



CLIENT: EXTRACTION OIL & GAS
 WELL: UNITED B S16-20-14N (014-20814)
 COUNTY: BROOMFIELD
 RIG: ENSIGN 147

M.W.D. OPERATORS: J.FROST / T.BACA
 EXTRACTION (JASON)
 DIRECTIONAL DRILLER:
 8.24
 TOOL AZM TO TRUE NORTH:
 JOB #: RM-200337

VERTICAL SECTION : 183.97

Survey #	Survey Depth (FT.)	Inclination (Deg)	Azimuth (Deg)	T.V.D. (FT.)	Vertical Section (FT.)	N/-S (FT.)	E / -W (FT.)	Dog Leg (Deg.)
Tie In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
# 1	135	0.57	253.27	135.00	0.24	-0.19	-0.64	0.42
# 2	227	0.57	226.61	226.99	0.74	-0.64	-1.41	0.29
# 3	318	0.83	261.98	317.99	1.21	-1.04	-2.40	0.54
# 4	407	1.23	246.33	406.97	1.78	-1.52	-3.91	0.55
# 5	496	0.30	328.86	495.97	2.04	-1.70	-4.90	1.38
# 6	586	0.35	62.82	585.96	1.70	-1.37	-4.78	0.53
# 7	675	0.79	38.38	674.96	1.05	-0.77	-4.16	0.55
# 8	764	1.01	354.52	763.95	-0.23	0.49	-3.85	0.79
# 9	854	3.25	316.91	853.88	-2.75	3.15	-5.67	2.81
# 10	943	4.04	312.78	942.70	-6.43	7.12	-9.70	0.93
# 11	1,033	5.49	314.89	1,032.39	-11.24	12.31	-15.07	1.62
# 12	1,121	7.16	307.50	1,119.85	-17.03	18.62	-22.41	2.11
# 13	1,211	7.69	303.90	1,209.10	-23.13	25.39	-31.86	0.78
# 14	1,300	7.86	298.71	1,297.28	-28.65	31.64	-42.14	0.81
# 15	1,390	8.26	298.54	1,386.39	-33.91	37.68	-53.21	0.45
# 16	1,480	8.43	301.17	1,475.44	-39.61	44.19	-64.54	0.46
# 17	1,569	9.09	300.30	1,563.40	-45.71	51.11	-76.19	0.76
PTB	1,635	9.09	300.30	1,628.57	-50.34	56.37	-85.19	0.00



CLIENT: EXTRACTION OIL & GAS
 WELL: UNITED B S16-20-14N
 COUNTY: BROOMFIELD
 RIG: ENSIGN 147
 M.W.D. OPERATORS: J.FROST / T.BACA
 DIRECTIONAL DRILLER: EXTRACTION (JASON)
 TOOL AZM TO TRUE NORTH: 8.24
 JOB #: RM-200337
 VERTICAL SECTION : 183.97

Survey #	Survey Depth (FT.)	Inclination (Deg)	Azimuth (Deg)	T.V.D. (FT.)	Vertical Section (FT.)	N/-S (FT.)	E / -W (FT.)	Dog Leg (Deg.)
-------------	-----------------------	----------------------	------------------	-----------------	---------------------------	---------------	-----------------	-------------------



CLIENT: EXTRACTION OIL & GAS
 WELL: UNITED B S16-20-14N
 COUNTY: BROOMFIELD
 RIG: ENSIGN 147
 M.W.D. OPERATORS: J.FROST / T.BACA
 DIRECTIONAL DRILLER: EXTRACTION (JASON)
 TOOL AZM TO TRUE NORTH: 8.24
 JOB #: RM-200337
 VERTICAL SECTION : 183.97

Survey #	Survey Depth (FT.)	Inclination (Deg)	Azimuth (Deg)	T.V.D. (FT.)	Vertical Section (FT.)	N/-S (FT.)	E / -W (FT.)	Dog Leg (Deg.)
-------------	-----------------------	----------------------	------------------	-----------------	---------------------------	---------------	-----------------	-------------------



CLIENT: EXTRACTION OIL & GAS
 WELL: UNITED B S16-20-14N
 COUNTY: BROOMFIELD
 RIG: ENSIGN 147
 M.W.D. OPERATORS: J.FROST / T.BACA
 DIRECTIONAL DRILLER: EXTRACTION (JASON)
 TOOL AZM TO TRUE NORTH: 8.24
 JOB #: RM-200337
 VERTICAL SECTION : 183.97

Survey #	Survey Depth (FT.)	Inclination (Deg)	Azimuth (Deg)	T.V.D. (FT.)	Vertical Section (FT.)	N/-S (FT.)	E / -W (FT.)	Dog Leg (Deg.)
-------------	-----------------------	----------------------	------------------	-----------------	---------------------------	---------------	-----------------	-------------------



CLIENT: EXTRACTION OIL & GAS
 WELL: UNITED B S16-20-14N
 COUNTY: BROOMFIELD
 RIG: ENSIGN 147
 M.W.D. OPERATORS: J.FROST / T.BACA
 DIRECTIONAL DRILLER: EXTRACTION (JASON)
 TOOL AZM TO TRUE NORTH: 8.24
 JOB #: RM-200337
 VERTICAL SECTION : 183.97

Survey #	Survey Depth (FT.)	Inclination (Deg)	Azimuth (Deg)	T.V.D. (FT.)	Vertical Section (FT.)	N/-S (FT.)	E / -W (FT.)	Dog Leg (Deg.)
-------------	-----------------------	----------------------	------------------	-----------------	---------------------------	---------------	-----------------	-------------------



CLIENT: EXTRACTION OIL & GAS
 WELL: UNITED B S16-20-14N
 COUNTY: BROOMFIELD
 RIG: ENSIGN 147
 M.W.D. OPERATORS: J.FROST / T.BACA
 DIRECTIONAL DRILLER: EXTRACTION (JASON)
 TOOL AZM TO TRUE NORTH: 8.24
 JOB #: RM-200337
 VERTICAL SECTION : 183.97

Survey #	Survey Depth (FT.)	Inclination (Deg)	Azimuth (Deg)	T.V.D. (FT.)	Vertical Section (FT.)	N/-S (FT.)	E / -W (FT.)	Dog Leg (Deg.)
-------------	-----------------------	----------------------	------------------	-----------------	---------------------------	---------------	-----------------	-------------------



CLIENT: EXTRACTION OIL & GAS
 WELL: UNITED B S16-20-14N
 COUNTY: BROOMFIELD
 RIG: ENSIGN 147
 M.W.D. OPERATORS: J.FROST / T.BACA
 DIRECTIONAL DRILLER: EXTRACTION (JASON)
 TOOL AZM TO TRUE NORTH: 8.24
 JOB #: RM-200337
 VERTICAL SECTION : 183.97

Survey #	Survey Depth (FT.)	Inclination (Deg)	Azimuth (Deg)	T.V.D. (FT.)	Vertical Section (FT.)	N/-S (FT.)	E / -W (FT.)	Dog Leg (Deg.)
-------------	-----------------------	----------------------	------------------	-----------------	---------------------------	---------------	-----------------	-------------------



CLIENT: EXTRACTION OIL & GAS
 WELL: UNITED B S16-20-14N
 COUNTY: BROOMFIELD
 RIG: ENSIGN 147
 M.W.D. OPERATORS: J.FROST / T.BACA
 DIRECTIONAL DRILLER: EXTRACTION (JASON)
 TOOL AZM TO TRUE NORTH: 8.24
 JOB #: RM-200337
 VERTICAL SECTION : 183.97

Survey #	Survey Depth (FT.)	Inclination (Deg)	Azimuth (Deg)	T.V.D. (FT.)	Vertical Section (FT.)	N/-S (FT.)	E / -W (FT.)	Dog Leg (Deg.)
-------------	-----------------------	----------------------	------------------	-----------------	---------------------------	---------------	-----------------	-------------------



CLIENT: EXTRACTION OIL & GAS
 WELL: UNITED B S16-20-14N
 COUNTY: BROOMFIELD
 RIG: ENSIGN 147
 M.W.D. OPERATORS: J.FROST / T.BACA
 DIRECTIONAL DRILLER: EXTRACTION (JASON)
 TOOL AZM TO TRUE NORTH: 8.24
 JOB #: RM-200337
 VERTICAL SECTION : 183.97

Survey #	Survey Depth (FT.)	Inclination (Deg)	Azimuth (Deg)	T.V.D. (FT.)	Vertical Section (FT.)	N/-S (FT.)	E / -W (FT.)	Dog Leg (Deg.)
-------------	-----------------------	----------------------	------------------	-----------------	---------------------------	---------------	-----------------	-------------------