

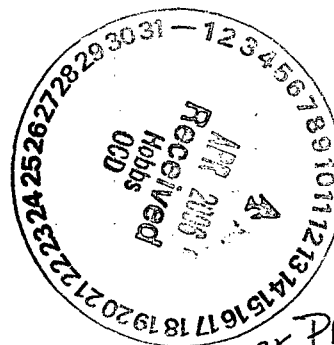


Highlander Environmental Corp.

Midland, Texas

March 27, 2006

Mr. Larry Johnson
Environmental Engineer Specialist
Oil Conservation Division- District I
1625 N. French Drive
Hobbs, New Mexico 88240



WORK PLAN APPROVED
4.12.06
Johnson

RE: Initial Work Plan for the Duke Energy Field Services, L.P., J-4-2-9 Pipeline Spill, Located in the SW/4 of Section 30, Township 19 South, Range 35 East, Lea County, New Mexico.

Dear Mr. Johnson:

Highlander Environmental Corp. (Highlander) was contacted by Duke Energy Field Services, L.P. (Duke) to assess and remediate a spill on the J-4-2-9 Pipeline located in the SW/4 of Section 30, Township 19 South, Range 35 East, Lea County, New Mexico (Site). The site coordinates are N 32° 37' 33.7", W 103° 30' 08.2". The State of New Mexico C-141 (Initial) is included in Appendix B. The Site is shown on Figure 1.

Background

According to the State of New Mexico C-141 report, the spill occurred on January 20, 2006, when a dresser sleeve separated from on a low pressure gathering line. The line was immediately depressurized and repaired. The spill released 10 barrels of pipeline fluid, with 5 barrels recovered.

Groundwater and Regulatory

The New Mexico State Engineer's Office and the USGS database showed several wells located northeast of the Site in Township 19 South, Range 35 East, with depths to water ranging from 18' to 70'. According to the groundwater data, the closest well is located in Section 19, with a reported depth to groundwater of 67.78'. A well located in Section 25, Township 19 South, Range 34 East exhibited a depth to water at 28'.

The well reports are shown in Appendix A. A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum

Application p PAC 06108 40586

hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 1,000 mg/kg. If the delineation assessment determines the groundwater is less than 50' below surface, the Site will be remediated to the appropriate RRAL.

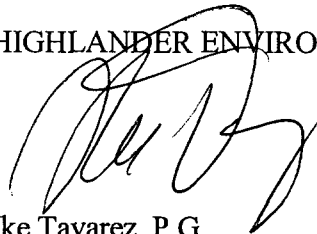
Work Plan

Highlander personnel will inspect the spill area and collect soil samples using a stainless steel, bucket type hand auger to evaluate the extent of subsurface impact at this site. If a dense caliche formation is encountered, a backhoe will be used for the delineation. If the soil impact cannot be defined, a borehole will be installed to assess subsurface soils. Soil samples will be collected and field screened for chloride. Collected soil samples will be placed into laboratory supplied containers and delivered to a laboratory under chain-of-custody control for TPH analysis by EPA method 8015 modified, BTEX by EPA method 8021B and chloride by EPA method 300.0.

If the impact at the Site appears to be shallow, the soil will be excavated and hauled to proper disposal. Final confirmation samples will also be collected from the excavation. Once completed, the results of the assessment, along with recommendations for further investigation or remediation, if any, will be submitted to the NMOCD. If you have any questions or comments concerning the assessment or the activities performed at the Site, please call me at (432) 682-4559.

If you require any additional information or have any questions or comments, please call.

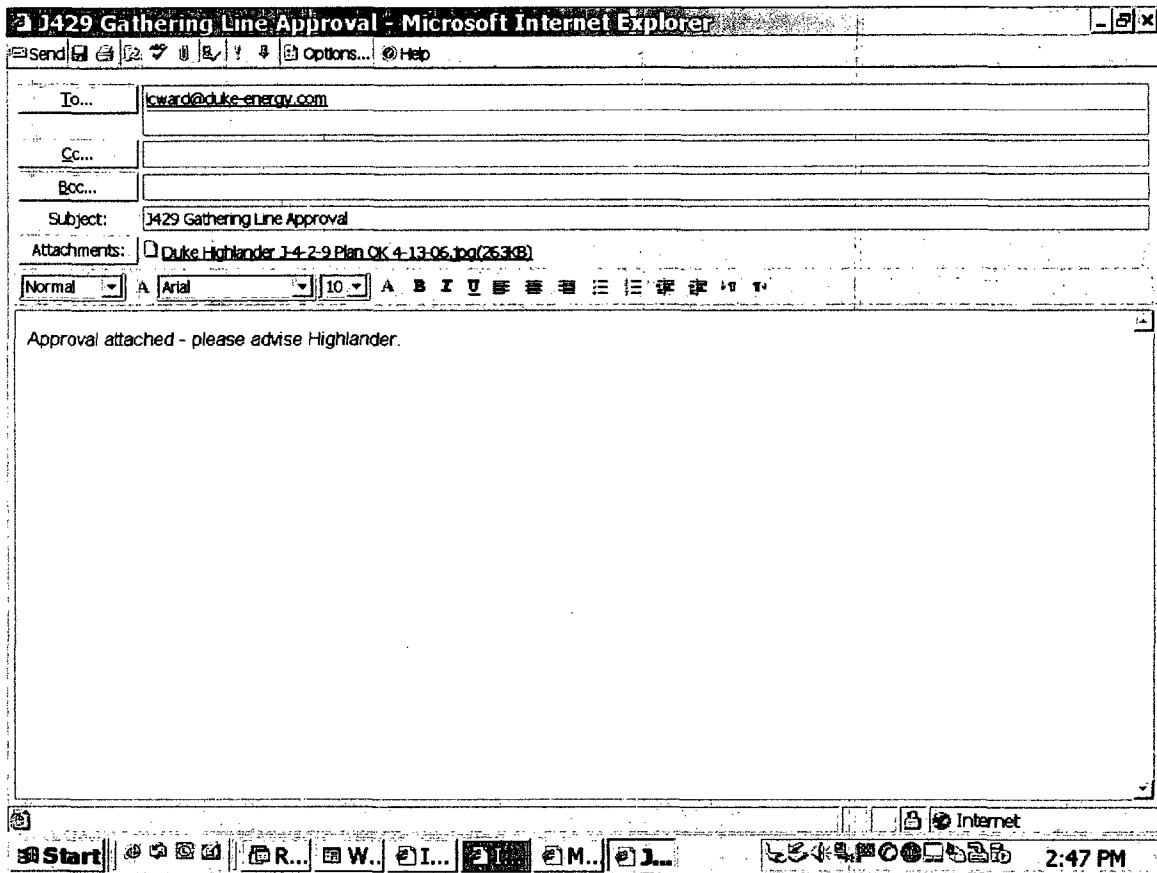
HIGHLANDER ENVIRONMENTAL CORP.

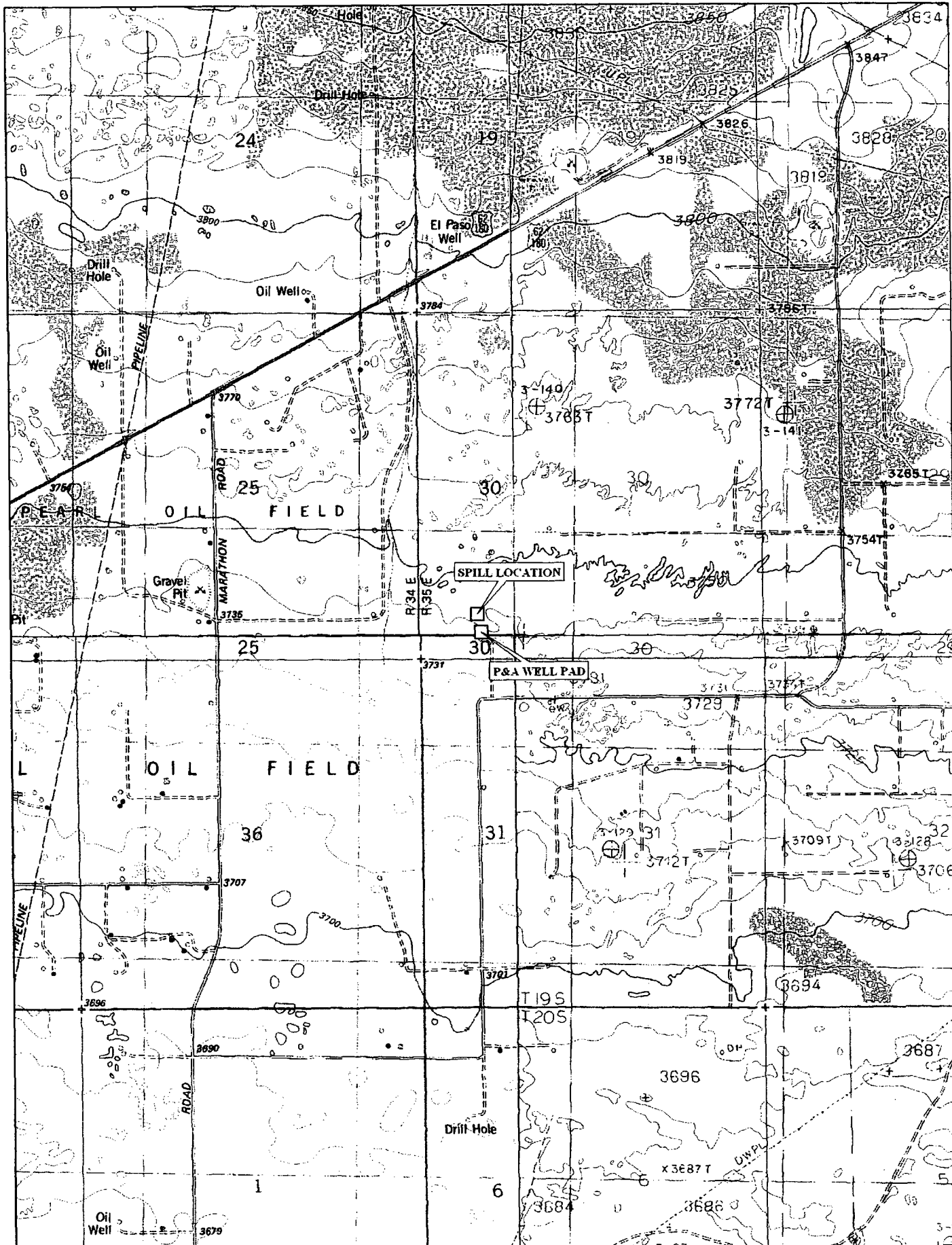


Ike Tavarez, P.G.
Project Manager/Senior Geologist

cc: Lynn Ward - Duke

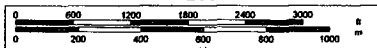






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www.delorme.com

Scale 1 : 24,000
1" = 2000 ft



APPENDIX A
Water Well Data

Water Well Data
Average Depth to Groundwater (ft)
Duke J-4-2-9, Lea County, New Mexico

18 South 34 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

18 South 35 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

18 South 36 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

19 South 34 East

6	244	5	4	3	2	100	1	
7	8	9	28	10	11	123	12	60
			29					
18	17	16	15	14	13			
19	20	21	22	23	24			
30	29	28	27	26	25	28		
31	65	32	33	34	35	36		

19 South 35 East

6	61	5	50	4	3	2	1	
58	63		70				63	
7	8	9	20	10	19	11	12	34
51	18			53				
18	17	26	16	15	26	14	27	13
	30						27	
19	20	21	22	23	23	24	28	
67.78				27		20		
30	29	28	27	26	25	22		
SITE								
31	32	33	34	35	36			

19 South 36 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

20 South 34 East

6	5	4	125	3	2	1
7	8	9	10	11	12	
18	17	140	16	15	14	13
	128				150	
19	20	21	22	23	24	
30	29	28	27	26	25	
31	32	33	34	82	35	36

20 South 35 East

6	56	5	64	4	3	2	1	24
64								
7	8	9	10	11	12			
18	17	16	15	14	13			
19	20	21	22	23	24			
30	29	28	27	26	25			
31	65	32	33	89	34	35	89	36

20 South 36 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

88 New Mexico State Engineers Well Reports

105 USGS Well Reports

90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)
 Geology and Groundwater Resources of Eddy County, NM (Report 3)

B	19	19S	35E	21110	LEA	SEO	1	19S.35E.19.21110	1971-01-27	67.78
F	22	19S	35E	14341	LEA	SEO	1	19S.35E.22.14341	1991-04-17	16.82
L	22	19S	35E	31	LEA	SEO	1	19S.35E.22.31		27.00
L	22	19S	35E	31	LEA	SEO	1	19S.35E.22.31		27.00
M	22	19S	35E	33	LEA	SEO	1	19S.35E.22.33		35.00
M	22	19S	35E	33	LEA	SEO	1	19S.35E.22.33		35.00
M	22	19S	35E	331	LEA	SEO	1	19S.35E.22.331		20.00
M	22	19S	35E	333	LEA	SEO	1	19S.35E.22.333		20.00
M	22	19S	35E	33423	LEA	SEO	1	19S.35E.22.33423	1954-07-28	23.53
M	22	19S	35E	334234	LEA	SEO	1	19S.35E.22.334234	1971-01-27	23.71
C	24	19S	35E	12111	LEA	SEO	1	19S.35E.24.12111	1981-06-04	28.21
A	24	19S	35E	222143	LEA	SEO	1	19S.35E.24.222143	1991-03-25	22.25
H	24	19S	35E	24131	LEA	SEO	1	19S.35E.24.24131	1976-02-04	17.39
I	24	19S	35E	422222	LEA	USGS	7	19S.35E.24.422222	1961-02-28	17.58
I	24	19S	35E	422222	LEA	USGS	7	19S.35E.24.422222	1966-02-09	18.60
I	24	19S	35E	422222	LEA	USGS	7	19S.35E.24.422222	1976-02-04	18.69
I	24	19S	35E	422222	LEA	USGS	7	19S.35E.24.422222	1981-01-23	19.14
I	24	19S	35E	422222	LEA	USGS	7	19S.35E.24.422222	1986-02-05	19.00
I	24	19S	35E	422222	LEA	USGS	7	19S.35E.24.422222	1991-03-25	19.29
I	24	19S	35E	422222	LEA	USGS	7	19S.35E.24.422222	1996-01-25	19.96
I	25	19S	35E	42442	LEA	SEO	1	19S.35E.25.42442	1953-11-16	22.45
O	25	19S	35E	434343	LEA	SEO	1	19S.35E.25.434343	1996-01-25	24.96
O	27	19S	35E	43241	LEA	SEO	1	19S.35E.27.43241	1971-01-27	21.94
B	35	19S	35E	211131	LEA	SEO	1	19S.35E.35.211131	1976-01-30	19.53
B	35	19S	35E	211131 A	LEA	SEO	1	19S.35E.35.211131 A	1996-03-01	26.50
H	01	19S	36E	24	LEA	SEO	1	19S.36E.01.24		47.00
H	01	19S	36E	24	LEA	SEO	1	19S.36E.01.24		47.00
J	01	19S	36E	41	LEA	SEO	1	19S.36E.01.41		40.00
J	01	19S	36E	41	LEA	SEO	1	19S.36E.01.41		40.00
M	02	19S	36E	33	LEA	SEO	1	19S.36E.02.33		60.00
M	02	19S	36E	33323	LEA	USGS	3	19S.36E.02.33323	1986-01-24	80.41
M	02	19S	36E	33323	LEA	USGS	3	19S.36E.02.33323	1991-04-24	90.03
M	02	19S	36E	33323	LEA	USGS	3	19S.36E.02.33323	1996-02-27	72.80
	03	19S	36E	11	LEA	SEO	1	19S.36E.03.		50.00
D	03	19S	36E	11	LEA	SEO	1	19S.36E.03.11	1986-01-24	60.00
F	03	19S	36E	144434	LEA	SEO	1	19S.36E.03.144434	1991-04-18	82.90
L	03	19S	36E	3142	LEA	SEO	1	19S.36E.03.3142	1961-03-02	36.62

E 09	19S	35E	13333	LEA	USGS	324015103280801	919S.35E.09.13333	1966-02-08	24.35
E 09	19S	35E	13333	LEA	USGS	324015103280801	919S.35E.09.13333	1971-01-27	18.24
E 09	19S	35E	13333	LEA	USGS	324015103280801	919S.35E.09.13333	1976-01-29	17.80
E 09	19S	35E	13333	LEA	USGS	324015103280801	919S.35E.09.13333	1981-01-27	18.85
E 09	19S	35E	13333	LEA	USGS	324015103280801	919S.35E.09.13333	1986-02-04	19.01
E 09	19S	35E	13333	LEA	USGS	324015103280801	919S.35E.09.13333	1991-04-16	18.74
E 09	19S	35E	13333	LEA	USGS	324015103280801	919S.35E.09.13333	1996-03-20	19.45
O 10	19S	35E	433	LEA	SEO		119S.35E.10.433		53.00
O 10	19S	35E	43342	LEA	SEO		119S.35E.10.43342	1971-01-27	32.41
O 10	19S	35E	43343	LEA	SEO		119S.35E.10.43343	1981-01-23	31.73
O 11	19S	35E	43334	LEA	SEO		119S.35E.11.43334	1961-03-03	27.50
E 12	19S	35E	134142	LEA	SEO		119S.35E.12.134142	1996-02-29	28.33
P 12	19S	35E	44342	LEA	SEO		119S.35E.12.44342	1991-04-17	35.50
P 12	19S	35E	443420	LEA	SEO		119S.35E.12.443420	1976-02-12	30.17
B 13	19S	35E	211111	LEA	SEO		119S.35E.13.211111	1949-03-22	21.19
N 13	19S	35E	34334	LEA	SEO		119S.35E.13.34334	1996-03-20	36.61
J 13	19S	35E	41221	LEA	SEO		119S.35E.13.41221	1962-01-16	21.43
P 13	19S	35E	44	LEA	SEO		119S.35E.13.44		27.00
D 14	19S	35E	11	LEA	SEO		119S.35E.14.11	1996-03-20	27.00
E 14	19S	35E	13421	LEA	SEO		119S.35E.14.13421		31.68
B 15	19S	35E	21	LEA	SEO		119S.35E.15.21		40.00
M 15	19S	35E	33	LEA	SEO		119S.35E.15.33		28.00
M 15	19S	35E	33434	LEA	SEO		119S.35E.15.33434	1971-01-27	16.29
M 15	19S	35E	334424	LEA	SEO		119S.35E.15.334424	1996-01-25	14.60
N 15	19S	35E	34	LEA	SEO		119S.35E.15.34		18.00
N 15	19S	35E	34	LEA	SEO		119S.35E.15.34		18.00
E 16	19S	35E	13442	LEA	SEO		119S.35E.16.13442	1991-01-17	19.48
B 17	19S	35E	21131	LEA	USGS	323944103284001	919S.35E.17.21131	1954-07-28	29.95
B 17	19S	35E	21131	LEA	USGS	323944103284001	919S.35E.17.21131	1961-03-03	25.08
B 17	19S	35E	21131	LEA	USGS	323944103284001	919S.35E.17.21131	1966-02-08	26.77
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B 17	19S	35E	21131	LEA	USGS	323944103284001	919S.35E.17.21131	1976-01-29	21.13
B 17	19S	35E	21131	LEA	USGS	323944103284001	919S.35E.17.21131	1981-01-27	23.81
B 17	19S	35E	21131	LEA	USGS	323944103284001	919S.35E.17.21131	1986-02-04	24.94
B 17	19S	35E	21131	LEA	USGS	323944103284001	919S.35E.17.21131	1991-04-17	24.62
B 17	19S	35E	21131	LEA	USGS	323944103284001	919S.35E.17.21131	1996-01-25	26.04
N 17	19S	35E	34	LEA	SEO		119S.35E.17.34		30.00

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 19S Range: 35E Sections:

NAD27 X: Y: Zone: ☐ Search Radius:

County: ☐ Basin: ☐ Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic
☒ All

POD / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

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AVERAGE DEPTH OF WATER REPORT 03/24/2006

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
L	19S	35E	01				4	28	83	63
L	19S	35E	04				1	70	70	70
L	19S	35E	05				4	55	85	63
L	19S	35E	06				3	55	60	58
L	19S	35E	07				4	45	60	51
L	19S	35E	08				1	18	18	18
L	19S	35E	10				1	53	53	53
L	19S	35E	13				1	27	27	27
L	19S	35E	14				1	27	27	27
L	19S	35E	15				4	18	40	26
L	19S	35E	17				1	30	30	30
L	19S	35E	22				4	20	35	27

Record Count: 29

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 19S Range: 34E Sections:

NAD27 X: Y: Zone: ☐ Search Radius:County: ☐ Basin: ☐ Number: Suffix:Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic
☒ All

POD / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

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Help

AVERAGE DEPTH OF WATER REPORT 03/24/2006

Bsn	Tws	Rng	Sec	Zone.	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
CP	19S	34E	25				1	28	28	28
L	19S	34E	02				1	100	100	100
L	19S	34E	11				1	123	123	123
L	19S	34E	12				2	60	60	60

Record Count: 5

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 20S Range: 35E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic
☒ All

POD / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

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AVERAGE DEPTH OF WATER REPORT 03/24/2006

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
L	20S	35E	05				2	64	64	64
L	20S	35E	06				2	64	64	64

Record Count: 4

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 20S Range: 34E Sections:

NAD27 X: Y: Zone: ☐ Search Radius:County: ☐ Basin: ☐ Number: Suffix:Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic
☒ All

POD / Surface Data Report

Avg Depth to Water Report

Water Column Report

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AVERAGE DEPTH OF WATER REPORT 03/24/2006

Bsn	Tw	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
CP	20S	34E	24				1	270	270	270

Record Count: 1



Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 323828103240701

[Save file of selected sites](#) to local disk for future upload

USGS 323828103240701 19S.35E.24.422222

Available data for this site

Ground-water: Levels

GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

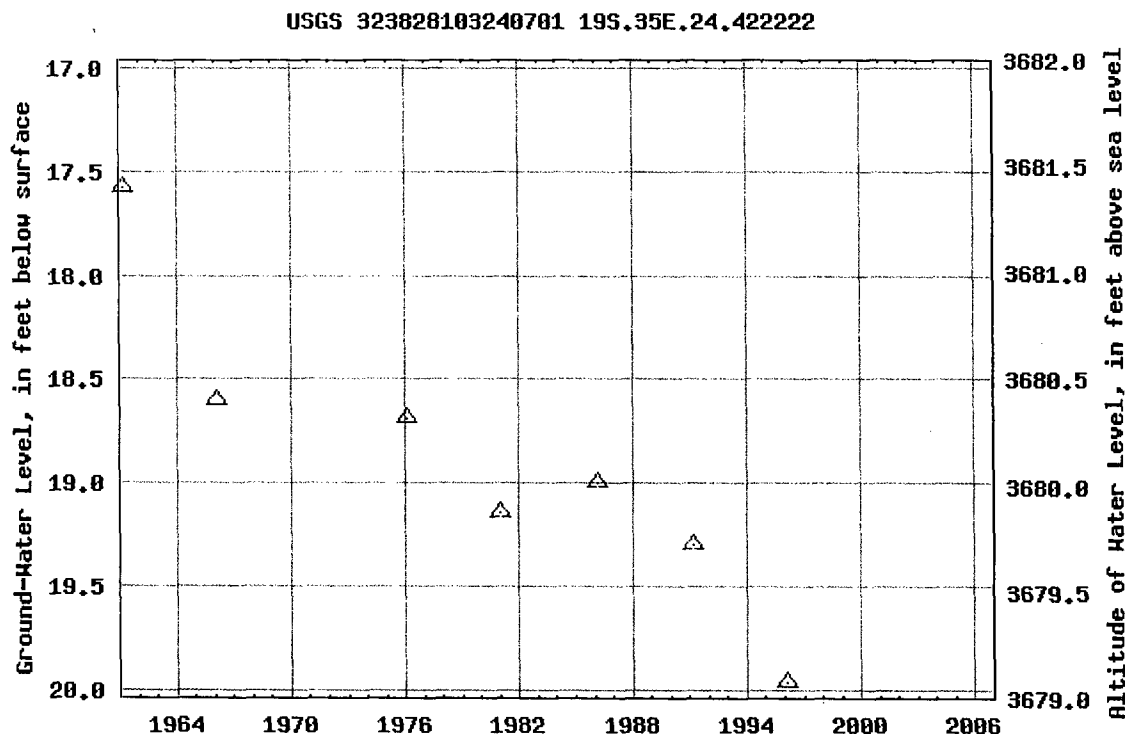
Latitude 32°38'28", Longitude 103°24'07" NAD27

Land-surface elevation 3,699.00 feet above sea level NGVD29

The depth of the well is 56 feet below land surface.

This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND
OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

[Table of data](#)[Tab-separated data](#)[Graph of data](#)[Reselect period](#)

Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

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[Ground water for New Mexico: Water Levels](#)

[Explanation of terms](#)

<http://waterdata.usgs.gov/nm/nwis/gwlevels?>

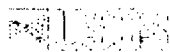
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1.88 1.86 nadww01



Water Resources

Data Category:

Ground Water

Geographic Area:

New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 323944103284001

[Save file of selected sites to local disk for future upload](#)

USGS 323944103284001 19S.35E.17.21131

Available data for this site

Ground-water: Levels

GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

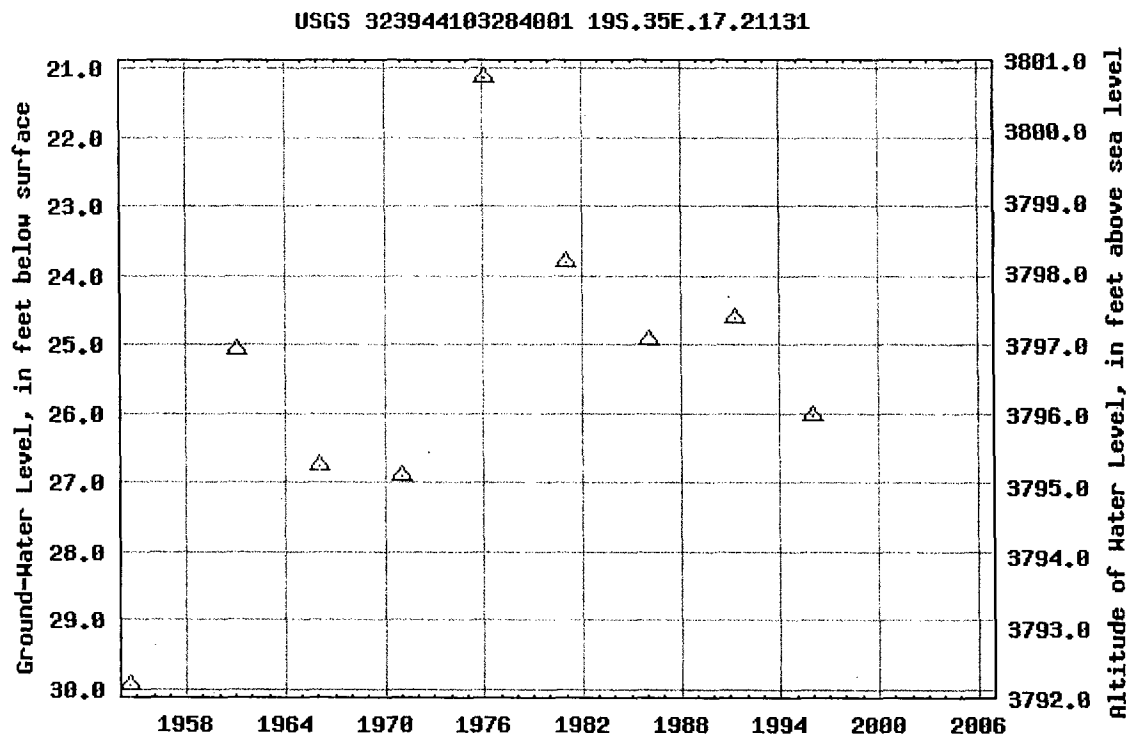
Latitude 32°39'44", Longitude 103°28'40" NAD27

Land-surface elevation 3,822.00 feet above sea level NGVD29

The depth of the well is 50 feet below land surface.

This well is completed in the ALLUVIUM,BOLSON DEPOSITS AND
OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

[Table of data](#)[Tab-separated data](#)[Graph of data](#)[Reselect period](#)

Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

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[Ground water for New Mexico: Water Levels](#)

<http://waterdata.usgs.gov/nm/nwis/gwlevels?>

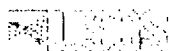
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1.94 1.95 nadww01



Water Resources

Data Category:

Ground Water

Geographic Area:

New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 324015103280801

[Save file of selected sites](#) to local disk for future upload

USGS 324015103280801 19S.35E.09.13333

Available data for this site

Ground-water: Levels

GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

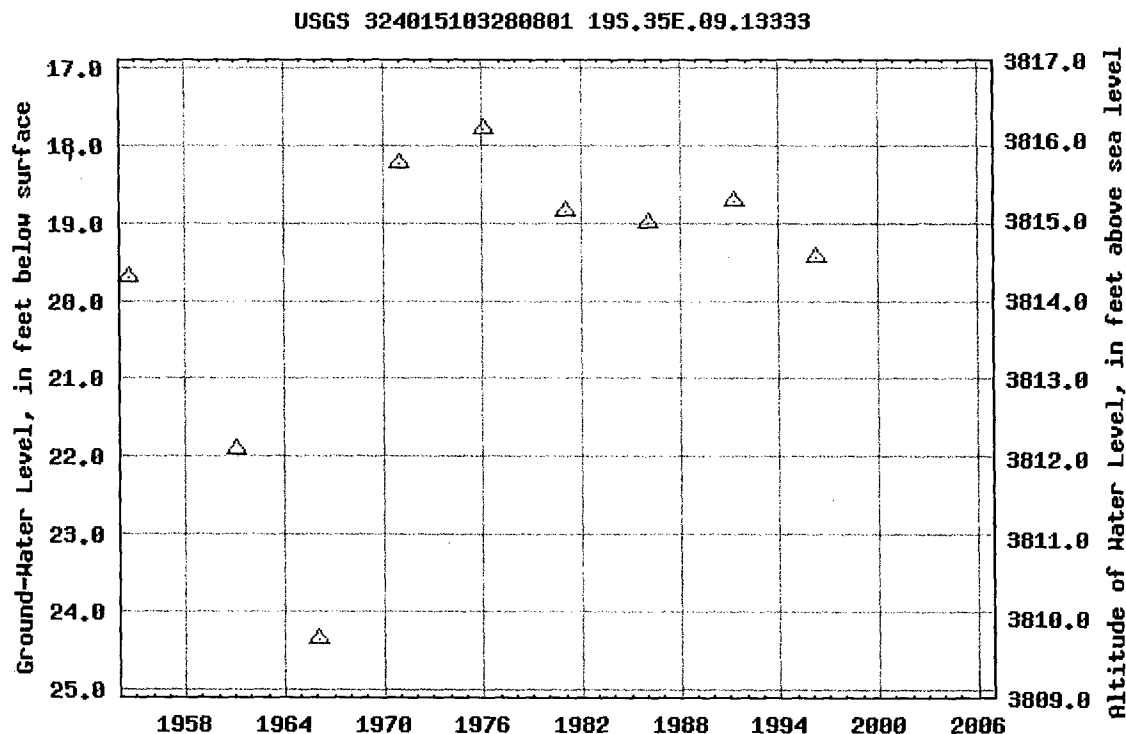
Latitude 32°40'15", Longitude 103°28'08" NAD27

Land-surface elevation 3,834.00 feet above sea level NGVD29

The depth of the well is 36 feet below land surface.

This well is completed in the OGALLALA FORMATION (121OGLL) local aquifer.

Output formats

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<http://waterdata.usgs.gov/nm/nwis/gwlevels?>

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1.94 1.91 nadww01



Water Resources

Data Category:

Ground Water

Geographic Area:

New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 324107103301101

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USGS 324107103301101 19S.35E.06.133314

Available data for this site

Ground-water: Levels

GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

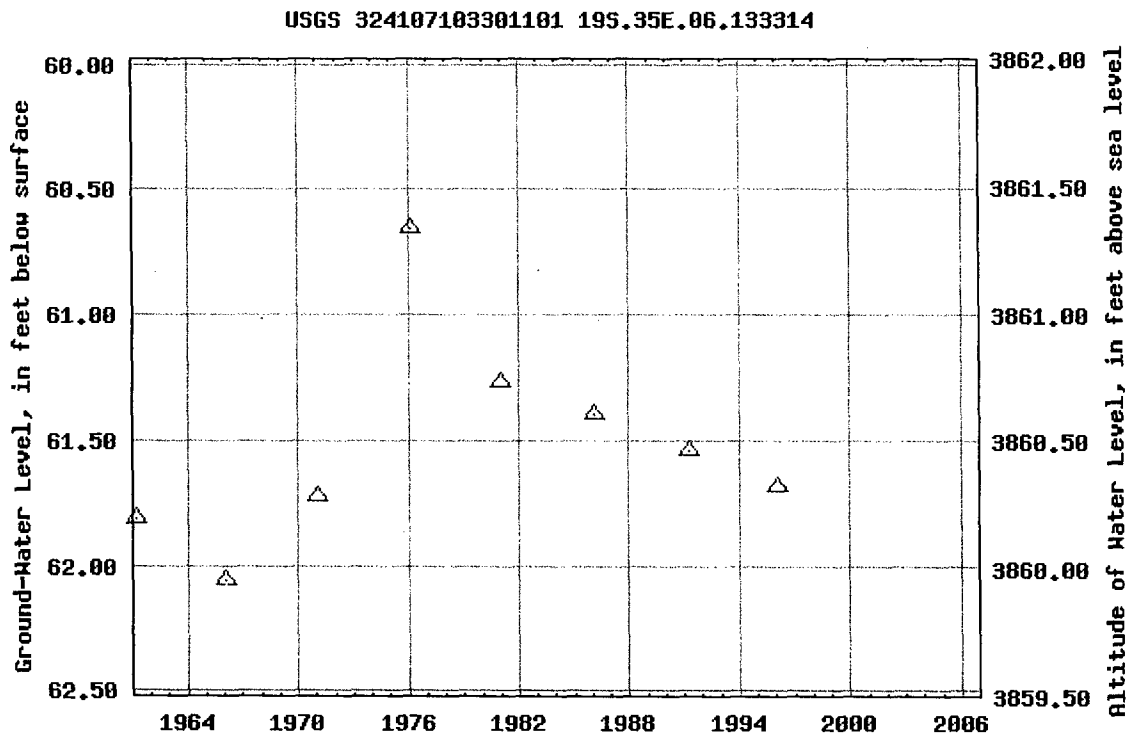
Latitude 32°41'07", Longitude 103°30'11" NAD27

Land-surface elevation 3,922.00 feet above sea level NGVD29

The depth of the well is 130 feet below land surface.

This well is completed in the OGALLALA FORMATION (121OGLL) local aquifer.

Output formats

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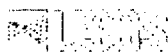
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1.92 1.9 nadww01



Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 324022103332601

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USGS 324022103332601 19S.34E.09.24231

Available data for this site

Ground-water: Levels

GO

Lea County, New Mexico

Hydrologic Unit Code 13060011

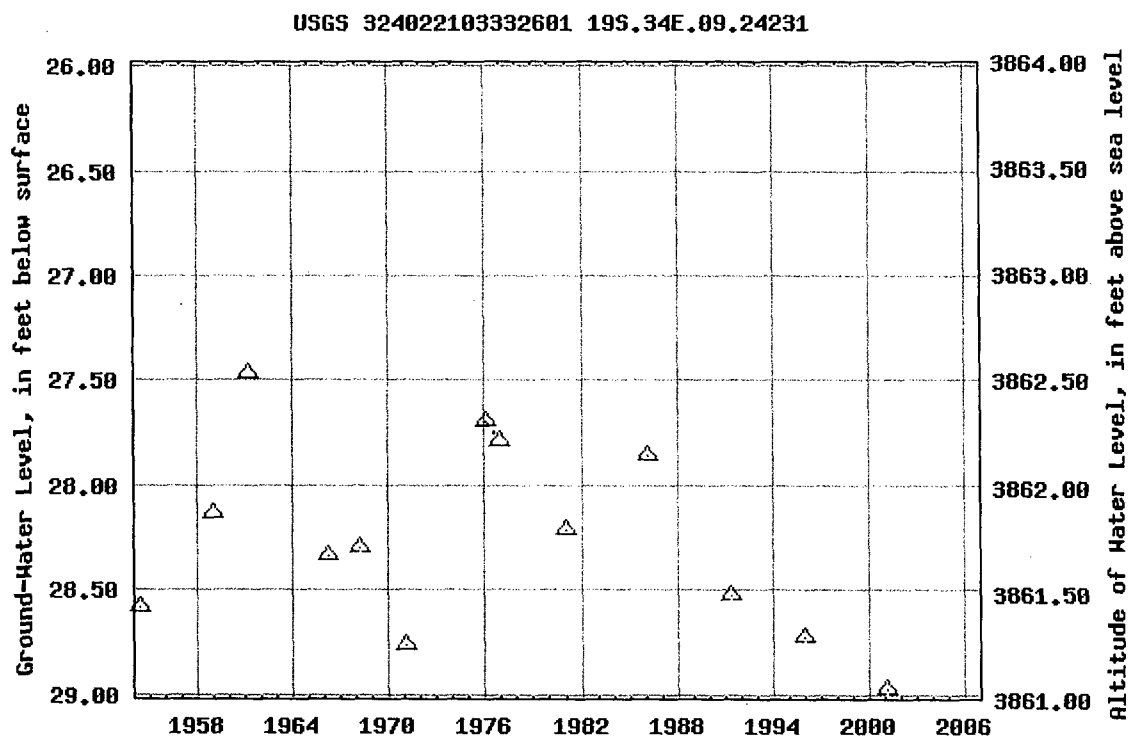
Latitude 32°40'22", Longitude 103°33'26" NAD27

Land-surface elevation 3,890.00 feet above sea level NGVD29

The depth of the well is 33 feet below land surface.

This well is completed in the ALLUVIUM, BOLSON DEPOSITS AND
OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

Output formats

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<http://waterdata.usgs.gov/nm/nwis/gwlevels?>

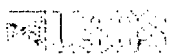
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1.88 1.87 nadww01



Water Resources

Data Category:

Ground Water

Geographic Area:

New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 324046103360401

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USGS 324046103360401 19S.34E.06.341434

Available data for this site

Ground-water: Levels

GO

Lea County, New Mexico

Hydrologic Unit Code 13060011

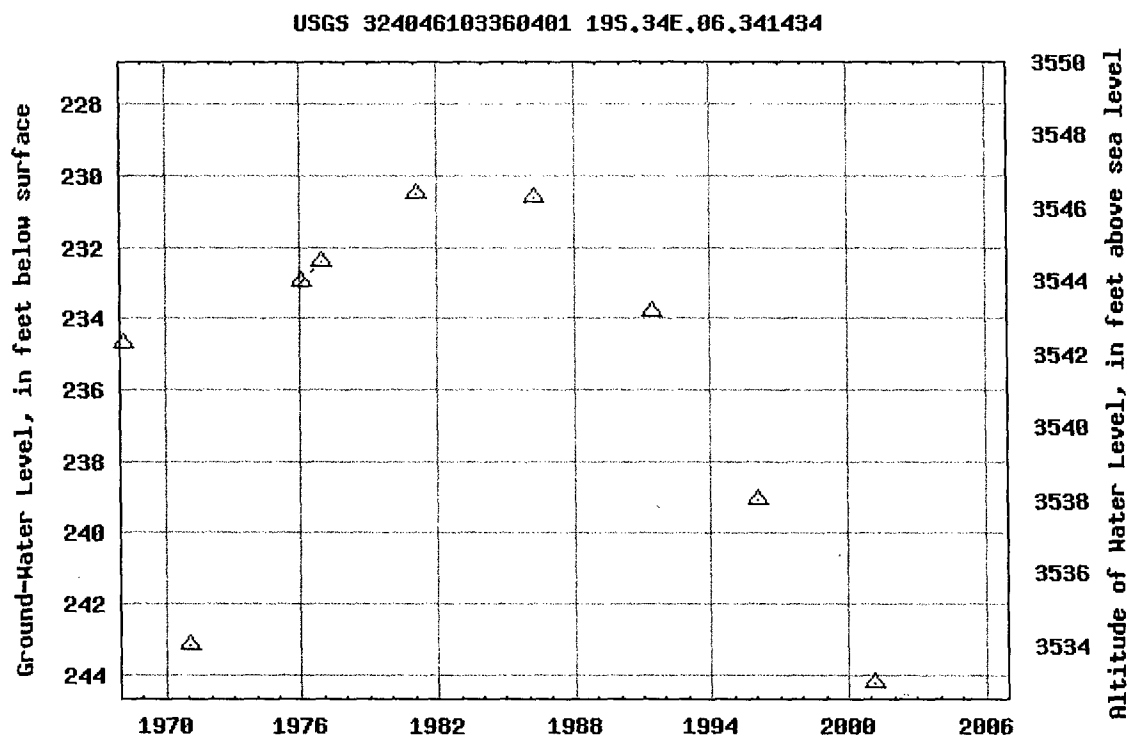
Latitude 32°40'46", Longitude 103°36'04" NAD27

Land-surface elevation 3,777.00 feet above sea level NGVD29

The depth of the well is 500 feet below land surface.

This well is completed in the SANTA ROSA SANDSTONE (231SNRS) local aquifer.

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<http://waterdata.usgs.gov/nm/nwis/gwlevels?>

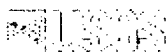
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1.99 1.89 nadww01



Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

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USGS 323148103295801 20S.35E.31.12311

Available data for this site

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Lea County, New Mexico

Hydrologic Unit Code 13070007

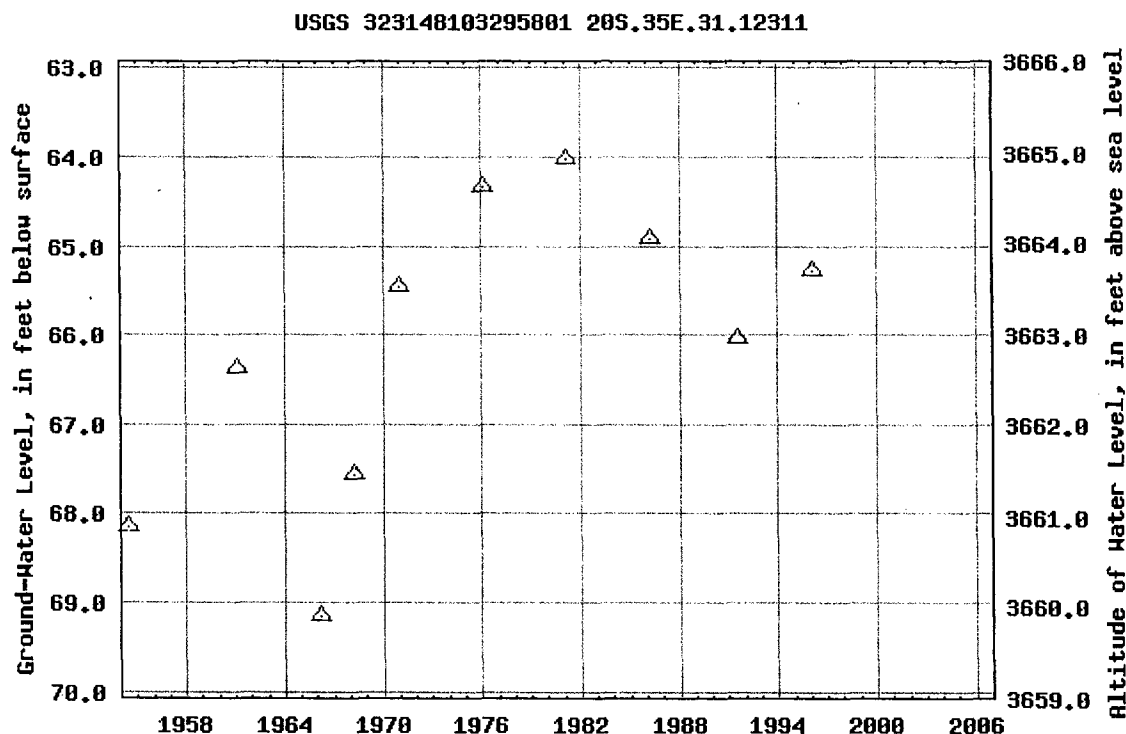
Latitude 32°31'48", Longitude 103°29'58" NAD27

Land-surface elevation 3,729.00 feet above sea level NGVD29

The depth of the well is 85 feet below land surface.

This well is completed in the OGALLALA FORMATION (121OGLL) local aquifer.

Output formats

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<http://waterdata.usgs.gov/nm/nwis/gwlevels?>

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1.97 1.88 nadww01

Water Resources

Data Category:

Ground Water

Geographic Area:

New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 323536103301101

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Available data for this site

Ground-water: Levels

GO

Lea County, New Mexico

Hydrologic Unit Code 13060011

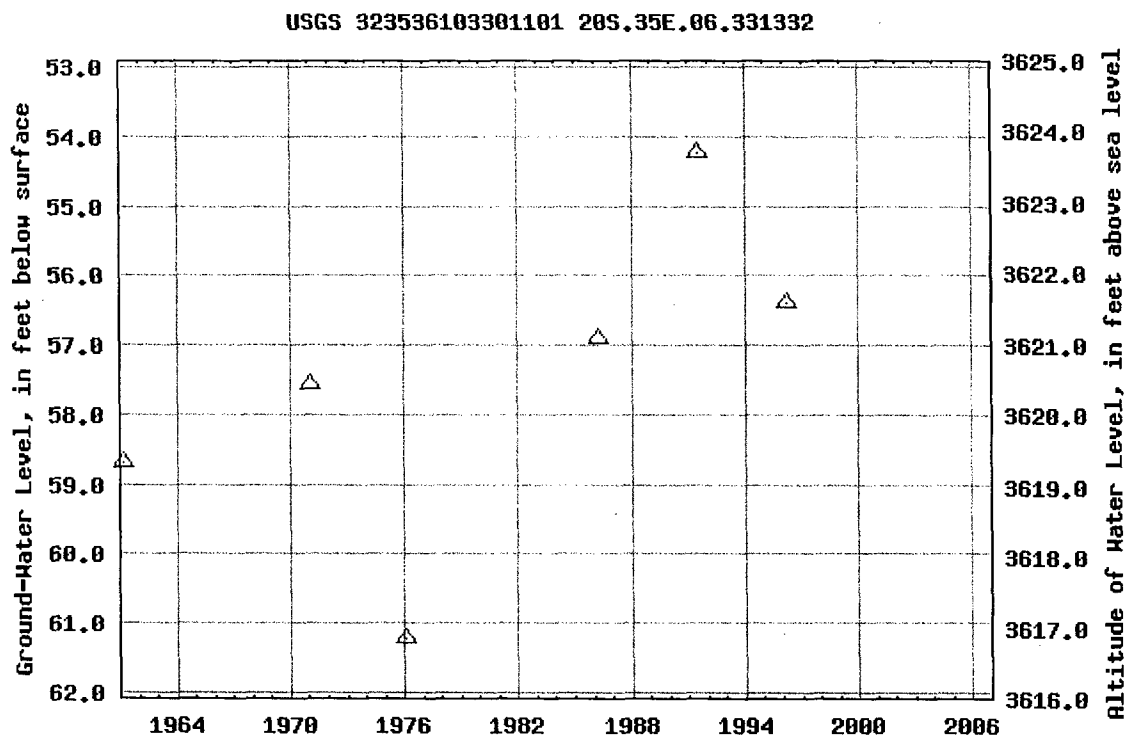
Latitude 32°35'36", Longitude 103°30'11" NAD27

Land-surface elevation 3,678.00 feet above sea level NGVD29

The depth of the well is 70 feet below land surface.

This well is completed in the OGALLALA FORMATION (121OGLL) local aquifer.

Output formats

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Ground water for New Mexico: Water Levels

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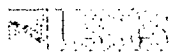
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1.89 1.88 nadww01



Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 323106103273401

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USGS 323106103273401 20S.35E.33.43413

Available data for this site

Ground-water: Levels

GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

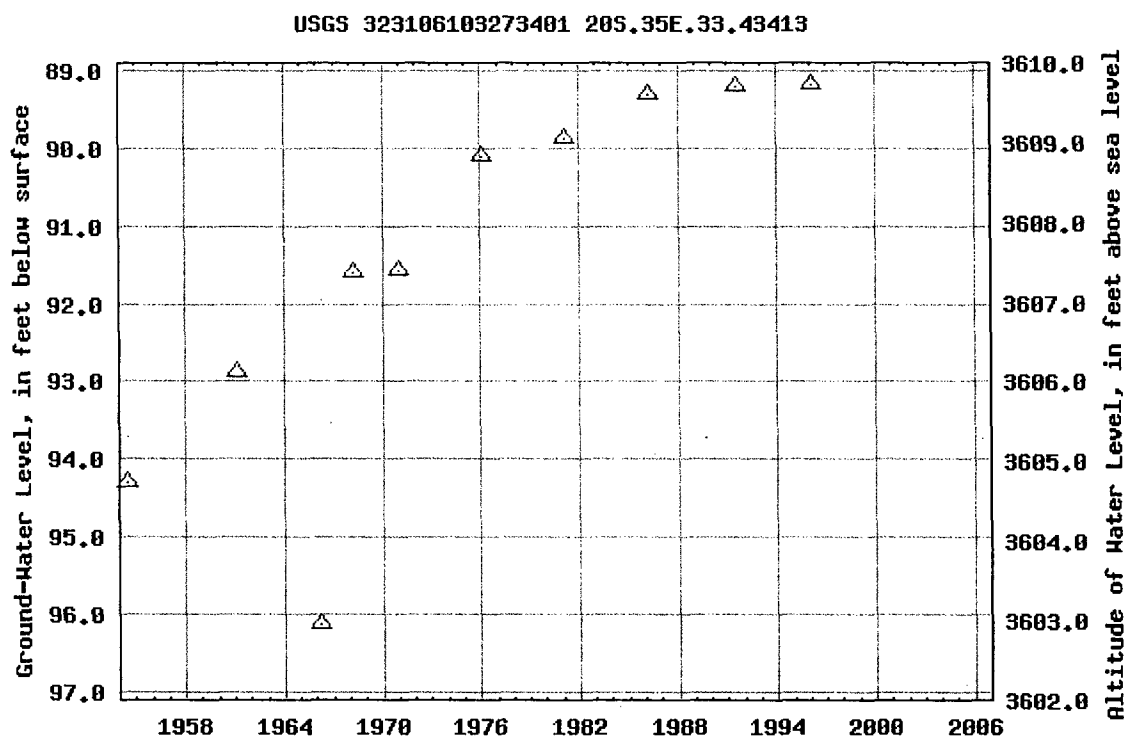
Latitude 32°31'06", Longitude 103°27'34" NAD27

Land-surface elevation 3,699.00 feet above sea level NGVD29

The depth of the well is 135 feet below land surface.

This well is completed in the OGALLALA FORMATION (121OGLL) local aquifer.

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<http://waterdata.usgs.gov/nm/nwis/gwlevels?>

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1.87 1.85 nadww01

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 323109103323801

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USGS 323109103323801 20S.34E.34.43421

Available data for this site

Ground-water: Levels

GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

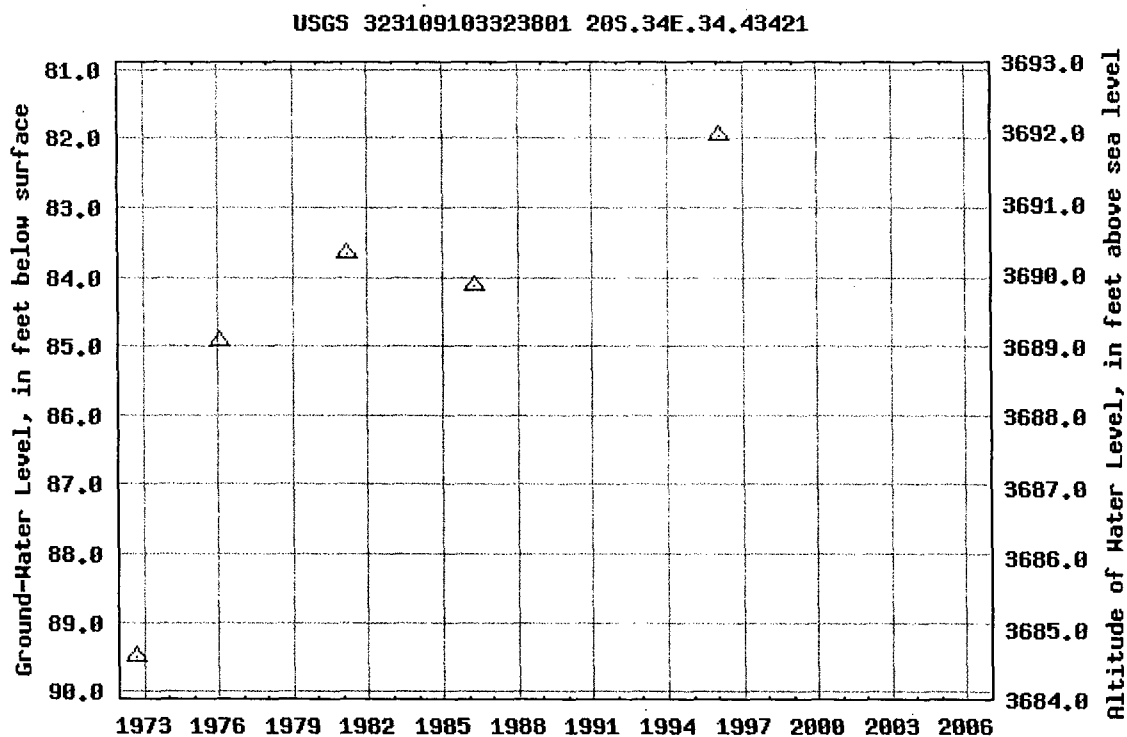
Latitude 32°31'09", Longitude 103°32'38" NAD27

Land-surface elevation 3,774.00 feet above sea level NGVD29

The depth of the well is 100 feet below land surface.

This well is completed in the ALLUVIUM, BOLSON DEPOSITS AND
OTHER SURFACE DEPOSITS (110AVMB) local aquifer.

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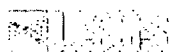
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1.86 1.87 nadww01



Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 323345103351101

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USGS 323345103351101 20S.34E.17.33442

Available data for this site

Ground-water: Levels

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Lea County, New Mexico

Hydrologic Unit Code 13060011

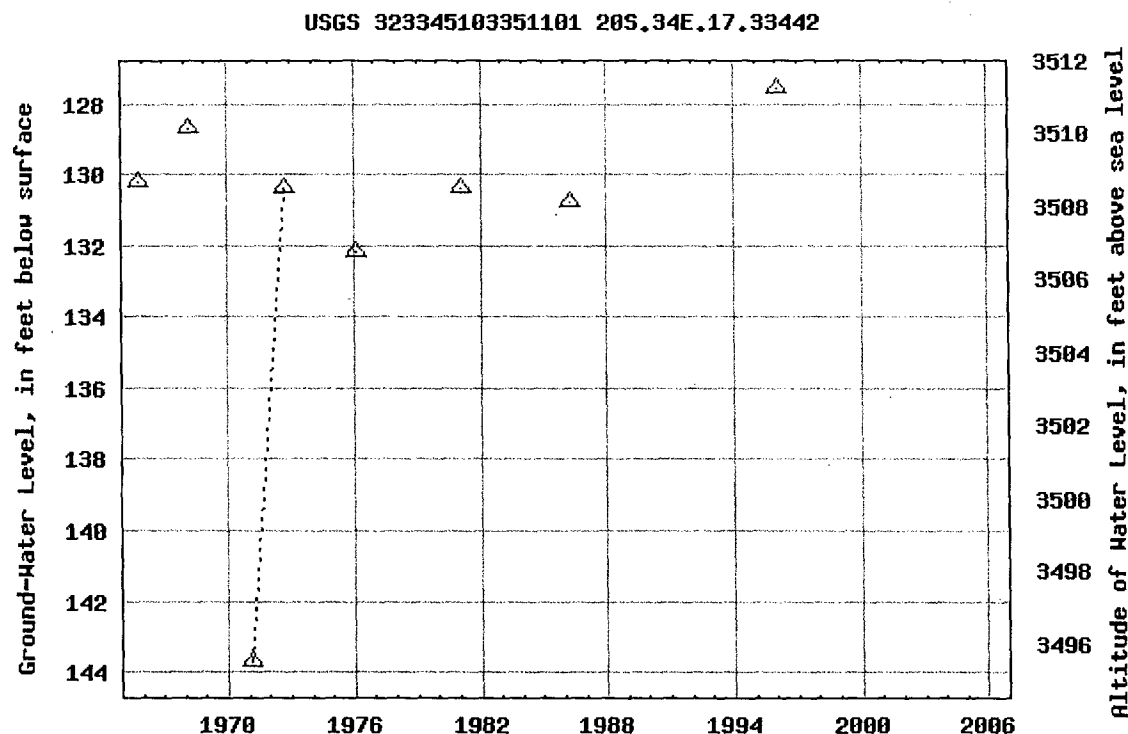
Latitude 32°33'45", Longitude 103°35'11" NAD27

Land-surface elevation 3,639.00 feet above sea level NGVD29

The depth of the well is 160 feet below land surface.

This well is completed in the CHINLE FORMATION (231CHNL) local aquifer.

Output formats

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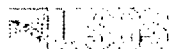
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1.92 1.91 nadww01



Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

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USGS 323409103321301 20S.34E.14.13343

Available data for this site

Ground-water: Levels

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Lea County, New Mexico

Hydrologic Unit Code 13060011

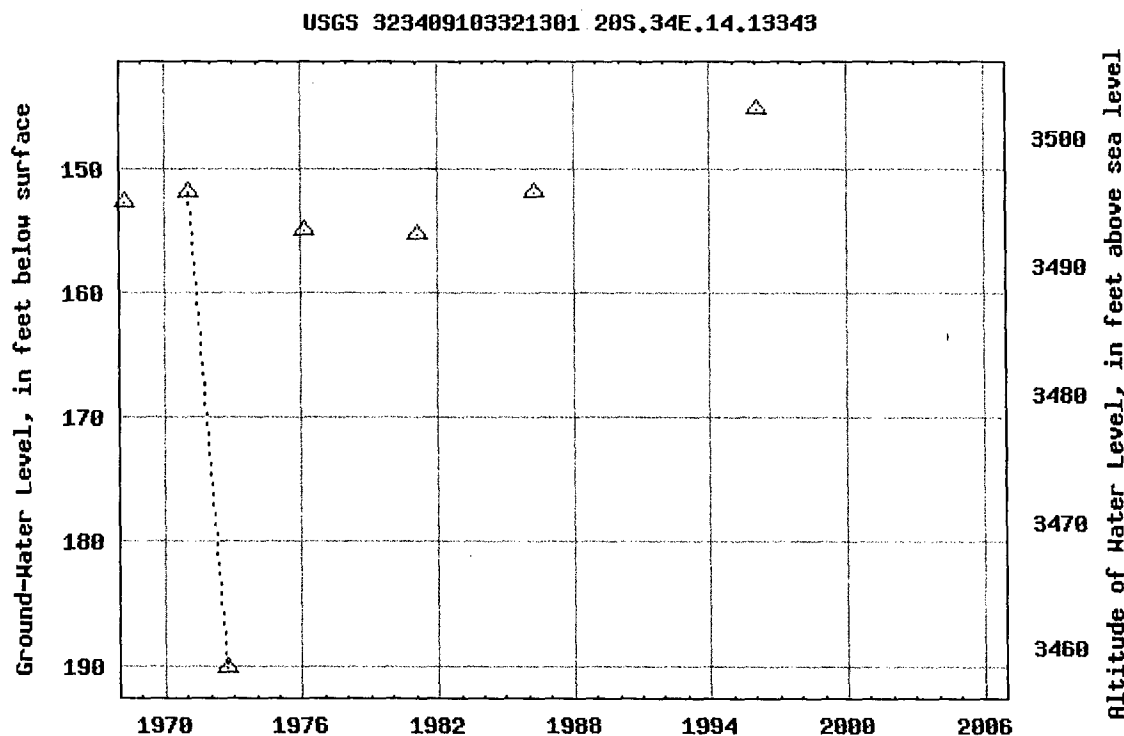
Latitude 32°34'09", Longitude 103°32'13" NAD27

Land-surface elevation 3,648.00 feet above sea level NGVD29

The depth of the well is 230 feet below land surface.

This well is completed in the CHINLE FORMATION (231CHNL) local aquifer.

Output formats

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1.88 1.88 nadww01

Water Resources

Data Category:
Ground WaterGeographic Area:
New Mexico

go

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = • 323529103332501

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USGS 323529103332501 20S.34E.04.44434

Available data for this site

Ground-water: Levels

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Lea County, New Mexico

Hydrologic Unit Code 12080003

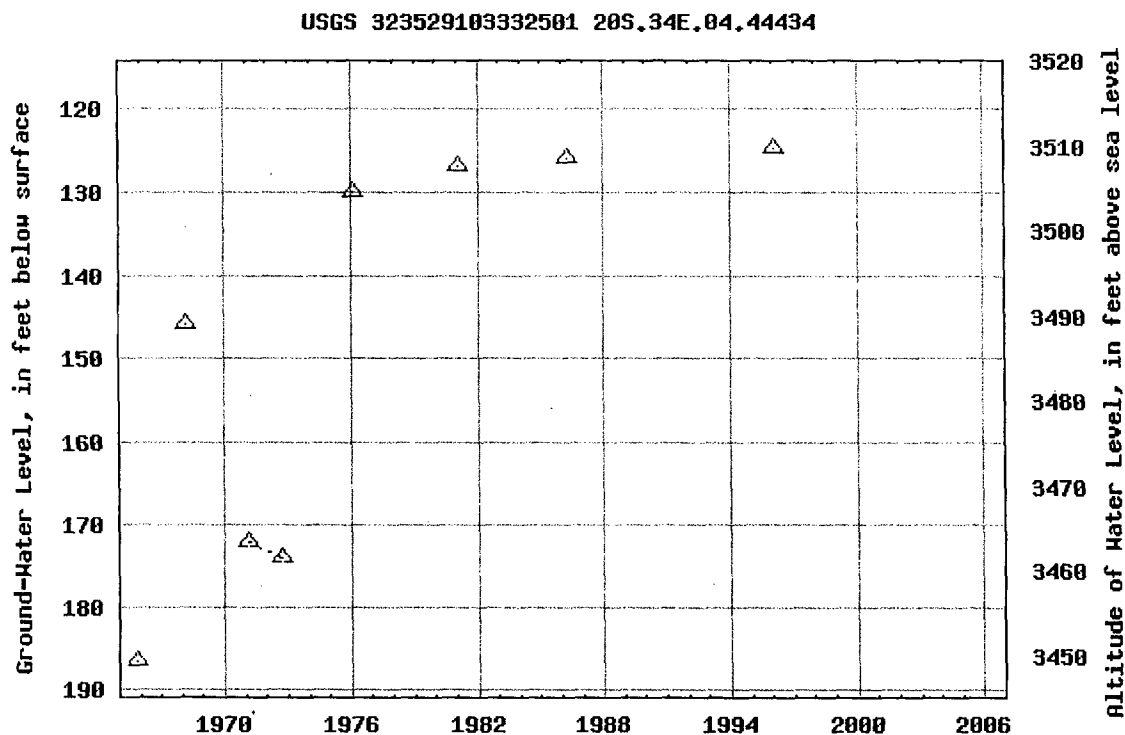
Latitude 32°35'29", Longitude 103°33'25" NAD27

Land-surface elevation 3,635.00 feet above sea level NGVD29

The depth of the well is 200 feet below land surface.

This well is completed in the CHINLE FORMATION (231CHNL) local aquifer.

Output formats

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1.9 1.86 nadww01

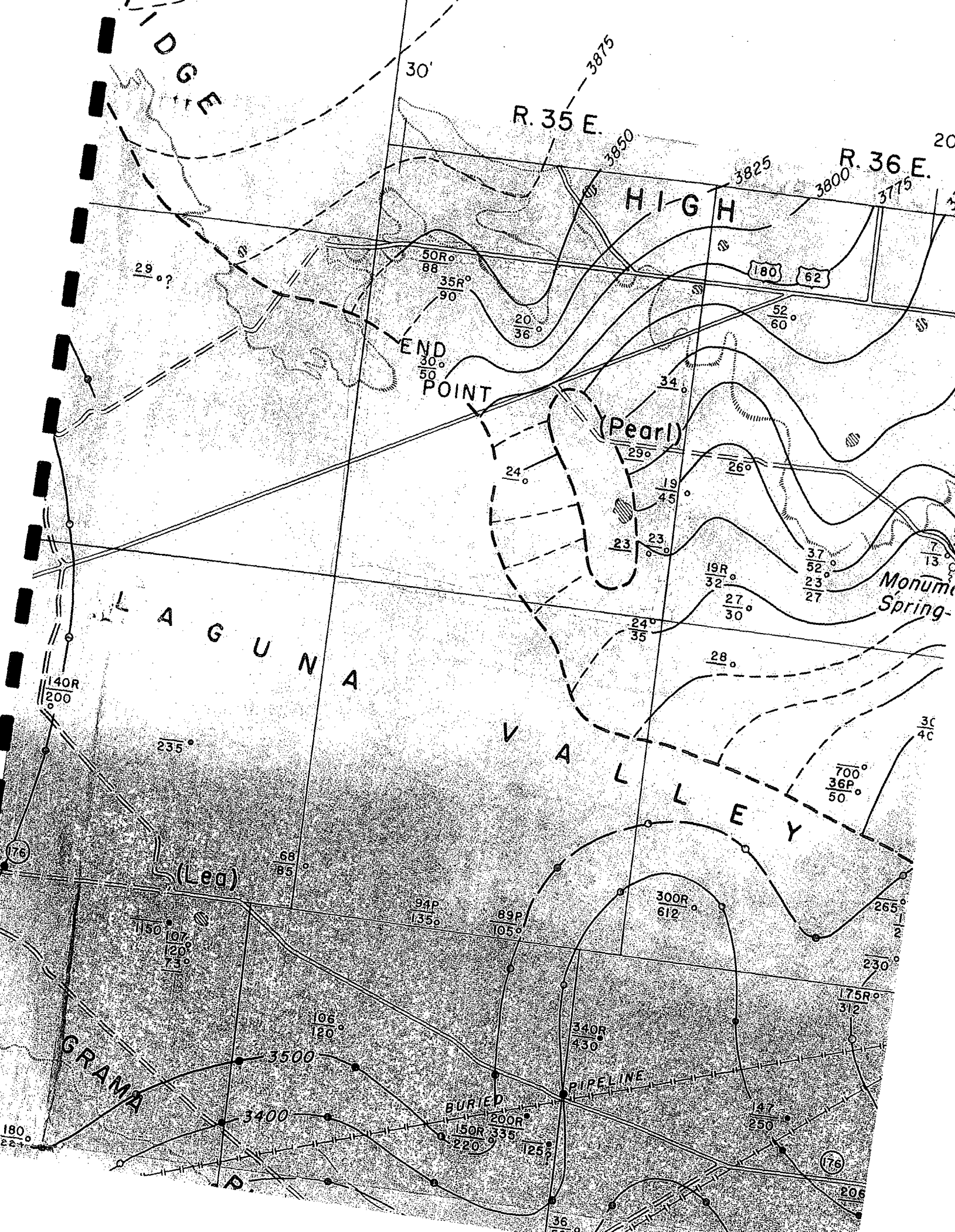


TABLE 6. RECORDS OF WELLS IN SOUTHERN LEA COUNTY, N. MEX. (continued)

Location No.	Owner	Aquifer	Depth of well (feet)	Altitude of well (feet)	Water level		Date measured	Year completed	Surface diameter of wells	Method of lift	Use of water	Remarks
					Depth below land surface (feet)							
17.32.4.442	W. Taylor	Qal	—	4,180	82.9	6- 3-54	—	—	6	N	N	—
11.231	MCRA	To	139	4,180	—	—	1947	—	7	Te	In,D	Well 4.
17.32.11.233	MCRA	To(?)	140	4,200	70	9-20-47	—	—	8	Li	In,D	Well 2. EY 9 gpm.
11.411	MCRA	To(?)	200	4,170	70	6-15-46	—	—	8	Te	In,D	Well 1. EY 90 gpm.
11.411a	MCRA	To(?)	130	—	70	9-23-47	—	—	8	Li	In,D	Well 3. EY 50 gpm.
17.33.13.341	Potash Co. of America	To	252M	4,124	149.7	11-20-53	1952	—	6	N	O	—
18.322	Kewanee Oil Co.	To	220	4,230	—	—	—	—	10¾	Te	In,D	Two wells. Chemical analysis in table 8.
26.422	Phillips Oil Co.	To	—	4,125	161.2	11-20-53	1950	—	8	N	In,O	—
28.110	—	To	241M	4,185	198.0	5-11-54	—	—	7	N	N	—
30.124	Walter Williams	Qal	—	4,045	70.0	7-29-54	—	—	7	Lw	S	PR
18.33.14.111	—	Qal	40M	3,965	35.8	6- 3-54	—	—	5	N	N	—
19.142	—	Tr(?)	—	3,820	>140	12- 9-58	—	—	4	Lw	S	—
34.133	—	Tr	200M	3,760	177.4	12- 9-58	—	—	8½	N	N	—
19.32.8.200	—	Tr	—	3,650	365.3	12- 9-58	—	—	7½	Lw	S	Chemical analysis in table 8.
36.100	W. M. Snyder	Tr	485	3,565	—	—	—	—	—	Li	D,S	—
19.33.5.213	—	Tr	—	3,710	>299	12- 9-58	—	—	—	Lw	S	—
26.244	Mark Smith	Qal	101	3,600	92.9	7- 1-54	—	—	—	Lw	D,S	MWP
19.34.9.114	Scharbauer Cattle Co.	Tr(?)	33	3,790	28.6	6- 3-54	—	—	6	Lw	S	Chemical analysis in table 8.
31.131	Clark Scharbauer	Qal	—	3,625	65.8	7- 1-54	—	—	6	Lw	S	MWP
19.35.5.121	Gene Dalmont	To	88	3,890	50	7-28-54	—	—	8	Ti	I	—
5.234	Jules Smith	To	90	3,860	35	—	—	—	—	Lw	D,S	—
10.113	N. T. Roberts	To	36	3,860	19.9	7-28-54	—	—	6	Lw	S	EY 5 gpm.
12.444	—	Qal	—	3,740	34.2	7-28-54	—	—	3 ft.	Lw	S	—
19.35.17.122	J. D. Roberts	Qal	50	3,835	29.9	7-28-54	—	—	3×3 ft.	Lw	D,S	Dug 0-30 feet; drilled 30-50 feet.
22.334	—	Qal	—	3,740	23.5	7-28-54	—	—	8	Lw	N	—
24.121	—	Qal	—	3,735	28.6	11-16-53	—	—	6 ft.	N	N	—
25.424	—	Qal	—	3,675	22.6	11-16-53	—	—	—	N	N	Uncased shothole.
25.434	—	Qal	—	3,660	22.8	11-16-53	—	—	6	Lw	S	—

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19.36.5.233	Tom Green	To	60	3,815	52.3	7-28-54	—	—	—	Lw	D,S	—
19.313	—	Qal	44.6M	3,685	18.6	11-16-53	—	—	—	N	N	Uncased shothole.
20.111	Tom Green	Qal	—	3,695	25.7	7-28-54	—	—	—	Lw	S	EY 10 gpm. PR
25.123	—	To	43M	3,680	16.0	3-18-54	—	—	6	N	N	Northwest well of six. Chemical analysis in table 8.
19.36.26.224	J. E. Weir	Qal	12.7M	3,650	6.7	5- 7-54	—	—	4×5 ft.	N	N	At Monument Spring.
28.422	Mrs. Abi Hall	To	52M	3,720	36.6	3-18-54	—	—	7	N	N	—
28.441	do.	To	27M	3,680	22.7	3-18-54	—	—	6	N	N	—
32.110	S. P. Jordan	Qal	32	3,645	19	11-20-29	—	—	—	—	—	Chemical analysis in table 8.
32.324	—	Qal	30	3,630	27.2	7-28-54	—	—	4×4 ft.	Lw	N	—
19.37.4.110	V. Linam	To	29	3,680	21	9-19-29	—	—	—	—	—	Chemical analysis in table 8.
18.111	Amerada Oil Co.	To	134	3,705	35	9- 47	1947	10¾	Ti	D	D	Monument District Camp. WBZ 67-108 feet, 112-125 feet. EY 385 gpm.
18.331	EPNG	To	—	3,710	51.9	3-18-54	—	—	10	N	N	—
20.242	Humble Oil Co.	—	80	3,660	Dry	—	—	—	—	N	N	Plugged and abandoned.
21.132	do.	To	67	3,635	—	—	1937	—	—	—	—	State "D" well 2. EY 30 gpm.
19.37.25.422	—	To	—	3,600	40	4- 6-54	—	—	—	Lw	S	—
29.333	—	Qal	—	3,595	13.3	7-28-54	—	—	7	Lw	D	MWP
29.344	Hobbs School district	Qal	30±	—	21.5	3-23-60	—	—	8	Te	P	—
29.344a	do.	Qal	30±	—	—	—	—	—	6	Te	P	Chemical analysis in table 8.
30.113	Continental Oil Co.	Qal	60	3,660	—	—	—	—	—	Te	D	Pumps dry in summer.
20.32.1.322	W. M. Snyder	Qal	30	3,510	21.8	7- 1-54	—	—	6	Li	S	Water not potable.
18.233	Freeport Sulfur Co.	Tr	400	3,450	89.2	3-24-54	1954	—	8	Li	In	WBZ 215-243 feet.
27.144	Joel Frey	Qal	25	3,545	12.3	6-11-54	—	—	—	Lw	N	—
30.142	—	Qal	—	3,530	9.9	6-11-54	—	—	8¾	N	N	Located in sink.
36.214	Mrs. Bingham	Qal	60	3,588	46.6	6- 6-55	1950	7¼	Lw	D	D	West well of three.
20.33.15.221	—	Tr	—	3,570	336.1	4-20-55	—	—	4	Li	N	—
24.122	D. C. Berry	Tr	700±	3,630	300±	—	—	—	10	Lw	S	—
20.34.17.334	Mark Smith	Tr	200	3,635	140	7- 1-54	1940	—	10	Lw	S	MWP
22.223	D. C. Berry	Tr	235	3,655	—	—	—	—	10	Lw	S	—
20.35.1.221	J. L. Wood	Qal	35	3,655	24.5	11-16-53	—	—	4×4 ft.	N	O	—
31.113	Leo Sims	To	85	3,740	68.4	6-25-54	—	—	6	Lw	S	PR
33.433	do.	To	135	3,700	94.1	6-25-54	—	—	7	Lw	S	MWP
35.333	do.	To	105	3,690	88.9	4-15-54	—	—	—	Lw	D,S	MWP Southeast well of two.
20.36.1.412	Amerada Oil Co.	Qal	72M	3,565	33.1	3-30-54	—	—	7	N	N	—

GROUND WATER

LEA COUNTY

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APPENDIX B

**New Mexico Oil Conservation Division
Form C-141**

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company DUKE ENERGY FIELD SERVICES, LP	Contact RONNIE GILCHREST/LYNN WARD
Address 11525 W. Carlsbad Hwy., Hobbs, NM 88240	Telephone No. 505/391-5705 or 432/620-4207
Facility Name J-4-2-9 Gathering Line	Facility Type Low Pressure Gathering Line

Surface Owner DUKE ENERGY FIELD SERVICES	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter SW/4	Section 30	Township 19S	Range 35E	Feet from the	North/South Line	Feet from the	East/West Line	County LEA COUNTY
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Latitude 32.62589 Longitude -103.50182

NATURE OF RELEASE

Type of Release PIPELINE LIQUIDS	Volume of Release 10 BBLS	Volume Recovered 5 BBLS
Source of Release Low pressure gathering pipeline	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 1/20/06 @ 7:15 am MST
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? NA - written notification within 15 days	
By Whom? LYNN WARD	Date and Hour 1/23/06 @ 3:45 pm MST to Larry Johnson, Hobbs, OCD	
Was a Watercourse Reached? ☐ Yes ☐ No	If YES, Volume Impacting the Watercourse. NOT APPLICABLE	

If a Watercourse was Impacted, Describe Fully.*
NOT APPLICABLE

Describe Cause of Problem and Remedial Action Taken.*

The low pressure gathering line (J-4-2-9) separated at a dresser sleeve. The average daily line volume is 0.5 Mmscf. The average H2S concentration is 0 ppm H2S. The normal operating pressure of the line is 15 psia.

When the release was discovered, operators immediately depressurized the line and clamped the release point in order to terminate the release. A new section of pipe will be installed at the release location. Impacted soils will be investigated by Highlander Environmental who will submit a proposed closure plan.

Describe Area Affected and Cleanup Action Taken.*

A third party contractor will investigate and delineate the release location. Depth to water according to the Office of the State Engineers database is 50' to 100' bgs thus the RRLs for the location are as follows: TPH < 1,000 ppm, BENZENE < 10 ppm, AND TOTAL BTEX < 50 ppm. DELINEATION WILL DETERMINE IF ACTION LEVELS MORE STRINGENT ARE RECOMMENDED.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Lynn Ward</i>		OIL CONSERVATION DIVISION	
Printed Name: LYNN WARD			
Title: SR. ENVIRONMENTAL SPECIALIST	Approval Date:	Expiration Date:	
E-mail Address: loward@duke-energy.com	Conditions of Approval:	Attached ☐	
Date: 1/31/06	Phone: 432/620-4207		

* Attach Additional Sheets If Necessary