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Yolanda Perez Sr. Regulatory Analyst EP Americas Lobo/San Juan Asset Unit P.O. Box 2197 - DU3084 Houston, TX 77252-2197

(281) 293-1613

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April 27, 2001

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

Attn: David Catanach

RE: Application for Authorization to Inject (Form C-108) Jicarilla 30 Well No. 5 API # 30-039-20460 Sec. 32, T-25N, R-4W, Unit Itr. B Rio Arriba County, New Mexico

Dear Mr. Catanach,

Conoco Inc. proposes to convert the above mentioned well in to a Salt Water Disposal well. Please find attached to your form C-108, a copy of the application which was submitted to the Environmental Protection Agency and a copy of the Notice of Intent Sundry filed with the Bureau of Land Management.

If any further information is needed or required, please contact me at (281) 293-1613 or by email <u>yolanda.perez@usa.conoco.com</u>.

Sincerely,

CONOCO INC.

Yolanda Parez

Yolanda Perez Sr. Regulatory Analyst Lobo/San Juan Asset

Enclosures

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE:Secondary RecoveryPressure Maintenance X DisposalStorage Application qualifies for administrative approval?YesNo
II.	OPERATOR: Conoco Inc.
	ADDRESS: P.O. Box 2197, DU 3084 HOUSTON, TX 77252
	CONTACT PARTY: Jolanda PerezPHONE: (281) 293-1613
III.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
IV.	Is this an expansion of an existing project?YesNo If yes, give the Division order number authorizing the project:No
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
VII.	Attach data on the proposed operation, including:
	 Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
*VIII.	Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
IX.	Describe the proposed stimulation program, if any.
*X.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
*XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
XIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form.
XIV.	Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
	NAME: Jolanda Perez TITLE: Sr. Regulatory Analyst
	NAME: Jolanda Perez TITLE: Sr. Regulatory Analyst SIGNATURE: 2006anda Perez DATE: 4/27/01

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

ff. ft3 ft3 4 W RANGE Method Determined: Method Determined: Method Determined: WELL CONSTRUCTION DATA (Perforated or Open Hole; indicate which) TOWNSHIP Casing Size:_ Casing Size: Casing Size:_ 25 N Intermediate Casing **Production Casing Injection Interval** Surface Casing sx. or sx. or _ or feet to_ sx. SECTION 32 Cemented with: Top of Cement: Cemented with: Cemented with: Top of Cement: Top of Cement: Total Depth: _ Hole Size: _ Hole Size: Hole Size: UNIT LETTER Q WELL LOCATION: <u>\$00' FNL \$ 1850' FEL</u> FOOTAGE LOCATION WELL NAME & NUMBER: Jicarilla 30 # 5 please see attached WELLBORE SCHEMATIC OPERATOR: Conoco Inc.

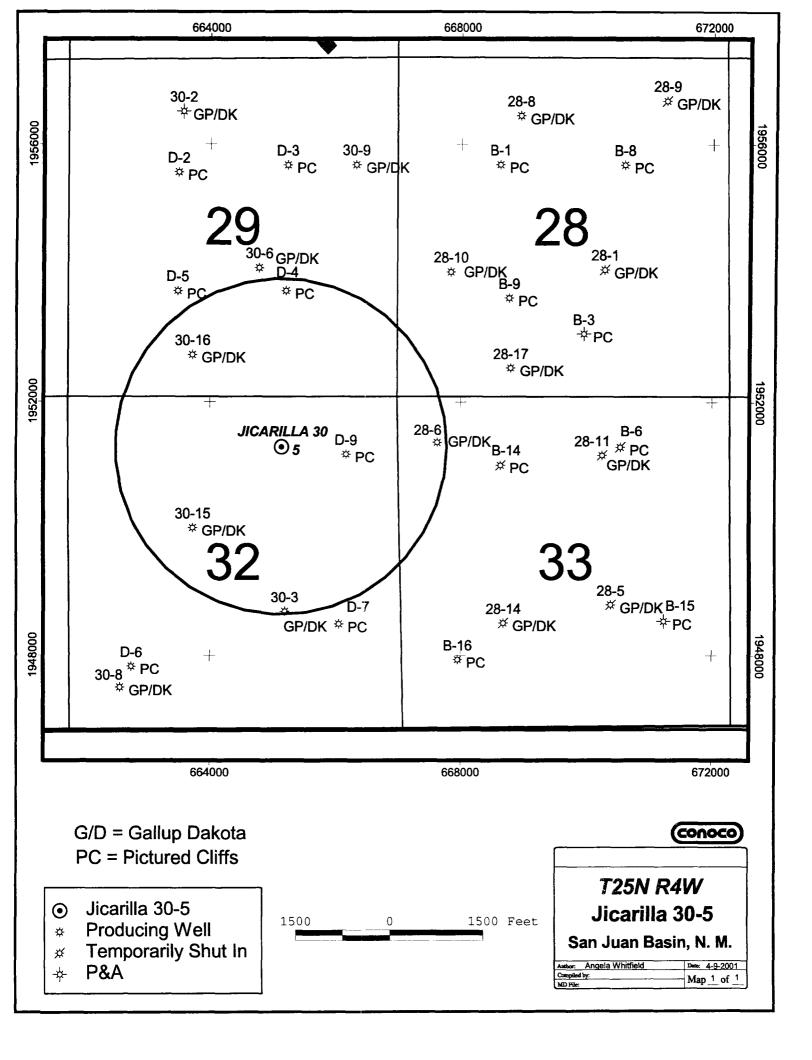
INJECTION WELL DATA SHEET

Side I

	CHERT	
 	DATA	
	WELL	

Tub	Tubing Size: <i>Please See Attached</i> Lining Material:
TyF	Type of Packer:
Pac	Packer Setting Depth:
Oth	Other Type of Tubing/Casing Seal (if applicable):
	Additional Data
Γ.	Is this a new well drilled for injection?
	If no, for what purpose was the well originally drilled?
5	Name of the Injection Formation:
3.	Name of Field or Pool (if applicable):
4.	Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: ý.



TABULATON OF WELLS WITHIN ½ MILE OF PROPOSED INJECTION WELL WHICH PENETRATE THE INJECTION ZONE

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Jicarilla 28-6 Operator: Conoco Drilled: 12-68 Depth: 7606n' Status: Producing Location 710' FNL, 660' FWL, NW/4, Section 33, T25N, R4W Formations Open to Wellbore: Gallun/Dakota

1 Onnatio			o. dunup/Dunotu	
Hole	Casing	Landed	Cement and	Top of Cement
Size	Size	Depth	Additive	
			Data	
12 ¼"	8 5/8"	242'	165 sacks	surface
7 7/8"	5 1⁄2"	7606'	770 sacks (2 stages)	3025' (Calculated)

Jicarilla 30-3 Operator: Conoco Drilled: 9-65 Depth: 7500' Status: Producing Location 1850' FSL, 1850' FEL, SE/4, Section 32, T25N, R4W Formations Open to Wellbore: Gallup/Dakota

Hole Size	Casing Size	Landed Depth	Cement and Additive Data	Top of Cement
12 ¼"	8 5/8"	213'	150 sacks	surface
7 7/8"	5 1⁄2"	7496'	1000 sacks (2 stages)	2700' (Calculated)

Jicarilla 30-15 Operator: Conoco Drilled: 3-79 Depth: 7580' Status: Producing Location 2070' FNL, 1980' FWL, NW/4, Section 32, T25N, R4W

Hole Casing Landed Size Size Depth		Landed	Cement and Additive	Top of Cement
12 ¼"	8 5/8"	516'	Data 270 sacks	Surface
7 7/8"	5 1⁄2"	7580'	805 sacks	2200' (by Temp Survey)

Formations Open to Wellbore: Gallup/Dakota

Jicarilla 30-16 Operator: Conoco Drilled: 3-81 Depth: 7575' Status: Producing Location 660' FSL, 1980' FWL, SW/4, Section 29, T25N, R4W Formations Open to Wellbore: Gallup/Dakota

1 Unnaux	Jug Obeu		c. Ganup/Dakota					
Hole	Hole Casing Landed		Cement and	Top of Cement				
Size	Size Size Depth		Additive					
			Data					
12 1⁄4"	8 5/8"	295'	220 sacks	surface				
7 7/8"	5 1⁄2"	7575'	1650 sacks	1850' (by Temp Survey)				

Permit #_____

Well Completion and Operation Data

Type Injection Well: SWD

Injection: Continuous

 Approximate # days operating per year: 365

 Rate (B/D):
 Average

 300
 Maximum

 600

 Wellhead Pressure (psi):
 Average:

 Unknown
 Maximum:

 TDS 12133mg/l
 Sp.Gr.1.009

 Source (formation name):
 Dakota, Gallup, Mesa Verde, Chacra, Pictured Cliffs, Fruitland Coal

 Will anything be added to the water to be injected: (yes)

 What will those additives be?
 corrosion inhibitor

Geologic Data (all references to depth are below land surface plus 14' KB):

Injection Interval:	Top: <u>4672'</u>	Bottom: <u>5326</u> ' Effective Thickness: <u>190</u> '
Formation nam	e <u>Mesa Verde</u>	Lithology: Sandstone
Porosity (%): 1	0-12	Current Reservoir Pressure: 2000 psi estimated
		Or Current Fluid Level: <u>N/A</u>
Permeability (n	nd): <u>unknown</u>	
Drill Stem Test	Included: No	

 Confining Zones:
 Thickness between injection zone and USDW: 1982'

 Lithology
 Predominately shale (Lewis) and siltstone with some sand (Pictured Cliffs, Chacra and coal (Fruitland)

 Cumulative shale 1198'
 Thickest shale zone: 697' (Lewis)

Faults: Are ther any faults in the area of the well which penetrate the injection interval: No

Well Data:

Surface Elevation (KB/GL): <u>6855'/6869'</u> Total (Depth/ Plugged Back Depth) : <u>6349'</u> Date Drilled: <u>2-1972</u> Type of logs available on this well: <u>Density</u>, <u>Gamma Ray</u>, <u>Cement Bond Log</u>

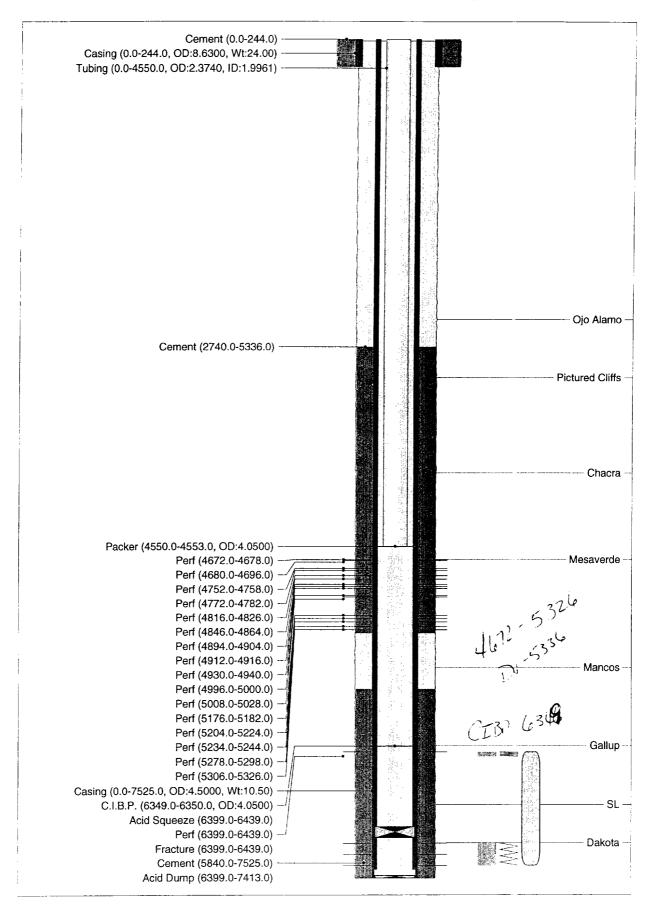
Construction:	Size	Depth	Sacks of	Hole	Cement	How
	<u>(in)</u>	Interval	Cement	Size (in)	Interval	Determined
Surface Csg.	8 5/8	<u>0-244</u>	<u>150</u>	<u>12 ¼</u>	<u>0-244</u>	Observation
Long String Csg.	<u>4 ½</u>	<u>0-7525</u>	<u>1200</u>	<u>7 7/8</u>	<u>2740-5336</u>	<u>CBL</u>
					<u>5840-7525</u>	<u>CBL</u>
Tubing	2 3/8	4550 est.				

Packer Type and Depth: <u>Retrievable set at 4550' est.</u>

Other Perforated Intervals:	Gallup 6399'-6439' (below CIBP @ 6349')
	Dakota 7211'-7413' (below CIBP @7161' and cement
	<u>@ 7061')</u>

4/10/2001

JICARILLA 30 5 Proposed SWD Completion (300392046000)



JICARILLA 30 5 Proposed SWD Completion (300392046000)

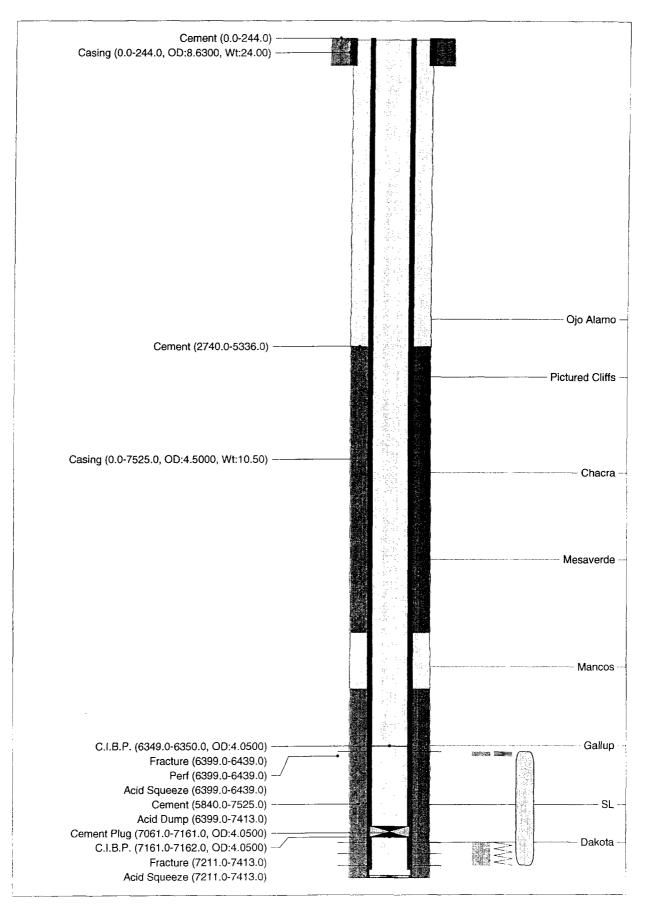
4/10/2001

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Complet								/1972			
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150 765 435 Perfora 1 7211.0 6399.0 4672.0 4680.0 4752.0 4772.0	ation Int - 74 - 64 - 46 - 46 - 47 - 47 - 47	2nd sta contain thru D' 1st sta TOC b 1s 13.0 39.0 78.0 96.0 58.0 82.0	age 200 sx I hing 2% gel, V @ 5336'. ge 50/50 Pc y CBL. Shots (/ft) 1.0 2.0 4.0 4.0 4.0 4.0 4.0	, 6.25 lb/sx 0 ozmix contai @ 7403-13 every 2'	ite Wt. Gilsonit ning 2° 3', 735	with 1/2% CF e, 1/2% CFR- % gel, 6.25 lb/ C 7-69', 7245-51	2 TOC by CBL. Cement sx Gilsonite, 1/2% CFR-2 omments ', 7219-23', 7211'. 21 Sho	SURFACE C PRODUCTIC PRODUCTIC	ASING IN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/	0.0 2740.0 5840.0 Date 24/1972 1/2001 1/2001 1/2001 1/2001
150 765 435 Perfora 7211.0 6399.0 4672.0 4672.0 4672.0 4772.0 4772.0 4816.0	ation Int - 74 - 64 - 46 - 46 - 47 - 47 - 47 - 48	2nd sta contain thru D' 1st sta TOC b 1s 13.0 39.0 78.0 96.0 58.0 82.0 26.0	age 200 sx I hing 2% gel, V @ 5336'. ge 50/50 Pc y CBL. Shots (/ft) 1.0 2.0 4.0 4.0 4.0 4.0 4.0 4.0	, 6.25 lb/sx 0 ozmix contai @ 7403-13 every 2'	ite Wt. Gilsonit ning 2° 3', 735	with 1/2% CF e, 1/2% CFR- % gel, 6.25 lb/ C 7-69', 7245-51	2 TOC by CBL. Cement sx Gilsonite, 1/2% CFR-2 omments ', 7219-23', 7211'. 21 Sho	SURFACE C PRODUCTIC PRODUCTIC	ASING IN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/	0.(2740.(5840.(Date 24/1972 1/2001 1/2001 1/2001
150 765 435 Perfora 7211.0 6399.0 4672.0 4672.0 4752.0 4752.0 4816.0 4846.0	ation Int - 74 - 64 - 46 - 46 - 47 - 48 - 48 - 48	2nd sta contain thru D' 1st sta TOC b 1s 13.0 39.0 78.0 96.0 58.0 82.0 26.0 64.0	age 200 sx I ning 2% gel, V @ 5336'. ge 50/50 Pc y CBL. Shots (/ft) 1.0 2.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	, 6.25 lb/sx 0 ozmix contai @ 7403-13 every 2'	ite Wt. Gilsonit ning 2° 3', 735	with 1/2% CF e, 1/2% CFR- % gel, 6.25 lb/ C 7-69', 7245-51	2 TOC by CBL. Cement sx Gilsonite, 1/2% CFR-2 omments ', 7219-23', 7211'. 21 Sho	SURFACE C PRODUCTIC PRODUCTIC	ASING IN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/	0.(2740.(5840.(Date 24/1972 1/2001 1/2001 1/2001 1/2001
150 765 435 Perfora 7211.0 6399.0 4672.0 4672.0 4672.0 4772.0 4772.0 4816.0 4816.0 4894.0	ettion - 74 - 64 - 46 - 46 - 47 - 48 - 48 - 48 - 48 - 48 - 49	2nd sta contain thru D' 1st sta TOC b 1s 13.0 39.0 78.0 96.0 58.0 58.0 26.0 64.0 04.0	age 200 sx I hing 2% gel, V @ 5336'. ge 50/50 Pc y CBL. Shots (/ft) 1.0 2.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	, 6.25 lb/sx 0 ozmix contai @ 7403-13 every 2'	ite Wt. Gilsonit ning 2° 3', 735	with 1/2% CF e, 1/2% CFR- % gel, 6.25 lb/ C 7-69', 7245-51	2 TOC by CBL. Cement sx Gilsonite, 1/2% CFR-2 omments ', 7219-23', 7211'. 21 Sho	SURFACE C PRODUCTIC PRODUCTIC	ASING IN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/	0.(2740.(5840.(5840.(24/1972 1/2001 1/2001 1/2001 1/2001 1/2001
150 765 435 Perfora 7211.0 6399.0 4672.0 4672.0 4672.0 4672.0 4772.0 4816.0 4846.0 4846.0 4846.0 4894.0 4912.0	ation Int - 74 - 64 - 46 - 46 - 47 - 48 - 48 - 48 - 49 - 49 - 49	2nd sta contain thru D' 1st sta TOC b 1s 13.0 39.0 78.0 96.0 58.0 82.0 26.0 64.0 04.0 16.0	age 200 sx I hing 2% gel, V @ 5336'. ge 50/50 Pc y CBL. Shots (/ft) 1.0 2.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	, 6.25 lb/sx 0 ozmix contai @ 7403-13 every 2'	ite Wt. Gilsonit ning 2° 3', 735	with 1/2% CF e, 1/2% CFR- % gel, 6.25 lb/ C 7-69', 7245-51	2 TOC by CBL. Cement sx Gilsonite, 1/2% CFR-2 omments ', 7219-23', 7211'. 21 Sho	SURFACE C PRODUCTIC PRODUCTIC	ASING IN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/	0.(2740.(5840.(Date 24/1972 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001
150 765 435 Perfora 7211.0 6399.0 4672.0 4672.0 4680.0 4752.0 4752.0 4752.0 4816.0 4846.0 4846.0 4846.0 4846.0 4849.0 94912.0	ation Int - 74 - 64 - 46 - 46 - 47 - 48 - 48 - 48 - 49 - 49 - 49 - 49	2nd sta contain thru D' 1st sta TOC b 1s 13.0 39.0 78.0 96.0 58.0 82.0 26.0 64.0 04.0 16.0 40.0	age 200 sx I hing 2% gel, V @ 5336'. ge 50/50 Pc y CBL. Shots (/ft) 1.0 2.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	, 6.25 lb/sx 0 ozmix contai @ 7403-13 every 2'	ite Wt. Gilsonit ning 2° 3', 735	with 1/2% CF e, 1/2% CFR- % gel, 6.25 lb/ C 7-69', 7245-51	2 TOC by CBL. Cement sx Gilsonite, 1/2% CFR-2 omments ', 7219-23', 7211'. 21 Sho	SURFACE C PRODUCTIC PRODUCTIC	ASING IN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/	0.(2740.(2740.(5840.(0 24/1972 24/1972 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001
150 765 435 Perfora 1 7211.0 6399.0 4672.0 4680.0 4752.0 4772.0 4886.0 4772.0 4886.0 4894.0 4894.0 4912.0 4930.0 4996.0	atior Int - 74 - 64 - 46 - 46 - 47 - 48 - 48 - 49 - 49 - 49 - 50	2nd sta contain thru D' 1st sta TOC b 1s 13.0 39.0 78.0 96.0 58.0 82.0 26.0 64.0 04.0 16.0 40.0 00.0	age 200 sx I hing 2% gel, V @ 5336'. ge 50/50 Pc y CBL. Shots (/ft) 1.0 2.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	, 6.25 lb/sx 0 ozmix contai @ 7403-13 every 2'	ite Wt. Gilsonit ning 2° 3', 735	with 1/2% CF e, 1/2% CFR- % gel, 6.25 lb/ C 7-69', 7245-51	2 TOC by CBL. Cement sx Gilsonite, 1/2% CFR-2 omments ', 7219-23', 7211'. 21 Sho	SURFACE C PRODUCTIC PRODUCTIC	ASING IN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/	0.(2740.(2740.(5840.(24/1972 24/1972 24/1972 24/1972 24/1972 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001
150 765 435 Perfora 7211.0 6399.0 4672.0 4672.0 4672.0 4672.0 4752.0 4752.0 4752.0 4816.0 4846.0 4846.0 4846.0 4849.0 94912.0	ation Int - 74 - 64 - 466 - 47 - 48 - 49 - 49 - 49 - 49 - 50 - 50	2nd sta contain thru D' 1st sta TOC b 1s 13.0 39.0 78.0 96.0 58.0 82.0 26.0 64.0 04.0 04.0 16.0 40.0 00.0 28.0	age 200 sx I hing 2% gel, V @ 5336'. ge 50/50 Pc y CBL. Shots (/ft) 1.0 2.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	, 6.25 lb/sx 0 ozmix contai @ 7403-13 every 2'	ite Wt. Gilsonit ning 2° 3', 735	with 1/2% CF e, 1/2% CFR- % gel, 6.25 lb/ C 7-69', 7245-51	2 TOC by CBL. Cement sx Gilsonite, 1/2% CFR-2 omments ', 7219-23', 7211'. 21 Sho	SURFACE C PRODUCTIC PRODUCTIC	ASING IN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/	0.(2740.(2740.(5840.(5840.(24/1972 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001
150 765 435 Perfora 7211.0 6399.0 4672.0 4680.0 4772.0 4772.0 4816.0 4772.0 4816.0 4772.0 4816.0 4912.0 4912.0 4912.0 5008.0 5176.0	ation Int - 74 - 64 - 46 - 47 - 47 - 48 - 49 - 49 - 49 - 49 - 50 - 50 - 50 - 51	2nd sta contain thru D' 1st sta TOC b 1s 13.0 39.0 78.0 96.0 58.0 82.0 26.0 64.0 04.0 16.0 40.0 00.0 28.0 82.0	age 200 sx I hing 2% gel, V @ 5336'. ge 50/50 Pc y CBL. Shots (/ft) 1.0 2.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	, 6.25 lb/sx 0 ozmix contai @ 7403-13 every 2'	ite Wt. Gilsonit ning 2° 3', 735	with 1/2% CF e, 1/2% CFR- % gel, 6.25 lb/ C 7-69', 7245-51	2 TOC by CBL. Cement sx Gilsonite, 1/2% CFR-2 omments ', 7219-23', 7211'. 21 Sho	SURFACE C PRODUCTIC PRODUCTIC	ASING IN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/	0.0 2740.0 5840.0 5840.0 0 24/1972 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001
150 765 435 Perfora 1 7211.0 6399.0 4672.0 4680.0 4752.0 4816.0 4872.0 4816.0 4814.0 4812.0 4819.0 4819.0 9 4990.0 4990.0 5008.0	atior nt - 74 - 46 - 46 - 47 - 48 - 49 - 49 - 49 - 49 - 50 - 50 - 50 - 51 - 52	2nd sta contain thru D' 1st sta TOC b 1s 13.0 39.0 78.0 96.0 58.0 26.0 64.0 04.0 16.0 40.0 00.0 28.0 82.0 24.0	age 200 sx I hing 2% gel, V @ 5336'. ge 50/50 Pc y CBL. Shots (/ft) 1.0 2.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	, 6.25 lb/sx 0 ozmix contai @ 7403-13 every 2'	ite Wt. Gilsonit ning 2° 3', 735	with 1/2% CF e, 1/2% CFR- % gel, 6.25 lb/ C 7-69', 7245-51	2 TOC by CBL. Cement sx Gilsonite, 1/2% CFR-2 omments ', 7219-23', 7211'. 21 Sho	SURFACE C PRODUCTIC PRODUCTIC	ASING IN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/	0.0 2740.0 5840.0 5840.0 0 24/1972 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001
150 765 435 Perfora 7211.0 6399.0 4672.0 4680.0 4772.0 4816.0 4894.0 4894.0 4894.0 4912.0 4896.0 5008.0 5176.0 5204.0	atior Int - 74 - 466 - 466 - 477 - 488 - 499 - 499 - 499 - 499 - 500 - 511 - 522 - 522	2nd sta contain thru D' 1st sta TOC b 1s 13.0 39.0 78.0 96.0 58.0 26.0 64.0 04.0 16.0 40.0 00.0 28.0 28.0 28.0 28.0 24.0 44.0	age 200 sx I ning 2% gel, V @ 5336'. ge 50/50 Pc y CBL. Shots (/ft) 1.0 2.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4	, 6.25 lb/sx 0 ozmix contai @ 7403-13 every 2'	ite Wt. Gilsonit ning 2° 3', 735	with 1/2% CF e, 1/2% CFR- % gel, 6.25 lb/ C 7-69', 7245-51	2 TOC by CBL. Cement sx Gilsonite, 1/2% CFR-2 omments ', 7219-23', 7211'. 21 Sho	SURFACE C PRODUCTIC PRODUCTIC	ASING IN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/	0.0 2740.0 5840.0 5840.0 0 24/1972 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001

JICARILLA 30 5 Proposed SWD Completion (300392046000) 4/10/2001

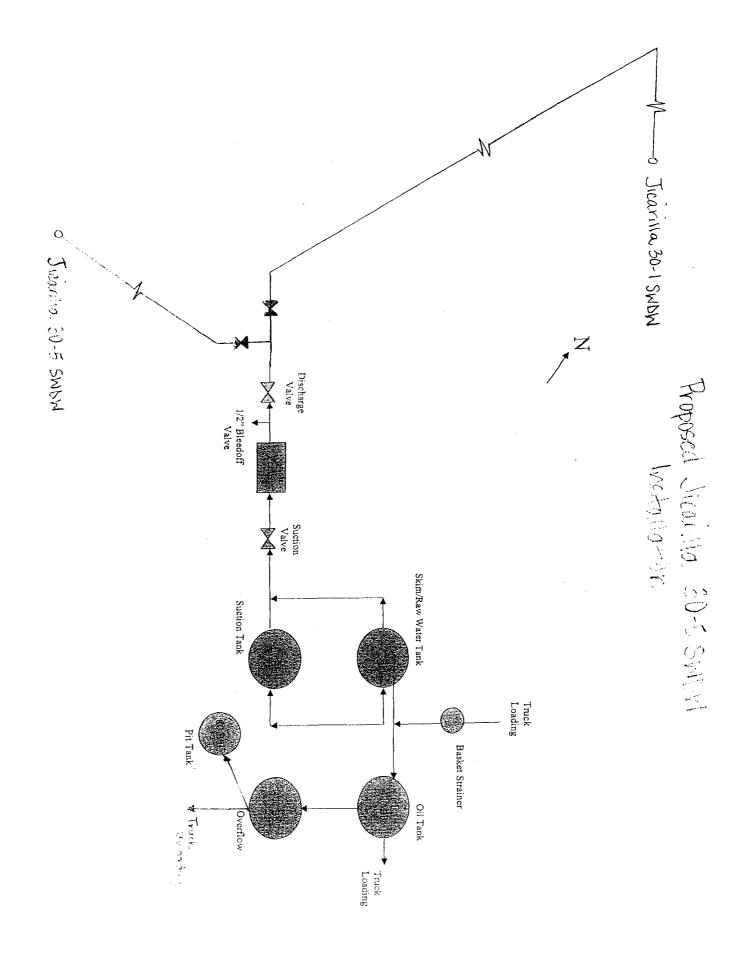
Grd	ltem (in)		Comments		lD (in)	Tho	I Jnts	Ler (ft)		op (B)	Wt
	2.3740	in Tubing			1.9961			455	0.0	0.0	4.6
Format		zon Tops				1		10 -	<u>,</u>		, and y
	<u></u> .		Format				· · ·	i		Top (ftKB)	
Ojo Alam	10										2492.0
Pictured											3021.
Chacra											3884.
Mesaver	de										4670.
Mancos								1			5644.0
Gallup											6344.0
Dakota											7208.0
Other (r	oluas. e	quip., etc.) - Plug Backs	이 같은 것이 같아.						이 같는	
	Int (ftKB		Item	Commen	its		<u></u>			Dat	e
-	497.0 - 7	525.0	Cement Plug	out	•		(47' Fill) Di		an	2/23/1	972
Other (p	plugs, ed	quip., etc.) - Temporay Abando	onment		2 <u>-</u> 11					- 5 - F
	Int		ltem	Commen	ts					Dat	e
	(ftKB))									
6	349.0 - 6	350.0	C.I.B.P.							2/12/2001	
7	061.0 - 7	161.0	Cement Plug	2/12/2001							
7	161.0 - 7	162.0	C.I.B.P.							2/8/20)01
Other (r	olugs, ed	quip., etc.) - Injection Packer		a da barro		Charles (g.				i shir
	Int		item	Commen						Dat	e
	(ftKB))									
4	550.0 - 45		Packer							6/1/20	01
Stimula	tions &	Treatmen	ts	N SAME I	1		- 14 j. 16a)	д, с	1 9 1 2		0.850
the second second second	nt	Zone	C	omments			Туре		Date	F	Fluid
7211.0	- 7413.0	Dakota	Acid w/ 1500 G + 40	BS. Balled off	@ 4000#		Acid Squee		2/24/1972	2 15%	HCL
7211.0	- 7413.0	Dakota	4000 G pad gel water	4000 G pad gel water. Frac w/ 58,760 G 1% KCL Fracture 2/24/ + 77,000# 10/20 sd. AIR= 41 bpm @ 3300# ISIP				2/24/197:	/1972 Water		
6399.0	- 6439.0	Gallup	Acid w/ 500 G + 30 B	S. Balled off			Acid Squeeze		2/25/1972	2 15%	HCL
	- 6439.0							2/25/197/	1972 Water		
6399.0	- 7413.0	Gallup/Dal	ko Dumped 500 G - flust	n with 10 bbls v	water		Acid Dump		12/7/1989) 15%	HCL
	nt	T	Comments		· · · · · · · · · · · · · · · · · · ·	Co	mpany	T	ype		Date
	7523.0					Dresse		IND DE		2/1	2/1972
	- 7485.0					Gearha		GR-CBI	-		2/1972
	- 7520.0		······································			McCull		GR-C			2/1979

4/10/2001



JICAR	RILLA 30	5 Current C	Completion								
API Coo					300392046000						
Spud					2/1/1972 3/10/1972						
Comple					580						
Basin C County					ARRIBA						
Permit				1107							
Reservo				Gallur	D/Dakota						
Field Co				6763	398776						
Permit					1/1972						
Finish D					2/1972						
Abando	on			75.05	0.41/D						
TD					0.0 ftKB 0.0 ftKB						
PBTD State					Mexico						
District					Jan O.U.						
TD Mea					5 ftKB						
Field				WEST LINDRITH		KOTA					
Basin					AN BASIN						
Elevati			<u> 백동국 동안 문</u>								
KB-Grd					14.0 ft		·				
Grd Tub Hea	od			· · · · · · · · · · · · · · · · · · ·	<u>6855.0 ft</u> 0.0 ft						
KB	au				6869.0 ft						
Cas Fln	a				0.0 ft						
Bore H	lole Data										
			ize		Depth						
			in)		(ftKB)						
			2500		244.0						
			3750		7525.0	전 것 것 같은	Skoot wee	이 사람이다.			
		SURFACE	CASING		ID	Thd	Jnts	Wt			
Grd	ltem (in)		Btm (ftKB)	Comments		, ind	UNIS				
K-55	8.6300 in	Casing	244.0		8.1000	ST&C	7	24.00			
Casino	a String -	PRODUCT	ION CASING				· · · · · · · · · · · · · · · · · · ·				
Grd	Item (in)		Btm (ftKB)	Comments	ID	Thd	Jnts	Wt			
K-55	4.5000 in	Casing	7525.0		4.0500	ST&C	231	10.50			
		Sand Fill	7497.0	6/17/91 TOF @ 7450' (47" Fill)	0.0000			0.00			
Casing	g Cement				主义的建筑型						
Amou				mments							
(sx)								(ftKB)			
150) Cem	ent circ	Lettinumber Lite \Alt	. with 1/2% CFR-2, 565 sx 50/50 Pozmix				0.0 2740.0			
765	conta	uining 2% gel,	6.25 lb/sx Gilson	te, 1/2% CFR-2, 565 SX 50/50 F02/11X te, 1/2% CFR-2 TOC by CBL. Cement	FRODUCTI	JN CASIF		2740.0			
435	5 1st s		zmix containing 2	% gel, 6.25 lb/sx Gilsonite, 1/2% CFR-2	PRODUCTIO	ON CASIN	١G	5840.0			
Perfora		by CBL.					<u>, 1</u> 31- 2 - 223				
	Int	Shots		Comments	<u> </u>	Туре		Date			
6000 0	0 - 6439.0	(/ft) 2.0	@ 6300-6403' 6	426-39'. 24 Shots.			2/	24/1972			
	0 - 64 <u>39.0</u> 0 - 7413.0	1.0	@ 7403-13', 735	7-69', 7245-51', 7219-23', 7211'. 21 Sho	ots, 1 Shot	 		24/1972			
		1	every 2'	Constanting of the second s Experimental second s							
	tion/Hori	zon lops					Top (ftKB)				
	ition/Hori	zon lops	Fo	rmation			(unit)				
		zon lops	Fo	rmation		·	(iiii)				
Forma Ojo Alar Picturec	mo d Cliffs	zon Tops	Fo	rmation				3021.0			
Forma Ojo Alar Picturec Chacra	mo d Cliffs		Fo	rmation				3021.0 3884.0			
Forma Ojo Alar Pictureo Chacra Mesave	mo d Cliffs arde		Fo	rmation				3021.0 3884.0 4670.0			
Forma Ojo Alar Pictureo Chacra Mesave Mancos	mo d Cliffs arde		Fo	rmation				3021.0 3884.0 4670.0 5644.0			
Forma Ojo Alar Picturec Chacra Mesave Mancos Gallup	mo d Cliffs arde		Fo	rmation				3021.0 3884.0 4670.0 5644.0 6344.0			
Forma Ojo Alar Picturec Chacra Mesave Mancos Gallup Dakota	mo d Cliffs erde s							3021.0 3884.0 4670.0 5644.0 6344.0			
Forma Ojo Alar Picturec Chacra Mesave Mancos Gallup Dakota	mo d Cliffs erde s (plugs, e Int	quip., etc.)	Fo - Plug Backs Item	rmation			Da	2492.0 3021.0 3884.0 4670.0 5644.0 6344.0 7208.0			
Forma Ojo Alar Picturec Chacra Mesave Mancos Gallup Dakota Other (mo d Cliffs orde s (plugs, e	quip., etc.)	- Plug Backs		Fill) Did not cl	ean		3021.0 3884.0 4670.1 5644.1 6344.1 7208.0			

Other (plugs, ed	quip., etc.) -	Temporay Abandon	nent	1. (. 4.)		(en tê dinên se				
Int		Item	Comments				1	Date		
(ftKB))	1								
6349.0 - 60	350.0	C.I.B.P.					2			
7061.0 - 7	161.0	Cement Plug				2	2/12/2001			
7161.0 - 7	162.0	C.I.B.P.								
Stimulations &	Treatments					tin da sa	THE.			
Int	Zone	Com	ments		Туре)	Date	Fluid		
7211.0 - 7413.0	Dakota	Acid w/ 1500 G + 40 BS.	Balled off @ 4000#	-	Acid Squee	ze 2/2	4/1972	15% HCL		
7211.0 - 7413.0	Dakota	4000 G pad gel water. F	rac w/ 58,760 G 1%	KCL	Fracture	2/2	4/1972	Water		
		+ 77,000# 10/20 sd. All	R= 41 bpm @ 3300#	ISIP						
		2000#					_			
6399.0 - 6439.0	Gallup	Acid w/ 500 G + 30 BS. E	Balled off		Acid Squee	ze 2/2	5/1972	15% HCL		
6399.0 - 6439.0	Gallup	2,000 G pad gel water. F	Frac w/ 32,450 G 1%	KCL	Fracture	2/2	5/1972	Water		
		+ 31,600# 10/20 sd. AIF	R= 35 bpm @ 3000#	ISIP	i					
		800#								
6399.0 - 7413.0	Gallup/Dako	Dumped 500 G - flush wi	th 10 bbls water		Acid Dump	12/	7/1989	15% HCL		
Logs Run			学校会会で発行			영문님 같은				
Int	1	Comments		C	ompany	Тур	Ð	Date		
200.0 - 7523.0				Dress	er	IND DENS	3	2/12/1972		
2700.0 - 7485.0				Geart	nart	GR-CBL		2/22/1972		
6000.0 - 7520.0				McCu	llough	GR-C		5/2/1979		





Lab Test No: 28527

Conoco

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CRAWFORD, STEVE

01/18/2000

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Water Analysis

Listed below please fin	d water an	alysis report from:	JIcarilla	#30-1 SWD
Specific Gravity TDS: pH: Conductivity: Resistivity:	/:	1.009 12133 8.20 µmhos ohms/M		
Cations:		<u>mq/L</u>		•
Calcium	(Ca ີ)	45		
Magnesium	(Mg ^{↔)}	21		
Sodium	(Na [*])	3836		
Iron	(Fe)	2.02		
Barlum	(Ba [™])	1.53		
Strontium	(Sr)	8.62		
Manganese	(Mn ີ)	0.51		
Anions:				
Bicarbonate	(HCO_)	1178		
Carbonate	(CO,)	•		
Hydroxide	(OH)			
Silica	(SIO)			
Sulfate	(S0,)	500		
Chloride	(Cĺ)	6540		
Gases:				
Carbon Dioxide	(CO2)	· 0		
Hydrogen Sulfide	(H ₂ S)	7.		

Comments:

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L /Z

:a 2023542852

<u>Certification</u>

I certify under 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.

Name

*If certification is signed by a party other than the injection well owner/operator a written statement of authorization signed by the owner/operator must accompany the application.

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OTHER INDIAN LANDS

Form 3160-5 (August 1999)		FORM APPROVED OMB No. 1004-0135 Expires November 30, 2000					
	BUREAU OF LAND MANA		5. Lease Se	erial No.			
Do not	NDRY NOTICES AND REPO se this form for proposals to ned well. Use Form 3160-3 (API	drill or to re-enter a	n Is.	6. If Indian CONT 41	n, Allottee or Tribe Name		
SUBMIT	TRIPLICATE - Other instru	ctions on reverse	side	7. If Unit c	or CA/Agreement, Name and/or No.		
1. Type of Well X Oil Well Gas V	ell 🗌 Other	·		8. Well Na			
2. Name of Operator Conoco Inc.				9. API Wel	II No.		
3a. Address P. O. Box 2197, DU	084 Houston TX 77252-2197	3b. Phone No. (include (281)293-1613	le area code)	10. Field and Pool, or Exploratory Area			
4. Location of Well (Foo Sec. 32, T- 25N, R- (800' FNL & 1850' FE		n)					
12. CHE0	K APPROPRIATE BOX(ES) TO) INDICATE NATU	RE OF NOTICE, R	EPORT, OF	R OTHER DATA		
TYPE OF SUBMISSIO	N	ТҮ	PE OF ACTION				
 Notice of Intent Subsequent Report 	Acidize Alter Casing Casing Repair	 Deepen Fracture Treat New Construction 	 Production (Star Reclamation Recomplete 	t/ Resume)	Water Shut-Off Well Integrity Other		
Final Abandonment N	Change Plans	Plug and AbandonPlug Back	Temporarily Aba Water Disposal	andon			
If the proposal is to dee Attach the Bond under following completion o	mpleted Operation (clearly state all perti- en directionally or recomplete horizontal hich the work will be performed or prov- the involved operations. If the operation ed. Final Abandonment Notices shall be	ly, give subsurface location ide the Bond No. on file ware a substitution of the second secon	ons measured and true ve ith BLM/BIA. Required letion or recompletion in	rtical depths of subsequent re a new interval	f all pertinent markers and zones. ports shall be filed within 30 days , a Form 3160-4 shall be filed once		

testing has been completed. Final Abandonment Notices determined that the site is ready for final inspection.)

Conoco Inc. proposes to convert the above mentioned well for salt water disposal injection as per attached procedure.

 14. I hereby certify that the foregoing is true and correct Name (<i>Printed/Typed</i>) Yolanda Perez 	Title Sr. Regulatory Anal	yst
Signature Nolanda Perez	Date 04/11/2001	
THIS SPACE FOR FEDERA	L OR STATE OFFICE	USE
Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warracertify that the applicant holds legal or equitable title to those rights in the subject lewhich would entitle the applicant to conduct operations thereon.	ant or Office ease	
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfu fraudulent statements or representations as to any matter within its jurisdiction.	lly to make to any departme	ent or agency of the United States any false, fictitious or

Convert to Salt Water Disposal Procedure Jicarilla 30-5

Objective: To convert the well from its current state of temporarily abandoned Gallup/Dakota producer to a saltwater disposal well in the Mesa Verde. The well will need to be perforated in the Mesa Verde, a step rate test completed, stimulated if necessary, and tubing and packer installed.

Well Information:

Production Casing:	4 1/2" 10.5 lb/ft set at 7525' Capacity01594 bbls/ft or .6698 gals/ft Drift diameter 3.927"
Current Perfs:	Gallup 6399' – 6439' Dakota 7211' – 7413'
Proposed Tubing:	2 3/8" to 4550' Capacity 00387 bbls/ft or .1626 gals/ft
Proposed Perfs:	Mesa Verde Cliffhouse Member: 4672'-78', 4680'-96', Menefee Member: 4752'-58', 4772'-82' 4816'- 26' 4846'-64', 4894'-4904', 4912'-16', 4930'- 40', 4996'-5000', 5008'-28', 5176'-82', Point Lookout Member: 5204'-24', 5234'-44', 5278'-98', 5306'-26'

Procedure:

- 1. Rig up pulling unit.
- 2. Install BOP
- 3. Pressure test casing to 1500 psi.
- 4. RIH with 2 3/8" tubing to 5400' and circulate hole clean. Note: all fluid used in this procedure should be clean produced water.
- 5. Pull tubing up to 3000' and swab fluid level to that point. POOH.
- 6. Rig up perforating company with lubricator.
- 7. Perforate Point Lookout Interval of the Mesa Verde and the lowest section of the Menefee (5176') with 4 shots per foot.
- 8. Rig up a pump truck and begin pumping clean produced water into the perforations at ¼ BPM, continue increasing injection rate in 1/8 BPM increments (with each step being at least 5 minutes in duration or longer if necessary to get a stabilized rate and pressure) until a clear change in slope of the pressure rate curve occurs. Take at least two step beyond the break point before concluding the test. Record the pressure and rate

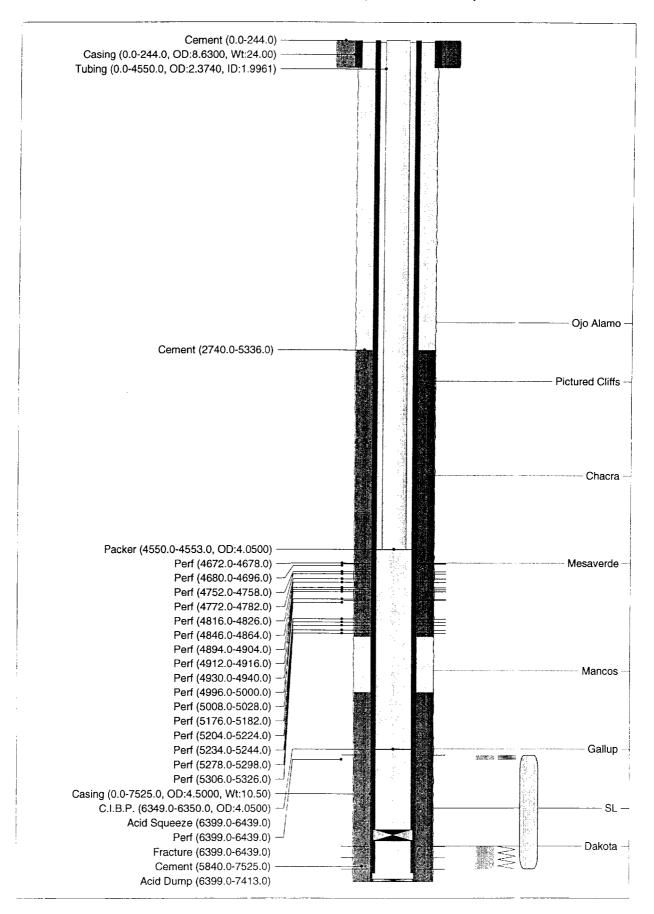
information digitally. Continue recording pressure for at least 30 minutes after shutdown. (communicate the step rate test information to Houston)

- 9. A decision will be made at this point as to whether the Point Lookout and lower Menefee will be stimulated prior to perforating the remainder of the Menefee and Cliffhouse. If the well requires stimulation, a stimulation procedure will be developed.
- 10. If stimulation is not required continue perforating the remainder of the Mesa Verde perforations with 4 shots per foot. If stimulation is required, the stimulation procedure will address isolation of the Point Lookout and lower Menefee poststimulation, prior to perforating the Cliffhouse and upper Menefee.
- 11. Perforate the remainder of the Menefee and the Cliffhouse Interval of the Mesa Verde with 4 shots per foot.
- 12. Rig up a pump truck for a second step rate test on the entire Mesa Verde. Begin pumping clean produced water into the perforations at ¼ BPM, continue increasing injection rate in 1/8 BPM increments (with each step being at least 5 minutes in duration or longer if necessary to get a stabilized rate and pressure) until a clear change in slope of the pressure rate curve occurs. Take at least two step beyond the break point before concluding the test. (communicate the step rate test information to Houston)
- 13. Run in hole with tubing and a Baker Model AD-1 retrievable tension set injection packer to 4630' (must be deeper than 4597' GLM as per EPA) and set the packer. Note: It will take a minimum of 5000 lbs tension to set the packer, so set with the tubing in 10,000 lbs tension. Packer shear rings should be set for >35,000 lbs and <45,000 lbs. Top off annulus with sufficient mineral oil so as to prevent the packer fluid from freezing.
- 14. Nipple down BOP and nipple up wellhead. Well head needs to be equipped with cut-off valves and female fittings on both the tubing and tubing/casing annulus so that the injection pressure and annulus pressure may be measured by an EPA representative by attaching a gauge have a standard male fitting. Place 100 psi on the annulus.
- 15. Connect injection line to the wellhead for injection. Do not commence injection until all approvals are received.

Prepared by : Pat Bergman April 9, 2001

4/10/2001

JICARILLA 30 5 Proposed SWD Completion (300392046000)



JICARILLA 30 5 Proposed SWD Completion (300392046000)

4/10/2001

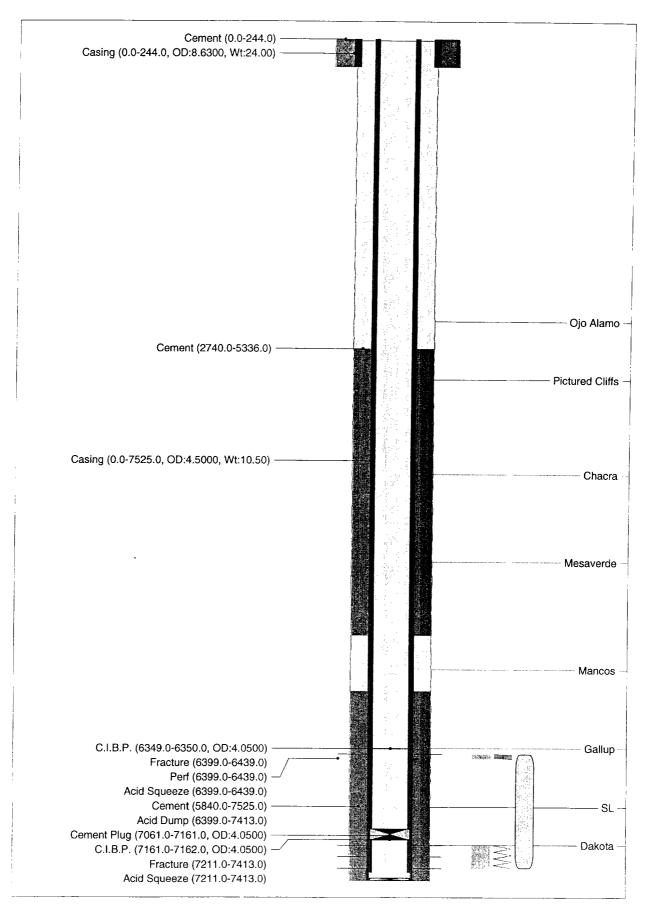
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Amoui (sx) 150 765 435 Perfora 10 7211.0 6399.0 4672.0 4672.0 4672.0 4846.0 4772.0 4816.0 4894.0 4912.0 4930.0 4996.0	Cem nt C C C C C C C C C C C C C	ement circ nd stage 200 sx ontaining 2% gel ru DV @ 5336'. st stage 50/50 P OC by CBL. Shots (/ft) 3.0 1.0 3.0 4.0 3.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5	Cor Halliburton Lite Wt I, 6.25 lb/sx Gilsoni ozmix containing 2 @ 7403-13', 735 every 2'	mments with 1/2% CFR-2, 565 sx 50/50 Pozmix ite, 1/2% CFR-2 TOC by CBL. Cement % gel, 6.25 lb/sx Gilsonite, 1/2% CFR-2 Comments 7-69', 7245-51', 7219-23', 7211'. 21 Sho	0.0000 Casing SURFACE C PRODUCTIC	String CASING DN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/	Top ftKB) 0. 2740. 5840. 5840. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Amour (sx) 150 765 435 Perfora	Cem nt C C C C C C C C C C C C C	ement circ nd stage 200 sx ontaining 2% gel ru DV @ 5336'. st stage 50/50 P OC by CBL. Shots (/ft) 3.0 1.0 0.0 2.0 3.0 4.0 3.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.	Cor Halliburton Lite Wt I, 6.25 lb/sx Gilsoni ozmix containing 2 @ 7403-13', 735 every 2'	mments with 1/2% CFR-2, 565 sx 50/50 Pozmix ite, 1/2% CFR-2 TOC by CBL. Cement % gel, 6.25 lb/sx Gilsonite, 1/2% CFR-2 Comments 7-69', 7245-51', 7219-23', 7211'. 21 Sho	0.0000 Casing SURFACE C PRODUCTIC	String CASING DN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/	Top ftKB) 0. 2740. 5840. 5840. Date 4/1972 4/1972 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001
Amoui (sx) 150 765 435 Perfora 10 7211.0 6399.0 4672.0 4672.0 4672.0 4672.0 4894.0 4752.0 4816.0 4894.0 4912.0 4930.0 4996.0 5008.0	Cem nt C C C C C C C C C C C C C	Shots (/ft) 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 4.0 3.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0	Cor Halliburton Lite Wt I, 6.25 lb/sx Gilsoni ozmix containing 2 @ 7403-13', 735 every 2'	mments with 1/2% CFR-2, 565 sx 50/50 Pozmix ite, 1/2% CFR-2 TOC by CBL. Cement % gel, 6.25 lb/sx Gilsonite, 1/2% CFR-2 Comments 7-69', 7245-51', 7219-23', 7211'. 21 Sho	0.0000 Casing SURFACE C PRODUCTIC	String CASING DN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/	Top ftKB) 0. 2740. 5840. 5840. 5840. 0 0 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001
Amoui (sx) 150 765 435 Perfora 435 Perfora 435 Perfora 435 20 439.0 4680.0 4752.0 4772.0 4772.0 4846.0 4846.0 4894.0 4912.0 4912.0 4996.0 5008.0 5008.0 5176.0 5204.0 5234.0	Cem int C C C C C C C C C C C C C	Shots (/ft) 3.0 1.0 3.0 1.0 3.0 1.0 3.0 1.0 3.0 1.0 3.0 1.0 3.0 1.0 3.0 1.0 3.0 1.0 3.0 1.0 3.0 1.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0	Cor Halliburton Lite Wt I, 6.25 lb/sx Gilsoni ozmix containing 2 @ 7403-13', 735 every 2'	mments with 1/2% CFR-2, 565 sx 50/50 Pozmix ite, 1/2% CFR-2 TOC by CBL. Cement % gel, 6.25 lb/sx Gilsonite, 1/2% CFR-2 Comments 7-69', 7245-51', 7219-23', 7211'. 21 Sho	0.0000 Casing SURFACE C PRODUCTIC	String CASING DN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/	Top ftKB) 0. 2740. 5840. 5840. 5840. 7840.
Amoui (sx) 150 765 435 Perfora 435 Perfora 1 7211.0 6399.0 4672.0 4680.0 4772.0 4816.0 4846.0 4846.0 4912.0 4846.0 4996.0 5008.0 5504.0 5204.0 5224.0 5228.0	Cem int C C C C C C C C C C C C C	Shots (/ft) 3.0 1.0 3.0 1.0 3.0 1.0 3.0 3.0 1.0 3.0 3.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0	Cor Halliburton Lite Wt I, 6.25 lb/sx Gilsoni ozmix containing 2 @ 7403-13', 735 every 2'	mments with 1/2% CFR-2, 565 sx 50/50 Pozmix ite, 1/2% CFR-2 TOC by CBL. Cement % gel, 6.25 lb/sx Gilsonite, 1/2% CFR-2 Comments 7-69', 7245-51', 7219-23', 7211'. 21 Sho	0.0000 Casing SURFACE C PRODUCTIC	String CASING DN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/	Top ftKB) 0. 2740. 5840. 5840. 5840. Date 4/1972 4/1972 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001
Amoui (sx) 150 765 435 Perfora 10 7211.0 6399.0 4672.0 4672.0 4672.0 48752.0 48752.0 48752.0 48752.0 48752.0 4894.0 4972.0 4894.0 4996.0 5008.0 5008.0 5204.0 5204.0	Cem int C C C C C C C C C C C C C	Shots (/ft) 3.0 1.0 3.0 1.0 3.0 1.0 3.0 3.0 1.0 3.0 3.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0 3.0 4.0	Cor Halliburton Lite Wt I, 6.25 lb/sx Gilsoni ozmix containing 2 @ 7403-13', 735 every 2'	mments with 1/2% CFR-2, 565 sx 50/50 Pozmix ite, 1/2% CFR-2 TOC by CBL. Cement % gel, 6.25 lb/sx Gilsonite, 1/2% CFR-2 Comments 7-69', 7245-51', 7219-23', 7211'. 21 Sho	0.0000 Casing SURFACE C PRODUCTIC	String CASING DN CASIN	G G 2/2 2/2 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/ 6/	Top ftKB) 0. 2740. 5840. 5840. 5840. 0 0 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001 1/2001

JICARILLA 30 5 Proposed SWD Completion (300392046000)

4/10/2001

Grd	Item		ubing Comments	ID	T	nd Jnts	Le	n Top	Wt
Gra	(in)		Comments	(in	1	iu onto			
	2.3740	n Tubing			961		45	50.0	0.0 4.
Format		zon Tops		· · · · · · · · · · · · · · · · · · ·					
1 Of max			Formatio	n					op KB)
Oio Alam	10							······	2492
Pictured									3021
Chacra									3884
Mesaver	de								4670
Mancos									5644
Gallup									6344
Dakota									7208
	oluas, er	uip., etc.	- Plug Backs	No the second	1	문왕관감			
<u> </u>	Int (ftKB)		ltem	Comments					Date
7	7497.0 - 7		Cement Plug	6/17/91 Tag F out	ill @ 7450	' (47' Fill) D	id not cle	ean 2	2/23/1972
Other (uip., etc.)	- Temporay Abandon	ment					
	Int (ftKB))	ltem	Comments					Date
6	349.0 - 6	350.0	C.I.B.P.						2/12/2001
7	061.0 - 7	161.0	Cement Plug			_			2/12/2001
7	161.0 - 7	162.0	C.I.B.P.						2/8/2001
Other (oluas. ed	uip., etc.)	- Injection Packer			가 같은??	- ¹ - 1 - 1		
	Int (ftKB)		Item	Comments					Date
4			Packer						6/1/2001
	1550.0 - 4	553.0	······································						6/1/2001
Stimula	1550.0 - 4	553.0 Treatmen	ts	nments	ar y j	Тур			
Stimula	1550.0 - 44 Itions & nt	553.0 Treatmen Zone	ts Co Acid w/ 1500 G + 40 BS	6. Balled off @ 40	00#	Type Acid Squee	e		
Stimula II 7211.0	1550.0 - 4	553.0 Treatmen	ts	6. Balled off @ 400 Frac w/ 58,760 G	00# 1% KCL	Type Acid Squee Fracture	e)2e	Date	Fluid 15% HCL Water
Stimula lı 7211.0 7211.0	1550.0 - 4 1 tions & nt - 7413.0	553.0 Treatmen Zone Dakota	ts Con Acid w/ 1500 G + 40 BS 4000 G pad gel water. + 77,000# 10/20 sd. A 2000# Acid w/ 500 G + 30 BS.	5. Balled off @ 400 Frac w/ 58,760 G IR= 41 bpm @ 33 Balled off	00# 1% KCL 00# ISIP	Acid Squee Fracture Acid Squee	e)2e	Date 2/24/1972 2/24/1972 2/25/1972	Fluid 15% HCL Water 15% HCL
Stimula li 7211.0 7211.0 6399.0	1550.0 - 48 Itions & nt - 7413.0 - 7413.0	553.0 Treatmen Zone Dakota Dakota	ts Acid w/ 1500 G + 40 BS 4000 G pad gel water. + 77,000# 10/20 sd. A 2000# Acid w/ 500 G + 30 BS. 2,000 G pad gel water. + 31,600# 10/20 sd. Al	3. Balled off @ 400 Frac w/ 58,760 G IR= 41 bpm @ 33 Balled off Frac w/ 32,450 G	00# 1% KCL 00# ISIP	Type Acid Squee Fracture	e)2e	Date 2/24/1972 2/24/1972	Fluid 15% HCL Water
Stimula 7211.0 7211.0 6399.0 6399.0	1550.0 - 4 11 ions & nt - 7413.0 - 7413.0 - 6439.0 - 6439.0	53.0 Treatmen Zone Dakota Dakota Gallup Gallup	ts Acid w/ 1500 G + 40 BS 4000 G pad gel water. + 77,000# 10/20 sd. A 2000# Acid w/ 500 G + 30 BS. 2,000 G pad gel water. + 31,600# 10/20 sd. Al 800#	3. Balled off @ 400 Frac w/ 58,760 G IR= 41 bpm @ 33 Balled off Frac w/ 32,450 G R= 35 bpm @ 300	00# 1% KCL 00# ISIP	Acid Squee Fracture Acid Squee	e 929 929 929	Date 2/24/1972 2/24/1972 2/25/1972 2/25/1972	Fluid 15% HCL Water 15% HCL
Stimula 11 7211.0 7211.0 6399.0 6399.0 6399.0	1550.0 - 45 Itions & nt - 7413.0 - 7413.0 - 6439.0 - 6439.0 - 7413.0	53.0 Treatmen Zone Dakota Dakota Gallup Gallup	ts Acid w/ 1500 G + 40 BS 4000 G pad gel water. + 77,000# 10/20 sd. A 2000# Acid w/ 500 G + 30 BS. 2,000 G pad gel water. + 31,600# 10/20 sd. Al	3. Balled off @ 400 Frac w/ 58,760 G IR= 41 bpm @ 33 Balled off Frac w/ 32,450 G R= 35 bpm @ 300	00# 1% KCL 00# ISIP	Type Acid Squee Fracture Acid Squee Fracture	e 929 929 929	Date 2/24/1972 2/24/1972 2/25/1972 2/25/1972	Fluid 15% HCL Water 15% HCL Uvater
Stimula 11 7211.0 7211.0 6399.0 6399.0 6399.0 Logs R	1550.0 - 45 Itions & 1 - 7413.0 - 7413.0 - 6439.0 - 6439.0 - 7413.0 un	53.0 Treatmen Zone Dakota Dakota Gallup Gallup	ts Acid w/ 1500 G + 40 BS 4000 G pad gel water. + 77,000# 10/20 sd. A 2000# Acid w/ 500 G + 30 BS. 2,000 G pad gel water. + 31,600# 10/20 sd. Al 800#	3. Balled off @ 400 Frac w/ 58,760 G IR= 41 bpm @ 33 Balled off Frac w/ 32,450 G R= 35 bpm @ 300	00# 1% KCL 00# ISIP 1% KCL 00# ISIP	Type Acid Squee Fracture Acid Squee Fracture	e 32e 32e	Date 2/24/1972 2/24/1972 2/25/1972 2/25/1972 12/7/1989	Fluid 15% HCL Water 15% HCL Uvater
Stimula 11 7211.0 7211.0 6399.0 6399.0 6399.0 Logs Ri 11	1550.0 - 45 Itions & nt - 7413.0 - 7413.0 - 6439.0 - 6439.0 - 6439.0 - 7413.0 un nt	53.0 Treatmen Zone Dakota Dakota Gallup Gallup	Con Acid w/ 1500 G + 40 BS 4000 G pad gel water. + 77,000# 10/20 sd. A 2000# Acid w/ 500 G + 30 BS. 2,000 G pad gel water. + 31,600# 10/20 sd. Al 800# co Dumped 500 G - flush v	3. Balled off @ 400 Frac w/ 58,760 G IR= 41 bpm @ 33 Balled off Frac w/ 32,450 G R= 35 bpm @ 300	00# 1% KCL 00# ISIP 1% KCL 00# ISIP	Type Acid Squee Fracture Acid Squee Fracture Acid Dump	e 32e 32e	Date 2/24/1972 2/24/1972 2/25/1972 2/25/1972 12/7/1989 Type	Fluid 15% HCL Water 15% HCL Water 15% HCL
Stimula 11 7211.0 7211.0 6399.0 6399.0 6399.0 Logs Ri 11 200.0 -	1550.0 - 45 Itions & 1 - 7413.0 - 7413.0 - 6439.0 - 6439.0 - 7413.0 un	53.0 Treatmen Zone Dakota Dakota Gallup Gallup	Con Acid w/ 1500 G + 40 BS 4000 G pad gel water. + 77,000# 10/20 sd. A 2000# Acid w/ 500 G + 30 BS. 2,000 G pad gel water. + 31,600# 10/20 sd. Al 800# co Dumped 500 G - flush v	3. Balled off @ 400 Frac w/ 58,760 G IR= 41 bpm @ 33 Balled off Frac w/ 32,450 G R= 35 bpm @ 300	00# 1% KCL 00# ISIP 1% KCL 00# ISIP	Type Acid Squee Fracture Acid Squee Fracture Acid Dump Company Ser	e 32e 32e	Date 2/24/1972 2/24/1972 2/25/1972 2/25/1972 12/7/1989 Type ENS	Fluid 15% HCL Water 15% HCL Water 15% HCL 15% HCL

4/10/2001



JICARILLA 30 5 Current Completion (300392046000)

4/10/2001

		5 Current	Completi	on	E E		2046000			. 11
API Co Spud	ue				· +		92046000 1/1972			
Comple	etion						0/1972			
Basin C			<u> </u>				580			
County							ARRIBA			
Permit										
Reserve							p/Dakota			
Field Co	ode						398776			
Permit Finish [)rl						4/1972			
Abando						2/12	2/1972			
TD						7525	5.0 ftKB			
PBTD							9.0 ftKB			
State						New	Mexico			
District							uan O.U.			
TD Mea Field	isured				<u> </u>		5 ftKB			
Basin					- <u> </u>	WEST LINDRITH	AN BASIN		<u>_</u>	
Elevati	ions	and the second		A a		SAN JU	AN DASIN	8 V (in the second	1 40 - 1 - 1
KB-Grd				·	<u> </u>		14.0 ft	<u> </u>		<u></u>
Grd						· · · · · · · · · · · · · · · · · · ·	6855.0 ft			
Tub Hea	ad						0.0 ft			
KB			· · · · · · · · · · · · · · · · · · ·				6869.0 ft			
Cas Fin							0.0 ft			
DUIE H	ivie Data		Size				Depth	<u></u>		
			(in)				(ftKB)			
		12	2.2500				244.0			
		7.	.8750			· · · · · · · · · · · · · · · · · · ·	7525.0			
		SURFACE	CASING				<u>,</u> 人,我的有效来。		· · · · ·	
Grd	item			3tm		Comments	ID	Thd	Jnts	Wt
14.55	(in)	Casia	(f	tKB)			0.1000			
K-55 Casing	8.6300 in String -		TION CAS	244.0			8.1000	ST&C	<u> </u>	24.00
Grd	Item		j E	3tm		Comments	ID	Thd	Jnts	Wt
	(in)	<u> </u>		tKB)						
K-55	4.5000 in			7525.0	17/01 TOF 6		4.0500	ST&C	231	10.50
	4.0000 in	Sand Fill		1491.0 6	11/91 IUF @	9 7450' (47" Fill)	0.0000		<u> </u>	0.00
Amou		<u></u>	<u>i a ta statur 1</u>	Com	ments		Casing			Тор
(sx)				0011			Jaamy	Sang		tKB)
150							SURFACE C	ASING		0.0
765	contai					R-2, 565 sx 50/50 Pozmix TOC by CBL. Cement	PRODUCTIC	N CASIN	G	2740.0
435	1st sta TOC b	age 50/50 Po by CBL.			gel, 6.25 lb/s	x Gilsonite, 1/2% CFR-2	PRODUCTIC	N CASIN	G	5840.0
Perfora				<u> </u>	· · · · ·					
1	int	Shots			Co	omments		Туре		Date
6300 0	- 6439.0	<u>(/ft)</u> 2.0	@ 6300-6	403' 642	26-39'. 24 Sh	ots			2/2	4/1972
7211.0	- 7413.0	1.0				, 7219-23', 7211'. 21 Sho	ts, 1 Shot			4/1972
ormat	tion/Horiz	on Tops								
				Form	nation				Top (ftKB)	
Dio Alan	no									2492.0
Pictured				<u> </u>						3021.0
Chacra										3884.0
lesaver	rde									4670.0
lancos						· · · · · · · · · · · · · · · · · · ·				5644.0
										6344.0 7208.0
Sallup	· · · · · · · · · · · · · · · · · · ·									1200.0
Ballup Dakota		uin etc.)	- Plug Ro	cke						
Gallup Dakota		uip., etc.)	- Plug Ba		Comr	nents			Date	
Gallup Dakota	plugs, eq Int (ftKB)	uip., etc.)	- Plug Ba	cks Item	Comr	nents			Date	e

Int		ltem	Comments					Date
(ftKB	}						ł	
6349.0 - 6	350.0	C.I.B.P.					2	/12/2001
7061.0 - 7	161.0	Cement Plug					2	/12/2001
7161.0 - 7	162.0	C.I.B.P.			_			2/8/2001
Stimulations &	Treatments							والفاف كالج
Int	Zone	Com	ments		Туре	D	ate	Fluid
7211.0 - 7413.0	Dakota	Acid w/ 1500 G + 40 BS.	Balled off @ 4000#		Acid Squee	ze 2/24	/1972	15% HCL
7211.0 - 7413.0	Dakota	4000 G pad gel water. Fr	rac w/ 58,760 G 1% I	KCL	Fracture	2/24	/1972	Water
		+ 77,000# 10/20 sd. AIF	R= 41 bpm @ 3300#	ISIP				ł
	·	2000#						
6399.0 - 6439.0	Gallup	Acid w/ 500 G + 30 BS. B	alled off	_	Acid Squee	ze 2/25	/1972	15% HCL
6399.0 - 6439.0	Gallup	2,000 G pad gel water. F	rac w/ 32,450 G 1%	KCL	Fracture	2/25	/1972	Water
		+ 31,600# 10/20 sd. AIR:	= 35 bpm @ 3000#	ISIP				
		800#						i
<u>6399.0 - 7413.0</u>	Gallup/Dako	Dumped 500 G - flush wit	h 10 bbls water		Acid Dump	12/7	/1989	15% HCL
Logs Run		영영 영양 이 물건이 있는 것이 있다.						
Int		Comments		C	ompany	Туре		Date
200.0 - 7523.0				Dress	er	IND DENS		2/12/1972
2700.0 - 7485.0				Gearl		GR-CBL		2/22/1972
6000.0 - 7520.0				McCu	llough	GR-C		5/2/1979

