

Anderson County, KS  
Well:Zastrow 34-HP  
Lease Owner:Haas

Town Oilfield Service, Inc.  
(913) 837-8400

Commenced Spudding:  
7-24-2013

WELL LOG

Thickness of Strata	Formation	Total Depth
15	soil/clay	15
52	shale	67
27	lime	94
16	shale	110
3	lime	113
3	shale & lime	116
48	shale	164
11	lime	175
7	shale	182
39	lime	221
4	shale	225
21	lime	246
3	shale	249
22	lime	271
4	shale	275
3	lime	278
6	sandy shale	284
19	shale	303
4	sand	307
12	shale	319
7	sand	326
19	sandy shale	345
55	shale	400
6	sand	406
6	sandy shale	412
26	shale	438
2	lime	440
6	shale	446
2	lime	448
5	shale	453
10	lime	463
8	shale	471
7	sand	478
13	sandy shale	491
8	sand	499
9	sandy shale	508
5	shale	513
2	coal	515
8	lime	523
4	shale	527

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1	lime	528
7	shale	535
6	lime	541
21	shale	562
11	lime	573
19	shale	592
2	lime	594
7	shale	611
1	lime	612
6	shale	617
5	sand	622
4	sandy shale	626
37	shale	663
10	sandy shale	673
2	lime	675
7	sand	682
5	sandy shale	687
20	shale	707
2	lime	709
7	shale	716
3	sandy shale	719
9	sand	728
6	sandy shale	734
2	sandy shale	736
3	shale	739
3	sand	742
18	shale	760-TD