

GENERAL CORRESPONDENCE

2008 - 2007

VonGonten, Glenn, EMNRD

From: Dale Littlejohn [dale@rthicksconsult.com]

Sent: Tuesday, December 04, 2007 7:08 AM

To: Johnson, Larry, EMNRD; VonGonten, Glenn, EMNRD

Cc: Randy Hicks (Randy Hicks); 'Scott Rose'; fsteed@samson.com

Subject: Samson Livestock "30" Sampling Event

Please accept this email as notice of our intentions to conduct a ground water sampling event at the Samson Livestock "30" former reserve pit site on Thursday December 6, 2007 beginning at 8:30 AM. The site is located 15 miles west of Eunice, NM at Section 30 (unit P), T-21-S, R-35-E. Please contact me if you have any questions or need any additional information.

Thanks,

Dale T Littlejohn, PG R T Hicks Consultants Ltd (432) 528-3878 (office) (432) 689-4578 (fax)

This inbound email has been scanned by the MessageLabs Email Security System.

VonGonten, Glenn, EMNRD

From:	Randy Hicks [r@rthicksconsult.com]
Sent:	Friday, May 09, 2008 6:17 AM
То:	VonGonten, Glenn, EMNRD
Cc:	'Scott Rose'; 'Dale Littlejohn'; 'Floyd Steed'
Subject:	Samson Livestock
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Attachments: Final Plate 3 GW Impact Map.pdf

Glenn

On Monday, we should be able to deliver a proposal to use the impaired ground water from the Samson Livestock site (MW-3) for brine drilling water at two well sites and for use in the construction of one new well pad. In about 10-20 days from now, we will be able to use the water periodically over the next 80-90 days when the rigs are drilling the brine section of the holes. We could use the water for construction of the new site as soon as possible.

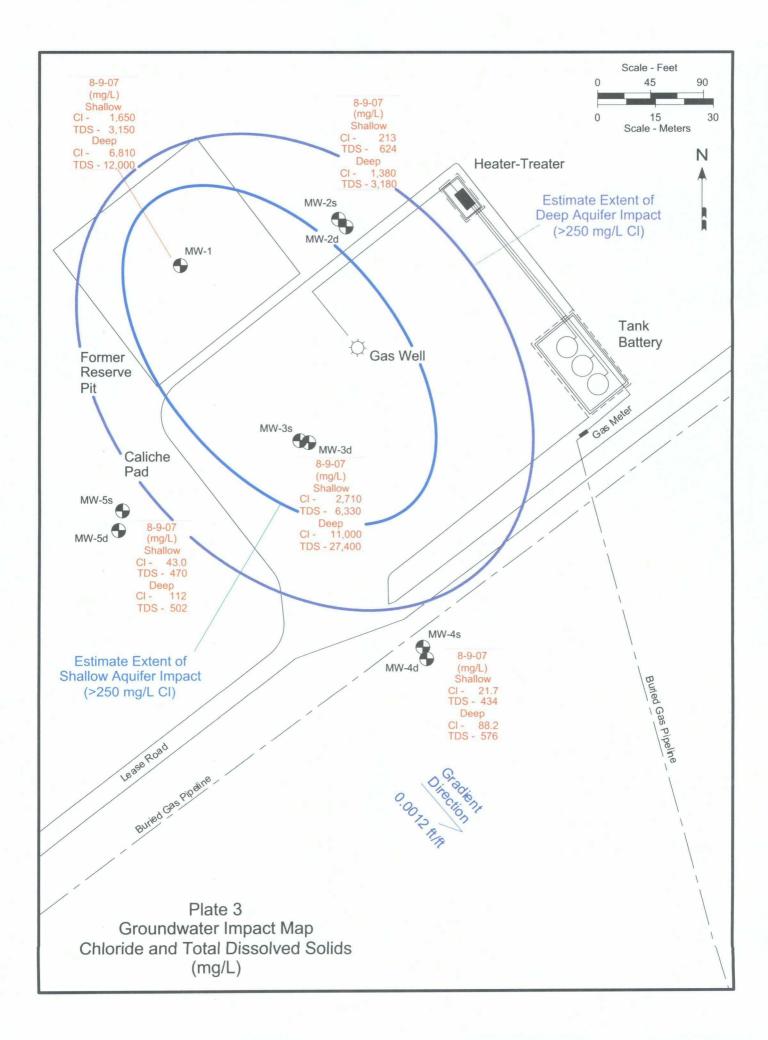
I would greatly appreciate you setting aside some time to review (and approve) this proposal so we can get a wiggle on and implement the pump-and-use ground water restoration strategy for the Livestock site. The proposal to use the water within a brine drilling program should be a quick review.

Randall Hicks Tel: 505-266-5004 Cell 505-238-9515

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VonGonten, Glenn, EMNRD

From:	Randy Hicks [r@rthicksconsult.com]
Sent:	Wednesday, May 14, 2008 4:52 PM
То:	VonGonten, Glenn, EMNRD
Cc:	srose@samson.com; fsteed@samson.com; 'Dale Littlejohn'; rochelle@rthicksconsult.com
Subject:	Samson Livestock AP 62-0
Attachmen	ts: Water Use Letter and Attachment.pdf

Glenn

This letter requests NMOCD approval to implement the pump-and-use ground water restoration strategy proposed in our November 2007 submission to NMOCD.

We request NMOCD approval as <u>soon as possible</u> to pump and use ground water from MW-3d (TDS about 25,000 mg/L) for the <u>brine drilling program</u> at the Osudo site described in the attachment – which will spud very soon.

We request NMOCD review and approval to use water from MW-3d for the Cattleman well brine drilling program as well as using the water sparingly in the fresh water drilling program. The Cattleman well will spud in about 40-60 days from now (after completion of the Osudo well).

We request NMOCD review and approval for the use of the Livestock ground water in lieu of fresh water for construction of the Cattleman location, or other Samson construction projects within the area described in the attachment.

We have started pumping (1.2 GPM) from MW-3 into two frac tanks at the Livestock site in anticipation of NMOCD approval to move forward with the pump-and-use ground water restoration program associated with the brine mud drilling program at the Osudo site.

Please contact me if you have any questions or comments.

We will send out the hard copy of this letter on Friday of this week.

Randall Hicks 505-266-5004 505-238-9515 - cell

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R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

May 14, 2008

Glenn Von Gonten New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

RE: Samson Livestock "30" Reserve Pit, T21S, R35E, Section 30, Unit P; NMOCD Case # AP-62-0, Pump-and-use Ground Water Restoration Strategy

Dear Glenn,

As we discussed last month, Samson proposes to use impaired ground water from the Livestock 30 site for make-up water for drilling. We have begun pumping water from MW-3d into frac tanks in anticipation of your approval of this re-use strategy.

In our November 2007 report to NMOCD we provided the following recommendations for a pump-and-use ground water restoration program at the Livestock site:

- 1. Place temporary electric pumps in MW-3d and/or MW-1d to enable the withdrawal of a total of about 4 gpm of water for beneficial use on an as-needed basis.
- 2. When water is needed for road or pad construction, road dust suppression or drilling fluid make-up; place a portable tank on location adjacent to MW-3d.
- 3. Begin pumping and store the pumped water in portable tank(s). A discharge of 4 gpm will produce sufficient water to fill one 130-barrel water truck every day.
- 4. Use the chloride-impacted water in lieu of fresh water for drilling fluids make-up water, road dust suppression, construction water for access roads and drilling pads.
- 5. Record the volume of water used each year.
- 6. Cease pumping...

The Samson well Osudo 33 State Com #1 (API 30-025-38486) is scheduled to begin drilling with brine mud in within the next few days and the Cattleman #4 well (API # 30-025-38768,) will spud after completion of the Osudo 33 State Com #1. We want to take this opportunity to pump-and-use as much ground water as possible. Appendix A provides basic environmental information for the Osudo and Cattleman sites to assist NMOCD in the review of this proposal.

Using the Livestock ground water for drilling fluid make-up water (fresh water mud and brine mud) is quite simple, we propose to transport the water to the sites and introduce the water into the brine drilling fluids system, probably via discharge to an approved drilling pit or to on-site, above-ground storage.

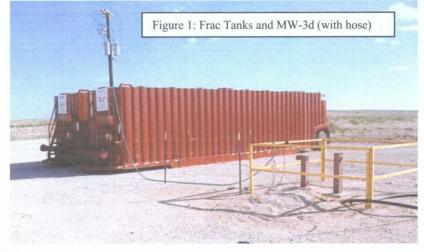
Prior to pumping and using the ground water we will submit the following to NMOCD:

- A. Digital image documentation and a description of the ground water pumping and storage program at the Livestock site (Figure 1)
- B. At least one week prior to water use, Samson provides the following information to NMOCD, the surface landowner and/or surface leaseholder:
 - a. The dates of the proposed drilling program that will use the Livestock water
 - b. A copy of the most recent ground water analysis from the recovery wells
 - c. The name and address of the contractors performing the water hauling and construction

May 14, 2008 Page 2

- d. The phone numbers of the Samson representative and the contractor's representative (Floyd Steed, <u>fsteed@samson.com</u>, 575-513-1687)
- C. For each truckload of water, the transportation contractor will record the date, time and location of water use.
- D. Annually Samson will provide NMOCD and, if required, the Office of the State Engineer, with a copy of the manifests associated with the water use and the quantity of water used.

Because time is of the essence, we ask that NMOCD review this proposal and our previous submissions to identify any deficiencies that may pose a threat to fresh water, public health, the environment, safety or property. While we have implemented the ground water restoration program since submission of the Stage 1&2 Abatement Plan in September, 2006 using our best judgment and without the benefit of NMOCD comments (and we



appreciate your confidence in our program), for this effort we respectfully request a throughout technical review of these proposals (Santa Fe NMOCD or District I) and a review of previously-submitted material.

The protocol for using brackish water in lieu of fresh water for construction and dust suppression is provided in Appendix C of the November report. We are not proposing using the brackish water for dust suppression or construction at the Osudo site. We would like to use ground water from the Livestock site in lieu of fresh water for construction of roads and pads at the Cattleman or other sites in the near future. With respect to dust suppression, we plan to provide more information on the use of brackish water in the future and may propose the Cattleman site for a pilot test of this pump-and-use strategy.

Although, NMOCD review of the dust suppression protocols described in the November 2007 report is premature, your thoughts on using the brackish ground water from the Livestock site in lieu of fresh water for construction of the Cattleman location would be appreciated. We thank you in advance for your comments.

Sincerely, R.T. Hicks Consultants, Ltd.

Randall Hicks Principal

Copy: Hobbs NMOCD office Scott Rose, Samson Resources Merchants Livestock Company

Appendix A Hydrogeologic Conditions, Osudo 33 #1 and Cattleman #4 Well Sites

Plates A-1 and A-2 show that:

- 1. The location of the Osudo and Cattleman wells are sited on Quaternary Eolian and Pediment deposits (Qep)
- 2. Water supply wells sited on the Qe/Qp deposits near these sites show a depth to water in excess of 100 feet
- 3. Water supply wells sited on Tertiary Ogallala Formation show a depth to water of 60-90 feet

An examination of the USGS well data for the area of the Osudo and Cattleman wells shows that the five closest water supply wells are completed in the Chinle Aquifer (see Table A-1). The well depth of these four wells ranges from 230 to 621 feet.

The attached well logs on file at the Roswell Office of the State Engineer show that the water supply wells in the area generally penetrate the Chinle aquifer and do not report saturated Ogallala Formation.

Finally, Samson drilled a boring at the Osudo site to check for shallow ground water. The total depth of the boring was 70 feet with no show of ground water.

From these data we conclude:

- A. The distance between ground surface and the ground water potentiometric surface at the Osudo 33 #1 and Cattleman 4 #1 sites are more than 120 feet.
- B. Wells encounter ground water at a depth of 200-600 feet below ground surface.
- C. The shallowest ground water beneath the Osudo 33 #1 and Cattleman 4 #1 sites is confined.
- D. The Laws of Fluid Dynamics effectively prevent any constituents (e.g. chloride) in the applied water or in pits from entering the confined ground water zone at these sites.

Aquifer	231CHNL	1210GLL	231CHNL	1210GLL	231CHNL	231CHNL	231CHNL	231CHNL
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Well Depth	214.00	300.00	250.00	110.00	312.00	230.00	621.00	265.00
Depth to Water	201.26	234.35	168.78	68.05	133.01	122.06	167.76	106.82
Date of Measurement Surface Elevation	3610.00	3645.00	3581.00	3662.00	3553.00	3545.00	3648.00	3555.00
Date of Measurement	2/22/1996	2/8/2001	2/7/1996	2/22/1996	3/13/1996	2/7/1996	2/7/1996	2/7/1996
	-103.31380800000	-103.29658530000	-103.34603240000	-103.41825930000	-103.32047680000	-103.31658820000	-103.38409190000	-103.31881140000
rat Lat	32.46456931000	32.47873598000	32.48318011000	32.50901291000	32.51484649000	32.52401297000	32.52956833000	32.53873487000
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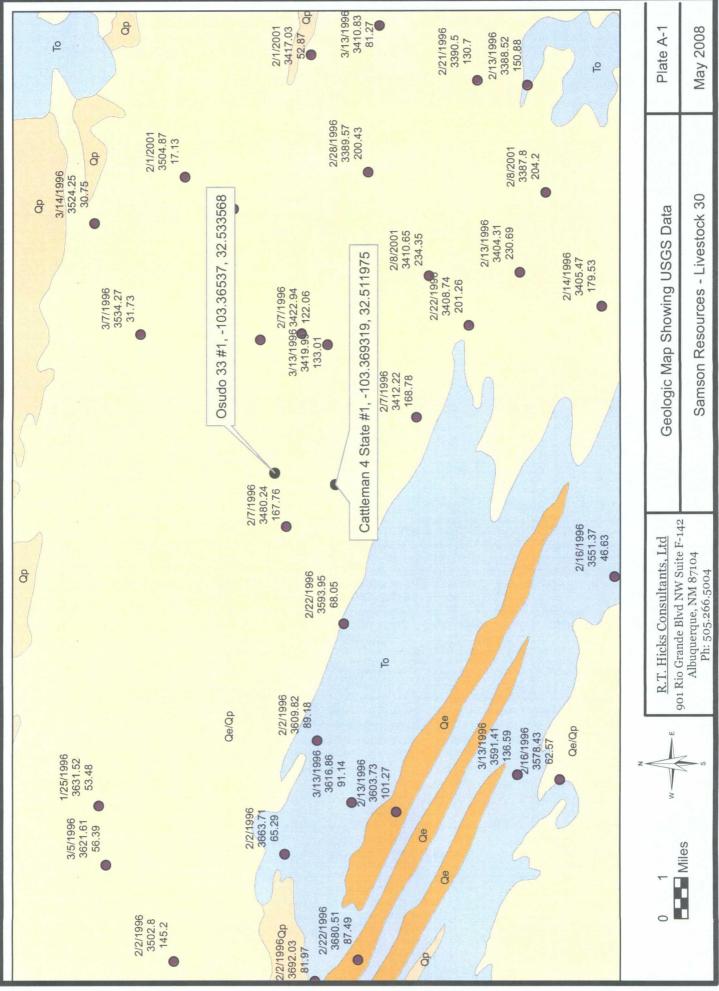
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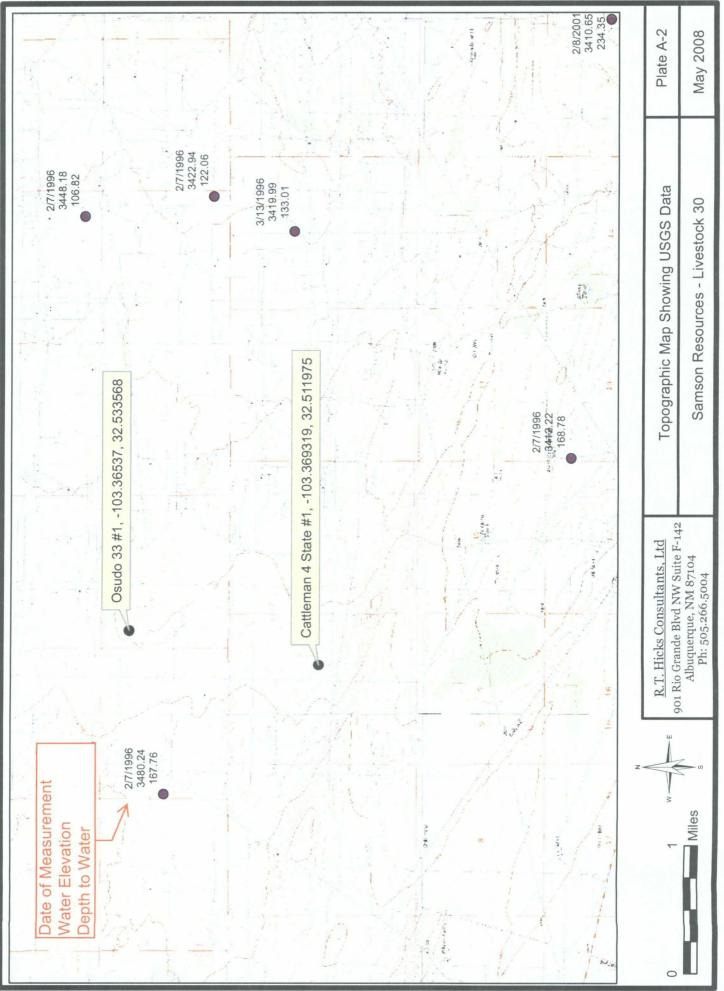
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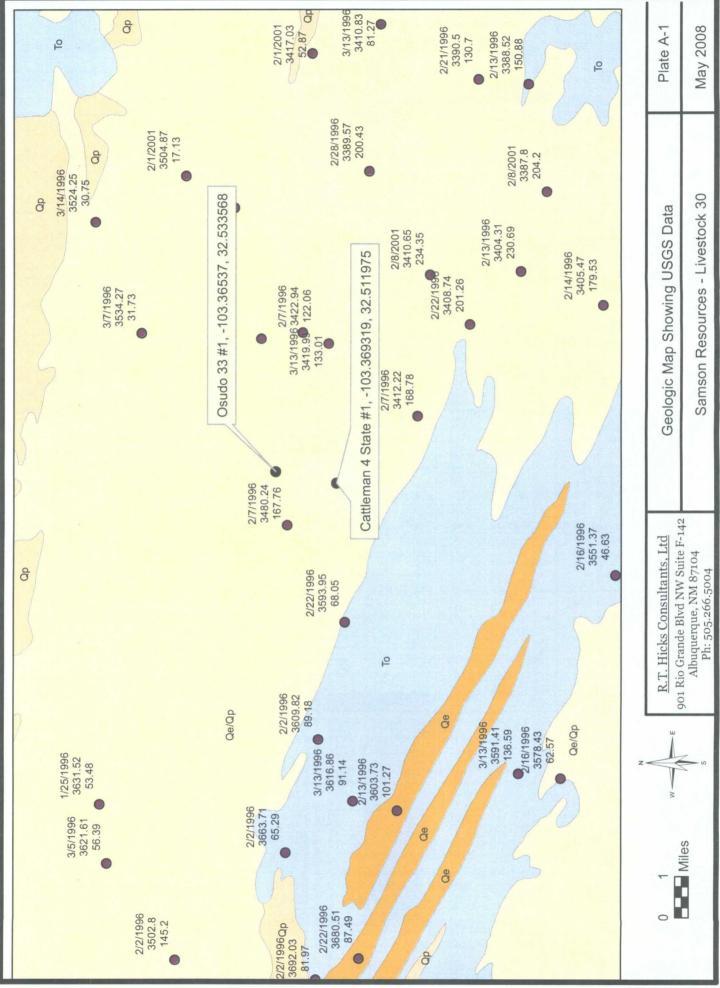
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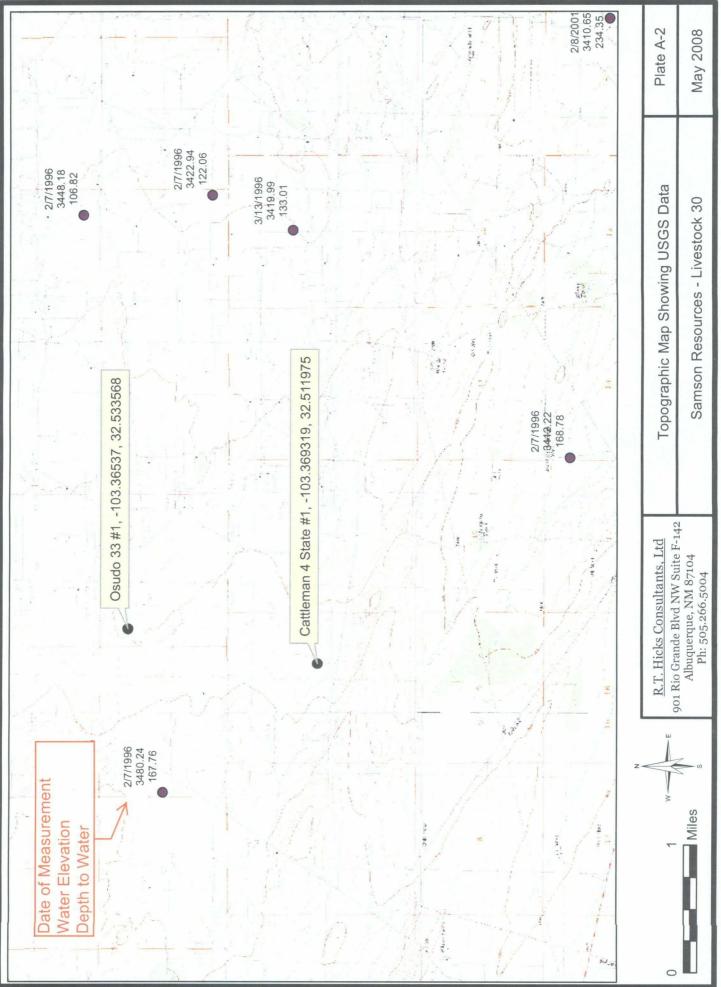
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Section 3, RECORD OF CASING

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Section 5. PLUGGING RECORD

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Plugging approved by:	2	(
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Section 7. REMARKS AND ADDITIONAL INFORMATION

This well record is an excerpt from Oil Conservation Commission files at Hobbs, N.M.

Location: 20.36.1.11000 Elevation: 3608' DF Owner: Amerada Hess Corp. Stare D #1 Record of Casing: 12's'' - 196'

Rotary

660' FNL - 660' FWL

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Section 5. PLUGGING RECORD

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250	290		Red rock, red bed
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Section 7. REMARKS AND ADDITIONAL INFORMATION

This well record is an excerpt from Oil Conservation Commission files at Hobbs, N.M. Location: 20.36.11.21200 Elevation: 3585' DF % Owner: Atlantic Richfield Co. Mary J. Byrd #1 Record of Casing: 15'2" - 250' Rotary W2NE4

(P.O. -- 330' FNL - 1650' FEL)

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2. Principal Water-bearing Strata; No. 1 200 21.2 12 Gray stater sand No. 2 No. 3 No. 4 No. 5 No. 5 No. 5 No. 5 No. 6 2. Casing Record: No. 5 No. 6 No. 6 2. Casing Record: No. 7 No. 6 No. 6 3. Casing Record: No. 7 No. 6 No. 6 4. H above construction replaces old well to be abandoned, pressource in the state	2. Perincipal Wator-bearing Strata; No. 1 200 212 12 Grey stater sand No. 1 200 212 12 Grey stater sand No. 2 No. 5 No. 5 No. 6 No. 5 No. 6 No. 6 Parada Perind Parada Diamorer portion Portal Pression Perind Parada Perind Parada No. 5 No. 6 No. 6 Perind Parada Perind Parada Perind Parada Diamorer portion Perind Perind Parada Perind Parada Perind Parada Perind Parada Statement Portal Perind Perind Parada Perind Parada Perind Parada Perind Parada Statement Portal Perind Perind Parada Perind Parada Perind Parada Perind Parada Statement Portal Perind Parada Perind Parada Perind Parada Perind Parada Statement Portal Perind Parada Perind Parada Perind Parada Perind Parada Statement Portal O 172 172 Parada Perind Parada A If abovo consultruction replaces of well to be abandon		and completed	contractor	R. Burke
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Form To The Induces Description of Water-searing Formation No. 1 200 212 12 Grey Water sand No. 2 No. 3 No. 4 No. 4 No. 5 No. 4 No. 5 Dannoter Pounda Threads Lefth of Chains or Lower S ² Unikticoting O 172 172 S ³ Unikticoting S S 4. If above construction replaces oid well to be abanduited, give boundary Na	First Tr Thalitues Description of Water-learing Formation No. 1 200 212 12 Grey stater gand No. 2 No. 3 No. 4 No. 5 No. 4 No. 5 No. 6 No. 6 Danneter Founds Toreads Method Formation Second Founds Toreads Method Formation 6 th Unknown O 172 172 10010 4 If above construction replaces oid well to be abandencial give location Method formation of Section Township Range I nume and address of plugging control		2. Principal Water-bearing Strata:	· · · ·	:. ·
No. 1 200 21.2 12 Grey stater sand No. 2 No. 3 No. 4 No. 5 No. 5 No. 5 No. 5 2. Casing Record: No. 5 No. 6 Diameter portal per st. best. of Labor 2000 Type of Stee State test No. 1 No. 5 3. Casing Record: No. 5 No. 6 Diameter portal per st. best. of Labor 2000 Type of Stee State test No. 1 No. 1 A No. 5 No. 1 10 tables Pounda No. 1 State test No. 1 No. 1 A No. 5 No. 1 A No. 1 No. 1 B No. 2 No. 1 A No. 2 No. 1 A No. 2 No. 1 A No. 2 No. 2 A No. 2 No. 2 A No. 2 No. 2	No. 1 200 21.2 12 Grey stater sand No. 2 No. 3 No. 4 No. 5 No. 5 No. 5 No. 6 2. Casing Record: No. 7 Diamyer portils Provide Press Manyer portils Provide Press 5 ⁴ Unknown 6 ⁴ Unknown 7 Unknown <td></td> <td></td> <td></td> <td>r Karmatian</td>				r Karmatian
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1. If above construction replaces old well to be abandonied, give location	1. If above construction replaces old well to be abandoned, give location			Type of Shee	
1. If above construction replaces did well to be abandoned, give location	1. If above construction replaces old well to be abandoned, give location				unknown
1. If above construction replaces old well to be abandoned, give location:	1. If above construction replaces old well to be abandoned, give location		6ª unknown 0 172 172	10010	
1. If above construction replaces old well to be abandoned, give location:	1. If above construction replaces old well to be abandoned, give location:	·		1020	
1. If above construction replaces old well to be abandoned, give location	1. If above construction replaces old well to be abandoned, give location	·		1020	
1. If above construction replaces old well to be abandoned, give location	1. If above construction replaces old well to be abandoned, give location			1020	
	of Section			1020	
	of Section, Township, Range; name and address of plugging cont				
កាសសារ សារាយាយនាង សារាយាយនាយ សារាយាយនាងសារ សារសារសារសារដែលសារសារនេះ សារាយាយ សារសារ សារសារ សារសារ សារសារ សារកាស សារសារសារសារសារកាសសារសារកាសសារសារសារសារសារសារសារសារសារសារសារសារសា			1. If above construction replaces old well to be abandoned, give location of Section	n:%,%,%	s of plugging con
	and as the standard state.		1. If above construction replaces old well to be abandoned, give location of Section	n: 	s of plugging con
date of plugging	date of plugging		1. If above construction replaces old well to be abandoned, give location of Section	n: : nome and addres	a of plugging cont
andersetiense standigen eine bereiten voorden verstendigen van de beeren en de br>Konstandigen standigen van standigen voor verstendigen van de	date of plugging		1. If above construction replaces old well to be abandoned, give locaito of Section, Township, Range date of plugging	n: : nome and addres	a of plugging cont

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Depth I From	n foet To	Thickness in fort	Description of Rormotion
0	2	· 2, ,	Sandy, soil
		· · ·	(nutry manual parallelis)
2 Planetics	37	<u>35</u>	Celiche de San de Constant de
37	165	128	Red bed
. 165	200 ·	3 pewdaett	Fina grey sand
402			man and Addited (Personal Constitution and a state
200	212	12	Grey water sand
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			and the second
	entranes (1956)		Deste all another Mark Agentification and an another Agentification and an another and an
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1	177		
	141		
<u>5. K</u>	Bert	P.11	8 20,36,13, 332
···•	· · · ·	[2551
	- <u> </u>		E S Elev 37 / serveral percent
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ા તે અને જે મળત માર્ગ	8. 19. 1977 - 1912 - 19	(ar second)	
1.12 1.12			
	· · · · · · ·		
· · · ·	· [Loc. No. 20.36.13. 332332
			Hydro. SurveyField Check_ Report.
· · · · · ·	•	· •	
			SOURCE OF ALTITUDE GIVEN
			Interpolated from Topo. Skeet
		- <mark> </mark>	Determined by Inst. Leveling
			Other
en de lette dat	a egyan ar anta L		
The unde	rsigned boreby	cortifies that,	to the best of his knowledge and belief, the foregoing is a true and
; record of	the above des	cribed well.	
		•••••	Geno B. Burke
	·:	unite de la seconda	Licensed Well Driller
			Instructions

	Date of Receipt			•	nit No
	Name of permiter	Amerads	Petroleum Corp.		
	Street or P. O. Dray	mr. D	a. A. Shira and a strategy of the second stra	and State Monument.	
	1. Well location and	description: The	shallow well is loc	ated in S.E.	X
2460 II		Section 20	, Township	S Range 36E	; Elevation of top
0	casing above sea l	BVEL	. feet; diameter of ho	le,	al deptn. 400
			170 feet; drilling.	was commencedJul,	y. 16,
	and completed	uly 18,		drilling contractor Q.R	Lusslewhite
		; Address,	Box 56, Hobbs,	if .M. ; Driller's Lice	nse No
	2. Principal Water-b	earing Strata:		•	
	Depth From	In Dect To	Thinkness	Description of Water-bes	ring Permation
	^{No. 1} 290	305		Grey sand	
	No. 2 325	349 .	24	Grey Sand	· · · ·
	No. 8	· · ·	Chrowitze da . Contra a contra da co		· ·
	No. 4				· · ·
	No. 5			<u>1. ga wakazi ili k</u> ir <u>a</u> ki ili ili k	· · · · · · · · · · · · · · · · · · ·
	8. Casing Record:		<u>i i i i i i i i i i i i i i i i i i i </u>		
	Diamoter Founds. In inches per (t.	Thronds Depth c per iuch Top	f Cashig or Liney Fe Botiom Of	et of slag Typo of Shoo	Ferforation From To
	none		5,134 (%)		· • · · · · · · · · · · · · · · · · · ·
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		,	······································	·	
	4. If above constructi	on replaces old we	ll to be abandoned, giv	e location:	
	, of Section	, Township	Rafige	: name and addres	s of plugging contracto
_					•
O ·					
	date of plugging .		, 19 ; đe	scribe how well was plug	ged:
			***************************************	CALLS IN THE OWNER OF	

		į —	I The second
	3	3	Soil sand
3	7 8	75	sandy shake
76	£0	2	red rock
÷÷÷, , , , , , , , , , , , , , , , , ,	270	190	red bed
270	290	20	grey shale
290	305	15	grey sand
305	325	20	grey shale
325	349	24	groy sand
349	355	6	red bed
355	400	45	red sandy shale
			· · · · · · · · · · · · · · · · · · ·
· .	· .		1 S Elev 3571
			1 S Elev 35777 Depth to XTrc 907 Elev of KTrc 777
			n marana 1990 - Santa br>1990 - Santa Sa
· · · · ·	 		Loc. No. 20. 36, 26, 14/1/342
			Hydro. SurveyField Check
· · ·			SOURCE-OF-ALTITUDE-GIVEN
			interpolated from Topo. Sheet X
			Determined by Inst. Loveling
			Other
	· · · · · · · · · · · · · · · · · · ·		
		1. 1. 1. 1. 1.	
·			n an

The undersigned hereby certifics that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well. . • · -

Wall Driller Licopter 12 • • •

the state of the

• • Instructions

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میں میں ہوتا والیمیں کر ان کو ہے۔ میں میں میں اور اور ایمیں کے ان کو ہے • · • and the second of the : This form shall be executed, preferably typewritten, in triplicate and filed with the State Engineer's Office at Roswell, New Mexico, within 10 days after drilling has been completed. Data on water-bearing strata and on all formations encountered should be as complete and accurate as possible. ... • :

		CE A001935		·		
Well was dr	illed under Pe	ermit No		and is located in th	e:	
a	¼	¼ ¼	¼ of Section	Township	Range	
b, Tr	act No	of Map No		í the		
e, Lu Su	ot No bdivision, rec	orded in	O	f the County.		
d. X= th	=	feet, Y=		I, N.M. Coordinate Syste	m	Zone in Grant.
(B) Drilli	ng Contractor				cense No	
Address						
Drilling Beg	an	Comple	ted	Type tools	Size o	f hole in.
Elevation o	t land surface	07	31	well is ft.	Total depth of well	ft.
Completed	well is C	🗆 shallow 🗂 art	esian.	Depth to water upor	e completion of well	ft.
<u></u>		Sectio	n 2. PRINCIPAL WA	TER-BEARING STRAT	Ά	· · · · · · · · · · · · · · · · · · ·
Der From	oth in Feet	i Thickness i in Feet	Description	of Water-Bearing Forma		mated Yield ns per minute)
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Section 3, RECORD OF CASING

Diameter Pounds		Threads Depth		in Feet	Length		Perforations	
(inches)	per toot	per in.	Тор	Bottom	(fect)	Type of Shoe	From	То
		·			•••			_
				1			1	
		<u> </u>	·····		·	<u></u>		

Section 4. RECORD OF MUDDING AND CEMENTING Depth in Feet Hole Sacks Cubic Feet Method of Placement From To Diameter of Mud of Cement Method of Placement Image: Section 4. RECORD OF MUDDING AND CEMENTING From To Diameter of Mud of Cement Method of Placement Image: Section 4. Record of Mud Image: Section 4. Record of Mud Image: Section 4. Record of Cement Method of Placement Image: Section 4. Record of Mud Image: Section 4. Record of Mud Image: Section 4. Record of Cement Image: Section 4. Record of Cement Image: Section 4. Record of Mud Image: Section 4. Record of Mud Image: Section 4. Record of Cement Image: Section 4. Record of Cement Image: Section 4. Record of Mud Image: Section 4. Record of Cement /td

Section 5, PLUGGING RECORD

Plagging Contractor				
Address	۱ <u>۰</u>	Depth	in Feet	Cubic Feet
Plagging Method	i No.	Тор	Bottom	of Cement
Date Woll Plugged	; t			
Pingging approved by:	3	`	······································	

95	555	Red rock
555	600	Sand
600	1295	Red rock, sandy shale
1295	1310	Water sand
1310	1847	Sandy shale and sand water 1325'-30'
	<u></u>	
		L S Elev 3634/ Depth to KTrc0 Elev of KTrc3584/
		Depth to KTrc
• •		
		

Section 7. REMARKS AND ADDITIONAL INFORMATION

Elevation: 3634' TC

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This well record is an excerpt from 011 Conservation Commission files at Hobbs, N.M.

Location: 20.36.2	9.34000	
Owner: Wilson 011	Co.	
Charlott	e State \$4	
Record of Casing:	16"	~ 96'
_	13"	- 777'
	10 3/ 4"	- 964 '
Cable		

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JHDIL

660' FSL - 1980' FWL

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us drilled 1	under Permi	it No,		and is located in th	e;	
	¼	%¥	¼ of Section	Township	Range	N.M.P.M
. Tract N	0	of Map No	0	1 the		<u></u>
. Lot No. Subdivi	sion, record	of Block No ed in		f the County,		78.18.11.12
. X= the	· .	feet, Y=	fcc	et, N.M. Coordinate Syste	៣	Zone in
Itilling Co	ontractor			1.i	conse No. <u></u>	
S						
Ведал		Comple	eted	Type tools	Si	ze of holein.
on of land	l sutface or			t well is ft.	Total depth of we	11 ft.
ted well j	s 🗔	shallow 🗋 art	esian.	Depth to water upor	ecompletion of we	ll ft.
•		Sectio	on 2. PRINCIPAL W/	TER-BEARING STRAT	A	
·····	To	Thickness in Feet	Description	n of Water-Bearing Forma	tion (g	Estimated Yield allons per minute)
	_				}	· · · · · · · · · · · · · · · · · · ·
			P			
		- <u> </u>				
	 A. Tract No. Subdivi X= the Drilling Cost s Began on of land sted well j 	Tract No Tract No Lot No Subdivision, record X= the Tractor Began Began Began Don of land surface or Cted well is Depth in Fect	% % % % % %	% % % of Section % % of Section % of Section % % of Section % of Section % % of Section % of	% % % of Section Township 0. Tract No. of Map No. of the . Lot No. of Block No. of the Subdivision, recorded in County. X= feet, Y= feet, N.M. Coordinate Syste the feet, Y= feet, N.M. Coordinate Syste the	X=fect, Y=fcct, N.M. Coordinate System the Orifling Contractor s s gegan Completed

Diameter	Pounds			Depth in Feet			Perforations	
(inches)	per foot	per in.	Тор	Bottom	Length (feet)	Type of Shee	From	То
								<u></u>
			····					
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		Section	4. RECORD OF M	IUDDING AND C	EMÉNTING
arrente harrowski	Depth in Feet From To		Sacks of Mud	Cubic Feet	Method of Placement
110m		Diameter		of Cement	
			· .		· ·
				·····	
	· · · · · · · · · · · · · · · · · · ·			~~~~	
				;	1 · · · · · · · · · · · · · · · · · · ·

Section 5. PLUGGING RECORD

Plugging Contractor					
Address		Depth	in Feet	Cubic Feet	
Plugging Method	No.	Ton	Bottom	of Cement	
Date Well Plugged	1	+		· or contailt	
Plugging approved by:	2		•		

	545		Shale, red bed
545	600		Sandy shale
600	1045		Red shale, red bed
1045	1055		Sand
1055	1180		Sandy shale
1180	1185		Water sand
1185	1828	1	Sand, sandy shale, red bed
			L S Eley 3634
			L S Elev 3634 Depth to K Trc 35 Elev of K Trc 35.7.9
		-	
	<u> </u>		
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Section 7. REMARKS AND ADDITIONAL INFORMATION

Elevation: 3634' GR

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This well record is an excerpt from Oil Conservation Commission files at Hobbs, N.M.

Location: 20.36.32.12000 Owner: Wilson Oil Co. Charlotte State #2 Record of Casing: 16" - 110' 13" - 765' Cable

660' FNL - 1980' FWL

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 a b. Track c. Lot Subined d. X= - the definition of the def	4 No	¼ ¼ of Map No of Block No corded in feet, Y=	% of Section 0 0 0		Range	
 b. Trac c. Lot Subility d. X= . the . (B) Drilling Address Drilling Begand Elevation of 1 Completed weights Dept. 	act No, 4 No, hdivision, rec	of Map No of Block No corded in feet, Y=	0	f the f the County.		
 c. Lot Sub- d. X= . the . (B) Drilling Address Drilling Begar Elevation of 1 Completed w Dept. 	t No bdivision, rec	of Block No corded in feet, Y=	0	f the County,		
Sub d. X= . the . (B) Drilling Address Drilling Bega: Elevation of 1 Completed w Dept	hdivision, rcc	corded in feet, Y=	fee	County,	<u>,.</u>	
the (B) Drilling Address Drilling Bega Elevation of I Completed w Dept	<u> </u>	· · · · · · · · · · · · · · · · · · ·	fee			
(B) Drilling Address Drilling Begat Elevation of 1 Completed w Dept.				t, N.M. Coordinate System		Zone ir Grant
Drilling Bega Elevation of I Completed w Dept		[Lice		
Elevation of E Completed w Dept						
Completed w	an	Compl	eted		Size of	holein
Dapt	land surface	· 01	, a	t well is ft. T	'otal depth of well	ft.
·····	well is	🗍 shallow 🗋 ard	tesian.	Depth to water upon c	completion of well	
·····		Secti	on 2. PRINCIPAL W/	TER-BEARING STRATA		
	th in Feet	Thickness in Feet	Description	n of Water-Bearing Formati	an .	nated Yi eld s por minute)
					·····	
				·····		
	-		Section 3. RECO	DRD OF CASING		
Diameter (inches)	• <u>•</u>				[Perforations

Diameter	Pounds	Threads	Depth	Depth in Feet Length		Tunn of Chas	Perforations	
(inches)	per foot	per in.	Тор	Bottom	(feet)	Type of Shoe	From	То
	· · · · · · · · · · · · · · · · · · ·	+		· · · · ·				
·			•••····					

Depth in Fect		Hole	Sacks	UDDING AND CEMEI	
From	To	Diameter	of Mud	of Cement	Method of Placement
		÷	···	 	
			, (
		<u> </u>	·····		
				i	

Section 5, PLUGGING RECORD

Plugging Contractor				
Address	No.	Depth	in Feet	Cubic Feet
Plugging Method	NO.	Top	Bottom	of Coment
Date Well Plugged	1			
Plugging approved by:	2			

560	565	L	Water sand
565	605	1	Sand and sandy shale
605	1838	 	Red rock and sandy shale
Water	1180'-118	5'	<u>L S Elev</u> <u>3603</u> Depth to KTrc <u>42</u> Elev of KTr <u>c</u> <u>3561</u>
			Depth to K72 Flev of K7567
	1		
	(
	1		
		<u></u>	
		1	
		<u>}</u>	
	· · · · ·	·····	
<u>.</u>		<u> </u>	
	1	1	

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Section 7. REMARKS AND ADDITIONAL INFORMATION

This well	record 1	s an excerpt	from	011	Conservation	Commission	files	at Hobbs	5, N.M.
Location:	20,36,3	2.22000				Eleva	ation:	36491	тС , ²
Owner: W:	ilson Oil	Co.						3102	
	Charlott	e-State ∯5						1.000	Nayo
Record of	Casing:	16"		106'					·
		13"		625'					
		10 3/4"		9791					
Cable									
660' S of	NL - 660	'W of EL							

	(A) Owner of well Humble Oi	1 Co.	
	Street and Number	n 1 14 1 44 64 6 6 6 6 6 6 6 6 6 6 6 6 6	
	City		
	Well was drilled under Permit No	and is loc	ated in the
	SE 4 NE 4 of Section 35	Twp20Rg	<u>e 36</u>
	(B) Drilling Contractor S&S Water Well		
	Street and Number		
	City	•	
	Drilling was commenced		19
	Drilling was completed		<u> </u>
(Plat of 640 acres)			
Elevation at top of casing i	n feet above sea level <u>3.545 7870</u> Total de	pth of well23	30
State whether well is shall	low or artesianDepth to wa	ter upon completion	

•

Section 2

Section 4

DECTION 1

PRINCIPAL WATER-BEARING STRATA

No	No. Depth in Feet		Thickness in	Description of Water-Bearing Formation					
	From	То	Feet						
1									
2									
3									
4									
5	~								

Section :	ection 3 RECORD OF CASING										
Dia	Pounds	Threads	Da	pth	Feet	muno Elviso	Perforations				
i n.	ît.	in	Top	Bottom	reet	Type Shoe -	From	Τ¢			
<u> </u>			[
			[;			·			
								· · · · · · · · · · · · · · · · · · ·			

RECORD OF MUDDING AND CEMENTING

Depth	in Feet	Diameter Hole in in.	Tons	No. Sacks of Cement	Methods Used
<u>. </u>					
~~_ <u>~</u>	<u> </u>				
		·····			
<u> </u>	}			¶	
		· ·			

Section 5	PLUGGI	PLUGGING RECORD					
Name of Plugging Contractor_			". 	· · · · · · · · · · · · · · · · · · ·	J	License No	
Street and Number		City			State		
Tons of Clay used	Tons of Roughage us	ed			_ Ty pe of	roughage	
Plugging method used				Date	Plugged.		19
Plugging approved by:		•		Cement	t Plugs wer	e placed as fol	lows:
·		Γ	No.	Depth	of Plug	No. of Co.	
	Basin Supervisor			From	То	No. of Sac	
FOR USE OF STATE E	NGINEER ONLY			<u> </u>			

Depth in Feet		Thickness		The of Material Decountered			
From	То	in Feet	Color	Type of Material Encountered			
.0	10			sd			
	20			cal			
	95			sand			
	185	,		rb			
· · · · · · · · · · · · · · · · · · ·	210			blue sh			
	230			water sd			
				2 540-5			
				L S Elev 2373			
			· · · · · · · · · · · · · · · · · · ·	LS Elev <u>3545</u> Double to K Trc 3450			
	· · ·	······································					
			· · · ·	LOC. NO 20.36.35.24444			
				Hydro, Survey X Field Check			
	-						
				SOURCE OF ALTITUDE GIVEN			
				Interpolated from Topa, Sheet			
				Determined by Inst. Leveling			
		<u> </u>	· · · ·	Cither			
• • •							
` `	·						
	· · ·						
.		+					
`		-{					

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

4 T.S

5.1

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· · ·

Well Driller

Section 1	(A) Owner of well Amerada_011	L Çorp.	
	Street and Number		
	City		
	Well was drilled under Permit No.		
	NE 14 NE 14 NW 14 of Section 1	Twp, 21Rge ³⁵	
	(B) Drilling Contractor <u>C.O.Anderson</u>		
	Street and Number		
	City Lovington	State <u>N.M.</u>	
	Drilling was commenced	19	
(Plat of 640 acres)	Drilling was completed	June 19	54

State whether well is shallow or artesian_____Depth to water upon completion_____

Section 2

PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet		Thickness in	Description of Water-Bearing Formation
	From	To	Feet	
1				
2				
\$		[
4				
5				

Section 3 RECORD OF CASING									
Dia	Pounds	Threads	Depth		Feet	Tuno Shee	Perforations		
in.	£t	ín	Тор	Bottom	2 001	Type Shoe -	From	То	
7					280				
<u></u>									

Section 4

RECORD OF MUDDING AND CEMENTING

Depth From	in Feet To	Diameter Hole in in.			Methods Used
					

Section 5	PLUGG	ing reco	ORD				
Name of Plugging Contractor	······································			<u> </u>	icense No		
Street and Number		City		Si	ate:		
Tons of Clay used	Tons of Roughage us	sedType of roughage					
			Date Plugged1				
Plugging approved by:			Cemen	t Plugs were	e placed as follows:		
	Basin Supervisor	No.	Depth From	n of Plug	No. of Sacks Used		
FOR LISE OF STATE E	NGINEER ONLY	7 🗖					

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FOR USE OF STATE ENGINEER ONLY

Depth	in Feet	Thickness		Type of Material Encountered		
From	To	in Feet	Color	Type of Material Encountered		
0	3		· · · · · ·	soil		
	23			line rock		
	55			sandy shale		
	102			dry sand and cavey rock		
	215			red shale		
	220			drý sand		
	235		· .	brown shale		
	280			blue shale		
	305			water sand		
	312			grey shale		
<u></u>						
				<u>3553</u> LSElev <u>102</u> Depth to K <u>Tre 102</u> Elev of K <u>Tre31151</u> ?		
				L S Elev		
				Elev of KTre <u>3//5/</u>		
				· · · · · · · · · · · · · · · · · · ·		
				LOC. NO. 21.35.1. 12222		
				Loc. No. 21. 35. 1. 12222 Hydro. SurveyField_CheckX		
				SOURCE OF ALTITUDE GIVEN		
				Interpolated from topo, SteelX		
				Determined by inst. Leveling		
				CHIOT		
· · · · · · · ·						
· ···· · · · · · · · · · · · · · · · ·						
		Í	·			
<u>.</u> .	<u> </u>	<u> </u>				

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

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· ;:

C. O. Anderson Well Driller

• •

Cit	ty and S	State						· · · · · · · · · · · · · · · · · · ·			_
Well was	s drillod	under Pe	amit No	o			and is locate	ed in the:			
a		- 14	¼	¼ _	¼ of Se	etion	Township _	Ra	nge		N.M.P.M
b .	Truct N	o,	•	of Map N	0, . <u></u>		the				
с.	Lot No Subdivi	ision, rec	orded in	Block No		of '	the County.			_ • • • • • • • •	
d.								e System			
(B) Dr			et.,				1.	License No			
			,								· •
Dritting I	Bogan			Cor	npleted		Type tools_		S	ize of hole_	in.
Elevation	n of lan	d surface	01	_	<u> </u>	at v	well is	fr. Total depth	ı of we	-11	ft.
Complet	ed well	is Ľ	") shal	low 🗋	artesian.		Depth to wate	er upon completion	n of we	21]	
				S	ection 2. PRIN	CIPAL WAT	ER-BEARING S	STRATA			
l Proi	Depth in m	n Fest To		Thickne in Feet		Description (of Water-Bearing	Formation	(Estimated gallons per s	
	<u> </u>					······	····		 		
<u> </u>	<u> </u>				····						
ļ	, ; 			•				· · · · · · · · · · · · · · · · · · ·			
		<u></u>	-								:
					Sectio	n 3. RECOF	D OF CASING				
Diam		Pound		Threads		in Feet	Length	Type of She		Perfo	rations
inch (inch	105J	per foi	01	per in,	Тор	Bottom	(feet)	1, po 01 din		From	To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth	Depth in Feet		Sacks	Cubie Feer	
From	То	Diameter	of Mud	of Cement	Method of Placement
~ .	· · · · · · · · · · · · · · · · · · ·				
				L	

Section 5, PLUGGING RECORD

Plugging Contractor	*			
Address		Depth	in Feet	Cubic Feet
Plugging Method	No.	Top	Bottom	of Cement
Date Well Plugged				
Plugging approved by:		· • •·· — · —		
				ļ

160 180 Sand - water 180 195 Sand	
180 195 Sand	
	-
195 268 Red rock	
268 278 Sand, shale	
278 283 Sand - water	
283 308 Red bed	
308 350 Red rock	<u> </u>
350 520 Red bed, sand	
520 605 Red rock	
605 750 Red bed, sand	
750 800 Sand	
800 940 Red bed, sand	
1 S Elev 3.593 Depth to K Trc 793 Elev of K Trc 3398	
Elev of KTrc73.9.8	
	, ,
	- 18.1 - 18-5 - 1977, 1 ⁻¹⁰ - 1, 1, 1

Section 7, REMARKS AND ADDITIONAL INFORMATION

This well record is an excerpt from Oil Conservation Commission-files at Hobbs, N.M.

Elevation: 3593' DF or ----

Location: 21.36.8.23000 Owner: Getty Oil Co. State A #1 Record of Casing: 15 1/2" - 308' 9 5/8" - 2852' Rotary

1980' FNL - 1980' FEL

i.

City and	i State							
Welt was drifte	d under Pe	mit No	- _		and is loc:	ated in the:		
a,	_ ¼	¼	_ ¼	¼ of Section_	Townshi	ip	_ Range	N.M.P.M
b. Тлас б	No	of N	lap No		_ of the		· · · · · · · · · · · · · · · · · · ·	
c. Lot d Subd	ivision, reco	of Bloc orded in	k No		of the County.			
d, X≂ the	·····	feet,	Y≃					Grant,
(B) Drilling	Contractor				• · · ·	License N	lo	
Address	<u>-,</u>		_		·····	• • • • • • • • • • • • • • • • • •		
Dritting Began			. Comple	ted	Type tool	ls	Size of ho	e in.
blevation of la	ind surface	or <u></u> 10			at well is	ft. Total o	lepth of well	ft.
Completed we	Dis 🗀	shailow	🗆 . arti	sian.	Depth to w	ater upon comp	iction of well	îț,
r		<u> </u>	Sectio	n 2. PRINCIPAL	WATER-BEARING	C STRATA		
Depth From	in Fect		ickness Feet	Descrip	tion of Water-Beari	ng Formation	Estimate -(gallons pe	
	¦ {							· · ·
ļ ļ								
								·····••_ ·····
		····· ·		Section 3. R	ECORD OF CASING	 C		<u>-</u>
Diamotar	Pound	These		Donth in Ros	·····			

Diameter	Pounds	Threads	Depth	in Feet	Length	Type of Shoe	Perfor	ations
(inches)	per foot	per in,	Του	Bottom	(feet)		Fron	To
			[
	· · ·					•		
	· · · · · · · · · · · · · · · · · · ·							

Section 4. RECORD OF MUDDING AND CEMENTING

. . . .

Depth i	n Feet	Hole	Sacks	Cubic Feet	
From	То	Diameter	of Mud	of Cement	Method of Placement
				}	· · · · · · · · · · · · · · · · · · ·
		1			
		· · · · · · · · · · · · · · · · · · ·			
ł		\$ j			
<u></u>					

Section 5, PLUGGING RECORD

Plugging Contractor				
Address		Depth	in fleat	Cubic Feet
Plugging Method	No,	Top	Bottom	of Coment
Date Well Plugged			INOLLOIA	
Plugging approved by:				\ <u>-</u>

1285	2640	1355	Şalt
2640	3470	830	Anhydrite, Salt Stringers
3470	3780	310	Sand, Dolomite stringers
3780	5000	1220	Dolomite, Sand stringers
			
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			·
	· .		
			······································

Section 7. REMARKS AND ADDITIONAL INFORMATION

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C			7 = 6				- Owner's well NO	AP 100 700
Street of	T Post Office A	ddress <u>P.O.</u> B	$10x_{670}$					
City and	State	<u> </u>	<u>NM 88240</u>	· · · · ·			· · · · · ·	
							. Norse MENCO	
Welt was drille	d under Permit	NoCP_69	3		and is locate	d in the:	• • • • •	
12	20' FNL an	d 1520 FWL						
			% of Section	ġ	Township	910	Range <u>361</u>	
					_ rownship.	<u> </u>	<u> </u>	N.M.P.M.
h Trace	No	of Man No						
U. 11446	· · · · · · · · · · · · · · · · · · ·	Or map No		ot the _				
T T								
C. LOUN	· · · · · · · · · · · · · · · · · · ·	of Block No.		_of the_				
Subdi	ivision, recorde	d ín		Cor	unty,			
	1 m			•				
d, X=_		_ feet, Y=		feet, N.M	. Coordinate	e System		Zone in
the	·							
•	5.5						·····	Giant
(B) Drilling (Contractor	Exeter Drill	ing Co			. .	No	
(-) <u>2</u>						License	N0	
A. 1. 4	00 N T	adaa ahaa	1000	•				
Address		aine, Shire	izun, Midia	<u>no, TX</u>	. 79701	· · ·		· · · · · · · · · · · · · · · · · · ·
·· _		_						
Drilling Began	1/7/8	7 Complete	od <u>2/26/87</u>		Type tools_	rotary_	Size of h	ole. 7 7/8 in
Elevation of la	nd surface or _			at well i	is3586_1	7 ft Tata	l depth of well_500	0 · •
								<u></u>
Completed wel	llis 🗔 sl	hallow 🛄 artes	tan	Б	anth to mak		-1-4t- a c n 100	ń .
			144.1,	U	epin to wate	x abou com	pletion of well <u>100</u>	<u> </u>
		Contine						
			2. PRINCIPAL	WATEK-	BEARING S	TRATA	(stat	ic fluid level
Depth	in Feet	Thickness	Dent 4				Estima	ted Yield
From	То	in Feet	Descript		ater-Bearing	Formation		per minute)
			······································		•			
4275	5000	725	San Andres	5 '			462	
			· · · · · · · · · · · · · · · · · · ·				402	
1			•					
f	<u> </u>							
	ĺ							
	······································		.					
1								·

Diameter	Pounds	Threads	Depti	in Feet	Length		Perfor	tions
(inclues)	per foot	per in.	Тор	Bottom	(feet)	Type of Shoe	From	То
16	65	8rd	0	415	415	weatherford		
11 3/4	47	8rd	0	2700	2700	weatherford		
8 5/8	32	8rd	0	4350	4350	weatherford		

Depth in Feet		Hole	Sacks	MUDDING AND CE	
From	οſ	Diameter	of Mud	of Cement	Method of Placement
0	415	20		660	stab. in float collar
415	2700	14 3/4		2491	pump and plug
2700	4350	10 5/8		1579	pump and plug
4350	5000	7 7/8	Section 5, PL	UCCIREREP845	completion

Address ____ Depth in Feet Cubic Feet of Cement Plugging Method _ No, Тор Bottom Date Well Plugged_ 1 Plugging approved by:

00	710		Red Ded and red fock
110	120		Sand
120	160		Red bed, red rock
160	180		Sand
180	235		Red bed, red rock
235	260		Sand (water)
260	534		Red bed, red rock
534	640		Red bed, red rock
640	665		Sand
665	814_		Red bed, red rock
814	873		Sand and shells (water)
873	1086		Red bed, red rock
			[SElev 3592
			L S Elev 3592 Depth to K Trc. 180 Elev of K Trc. 3412
Water	235' - 2	60'	
	. 814' - 8	1	
		-	
			· · · · · · · · · · · · · · · · · · ·
· · · · · · · · · · · · · · · · · · ·			· · ·
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This well record is an excerpt from Oil Conservation Commission files at Hobbs, N.M.

Location: 21.36.8.24000 Owner: Getty 011 Co. State A #2 Record of Casing: 12 1/2" - 305' 9 5/8" - 2863' Rotary

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Elevation: 3592' TO DE

1980' FNL - 660' FEL

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Wei)	was drillee	i under Pe	ermit No	•		and	is located in the	e:			
	a	_ ¼	¼	 ¼	¼ of Section .	To	ownship	Range	B	N.M.P.M.	
	b. Tract	No	of	Map No					_		
(B)	Drilling (Contractor					Lic	ense No			
Add.	ress	·····					••• • • • • • • • • • • • • • • • • • •				
Drill	ing Began			Compi	eted	Tyj	pe tools		Size of hole.		
Hev	ation of la	nd surface		·. -		at well is	ft.	Total depth o	f well	ft.	
Com	ploted wel	lis 🕻] shallow	r 🗋.ar	tesian.	Dept	h to water upon	completion o	of well		
				Secti	ол 2. PRINCIPAI	L WATER-BE	ARING STRAT	A			
[Depth From	iл Feet To	****	hickness in Feet	Descri	ption of Wate	r-Bearing Forma	tion	Estimated Yield (gallons per minute)		
						• • • · ·			•		
					·····						
L		L			Section 3, R	ECORD OF (CASING				

Diameter	Pounds	Threads	Depth i	in Feet	Length	Type of Shoe	Perforatio	
(inches)	per foot	per in.	Тор	Bottom	(feet)		From	То
•								
		<u> </u>		· · ·				
						<u> </u>		

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole	Sacks	Cubic Feet	
From	Τo	Diameter	of Mud	of Cement	Method of Placement
		·{·	- <u></u>		
		ς <u></u>			

Section 5, PLUGGING RECORD

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Plugging Contractor				
Addross	Nin	Depth	in Feet	Cubic Feet
Plugging Method	No,	Тор	Bottom	of Cement
Date Well Plugged	1			
Plugging approved by:	2		}	

1368	2578	1210	Salt
2578	3416	3736	Sand, Anhydrite, Dolomite
3416	5000	1264	Dolomite with Sand stringers
			·
		[
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<u> </u>		} 	
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<u> </u>			

FEB 19 B 29 AH BG STAILLANDER ROSWELLANN

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Street or City and	Post Office Ad State <u>Hobbs</u>	dress <u>P.(</u> NM <u>88</u> 2). Box 670 240			······			
Well was drilled 1500 FSL & a	1280 FEL				_ and is located Township	in the: 215 Rang	c36E_		N.M.P.M.
b. Tract	No	of Map N	lo	of the					_ ,
	0 vision, recorded								<u></u>
d, X= the		_ feet, Y=		feet, N,	M. Coordinate	System			Zone in Grant.
(B) Drilling (Contractor	hevron U.	S.A. Inc.	CRO		License No		<u> </u>	
Address P.O.	. Box 1122	8 Midlan	nd, TX 7 93	702		<u></u>			
Drilling Began	9-15-1985	Cos	mpleted <u>10-4</u>	4-1985	_ Type tools	otary	Size	of hole 1	0 5/8 in.
Elevation of las	nd surface or			at wel	t is 3578.5	💶 ft. Total depth o	of well	5000	ft,
Completed wel	lis 🛄 sł	iallow 🗆	artesian.		Depth to water	upon completion c	of well	1128	ft.
Denth	in Feet	r · · · · · · · · · · · · · · · · · · ·		CIPAL WATER	R-BEARING ST	RATA			
From	To	Thickne in Feel		Description of V	Water-Bearing F	ormation	-	timated 3 ons per n	
4252	4876	624	San A	ndres	······································		318		
									
· · · ·		,							<u></u>
<u></u>	<u> </u>		Sectio	n 3. RECORD	OF CASING	L			
Diametor	Pounds	Threads		in Feet	Length			Perfor	ations
(inches)	per foot	per in.	Тор	Bottom	(feet)	Type of Shoe		From	То
16	65	8	0	417	417	Texas Patt	ern		
11 3/4	54	8	0	2837	2837	Float			
8 5/8	40.5	8	0	5000	5000	Float		4252	4876 [,]

		Section	4. RECORD OF	MUDDING AND CH	EMENTING
Depth	in Feet	Hole	Sacks	Cubic Feet	
From	То	Diameter	of Mud	of Cement	Method of Placement
0	417	20"		660	Pump & Plug
417	2837	14_3/4"		4208	Pump & Plug
2837	5000	10 5/8"		2374	Pump & Plug

Section 5. PLUGGING RECORD

Plugging Contractor				
Address	No.	Depth	in Feet	Cubic Feet
Plugging Method	NQ.	Тор	Bottom	of Cement
Date Well Plugged	1 .			
Plugging approved by:	2		•	

1265		1285	Salt
2550	3332	782	Seven Rivers
3332	3470	138	Queen
3470	3636	166	Penrose
3636	4120	484	Greyburg
4120	4900	780	San Andres
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RECEIVED Aug 17 9 57 AM 187 State

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	wus	P.	O. Box 6	70		,		
Street or	Post Office Adi	dress <u>Ho</u>	bbs, NM	88240				
Well was drilled 1027 FNL	under Permit i and 1740	No. CP FEL LOT 2	-697		and is located	i Alia, é. Lin the:	Range 36E	
b. Tract	No	of Map No		of the		•		
Subdiv	vision, recorded	in		Of the	ounty.		· · · · · · · · · · · · · · · · · · ·	
	11				·	System		Zone in Grant.
(B) Drilling (Contractor	Exeter Drill	ing Co.			License N	٥	
		1			•			
Drilling Began	1/23/87	Complete	d <u>4/1</u>	3/87	_ Type tools _	rotary	Size of hole	<u>7 7/8 ín</u> .
Elevation of la	nd surface or _		-	at wel	t is 3552.9	ft. Total (s	depth of well <u>12</u> static fluid lev	<u>00</u> ft. el)
Completed wel	lis 🗔 sh	iallow 🗔 artes	ian.		Depth to wate	r upon comp	letion of well	
		Section	2. PRINCI	AL WATE	R-BEARING S	TRATA		
Depth From	in Feet To	Thickness in Feet	Des	cription of `	Water-Bearing	Formation	Estimated (gallons per	
4120	4900	780	San A	ndres			. 420	
-								
						·····		
<u> </u>								

Diameter			Depth in Feet		Length	Turna of Shoo	Perforations	
(inches)	per foot	per in.	Тор	Bottom	(feet)	Type of Shoe	From	Ϋ́ο
16	65	8rd	Ö	429		Weatherford		
11 3/4	54	8rd	0	2600		Weatherford		
8 5/8	32	8rd	0	4275		Weatherford		

·

Depth in Feet		Hole	Sacks	Cubic Feet		
Tom	То	Diameter	of Mud	of Cement	Method of Placement	
0	429	20		673	stab in float shoe	
429	2600	14 3/4		2499	pump and plug	
2600	4275	10 5/8		1711 .	pump and plug	
4275	5000	7 7/8		open hole	completion	
			Section 5, PL	UGGING RECORD	ь. -	

29	151	122	Sand & Sandstone Stringers		. •
151	174	23	Sand & Sandy Brown Clay		••
174	215	41	Sand & Sandstone Stringers		
215	218	3	Sand & Sandy Brown Clay		
218	219	1	Blue Clay		
219	224	5	Red Clay	,	
			· · · · · · · · · · · · · · · · · · ·		
			· · · · · · · · · · · · · · · · · · ·	<u> </u>	
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n		· · · · · · · · · · · · · · · · · · ·			
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		· · · · ·		·	
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The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above -

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and the second second second

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Street o City and	r Post Office A State <u>Car</u>	ddress <u>P. O</u> Isbad, New	. BOX 11 Mexico	66 88220	· <u> </u>	······		• ••••	
Well was drille	d under Permit	No	907		_ and is locate	d in the:			
- in	Lea Count	ү.				215 Rang			
				of the					
d. X= _ the _	<u> </u>	feet, Y=		feet, N.	M. Coordinate	System		Zone in Grant.	
(B) Drilling	Contractor <u>F</u>	rederick D	Root		· · · · · · · · · · · · · · · · · · ·	License No	WD_1332		
Address 12	00 E. Bende	er Blvd., I	lobbs. N	ew Mexico 8	8240				
Drilling Began	10-30-200) Comr	leted 1	0-30-2000	Type tools	Rotary	Size of hole	77/8 in	
Elevation of la Completed we	nd surface or .	hallow 🗋 a	rteslan.		l is Depth to wate	ft. Total depth o	· .		
Depth	in Feet	Thickness					Estimated	Vield	
From	To	in Feet		Description of V	Water-Bearing 1	Formation	(galions per		
174	215	41	Sand	& Sandston	e Stringer	:s			
					<u>.</u>				
F									
·									
L	<u></u>	I	 Saotic	on 3. RECORD					
Diameter	Pounds	Threads		in Feet	Length		Perfo	arforations	
(inches)	per foot	per in.	Тор	Bottom	(feet)	Type of Shoe	From	То	
5 3/4	160 pái				224		184	224	

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- C

Section	4	RECORD	OF	MIDDING		CEMENTING
SPECIFUL	ч.	RECORD	ŲΓ	MODDING	AND	LEMENTING

Depth i: From	To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
	·				
			<u> </u>	· · · · · · · · · · · · · · · · · · ·	·
					-

Section 5. PLUGGING RECORD

rlugging Contractor				
Address		Depth	in Feet	Cubic Feet
Plugging Method	No.	Тор	Bottom	of Cement
Date Well Plugged				
Plugging approved by:	2		· · · · · · · · · · · · · · · · · · ·	

		Ked bed and red rock	
110	120	Sand	
120	1.60	Red bed, red rock	
160	180	Sand	
180	235	Red bed, red rock	
235	260	Sand (water)	
260	534	Red bed, red rock	
534	640	Red bed, red rock	
640	665	Sand	
		•	
		[SElev 3592	•
	-	Depth to K	
	2251 26		
WALCT			
	814 - 84		
· · · ·			
 	<u>+</u>		
		······································	
<u>665</u> <u>814</u> <u>873</u>	814 873 1086 - 235' - 26 814' - 87	Red bed, red rock Sand and shells (water) Red bed, red rock ISElev JS792 Depth to K	

This well record is an excerpt from 0il Conservation Commission files at Hobbs, N.M. Location: 21.36.8.24000 Elevation: 3592' TC Dr Owner: Getty 0il Co. State A #2 Record of Casing: 12 1/2" - 305' 9 5/8" - 2863' Rotary 1980' FNL - 660' FEL

VonGonten, Glenn, EMNRD

From:	•	VonGonten, Glen	n. EMNRD
		vondonten, den	

Sent: Tuesday, May 20, 2008 2:02 PM

To: 'Randy Hicks'

Subject: AP062

Attachments: 2008_0519 AP062 RT.DOC

Randy,

OCD's conditional approval for Samson to reuse contaminated ground water for drilling fluids only is attached.

Glenn von Gonten Senior Hydrologist Environmental Bureau Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505 505-476-3488 fax -476-3462 glenn.vongonten@state.nm.us

From: Randy Hicks [mailto:r@rthicksconsult.com]
Sent: Wednesday, May 14, 2008 4:52 PM
To: VonGonten, Glenn, EMNRD
Cc: srose@samson.com; fsteed@samson.com; 'Dale Littlejohn'; rochelle@rthicksconsult.com
Subject: Samson Livestock AP 62-0

Glenn

This letter requests NMOCD approval to implement the pump-and-use ground water restoration strategy proposed in our November 2007 submission to NMOCD.

We request NMOCD approval as <u>soon as possible</u> to pump and use ground water from MW-3d (TDS about 25,000 mg/L) for the <u>brine drilling program</u> at the Osudo site described in the attachment – which will spud very soon.

We request NMOCD review and approval to use water from MW-3d for the Cattleman well brine drilling program as well as using the water sparingly in the fresh water drilling program. The Cattleman well will spud in about 40-60 days from now (after completion of the Osudo well).

We request NMOCD review and approval for the use of the Livestock ground water in lieu of fresh water for construction of the Cattleman location, or other Samson construction projects within the area described in the attachment.

We have started pumping (1.2 GPM) from MW-3 into two frac tanks at the Livestock site in anticipation of NMOCD approval to move forward with the pump-and-use ground water restoration program associated with the brine mud drilling program at the Osudo site.

Please contact me if you have any questions or comments.

We will send out the hard copy of this letter on Friday of this week.

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson Governor

Joanna Prukop Cabinet Secretary Reese Fullerton Deputy Cabinet Secretary Mark Fesmire Division Director Oil Conservation Division



May 19, 2008

Mr. Scott Rose Samson Resources Two West Second Street Tulsa, Oklahoma 74103-3103

RE: RESPONSE TO LETTER OF MAY 14, 2008 LIVESTOCK 30 STATE NO. 1 LEASE SECTION 30, TOWNSHIP 21 SOUTH, RANGE 35 EAST LEA COUNTY, NEW MEXICO AP062

Dear Mr. Rose:

The Oil Conservation Division (OCD) is responding to the May 14, 2008, "Pump-and-use Ground Water Restoration Strategy" proposal submitted by Mr. Randy Hicks of R. T. Hicks Consultants on Samson Resources' (Samson) behalf. Samson has requested that OCD approve its proposed reuse of chloride contaminated ground water as "…fresh water for drilling fluids make-up water, road dust suppression, construction water for access roads and drilling pads." Samson has proposed that the contaminated ground water that it is extracting at the Livestock 30 State No. 1 lease be reused at two other drill sites. OCD explicitly denies Samson's request to dispose or reuse of contaminated ground water for road dust suppression, construction water for access roads and drilling pads because those activities constitute improper waste disposal, not legitimate reuse. However, OCD will approve Samson's request to reuse chloride contaminated ground water for drilling fluids make-up water only with the following conditions:

1. Samson must obtain approval from OCD's Hobbs District for all "reuse" activities.

2. The approval is for only this reuse of contaminated ground water from the Livestock 30 State No. 1 lease. The contaminated ground water may be reused at any drilling location for drilling fluids make-up water only.

3. Because OCD has not processed Samson's proposed Abatement Plan, it may proceed "at risk."

4. Samson must submit weekly reports to both OCD's Santa Fe and Hobbs offices that document the volume of contaminated ground water that has been transported from the Livestock 30 State No. 1 lease.

5. Samson must document to OCD's satisfaction that it has submitted an application to and has obtained permission from the State Engineer's office to use the ground water at its Livestock 30 State No. 1 lease as proposed.

OCD is not able to review Samson's earlier submittals as requested at this time but will certainly do so when it processes Samson's Abatement Plan.

Sincerely,

Wayne Price Environmental Bureau Chief

WP/gvg

cc: Chris Williams Larry Johnson Thaddeus Kostrubala, SLO Alvaro Alvarado, SEO Randy Hicks, R. T. Hicks Consultants

VonGonten, Glenn, EMNRD

From: Randy Hicks [r@rthicksconsult.com]

Sent: Tuesday, May 20, 2008 4:10 PM

- To: VonGonten, Glenn, EMNRD
- Cc: srose@samson.com; fsteed@samson.com; 'Dale Littlejohn'

Subject: RE: AP062

Glenn

Thanks for your affirmative response to using the water for drilling. Your response is want we needed and expected when we needed it.

The surface landowner at the Livestock site is interested in using this water for dust suppression – but we are not prepared to even talk about this re-use option at this time.

With respect to using this brackish water in lieu of the 1000 barrels of fresh water currently used for each location – we would like to pursue this option in the future – but let's get this re-use option for drilling going.

Again – thanks for the response.

Randall Hicks 505-266-5004 505-238-9515 - cell

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From: VonGonten, Glenn, EMNRD [mailto:Glenn.VonGonten@state.nm.us] Sent: Tuesday, May 20, 2008 2:02 PM To: Randy Hicks Subject: AP062

Randy,

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Glenn von Gonten Senior Hydrologist Environmental Bureau Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505 505-476-3488 fax -476-3462 glenn.vongonten@state.nm.us From: Randy Hicks [mailto:r@rthicksconsult.com]
Sent: Wednesday, May 14, 2008 4:52 PM
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Randall Hicks 505-266-5004 505-238-9515 - cell

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