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Corm 3160-5 (August 2007) DE	UNITED STATE PARTMENT OF THE I	FORM APPROVED OMB No 1004-0137 Expires July 31, 2010						
BUI	REAU OF LAND MAN	5. Lease Serial No. NMLC030467A						
Do not use this	NOTICES AND REPC form for proposals to Use Form 3160-3 (A	6 If Indian, Allottee or Tribe Name						
SUBM	IT IN TRIPLICATE – Other	7 If Unit of CA/Agreement, Name and/or No						
Gas '	Well Dther	8. Well Name and No Vaughn A-14 #7 & #8						
2 Name of Operator Cameron Oil and Gas Inc.		9 API Well No 30-025-26215, 30-025-27155						
3a. Address 90 Box 1455 Roswell Nm 88202-1455		3b Phone No <i>(include area code)</i> 575-627-3284, 575-420-1108	10. Field and Pool or Exploratory Area Jalmat T-Y-SR					
Location of Well <i>(Footage, Sec , T</i> ESW and SWNW Sec 14, T-24S, R-36E	.R M, or Survey Description)		11. Country or Parish, State Lea Co. NM					
12 CHE	CK THE APPROPRIATE BO	X(ES) TO INDICATE NATURE OF	NOTICE, REPORT OR OTHER DATA					
TYPE OF SUBMISSION		TYPE O	FACTION					
Solution Notice of Intent	Acidize	Deepen Fracture Treat	Production (Start/Resume) Water Shut-Off Reclamation Well Integrity					
Subsequent Report	Casing Repair	New Construction	Recomplete Other Approval for was Temporarily Abandon disposal	Other Approval for water disposal				
Final Abandonment Notice	Convert to Injection	Plug Back	Water Disposal					
determined that the site is ready for	Abandonment Notices must b		ecompletion in a new interval, a Form 3160-4 must be filed of luding reclamation, have been completed and the operator has					
determined that the site is ready for) Name of formation, T-Y-SR) Amount of water produced: 70-80) A current water analysis' See Att) How water is stored on lease. Ta) How water is move to disposal fa) How water is move to disposal fa) A Tenison Oil Co B. JL Coates Well #4 C. SWD # 4 D. Unit C, NENW, 990' FNL & 16 7) See Attached	Abandonment Notices must b or final inspection) 0 BWPD tached anks on location acility: Flowline 550'FWL, SEc. 10, T-24S, R	e filed only after all requirements, inc -36E, Lea Co. NM		RD				
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STATE OF NEW MEXICC ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 8129 Order No. R-7551

APPLICATION OF WORLDWIDE ENERGY CORFORATION FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

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This cause came on for hearing at 8 a.m. on March 28, 1984, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this <u>lst</u> day of June, 1984, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Worldwide Energy Corporation, is the owner and operator of the J. L. Coats Well No. 4, located 990 feet from the North line and 1650 feet from the West line of Section 10, Township 24 South, Range 36 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Seven Rivers formation, with injection into the perforated interval from approximately 3522 feet to 3580 feet.

(4) That the injection should be accomplished through 2 3/8-inch plastic lined tubing installed in a packer set at approximately 3500 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer. -2-Case No. 8129 Order No. R-7551

> (5) That the injection well or system should be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 704 psi.

(6) That the Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the Seven Rivers formation.

(7) That the operator should notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

(8) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(9) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Worldwide Energy Corporation, is hereby authorized to utilize its J. L. Coats Well No. 4, located 990 feet from the North line and 1650 feet from the West line of Section 10, Township 24 South, Range 36 East, NMPM, Jalmat Gas Pool, Lea County, New Mexico, to dispose of produced salt water into the Seven Rivers formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 3500 feet, with injection into the perforated interval from approximately 3522 feet to 3580 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

(2) That the injection well or system shall be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 704 psi. -3-Case No. 8129 Order No. R-7551

(3) That the Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Seven Rivers formation.

(4) That the operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

(5) That the operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(6) That the applicant shall conduct disposal operations and submit monthly reports in accordance with Rules 702, 703, 704, 705, 706, 708, and 1120 of the Division Rules and Pegulations.

(7) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, or the day and year here:nabove designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

Director

SEAL

DownHole SAT™ Water Analysis Report

 SYSTEM IDENTIFICA	TION	WATER CHEMISTRY							
Cameron oil & Gas Vaughn a14 #8	5	CATIONS Calcium(as Ca) Magnesium(as Mg) Barlum(as Ba) Sodium(as Na)	1150 267.30 0.00 3057	ANIONS Chloride(as Cl) Sulfate(as SO4) Dissolved CO2(as CO2) Bicarbonate(as HCO3)	6745 1039 22.05 7 3.20				
CC; JOHN NOGELME	ER	- Iron(as Fe) Aluminum(as Al) Manganese(as Mn)	5.00 0.00 0.00	Carbonate(as CO3) H ₂ S (as H ₂ S)	72.00 4.10				
Sample ID#: ID:	ο.	PARAMETERS Temperature(^O F)	100.00	Sample pH	7.20				
Sample Date: Report Date:	10-24-2011 at 0 8 41 10-28-2011								

SCALE AND CORROSION POTENTIAL

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SCALE AI		31011 FU															
Temp.	Press.	с	alcite	An	hydrite	Gypsum CaSO4*2H ₂ Q		Barite BaSO4		Celestite SrSO4		Si	Siderite FeCO3		Mackawenite FeS		pCO _Z (atm)
(°f)	(atm)	C	aCO3	c	8504							F					
70.00	0.00	2.89	0.130	0.323	416.22	0.546	211.73	0.00	-0.0147	0.00	-27.34	20.78	0.218	37.14	0,735	0.0213	0.0159
75.45	0 00	3.22	0.146	0.323	-412.36	0.533	-219.71	0.00	-0.0169	0.00	-27,53	Z4.08	0.234	. 34.80	0.728	0.0242	0.0159
80.91	0.00	3.56	0.161	0.325	-405.30	0.522	-226.65	0.00	-0.0192	0.00	-27.61	27.72	0.250	32.64	0.720	0.0272	0:0159
86.36	0.00	3.93	0.177	0.330	-395.29	0.512	-232.60	0.00	-0.0217	0.00	-27,58	31 .7 1	0.265	30.63	0.711	0.0302	0.0159
91.82	0.00	4.31	0.192	0.336	-382.59	0.504	-237.59	0.00	-0.0244	0.00	-27.47	36,06	0.280	28.77	0,702	0.0332	0.0159
97.27	0,00	4.70	0.206	0.344	-367.52	0.496	-241.69	0.00	-0.0273	0.00	-27.30	40.75	0.295	27.05	0.692	0.0361	0.0159
102.73	0.00	5.10	0.220	0.355	-350.27	0:490	-244.85	0.00	-0.0303	0,00	-27,08	45.78	0.309	25.46	0.681	0.0391	0.0159
108,18	0.00	5.51	0.234	0.368	•331.18	0.506	-229.52	0.00	-0.0335	0.00	-26.85	51.21	0.323	23.98	0.669	Q.Q385	0.0159
113.64	0.00	5.95	0.247	0.384	-310.53	0.525	-212.78	0.00	-0.0369	0.00	-25.64	57.10	0.337	22.62	0.657	0.0367	0,0159
119.09	0.00	6,41	0.261	0.40Z	-288.59	0.543	-197.12	0.00	-0.0407	D.00	-26.46	63.47	0.352	21.36	0.644	0.0347	0.0159
124.55	0.00	6.89	0.275	. 0.423	-265,64	0.562	-182.49	0.00	-0.0449	0.00	-26.29	70,34	0.366	20,20	0.631	0.0325	0.0159
130.00	0.00	7,39	0.289	0.447	-241.92	0.581	-168.82	0.00	-0.0493	0.00	-25.14	77.71	0.381	19.11	0.617	0.0301	0.0159
			Lbs per		Lbs per ,	•	Lbs per		Lbs per		Lbs per		Lbs per		Lbs per		· .·
		XSAT	1000	xSAT	1000	×SAT	1000	XSAT	1000	XSAT	1000	XSAT	1000	xSAT	1000		•••••
			Barrels		Barrels		Barrels		Barrels		Barrels	•	Barrels		Barrels		

Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g. {Ca}{Co}/Ksp. pCO2 (atm) is the partial pressure of CO2 in the gas phase. Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium



BUREAU OF LAND MANAGEMENT Carlsbad Field Office 620 East Greene Street Carlsbad, New Mexico 88220 575-234-5972

Disposal of Produced Water From Federal Wells Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

- 1. This agency shall be notified of any change in your method or location of disposal.
- 2. Compliance with all provisions of Onshore Order No. 7.
- 3. This agency shall be notified of any spill or discharge as required by NTL-3A.
- 4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
- 5. All above ground structures on the lease shall be painted Shale Green (5Y 4/2), or as per approved APD stipulations. This is to be done within 90 days, if you have not already done so.
- 6. Any on-lease open top storage tanks shall be covered with a protective cover to prevent entry by birds and other wildlife.
- 7. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
- 8. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.
- 9. Disposal at any other site will require prior approval.
- 10. Subject to like approval by NMOCD.

6/17/2011

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