas plants which are an integral part of production operations unless those waters are classified as a hazardous waste at the time of injection, pursuant to 40 CFR 144.6(b). Non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes and vacuum truck wastes, are NOT approved for injection. This well is NOT approved for commercial brine injection, industrial waste fluid disposal or injection of hazardous waste as defined by CFR 40 Part 261. The Permittee shall provide a listing of the sources of injected fluids in accordance with the reporting requirements in Part II Section D Paragraph 4 and APPENDIX D of this Permit.

6. Tubing-Casing Annulus (TCA)

The tubing-casing annulus (TCA) shall be filled with water treated with a corrosion inhibitor, or other fluid approved by the Director. The TCA valve shall remain closed during normal operating conditions and the TCA pressure shall be maintained at zero (0) psi.

If TCA pressure cannot be maintained at zero (0) psi, the Permittee shall follow the procedures in Ground Water Section Guidance No. 35 "Procedures to follow when excessive annular pressure is observed on a well."

Section D. MONITORING, RECORDKEEPING, AND REPORTING OF RESULTS

1. Monitoring Parameters, Frequency, Records and Reports.

Monitoring parameters are specified in APPENDIX D. Pressure monitoring recordings shall be taken at the wellhead. The listed parameters are to be monitored, recorded and reported at the frequency indicated in APPENDIX D even during periods when the well is not operating.

Monitoring records must include:

(a) the date, time, exact place and the results of the observation, sampling, measurement, or analysis, and;

(b) the name of the individual(s) who performed the observation, sampling, measurement, or analysis, and;

(c) the analytical techniques or methods used for analysis.

2. Monitoring Methods.

(a) Monitoring observations, measurements, samples, etc. taken for the purpose of complying with these requirements shall be representative of the activity or condition being monitored.

(b) Methods used to monitor the nature of the injected fluids must comply with analytical methods cited and described in Table 1 of 40 CFR 136.3 or Appendix III of 40 CFR 261, or by other methods that have been approved in writing by the Director.

(c) Injection pressure, annulus pressure, injection rate, and cumulative injected volumes shall be observed and recorded at the wellhead under normal operating conditions, and all parameters shall be observed simultaneously to provide a clear depiction of well operation.

(d) Pressures are to be measured in pounds per square inch (psi).

(e) Fluid volumes are to be measured in standard oil field barrels (bbl).

(f) Fluid rates are to be measured in barrels per day (bbl/day).

3. Records Retention.

(a) Records of calibration and maintenance, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained for a period of AT LEAST THREE (3) YEARS from the date of the sample, measurement, report, or application. This period may be extended anytime prior to its expiration by request of the Director.

(b) Records of the nature and composition of all injected fluids must be retained until three (3) years after the completion of any plugging and abandonment (P&A) procedures specified under 40 CFR 144.52(a)(6) or under Part 146 Subpart G, as appropriate. The Director may require the Permittee to deliver the records to the Director at the conclusion of the retention period. The Permittee shall continue to retain the records after the three (3) year retention period unless the Permittee delivers the records to the Director or obtains written approval from the Director to discard the records.

(c) The Permittee shall retain records at the location designated in APPENDIX D.

4. Annual Reports.

Whether the well is operating or not, the Permittee shall submit an Annual Report to the Director that summarizes the results of the monitoring required by Part II Section D and APPENDIX D.

The first Annual Report shall cover the period from the effective date of the Permit through December 31 of that year. Subsequent Annual Reports shall cover the period from January 1 through December 31 of the reporting year. Annual Reports shall be submitted by February 15 of the year following data collection. EPA Form 7520-11 may be copied and shall be used to submit the Annual Report, however, the monitoring requirements specified in this Permit are mandatory even if EPA Form 7520-11 indicates otherwise.

Section E. PLUGGING AND ABANDONMENT

1. Notification of Well Abandonment, Conversion or Closure.

The Permittee shall notify the Director in writing at least forty-five (45) days prior to: 1) plugging and abandoning an injection well, 2) converting to a non-injection well, and 3) in the case of an Area Permit, before closure of the project.

2. Well Plugging Requirements

Prior to abandonment, the injection well shall be plugged with cement in a manner which prevents the movement of fluids into or between underground sources of drinking water. Prior to placement of the cement plug(s) the well shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Director. The well shall be plugged in accordance with the approved plugging and abandonment plan and with 40 CFR 146.10.

3. Approved Plugging and Abandonment Plan.

The approved plugging and abandonment plan is incorporated into this Permit as APPENDIX E. Changes to the approved plugging and abandonment plan must be approved by the Director prior to beginning plugging operations. The Director also may require revision of the approved plugging and abandonment plan at any time prior to plugging the well.

4. Forty Five (45) Day Notice of Plugging and Abandonment.

The Permittee shall notify the Director at least forty-five (45) days prior to plugging and abandoning a well and provide notice of any anticipated change to the approved plugging and abanonment plan.

5. Plugging and Abandonment Report.

Within sixty (60) days after plugging a well, the Permittee shall submit a report (EPA Form 7520-13) to the Director. The plugging report shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:

(a) A statement that the well was plugged in accordance with the approved plugging and abandonment plan; or

(b) Where actual plugging differed from the approved plugging and abandonment plan, an updated version of the plan, on the form supplied by the Director, specifying the differences.

6. Inactive Wells.

After any period of two years during which there is no injection the Permittee shall plug and abandon the well in accordance with Part II Section E Paragraph 2 of this Permit unless the Permittee:

(a) Provides written notice to the Director;

(b) Describes the actions or procedures the Permittee will take to ensure that the well will not endanger USDWs during the period of inactivity. These actions and procedures shall include compliance with mechanical integrity demonstration, Financial Responsibility and all other permit requirements designed to protect USDWs; and

(c) Receives written notice by the Director temporarily waiving plugging and abandonment requirements.

PART III. CONDITIONS APPLICABLE TO ALL PERMITS

Section A. EFFECT OF PERMIT

The Permittee is allowed to engage in underground injection in accordance with the conditions of this Permit. The Permittee shall not construct, operate, maintain, convert, plug, abandon, or conduct any other activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR 142 or may otherwise adversely affect the health of persons. Any underground injection activity not authorized by this Permit or by rule is prohibited. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any enforcement action brought under the provisions of Section 1431 of the Safe Drinking Water Act (SDWA) or any other law governing protection of public health or the environment, for any imminent and substantial endangerment to human health or the environment, nor does it serve as a shield to the Permittee's independent obligation to comply with all UIC regulations. Nothing in this Permit relieves the Permittee of any duties under applicable regulations.

Section B. CHANGES TO PERMIT CONDITIONS

1. Modification, Reissuance, or Termination.

The Director may, for cause or upon a request from the Permittee, modify, revoke and reissue, or terminate this Permit in accordance with 40 CFR 124.5, 144.12, 144.39, and 144.40. Also, this Permit is subject to minor modification for causes as specified in 40 CFR 144.41. The filing of a request for modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any condition of this Permit.

2. Conversions.

The Director may, for cause or upon a written request from the Permittee, allow conversion of the well from a Class II injection well to a non-Class II well. Conversion may not proceed until the Permittee receives written approval from the Director. Conditions of such conversion may include but are not limited to, approval of the proposed well rework, follow up demonstration of mechanical integrity, well-specific monitoring and reporting following the conversion, and demonstration of practical use of the converted configuration.

3. Transfer of Permit.

Under 40 CFR 144.38, this Permit is transferable provided the current Permittee notifies the Director at least thirty (30) days in advance of the proposed transfer date (EPA Form 7520-7) and provides a written agreement between the existing and new Permittees containing a specific date for transfer of Permit responsibility, coverage and liability between them. The notice shall adequately demonstrate that the financial responsibility requirements of 40 CFR 144.52(a)(7) will be met by the new Permittee. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Safe Drinking Water Act; in some cases, modification or revocation and reissuance is mandatory.

4. Permittee Change of Address.

Upon the Permittee's change of address, or whenever the operator changes the address where monitoring records are kept, the Permittee must provide written notice to the Director within 30 days.

5. Construction Changes, Workovers, Logging and Testing Data

The Permittee shall give advance notice to the Director, and shall obtain the Director's written approval prior to any physical alterations or additions to the permitted facility. Alterations or workovers shall meet all conditions as set forth in this permit. The Permittee shall record any changes to the well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workovers, logging , or test data to EPA within sixty (60) days of completion of the activity.

Following the completion of any well workovers or alterations which affect the casing, tubing, or packer, a successful demonstration of mechanical integrity (Part III, Section F of this permit) shall be made, and written authorization from the Director received, prior to resuming injection activities.

Section C. SEVERABILITY

The Provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

Section D. CONFIDENTIALITY

In accordance with 40 CFR Part 2 and 40 CFR 144.5, information submitted to EPA pursuant to this Permit may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

- The name and address of the Permittee, and
- information which deals with the existence, absence or level of contaminants in drinking water.

Section E. GENERAL PERMIT REQUIREMENTS

1. Duty to Comply.

The Permittee must comply with all conditions of this Permit. Any noncompliance constitutes a violation of the Safe Drinking Water Act (SDWA) and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application; except that the Permittee need not comply with the provisions of this Permit to the extent and for the duration such noncompliance is authorized in an emergency permit under 40 CFR 144.34. All violations of the SDWA may subject the Permittee to penalties and/or criminal prosecution as specified in Section 1423 of the SDWA.

2. *Duty to Reapply.*
If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, under 40 CFR 144.37 the Permittee must apply for a new permit prior to the expiration date.

3. *Need to Halt or Reduce Activity Not a Defense.*
It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

4. *Duty to Mitigate.*
The Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Permit.

5. *Proper Operation and Maintenance.*
The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit.

6. *Permit Actions.*
This Permit may be modified, revoked and reissued or teminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

7. *Property Rights.*
This Permit does not convey any property rights of any sort, or any exclusive privilege.

8. *Duty to Provide Information.*
The Permittee shall furnish to the Director, within a time specified, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit. The Permittee is required to submit any information required by this Permit or by the Director to the mailing address designated in writing by the Director.

9. *Inspection and Entry.*
The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and,

(d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

10. Signatory Requirements.

All applications, reports or other information submitted to the Director shall be signed and certified according to 40 CFR 144.32. This section explains the requirements for persons duly authorized to sign documents, and provides wording for required certification.

11. Reporting Requirements.

(a) Planned changes. The Permittee shall give notice to the Director as soon as possible of any planned changes, physical alterations or additions to the permitted facility, and prior to commencing such changes.

(b) Anticipated noncompliance. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Monitoring Reports. Monitoring results shall be reported at the intervals specified in this Permit.

(d) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 30 days following each schedule date.

(e) Twenty-four hour reporting. The Permittee shall report to the Director any noncompliance which may endanger human health or the environment, including:

(i) Any monitoring or other information which indicates that any contaminant may cause endangerment to a USDW; or

(ii) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

Information shall be provided, either directly or by leaving a message, within twenty-four (24) hours from the time the permittee becomes aware of the circumstances by telephoning (800) 227-8917 and requesting EPA Region VIII UIC Program Compliance and Technical Enforcement Director, or by contacting the EPA Region VIII Emergency Operations Center at (303) 293-1788.

In addition, a follow up written report shall be provided to the Director within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

(f) Oil Spill and Chemical Release Reporting: The Permittee shall comply with all reporting requirements related to the occurence of oil spills and chemical releases by contacting the National Response Center (NRC) at (800) 424-8802, (202) 267-2675, or through the NRC website http://www.nrc.uscg.mil/index.htm.

(g) Other Noncompliance. The Permittee shall report all instances of noncompliance not reported under paragraphs Part III, Section E Paragraph 11(b) or Section E, Paragraph 11(e) at the time the monitoring reports are submitted. The reports shall contain the information listed in Paragraph 11(e) of this Section.

(h) Other information. Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall promptly submit such facts or information to the Director.

Section F. FINANCIAL RESPONSIBILITY

1. Method of Providing Financial Responsibility.

The Permittee shall maintain continuous compliance with the requirement to maintain financial responsibility and resources to close, plug, and abandon the underground injection well(s). No substitution of a demonstration of financial responsibility shall become effective until the Permittee receives written notification from the Director that the alternative demonstration of financial responsibility is acceptable. The Director may, on a periodic basis, require the holder of a permit to revise the estimate of the resources needed to plug and abandon the well to reflect changes in such costs and may require the Permittee to provide a revised demonstration of financial responsibility.

2. Insolvency.

In the event of:

(a) the bankruptcy of the trustee or issuing institution of the financial mechanism; or

(b) suspension or revocation of the authority of the trustee institution to act as trustee; or

(c) the institution issuing the financial mechanism losing its authority to issue such an instrument

the Permittee must notify the Director in writing, within ten (10) business days, and the Permittee must establish other financial assurance or liability coverage acceptable to the Director within sixty (60) days after any event specified in (a), (b), or (c) above.

The Permittee must also notify the Director by certified mail of the commencement of voluntary or involuntary proceedings under Title 11 (Bankruptcy), U.S. Code naming the owner or operator as debtor, within ten (10) business days after the commencement of the proceeding. A guarantor, if named as debtor of a corporate guarantee, must make such a notification as required under the terms of the guarantee.

APPENDIX A

WELL CONSTRUCTION REQUIREMENTS

The Pearl Broadhurst 5 originally was drilled to a total depth of 5907 ft and completed in spring 1964.

494 ft of 32.75 #/ft 10-3/4" casing was set in a 15" hole using 353 sx cement. 5557 ft of 20#/ft and 23#/ft 7" longstring casing was set in a 9" hole using 360 sx 50-50 PozMix salt saturated cement [Plugged Back Total Depth (PBTD) is 5481 ft.]

Top of cement depth is 4226 ft by cement bond log analysis, according to supplied information, and corroborated by a cement volume calculation of fill-up to a depth of approximately 3100 ft. Production perforations were added at 5325 ft, 5333 ft, 5388 ft, 5397 ft, 5412 ft and 5431 ft; additional perforations were added at 4794 ft and 4828 ft. In December 1971, perforations were added from 4748 ft to 4852 ft. In September 1990, perforations were added from 4392 ft to 4408 ft and from 4414 ft to 4429 ft.

Two packers may be set within the approved injection zone in the well, in order to preserve the upper perforations for injection purposes at a later date. The upper packer shall be a 7 inch Baker Snap set or equivalent set at approximately 4380 ft that will isolate the upper perforations in the Parachute Creek Member and an upper portion of the Garden Gulch Member. The lower packer for initial injection into the lower, or Garden Gulch, injection interval shall be a 7 inch Backer Loc-Set or equivalent set at approximately 4896 ft.

5/14/04

CITATION OIL & GAS CORP.
PROPOSED PEARL BROADHURST #5 WIW
743' FSL & 564 FWL, SW SW, Section 10, T-7-S, R-23-E
UINTAH CO., UTAH

TUBING DETAIL			
Qty	Description	Length	Depth
—	KB (used)	12.00	12.00
135	2 7/8" J-55 6.5#, 8rd EUE IPC tbg	4,367.00	4,379.00
1	Baker Snap-Set PKR	1.10	4,380.10
16	2 7/8" J-55 6.5#, 8rd EUE IPC tbg	511.00	4,891.10
1	2 7/8" SN	1.10	4,892.20
1	Baker Lok-Set PKR	4.00	4,896.20
1	2 7/8" tbg collar	0.45	4,896.65

KB: 12 FT

Status: Shut-in water injector

Uinta Fm @ surface

15" Hole

10 3/4" 32.75# H-40 csg 494' cmt'd W/353 sx

Vista Fm 2868' (base of USDW's)

Green River

* note: Green River Formation exempted

TOC @ 4226' By CBL (5/64)

9" Hole

Confining Zone - upper Green River Fm Shales 4300'-4386'

Set additional PKR above open backside perfs for isolation, then retest wellbore for mechanical integrity.

7" Baker Snap Set PKR @ +/-4380'

Parachute Creek

DHA2

DSA1

DSB4

DSBL

Green River G: 4392 – 4408 & 14 – 29' (4 JSPF) (9/90)

Green River H2: 4748 - 52' (3 JSPF) (12/71)

Green River H4: 4794' (5 JSPF) (6/64)

Green River H5: 4828' (5 JSPF) (6/64)

7" Baker Lok-Set PKR @ 4896'

7" HOWCO Frac Liner F/4942 – 5007'.

DJC

DJL

DJD

DLIA

DLM

Green River J6: 5325' (4 JSPF) (3/66)

Green River J7: 5333' (4 JSPF) (3/66)

Green River K1: 5388 & 97' (4 SPF) (3/66)

Green River K2: 5412' (4 JSPF) (3/66)

Green River K3: 5431' (4 SPF) (3/66)

Garden Gulch

7" 23# J-55 F/surf – 144' over 7" 20# J-55 F/144 – 4373' over 7" 23# J-55 F/4373 - 5567' cmt'd W/360 sx

PBTD:5481'

TD: 5907'

PBroadhurst 5 - constr.bmp

FINAL PERMIT

Permit UT20981-02392

APPENDIX B

LOGGING AND TESTING REQUIREMENTS

Logs.
Logs will be conducted according to current UIC guidance. It is the responsibility of the permittee to obtain and use guidance prior to conducting any well logging required as a condition of this permit.

NO LOGGING REQUIREMENTS

Tests.
Tests will be conducted according to current UIC guidance. It is the responsibility of the permittee to obtain and use guidance prior to conducting any well test required as a condition of this permit.

WELL NAME: USA Pearl Broadhurst 5

TYPE OF TEST	DATE DUE
Standard Annulus Pressure	prior to commencement of injection operations and at least once every five years thereafter

APPENDIX C

OPERATING REQUIREMENTS

MAXIMUM ALLOWABLE INJECTION PRESSURE:

Maximum Allowable Injection Pressure (MAIP) as measured at the surface shall not exceed the pressure(s) listed below.

WELL NAME	MAXIMUM ALLOWED INJECTION PRESSURE (psi)	
	ZONE 1 (Upper)	ZONE 2 (Lower)
USA Pearl Broadhurst 5	1,165	1,255

INJECTION INTERVAL(S):

Injection is permitted only within the approved injection interval listed below. Injection perforations may be altered provided they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6. Specific injection perforations can be found in Appendix A.

WELL NAME: USA Pearl Broadhurst 5

FORMATION NAME	APPROVED INJECTION INTERVAL (GL, ft)		FRACTURE GRADIENT (psi/ft)
	TOP	BOTTOM	
Parachute Creek Member, Green River Formation	4,392.00 -	4,430.00	0.700
Garden Gulch Member, Green River Formation	4,748.00 -	5,436.00	0.700

ANNULUS PRESSURE:

The annulus pressure shall be maintained at zero (0) psi as measured at the wellhead. If this pressure cannot be maintained, the Permittee shall follow the procedures listed under Part II, Section C. 6. of this permit.

MAXIMUM INJECTION VOLUME:

There is no limitation on the number of barrels per day (bbls/day) of water that shall be injected into this well, provided further that in no case shall injection pressure exceed that limit shown in Appendix C.

APPENDIX D

MONITORING AND REPORTING PARAMETERS

This is a listing of the parameters required to be observed, recorded, and reported. Refer to the permit Part II, Section D, for detailed requirements for observing, recording, and reporting these parameters.

OBSERVE MONTHLY AND RECORD AT LEAST ONCE EVERY THIRTY DAYS	
OBSERVE AND RECORD	Injection pressure (psig)
	Annulus pressure(s) (psig)
	Injection rate (bbl/day)
	Fluid volume injected since the well began injecting (bbls)

ANNUALLY	
ANALYZE	Injected fluid total dissolved solids (mg/l)
	Injected fluid specific gravity
	Injected fluid specific conductivity
	Injected fluid pH

ANNUALLY	
REPORT	Each month's maximum and averaged injection pressures (psig)
	Each month's maximum and averaged annulus pressure(s) (psig)
	Each month's averaged injection rate (bbl/day)
	Fluid volume injected since the well began injecting (bbl)
	Written results of annual injected fluid analysis
	Sources of all fluids injected during the year

Records of all monitoring activities must be retained and made available for inspection at the following location:

8223 Willow Place South

Houston, TX 77070

APPENDIX E

PLUGGING AND ABANDONMENT REQUIREMENTS

The plugging and abandonment plan (P&A Plan) submitted by the applicant was found to be insufficient for protection of USDWs after well abandonment, and has been revised.

The well shall be plugged in a manner that isolates the injection zone and prevents movement of fluids into or between USDWs. Class A, C, G, or H cements, and additives such as accelerators and retarders added to enhance or control the properties of the cement ay be used, however, volume-extending additives and gel cements are not approved for plug use. Tubing and packers, shall be removed prior to plugging and abandoning. A cement retainer set 50-100 ft above the top injection perforations with cement squeezed below the retainer may be used to isolate the injection zone. The amount of cement used must fill the casing between the retainer and the perforations and allow for some cement to penetrate perforations. At least 20 ft of cement must be left on top of the retainer. Alternatively, a cast iron bridge plug set 50-100 ft above the top perforation may be used to isolate the injection zone. At least 20 ft of cement must be placed on top of a bridge plug. Cast iron bridge plugs, balanced plugs or dump bailer plugs made be used to isolate uphole zones. Plug placement shall be verified by tagging. A plugging gel of at least 9.2 lb/gal shall be emplaced between all cement plugs. A surface plug of at least 50 feet shall be set inside and outside of the casing to seal pathways for fluid migration into the subsurface via the well. Within sixty (60) days after plugging the owner or operator shall submit Plugging Record (EPA Form 7520-13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation.

The following plugs, at a minimum, are required under this Permit:

Plug #1: inside casing from at least 4350 ft to PBTD at 5481 ft, to isolate all injection zone perforations and to seal the wellbore above, across and below the confining zone.

Plug #2: because the well bore may be uncemented upward from top of cement at 4226 ft, a block squeeze is required across the base of the Uinta Formation at 2868 ft in order to isolate and protect it and all overlying water bearing zones/USDWs. The block squeeze shall be designed to emplace cement into the well bore behind the longstring casing from a depth of at least 2970 ft upward to a depth of at least 2570 ft.

Plug #3: inside casing from at least 2970 ft to at least 2570 ft.

Plug #4: because the well bore is uncemented upward from top of cement at 4226 ft, cement is required across the base of the surface casing shoe at approximately 494 ft. The cement shall be placed into the well bore behind the casing from a depth of at least 520 ft upward to a depth of at least 480 ft.

Plug #5: inside casing from at least 450 ft to at least 550 ft to seal the base of the surface casing

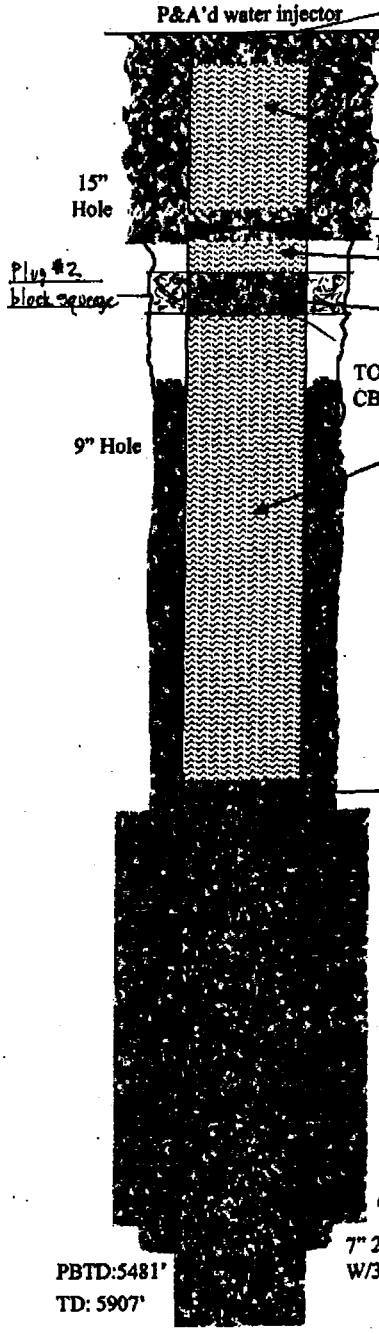
Plug #6: surface plug of at least 50' in the annular space between the surface casing and casing.

Plug #7: surface plug of at least 50' inside the casing.

8/4/04

CITATION OIL & GAS CORP.
PROPOSED PEARL BROADHURST #5 WIW
743' FSL & 564 FWL, SW SW, Section 10, T-7-S, R-23-E
UINTAH CO., UTAH
ATTACHMENT I-2

TUBING DETAIL			
Qty	Description	Length	Depth
—	KB (used)	12.00	12.00



Green River G: 4392 – 4408 & 14 – 29' (4 JSPF) (9/90)

Green River H2: 4748 - 52' (3 JSPF) (12/71)

Green River H4: 4794' (5 JSPF) (6/64)

Green River H5: 4828' (5 JSPF) (6/64)

7" HOWCO Frac Liner F/4942 – 5007'.

Green River J6: 5325' (4 JSPF) (3/66)

Green River J7: 5333' (4 JSPF) (3/66)

Green River K1: 5388 & 97' (4 SPF) (3/66)

Green River K2: 5412' (4 JSPF) (3/66)

Green River K3: 5431' (4 SPF) (3/66)

7" 23# J-55 F/surf – 144' over 7" 20# J-55 F/144 – 4373' over 7" 23# J-55 F/4373 - 5567' cmt'd W/360 sx

PBroadhurst 5 - P&A.bmp

APPENDIX F

CORRECTIVE ACTION REQUIREMENTS

No corrective action is deemed necessary for this project.

STATEMENT OF BASIS

CITATION OIL & GAS CORPORATION
USA PEARL BROADHURST 5
UINTAH COUNTY, UT

EPA PERMIT NO. UT20981-02392

CONTACT: Dan Jackson
U. S. Environmental Protection Agency
Ground Water Program, 8P-W-GW
999 18th Street, Suite 300
Denver, Colorado 80202-2466
Telephone: 1-800-227-8917 ext. 6155

This STATEMENT OF BASIS gives the derivation of site-specific UIC Permit conditions and reasons for them. Referenced sections and conditions correspond to sections and conditions in the Permit.

UIC Permits specify the conditions and requirements for construction, operation, monitoring and reporting, and plugging of injection wells to prevent the movement of fluids into underground sources of drinking water (USDWs). Under 40 CFR 144 Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General Permit conditions for which content is mandatory and not subject to site-specific differences (40 CFR Parts 144, 146 and 147) are not discussed in this document.

Upon the Effective Date when issued, the Permit authorizes the operation of an "existing" injection well or wells governed by the conditions specified in the Permit. The Permit is issued for the operating life of the injection well or project unless terminated for reasonable cause under 40 CFR 144.39, 144.40 and 144.41. The Permit is subject to EPA review at least once every five (5) years to determine if action is required under 40 CFR 144.36(a).

PART I. General Information and Description of Facility

Citation Oil & Gas Corporation
8223 Willow Place South
Suite 250
Houston, TX 77070

on

August 9, 2004

submitted an application for an Underground Injection Control (UIC) Program Permit for the following injection well or wells:

USA Pearl Broadhurst 5
743 FSL 564 FWL, SWSW S10, T7S, R23E
UINTAH County, UT

Regulations specific to Uintah-Ouray Indian Reservation injection wells are found at 40 CFR 147 Subpart TT.

The Permit application, including the required information and data necessary to issue a UIC Permit in accordance with 40 CFR Parts 144, 146 and 147, was reviewed by EPA and determined to be complete.

An "existing" well is an injection well which began injection operation prior to the November 25, 1988 effective date for the UIC Program on all Indian lands in Utah.

Drilled by Pan American Petroleum Corporation in the spring of 1964 as a Green River Formation oil production well, the Pearl Broadhurst No. 5 was converted to an injection well for enhanced oil recovery in November 1971. Initially regulated by the Utah Division of Oil, Gas and Mining, the Pearl Broadhurst 5 was determined to be rule-authorized by the EPA effective March 10, 1993 following promulgation of the Underground Injection Control Program for the Uintah & Ouray Indian Reservation in November of 1988. On August 5, 2004, Citation Oil and Gas Corp (Citation) filed a UIC Permit application with the EPA. The Pearl Broadhurst #5 currently is shut-in until the requested permitting action is completed.

The Permit will expire upon delegation of primary enforcement responsibility (primacy) for applicable portions of the UIC Program to the Ute Indian Tribe or the State of Utah unless the delegated agency has the authority and chooses to adopt and enforce this Permit as a Tribal or State Permit.

TABLE 1.1 shows the status of the well or wells as "New", "Existing", or "Conversion" and for Existing shows the original date of injection operation. Well authorization "by rule" under 40 CFR Part 144 Subpart C expires automatically on the Effective Date of an issued UIC Permit.

TABLE 1.1 WELL STATUS / DATE OF OPERATION		
EXISTING WELLS		
Well Name	**Well Status**	**Date of Operation**
USA Pearl Broadhurst 5	Existing	11/1/1971

Hydrogeologic Setting

Geologic Setting (TABLE 2.1)

The well is located in the Walker Hollow Unit near the center of the broad, gently northward dipping south flank of the Uinta Basin. The Basin is a topographic and structural trough encompassing an area of more than 9300 square mi (14,900 km) in northeast Utah. The basin is sharply asymmetrical, with a steep north flank bounded by the east-west-trending Uinta Mountains, and a gently dipping south flank. The Basin formed in Paleocene to Eocene time, creating a large area of internal drainage which was filled by ancestral Lake Uinta. The southern shore of Lake Uinta was often very broad and flat, which allowed large transgressive and regressive shifts in the shoreline in response to climatic and tectonic-induced rise and fall of the lake. The cyclic nature of Green River deposition in the southwest Uinta Basin resulted in numerous stacked deltaic deposits, and distributary-mouth bars, distributary channels, and nearshore bars are the primary producing sandstone reservoirs in the area.

The Uinta Formation occurs from the surface to a depth of 2868 ft at this well. The Uinta Formation, primarily fluvial (river), is underlain by the Green River Formation which consists of lacustrine (lake) margin lenticular sandstone, limestone and shale beds. Several distinct geologic hydrocarbon productive Members are identified within the Green River Formation; the Parachute Creek, Mahogony Oil Shale, Garden Gulch, Douglas Creek, and the Basal Carbonate Members. The cyclic nature of Green River deposition resulted in numerous "stacked" deltaic deposits. The Basal Carbonate Member is the basal unit of the Green River Formation in the Walker Hollow Unit. Underlying the Green River Formation is the Wasatch Formation, a thick regionally extensive, alluvial-fluvial unit which can be up to 3000 ft thick, consisting primarily of mudstone, shale and lenticular sandstone encased in siltstone.

TABLE 2.1
GEOLOGIC SETTING
USA Pearl Broadhurst 5

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Lithology
Uinta Formation	0.00	2,868.00	< 10,000.00	fluvial shale and interbedded sandstone
Green River Formation	2,868.00	5,450.00	6,758.00	very fine to fine-grained coarsening upward sandstone with interbedded impermeable shale
Mahogany Oil Shale Member, Green River Formation	3,390.00	3,688.00		shale
Parachute Creek Member, Green River Formation	4,386.00	4,442.00	6,758.00	very fine to fine-grained coarsening upward sandstone with interbedded impermeable shale
Garden Gulch Member, Green River Formation	4,740.00	5,450.00	6,758.00	very fine to fine-grained coarsening upward sandstone with interbedded impermeable shale
Wasatch Formation	5,840.00	5,841.00	> 10,000.00	mudstone, shale and lenticular sandstone encased in siltstone

Proposed Injection Zone(s) (TABLE 2.2)

An injection zone is a geological formation, group of formations, or part of a formation that receives fluids through a well. The proposed injection zones are listed in TABLE 2.2.

Injection will occur into an injection zone that is separated from USDWs by the confining zone which is free of known open faults or fractures within the Area of Review.

The injection zones consist of multiple sands within the Green River Formation between the gross depths of 4392 ft to 5436 ft.

The upper injection zone, from 4392 ft to 4430 ft, is within the Parachute Creek Member and an upper portion of the Garden Gulch Member of the Green River Formation. The Parachute Creek Member consists of interbedded marginal-lacustrine and open-lacustrine sandstone and shale, and it directly overlies the Mahogany Bench (oil shale) Member.

The lower injection zone, from 4724 ft to 5436 ft, is within the Garden Gulch Member of the Green River Formation. The Garden Gulch Member consists of interbedded sandstone, shale, and limestone. It was deposited during a time of overall lake-level rise, resulting in less total sandstone and generally individual, isolated channel and bar deposits.

TABLE 2.2
INJECTION ZONES
USA Pearl Broadhurst 5

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Fracture Gradient (psi/ft)	Porosity	Exempted?*
Parachute Creek Member, Green River Formation	4,392.00	4,430.00	6,758.00	0.700		E
Garden Gulch Member, Green River Formation	4,748.00	5,436.00	6,758.00	0.700		E

* C - Currently Exempted
E - Previously Exempted
P - Proposed Exemption
N/A - Not Applicable

Confining Zone(s) (TABLE 2.3)

A confining zone is a geological formation, part of a formation, or a group of formations that limits fluid movement above the injection zone. The confining zone or zones are listed in TABLE 2.3.

The Confining Zone, a portion of the Upper Green River Formation overlying the Parachute Creek and Garden Gulch Member injection zones, occurs from approximately 4300 ft to 4386 ft and consists of approximately 85 ft of primarily impermeable shale. The Upper Green River Formation consists primarily of interbedded impermeable shale, limestone and occasional very fine to fine grained lenticular sandstone deposited in a low energy lacustrine environment.

TABLE 2.3
CONFINING ZONES
USA Pearl Broadhurst 5

Formation Name	Formation Lithology	Top (ft)	Base (ft)
upper Green River Formation shale	interbedded impermeable shale and siltstone	4,300.00	4,386.00

Underground Sources of Drinking Water (USDWs) (TABLE 2.4)

Aquifers or the portions thereof which contain less than 10,000 mg/l total dissolved solids (TDS) and are being or could in the future be used as a source of drinking water are considered to be USDWs. The USDWs in the area of this facility are identified in TABLE 2.4.

The Unita Formation, occurring from surface to 2868 ft, is known to contain fresh water, salt water and gas within this general area. Near-surface Uinta Formation sand occasionally is used as a fresh water source. The Green River Formation also may contain limited fresh water, salt water, gas and oil. According to Base of Moderately Saline Ground Water in the Uintah Basin, Utah, Technical Publication 92/USGS Open File Report 87-394, the base of USDWs occurs within the Green River Formation in this area at an approximate elevation of 1800 ft / depth of 3470 ft.

However, because the Green River Formation has been exempted beneath the Walker Hollow Field, the base of USDWs is the top of the Green River Formation at 2868 ft. at this well.

PART III. Well Construction (40 CFR 146.22)

TABLE 3.1
WELL CONSTRUCTION REQUIREMENTS
USA Pearl Broadhurst 5

Casing Type	Hole Size (in)	Casing Size (in)	Cased Interval (ft)	Cemented Interval (ft)
long string	9.00	7.00	0.00 - 5,567.00	4,226.00 - 5,907.00
surface	15.00	10.75	0.00 - 494.00	0.00 - 495.00

The approved well completion plan will be incorporated into the Permit as APPENDIX A and will be binding on the Permittee. Modification of the approved plan is allowed under 40 CFR 144.52(a)(1) provided written approval is obtained from the Director prior to actual modification.

Casing and Cementing (TABLE 3.1)

The constuction of this "existing" injection well was evaluated and determined to be in conformance with standard practices and guidelines that ensure well injection does not result in the movement of fluids into USDWs. Well construction details for "existing" injection well or wells are shown in TABLE 3.1.

The Pearl Broadhurst 5 originally was drilled to a total depth of 5907 ft and completed in spring 1964. 494 ft of 32.75 #/ft 10-3/4 inch casing was set in a 15" hole using 353 sx cement. 5557 ft of 20#/ft and 23#/ft 7 inch longstring casing was set in a 9 inch hole using 360 sx 50-50 PozMix salt saturated cement [Plugged Back Total Depth (PBTD) is 5481 ft.]

Top of cement depth is 4226 ft by cement bond log analysis, according to supplied information, and corroborated by a cement volume calculation of fill-up to a depth of approximately 3100 ft. Production perforations were added at 5325 ft, 5333 ft, 5388 ft, 5397 ft, 5412 ft and 5431 ft; additional perforations were added at 4794 ft and 4828 ft. In December 1971, perforations were added from 4748 ft to 4852 ft. In September 1990, perforations were added from 4392 ft to 4408 ft and from 4414 ft to 4429 ft.

Tubing and Packer

Injection tubing is required to be installed from a packer up to the surface inside the well casing. The packer will be set above the uppermost perforation. The tubing and packer are designed to prevent injection fluid from coming into contact with the outermost casing.

Two packers are proposed to be set within the approved injection zone in the well. Citation proposed this construction in order to preserve those upper perforations for injection purposes at a later date. The upper packer is to be a 7 inch Baker Snap set or equivalent set at approximately 4380 ft that will isolate the upper perforations in the Parachute Creek Member and an upper portion of the Garden Gulch Member. The lower packer for initial injection into the lower, or

Garden Gulch, injection interval is to be a 7 inch Backer Loc-Set or equivalent set at approximately 4896 ft.

Tubing-Casing Annulus (TCA)

The TCA allows the casing, tubing and packer to be pressure-tested periodically for mechanical integrity, and will allow for detection of leaks. The TCA will be filled with fresh water treated with a corrosion inhibitor or other fluid approved by the Director.

Monitoring Devices

The permittee will be required to install and maintain wellhead equipment that allows for monitoring pressures and providing access for sampling the injected fluid. Required equipment may include but is not limited to: 1) shut-off valves located at the wellhead on the injection tubing and on the TCA; 2) a flow meter that measures the cumulative volume of injected fluid; 3) fittings or pressure gauges attached to the injection tubing and the TCA for monitoring the injection and TCA pressure; and 4) a tap on the injection line, isolated by shut-off valves, for sampling the injected fluid.

All sampling and measurement taken for monitoring must be representative of the monitored activity.

PART IV. Area of Review, Corrective Action Plan (40 CFR 144.55)

TABLE 4.1
AOR AND CORRECTIVE ACTION

Well Name	Type	Status (Abandoned Y/N)	Total Depth (ft)	TOC Depth (ft)	CAP Required (Y/N)
USA Pearl Broadhurst 15	Producer	No	5,517.00	1,000.00	No
USA Pearl Broadhurst 16	Producer	No	5,487.00	1,250.00	No
USA Pearl Broadhurst 22	Producer	No	5,650.00	1,570.00	No

TABLE 4.1 lists the wells in the Area of Review ("AOR") and shows the well type, operating status, depth, top of casing cement ("TOC") and whether a Corrective Action Plan ("CAP") is required for the well.

In addition to the existing subject injection the USA Pearl Broadhurst 5, there are three shut-in oil wells in the 1/4 mile area of review; the USA Pearl Broadhurst 15, the USA Pearl Broadhurst 16, and the USA Pearl Broadhurst 22.

Construction of each well was evaluated and no corrective action was determined to be required.

Under 40 CFR 144.55, "existing" wells are exempt from corrective action requirements. The applicant has shown that this well qualifies for such an exemption because the well began injection operation prior to the November 25, 1988 effective date of the UIC Program on all Indian lands in Utah.

PART V. Well Operation Requirements (40 CFR 146.23)

TABLE 5.1
INJECTION ZONE PRESSURES
USA Pearl Broadhurst 5

Formation Name	Depth Used to Calculate MAIP (ft)	Fracture Gradient (psi/ft)	Initial MAIP (psi)
Parachute Creek Member, Green River Formation	4,392.00	0.700	1,165
Garden Gulch Member, Green River Formation	4,748.00	0.700	1,255

Approved Injection Fluid

The approved injection fluid is limited to fluids which meet requirements pursuant to 40 CFR § 144.6(b). For disposal wells injecting water brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production, the fluid may be commingled and the well used to inject other Class II wastes such as drilling fluids and spent well completion, treatment and stimulation fluid. Non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes and vacuum truck wastes, are not approved.

Injection fluid is Green River Formation water produced from oil production wells within the USA Pearl Broadhurst Lease.

Injection Pressure Limitation

Injection pressure, measured at the wellhead, shall not exceed a maximum calculated to assure that the pressure used during injection does not initiate new fractures or propagate existing fractures in the confining zones adjacent to the USDWs.

The initial maximum injection pressure is based on a fracture gradient of .7 psi/ft, as discussed in an Application for Approval of Class II Injection Well dated December 22, 1981, which is considered reasonable as compared to a fracture gradient calculated using fracture treatment information as provided in the application.

The applicant submitted injection fluid density and injection zone data which was used to calculate a formation fracture pressure and to determine the maximum allowable injection pressure (MAIP), as measured at the surface, for this Permit,

TABLE 5.1 lists the fracture gradient for the injection zone and the approved MAIP, determined according to the following formula:

$$FP = [fg - (0.433 * sg)] * d$$

FP = formation fracture pressure (measured at surface)
fg = fracture gradient (from submitted data or tests)
sg = specific gravity (of injected fluid)
d = depth to top of injection zone (or top perforation)

Injection Volume Limitation
Cumulative injected fluid volume limits are set to assure that injected fluids remain within the boundary of the exempted area. Cumulative injected fluid volume is limited when injection occurs into an aquifer that has been exempted from protection as a USDW.

Mechanical Integrity (40 CFR 146.8)
An injection well has mechanical integrity if:

1. there is no significant leak in the casing, tubing, or packer (Part I); and
2. there is no significant fluid movement into a USDW through vertical channels adjacent to the injection well bore (Part II).

The Permit prohibits injection into a well which lacks mechanical integrity.

The Permit requires that the well demonstrate mechanical integrity prior to injection and periodically thereafter. A demonstration of mechanical integrity includes both internal (Part I) and external (Part II). The methods and frequency for demonstrating Part I and Part II mechanical integrity are dependent upon well-specific conditions as explained below.

PART I (Internal) MI - Internal MI will be demonstrated prior to beginning injection and at least once every five years thereafter. Demonstration of Part I MI also is required prior to resuming injection following any workover or operation that affects the casing, tubing or packer. Part I MI may be demonstrated by a standard tubing-casing annulus pressure test using the maximum allowable injection pressure (MAIP) or 1000 psi, whichever is less, with a ten (10) percent or less pressure loss over thirty (30) minutes.

Part II (External) MI - Cementing records and/or evaluation of the cement bond log for this well indicate adequate cement exists behind pipe to prevent significant movement of fluid out of the approved injection zone through vertical channels adjacent to the injection well bore. Therefore, further testing for Part II MI will not be required.

PART VI. Monitoring, Recordkeeping and Reporting Requirements

Injection Well Monitoring Program
At least once a year the permittee must analyze a sample of the injected fluid for total dissolved solids (TDS), specific conductivity, pH, and specific gravity. This analysis shall be reported to EPA annually as part of the Annual Report to the Director. Any time a new source of injected fluid is added, a fluid analysis shall be made of the new source.

Instantaneous injection pressure, injection flow rate, cumulative fluid volume and TCA pressures must be observed on a weekly basis. A recording, at least once every thirty (30) days, must be made of the injection pressure, injection flow rate and cumulative fluid volume, and the maximum and average value for each must be determined for each month. This information is required to be reported annually as part of the Annual Report to the Director.

PART VII. Plugging and Abandonment Requirements (40 CFR 146.10)

Plugging and Abandonment Plan
Prior to abandonment, the well or wells must be plugged with cement in a manner which will not

allow the movement of fluids either into or between USDWs. The plugging and abandonment plan is described in Appendix E of the Permit.

The plugging and abandonment plan (P&A Plan) submitted by the applicant was found to be insufficient for protection of USDWs after well abandonment, and has been revised.

The well shall be plugged in a manner that isolates the injection zone and prevents movement of fluids into or between USDWs. Class A, C, G, or H cements, and additives such as accelerators and retarders added to enhance or control the properties of the cement ay be used, however, volume-extending additives and gel cements are not approved for plug use. Tubing and packers, shall be removed prior to plugging and abandoning. A cement retainer set 50-100 ft above the top injection perforations with cement squeezed below the retainer may be used to isolate the injection zone. The amount of cement used must fill the casing between the retainer and the perforations and allow for some cement to penetrate perforations. At least 20 ft of cement must be left on top of the retainer. Alternatively, a cast iron bridge plug set 50-100 ft above the top perforation may be used to isolate the injection zone. At least 20 ft of cement must be placed on top of a bridge plug. Cast iron bridge plugs, balanced plugs or dump bailer plugs made be used to isolate uphole zones. Plug placement shall be verified by tagging. A plugging gel of at least 9.2 lb/gal shall be emplaced between all cement plugs. A surface plug of at least 50 feet shall be set inside and outside of the casing to seal pathways for fluid migration into the subsurface via the well. Within sixty (60) days after plugging the owner or operator shall submit Plugging Record (EPA Form 7520-13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation.

The following plugs, at a minimum, are required under this Permit:

Plug #1: inside casing from at least 4350 ft to PBTD at 5481 ft, to isolate all injection zone perforations and to seal the wellbore above, across and below the confining zone.

Plug #2: because the well bore may be uncemented upward from top of cement at 4226 ft, a block squeeze is required across the base of the Uinta Formation at 2868 ft in order to isolate and protect it and all overlying water bearing zones/USDWs. The block squeeze shall be designed to emplace cement into the well bore behind the longstring casing from a depth of at least 2970 ft upward to a depth of at least 2570 ft.

Plug #3: inside casing from at least 2970 ft to at least 2570 ft.

Plug #4: Because the well bore is uncemented upward from top of cement at 4226 ft, cement is required across the base of the surface casing shoe at approximately 494 ft. The cement shall be placed into the well bore behind the casing from a depth of at least 520 ft upward to a depth of at least 480 ft.

Plug #5: inside casing from at least 450 ft to at least 550 ft to seal the base of the surface casing

Plug #6: surface plug of at least 50' in the annular space between the surface casing and casing.

Plug #7: surface plug of at least 50' inside the casing.

PART VIII. Financial Responsibility (40 CFR 144.52)

Demonstration of Financial Responsibility

The permittee is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director. The permittee shall show evidence of such financial responsibility to the Director by the submission of a surety bond, or other adequate assurance such as financial statements or other materials acceptable to the Director. The Regional Administrator may, on a periodic basis, require the holder of a lifetime permit to submit a revised estimate of the resources needed to plug and abandon the well to reflect inflation of such costs, and a revised demonstration of financial responsibility if necessary. Initially, the operator has chosen to demonstrate financial responsibility with:

Financial Statement, received May 2, 2005

Evidence of continuing financial responsibility is required to be submitted to the Director annually.

DOGM

Form 3160- 5
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004- 0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other Instructions on reverse side.*

5. Lease Serial No. UTU02651A
6. If Indian, Allottee, or Tribe Name
7. If Unit or CA. Agreement Name and/or No.
8. Well Name and No. USA Pearl Broadhurst 5
9. API Well No. 43-047-15695
10. Field and Pool, or Exploratory Area Walker Hollow Green River
11. County or Parish, State Uintah County, Utah

1. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other Injection
2. Name of Operator: Citation Oil & Gas Corp.
3a. Address: P.O. Box 690688, Houston, TX 77269-0688
3b. Phone No. *(include area code)*: (281) 517-7194
4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*: 743' FSL 564' FWL 10 7S 23E SW SW

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
[ ] Notice of Intent	[ ] Acidize	[ ] Deepen	[ ] Production (Start/ Resume)	[ ] Water Shut-off
	[ ] Altering Casing	[ ] Fracture Treat	[ ] Reclamation	[X] Well Integrity
[X] Subsequent Report	[ ] Casing Repair	[ ] New Construction	[ ] Recomplete	[ ] Other
	[ ] Change Plans	[ ] Plug and abandon	[ ] Temporarily Abandon	
[ ] Final Abandonment Notice	[ ] Convert to Injection	[ ] Plug back	[ ] Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths or pertinent markers and sands. Attach the Bond under which the work will performed or provide the Bond No. on file with the BLM/ BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notice shall be filed only after all requirements, including reclamantion, have been completed, and the operator has determined that the site is ready for final inspection.)

MIRU - had trouble releasing packer due to wax and oil in casing. ND WH and NU BOP. Pulled 62 jts tubing while swabbing wax and oil from casing. MIRU hot oiler and pumped 130 bbls hot water down casing. RDMO and pulled 32 jts tubing. Finished TOH with tubing and packer, swabbing wax and oil. PU new Lok-Set pkr, SN, tubing and Snap-Set packer. Started stacking and setting packer in wax. MIRU hot oiler and put 70 bbls hot water down casing. Circulated and finished TIH. ND BOP / NU WH. Pumped 150 bbls treated water for packer fluid and set Lok-Set pkr @4896.62' (EOT); top @4893.17'; SN @4892.07'; Snap-Set pkr @4368.68' (top). Pressure tested casing to ~~1000 psi for 30 minutes~~ - OK. RDMO.

1080 PSI dropped to 1040 PSI in 40 min. (See Rept.)

RECEIVED
NOV 14 2005
DIV. OF OIL, GAS & MINING

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

Name *(Printed/ Typed)*: Debra Harris — Title: Production/Regulatory Coordinator

Signature: Debra Harris — Date: 11/8/2005

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by — Title — Date

Conditions of approval, if any are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. — Office

Title 18 U.S.C. Section 1001 AND Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitiousor fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

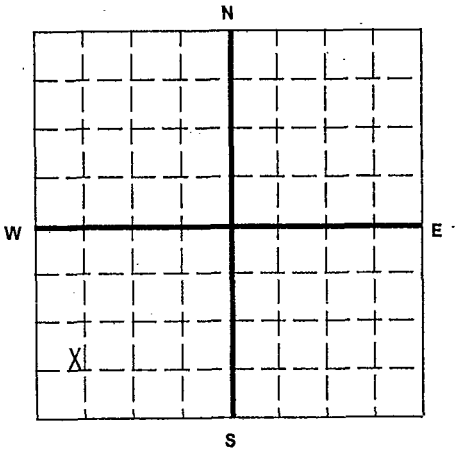
OMB No. 2[illegible]042 Approval Expires 1/31/05

United States Environmental Protection Agency
Washington, DC 20460

WELL REWORK RECORD

Name and Address of Permittee	Name and Address of Contractor
Citation Oil & Gas Corp. P.O. Box 690688, Houston, Texas 77269-0688	Excell Services, Inc. P.O. Box 852, Price, Utah 84501

Locate Well and Outline Unit on Section Plat - 640 Acres



State	County	Permit Number
Utah	Uintah	UT20981-02392

Surface Location Description

[ ] 1/4 of [ ] 1/4 of [SW] 1/4 of [SW] 1/4 of Section [10] Township [7S] Range [23E]

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location [743] ft. frm (N/S) [S] Line of quarter section and [564] ft. from (E/W) [W] Line of quarter section.

WELL ACTIVITY
- [ ] Brine Disposal
- [✓] Enhanced Recovery
- [ ] Hydrocarbon Storage

Total Depth Before Rework: 5907
Total Depth After Rework: 5907
Date Rework Commenced: 11/02/2005
Date Rework Completed: 11/07/2005

TYPE OF PERMIT
- [✓] Individual
- [ ] Area

Number of Wells: 1

Lease Name: USA Pearl Broadhurst

Well Number: 5

WELL CASING RECORD -- BEFORE REWORK

Casing Size	Casing Depth	Cement Sacks	Cement Type	Perforations From	Perforations To	Acid or Fracture Treatment Record
10-3/4"	494'	353	A+2% CaCl	4794'	4828'	1000 gals MCA; 10M# 10-20 sd; 8M# R
7"	5567'	360	Poz + 2%	5325'	5431'	500 gals MCA; 30M# 10-20 sand
				4748'	4752'	
				4392'	4429'	1500 gals 15% HCl + 186 BS

WELL CASING RECORD -- AFTER REWORK *(Indicate Additions and Changes Only)*

Casing Size	Casing Depth	Cement Sacks	Cement Type	Perforations From	Perforations To	Acid or Fracture Treatment Record
10-3/4"	494'	353	A+2%CaCl	4392'	4429'	
7"	5567'	360	Poz + 2%	4748'	4752'	
				4794'	4828'	
				5325'	5431'	

DESCRIBE REWORK OPERATIONS IN DETAIL USE ADDITIONAL SHEETS IF NECESSARY	WIRE LINE LOGS, LIST EACH TYPE: Log Types	Logged Intervals
Cleaned out well with hot water and set	Sonic/Dipmeter	5907'-2800' (05/15/64)
new Lok-Set pkr @4896.62' and Snap-Set	CBL	5907'-4100' (05/22/64)
pkr @4368.68'; MIT'd well to 1000 psi for	Injection Profile	5907'-4590' (12/11/00)
30 minutes and returned well to injection	Tracer Survey	5907'-4590' (12/11/00)

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title *(Please type or print)*	Signature	Date Signed
Debra Harris, Production/Regulatory Coordinator	Debra Harris	11/10/2005

EPA Form 7520-12 (Rev. 8-01)

Mechanical Integrity Test
Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: N/A Called Nathan Wiser 11/3/05 Date: 11 / 7 / 05
Test conducted by: Robert Eye (GOG) Denny Hadlock (Big Red Hot oiler)
Others present:

Well Name: Pearl Broadhurst #5 Type: ER SWD Status: AC TA UC
Field: Walker Hollow
Location: #5 Sec: 10 T 7S N/S R 23 E/W County: Uintah State: UT
Operator: Citation Oil & Gas Corp
Last MIT: 5 / 3 / 04 Maximum Allowable Pressure: 1872 PSIG
Failed

Is this a regularly scheduled test? [ ] Yes [ ] No
Initial test for permit? [ ] Yes [ ] No
Test after well rework? [X] Yes [ ] No
Well injecting during test? [ ] Yes [X] No If Yes, rate: _____ bpd

* Nathan Wiser said to chart test and send it in to him.

Pre-test casing/tubing annulus pressure: 0/0 psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING	*PRESSURE*		
Initial Pressure	0 psig	psig	psig
End of test pressure	0 psig	psig	psig
CASING / TUBING	*ANNULUS*	*PRESSURE*	
0 minutes	1080 psig	psig	psig
5 minutes	1080 psig	psig	psig
10 minutes	1080 psig	psig	psig
15 minutes	1080 psig	psig	psig
20 minutes	1080 psig	psig	psig
25 minutes	1080 psig	psig	psig
30 minutes	1075 psig	psig	psig
40 minutes	1070 psig	psig	psig
_____ minutes	psig	psig	psig
RESULT	[X] Pass [ ] Fail	[ ] Pass [ ] Fail	[ ] Pass [ ] Fail

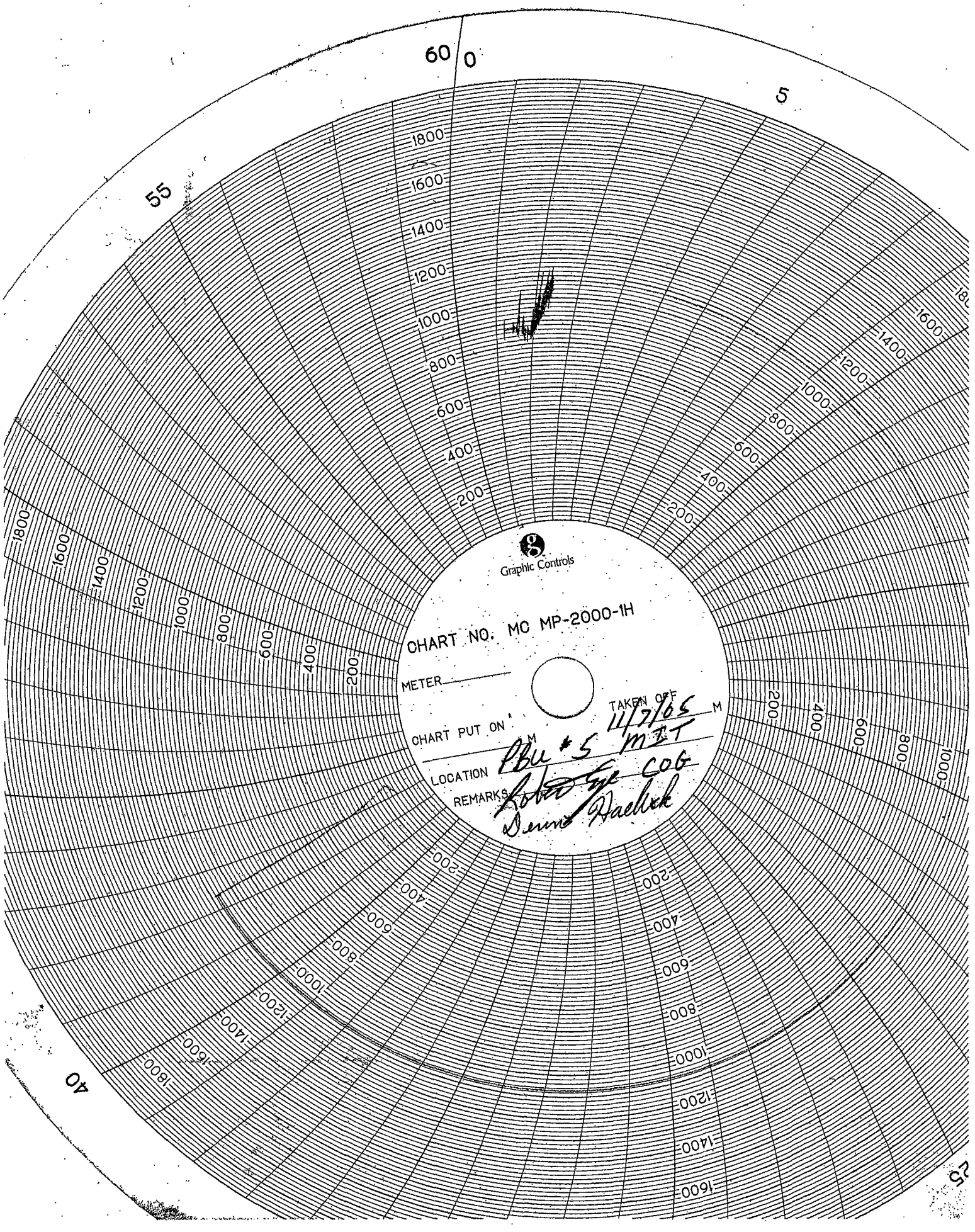
Does the annulus pressure build back up after the test ? [ ] Yes [X] No

MECHANICAL INTEGRITY PRESSURE TEST

~~Well~~ Casing was Full, Took No Fluid

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

Robert Eye GOG Denny Hadlock



60
0
5
55
40
Graphic Controls
CHART NO. MC MP-2000-1H
METER
CHART PUT ON
M
TAKEN OFF
11/7/05
M
LOCATION PBU #5 MIT
REMARKS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18th STREET - SUITE 300
DENVER, CO 80202-2466
http://www.epa.gov/region08

NOV 18 2005

RECEIVED
NOV 23 2005
DIV. OF OIL, GAS & MINING

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

Sharon Ward
Citation Oil and Gas Corporation
P.O. Box 690688
Houston, TX 77269-0688

7S 28E Sec. 10
43-047-15695

Re: Authorization to Inject
EPA Permit No. UT20981-02392
USA Pearl Broadhurst 5 Well
Uintah County, UT

Dear Ms. Ward:

Thank you for submitting information regarding completion of construction and testing for the above referenced injection well. Requirements of your UIC Permit required submittal of the following information to the Director:

1. Well Completion schematic and report (EPA Form 7520-10),
2. Mechanical Integrity Test results.
3. Other (described below, if required)

All required information has been submitted, and has been reviewed and approved by the EPA. Therefore, effective upon your receipt of this letter, Administrative approval hereby is granted for injection under the conditions of your UIC Permit.

As of this approval, responsibility for permit compliance and enforcement is transferred to the Region 8 UIC Technical Enforcement Program office. Please direct all future notification, reporting, monitoring and compliance correspondence to the following address, and reference your UIC Permit number and well name.

U.S. Environmental Protection Agency
Region 8 UIC Technical Enforcement Program, 8ENF-UFO
999 18th Street, Suite 300
Denver, Colorado 80202-2466

Printed on Recycled Paper

If you have any questions regarding this Authorization, please call Dan Jackson of my staff at (303) 312-6155. For questions regarding notification, testing, monitoring, reporting or other Permit requirements, please contact Nathan Wiser of the UIC Technical Enforcement Program by calling (303) 312-6211.

Sincerely

Tracy M. Eagle
Director
Ground Water Program

cc:

Maxine Natchees, Chairperson
Uintah and Ouray Business Committee
PO Box 190
Fort Duchesne, Utah 84026

Mr. Chester Mills, Superintendent
BIA Uintah and Ouray Agency
P.O. Box 130
Fort Duchesne, UT 84026

Elaine Willie
Environmental Coordinator
Ute Indian Tribe
PO Box 460
Fort Duchesne, Utah 84026

Mr. William Stringer, Manager
U.S. Bureau of Land Management Vernal Field Office
170 South 500 East
Vernal, Utah 84078

Mr. Gilbert Hunt
Associate Director
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114

Printed on Recycled Paper

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: UTU02651A

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER Injection

8. WELL NAME and NUMBER: USA Pearl Broadhurst 5

2. NAME OF OPERATOR: Citation Oil & Gas Corp.

9. API NUMBER: 4304715695

3. ADDRESS OF OPERATOR: P.O. Box 690688 CITY Houston STATE TX ZIP 77269-0688 PHONE NUMBER: (281) 517-7800

10. FIELD AND POOL, OR WILDCAT: Walker Hollow Green River

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 743' FSL & 564' FWL COUNTY: Uintah

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSW 10 7S 23E STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
9/16/2010	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: MIT
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Successful MIT was performed on this well on 9/16/2010. A copy of the report is attached for your review.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

NAME (PLEASE PRINT) Debra Harris TITLE Regulatory Compliance Coordinator

SIGNATURE Debra Harris DATE 9/22/2010

(This space for State use only)

RECEIVED
SEP 27 2010
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

Mechanical Integrity Test
Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____ Date: 9 / 16 / 10

Test conducted by: Jeff Oaks (COGC) Leroy Carmickle (Big Red Hot Oil)

Others present: _____

Well Name: Pearl Broadhurst #5 Type: ER (SWD) Status: (AC) TA UC

Field: Walker Hollow

Location: SW/SW Sec: 10 T 7 N/(S) R 23 (E)/W County: Uintah State: Ut

Operator: Citation Oil + Gas

Last MIT: 11 / 7 / 05 Maximum Allowable Pressure: 1165 PSIG

80.08441.1 ; 43-047-30840

Is this a scheduled test? [X] Yes [ ] No

Initial test for permit? [ ] Yes [ ] No

Test after well rework? [ ] Yes [ ] No

Well injecting during test? [X] Yes [ ] No If Yes, rate: 68 bpd

Pre-test casing/tubing annulus pressure: 0 / 1030 psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING	*PRESSURE*		
Initial Pressure	1030 psig	psig	psig
End of test pressure	1020 psig	psig	psig
CASING / TUBING	*ANNULUS*	*PRESSURE*	
0 minutes	1600 psig	psig	psig
5 minutes	1600 psig	psig	psig
10 minutes	1600 psig	psig	psig
15 minutes	1600 psig	psig	psig
20 minutes	1600 psig	psig	psig
25 minutes	1595 psig	psig	psig
30 minutes	1590 psig	psig	psig
33 minutes	1590 psig	psig	psig
_____ minutes	psig	psig	psig
RESULT	[X] Pass [ ] Fail	[ ] Pass [ ] Fail	[ ] Pass [ ] Fail

65° Outside temp

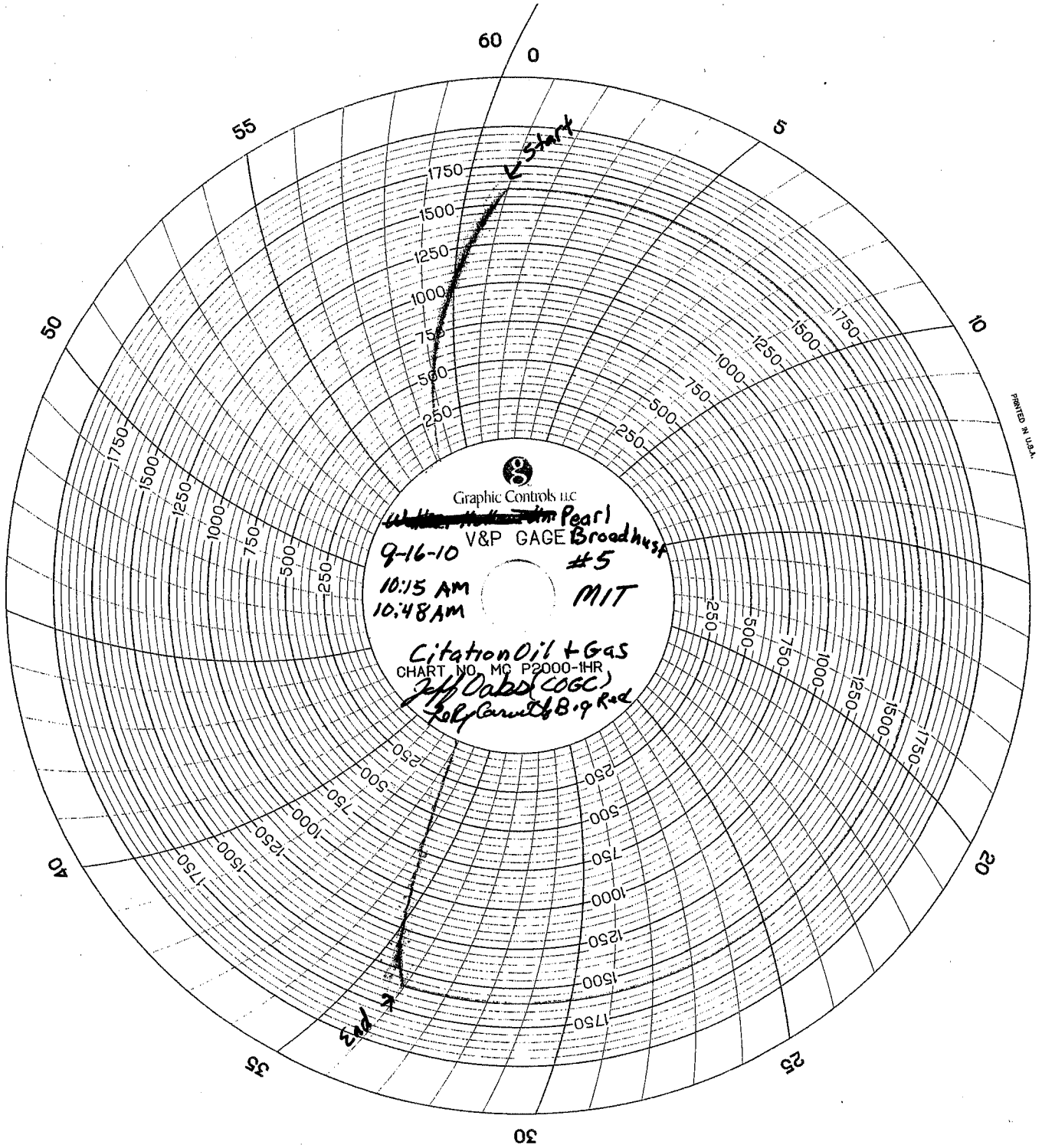
Does the annulus pressure build back up after the test ? [ ] Yes [X] No

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

Signature of Witness: Jeff Oaks (COGC) LRoy Carmickle Bigred

TP
DH
BLM
DOGM


Graphic Controls LLC
V&P GAGE
Pearl Broadhurst
9-16-10
#5
10:15 AM
10:48 AM
MIT
Citation Oil + Gas
CHART NO. MC P2000-1HR
Jeff Oaks (COGC)
Rey Carvet & Big Red
Start
End
PRINTED IN U.S.A.

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

RECEIVED
OCT 05 2015
DIV. OF OIL, GAS & MINING

SUNDRY NOTICES AND REPORTS ON WELLS

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5. LEASE DESIGNATION AND SERIAL NUMBER: UTU02651A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER Injection
8. WELL NAME and NUMBER: USA Pearl Broadhurst 5
2. NAME OF OPERATOR: Citation Oil & Gas Corp.
9. API NUMBER: 4304715695
3. ADDRESS OF OPERATOR: P O Box 690688 CITY Houston STATE TX ZIP 77269-0688 PHONE NUMBER: (281) 891-1577
10. FIELD AND POOL, OR WILDCAT: Walker Hollow Green River
4. LOCATION OF WELL
FOOTAGES AT SURFACE: 734' FSL & 564' FWL COUNTY: Uintah
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSW 10 7S 23E STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

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☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
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	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
9/16/2015	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: MIT
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Successful MIT was performed on this well on 9/16/2015. A copy is attached for your review.

Accepted by the
Utah Division of
Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT) Lee Ann Elsom TITLE Regulatory Compliance Manager
SIGNATURE Lee Ann Elsom DATE 9/29/2015

(This space for State use only)

Mechanical Integrity Test
Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program
999 18th Street, Suite 500 Denver, CO 80202-2466

RECEIVED
OCT 05 2015
DIV. OF OIL, GAS & MINING

EPA Witness: _____ Date: 9 / 16 / 2015
Test conducted by: Jeff Oaks (COGC) Les Taylor (Big Red Hot Oil)
Others present: _____

Well Name: Pearl Broadhurst #5 Type: ER (SWD) Status: (AC) TA UC
Field: Walker Hollow
Location: SW/SW Sec: 10 T 7 N (S) R 23 (E) W County: Uintah State: UT
Operator: Citation Oil + Gas
Last MIT: 9 / 16 / 2010 Maximum Allowable Pressure: 1165 PSIG

Is this a regularly scheduled test? [X] Yes [ ] No
Initial test for permit? [ ] Yes [X] No
Test after well rework? [ ] Yes [X] No
Well injecting during test? [X] Yes [ ] No If Yes, rate: 83 bpd

Pre-test casing/tubing annulus pressure: 0/1140 psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING	*PRESSURE*		
Initial Pressure	1140 psig	psig	psig
End of test pressure	1140 psig	psig	psig
CASING / TUBING	*ANNULUS*	*PRESSURE*	
0 minutes	1390 psig	psig	psig
5 minutes	1390 psig	psig	psig
10 minutes	1390 psig	psig	psig
15 minutes	1390 psig	psig	psig
20 minutes	1390 psig	psig	psig
25 minutes	1385 psig	psig	psig
30 minutes	1385 psig	psig	psig
32 minutes	1385 psig	psig	psig
_____ minutes	psig	psig	psig
RESULT	[X] Pass [ ] Fail	[ ] Pass [ ] Fail	[ ] Pass [ ] Fail

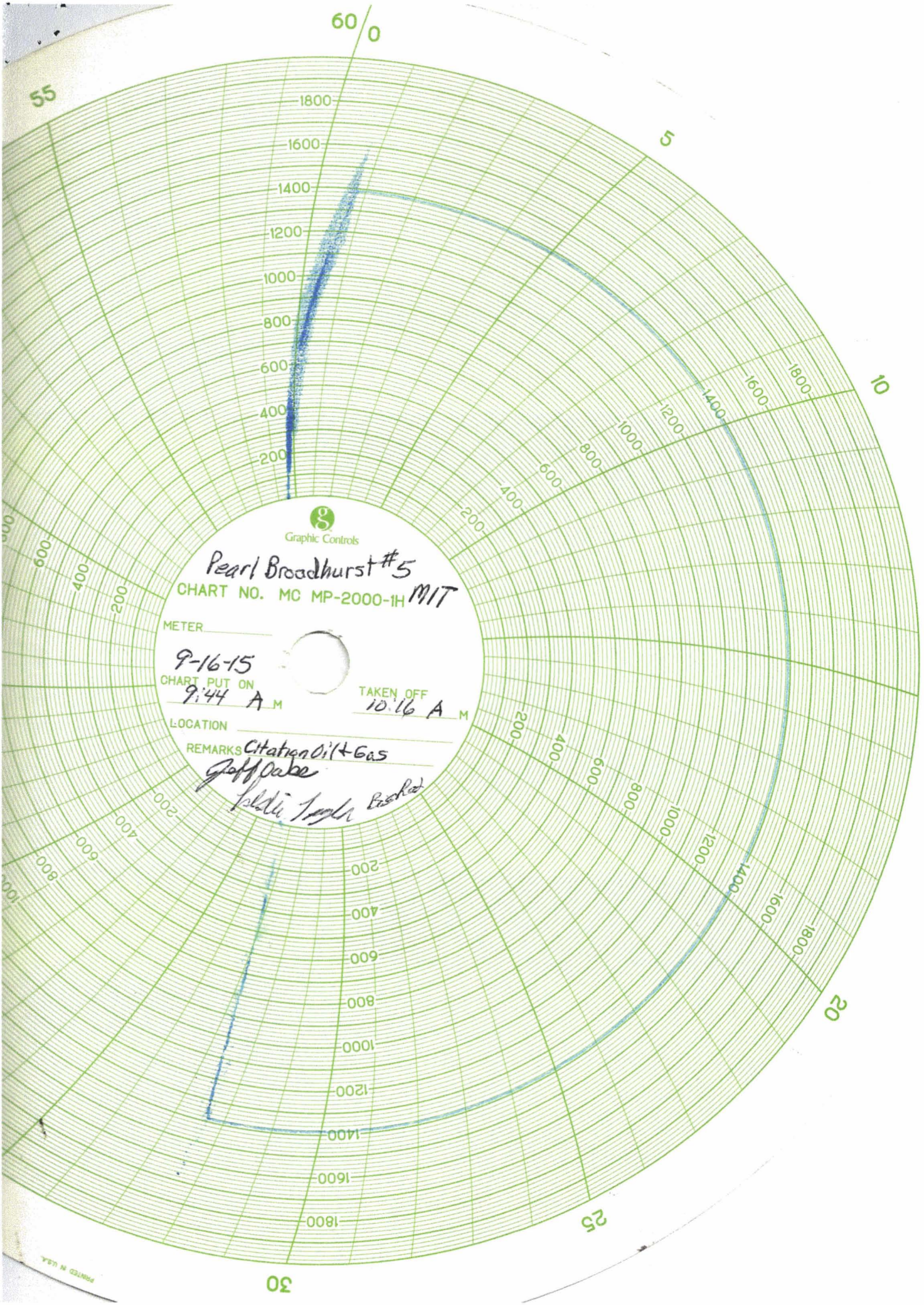
64° out side temp.

Does the annulus pressure build back up after the test ? [ ] Yes [X] No

MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

Signature of Witness: Jeff Oaks (COGC) Leslie Taylor Big Red


Graphic Controls
Pearl Broadhurst #5
CHART NO. MC MP-2000-1H MIT
METER
9-16-15
CHART PUT ON
9:44 A M
TAKEN OFF
10:16 A M
LOCATION
REMARKS Citation Oil + Gas
Jeff Oabe
Bob Rat
PRINTED IN U.S.A.