IGLOO 19 State #3H
Caza Operating, LLC
Lea County, New Mexico

LONG's METHOD OF SURVEY COMPUTATION

OBLIQUE CIRCULAR ARC INTERPOLATION

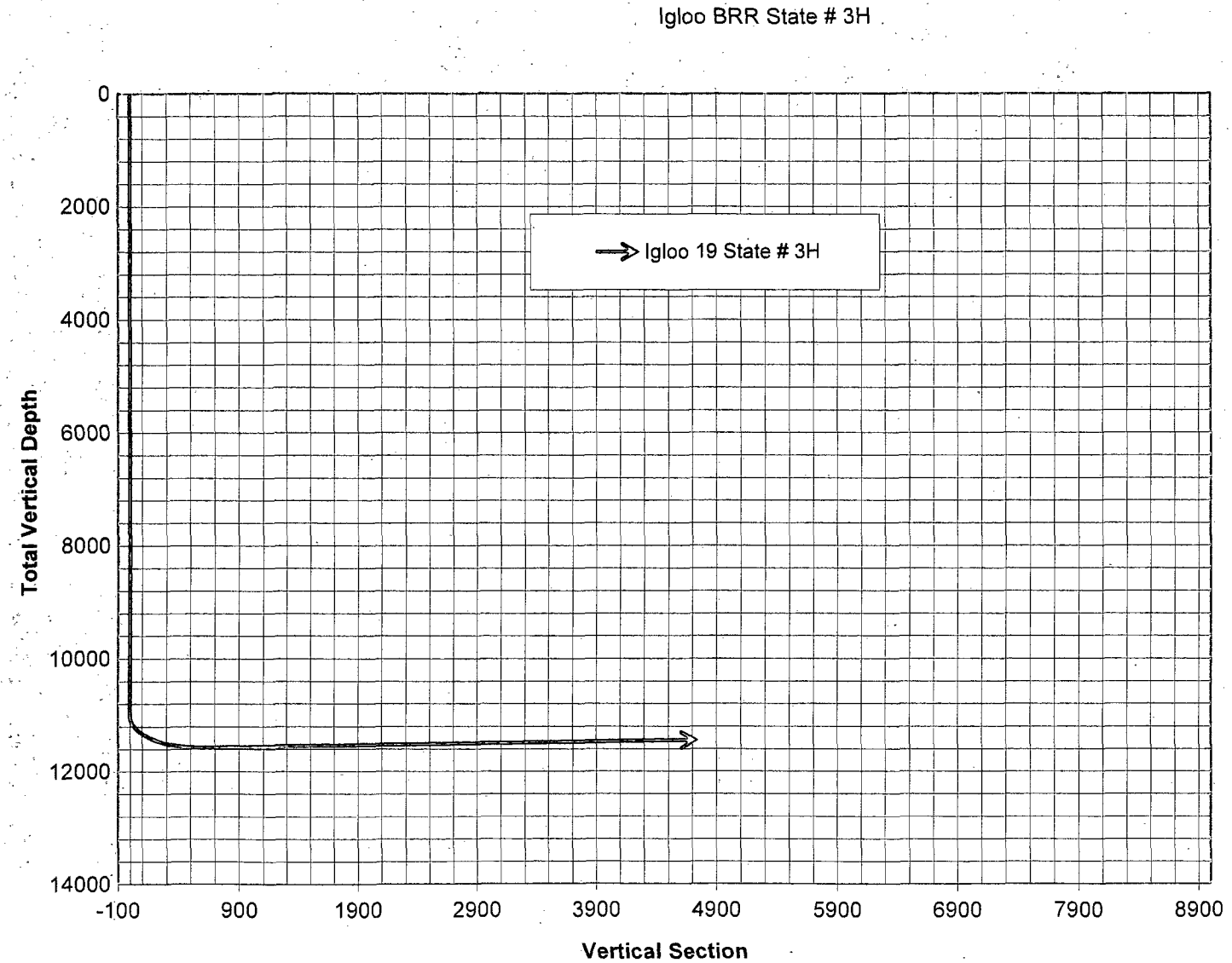
6000	MD OF INTERPOLATION DEPTH,(feet)
#N/A	TVD COORDINATE OF THE DEPTH (feet)
#N/A	N/S COORDINATE OF DEPTH (feet)
#N/A	E/W COORDINATE OF DEPTH (feet)

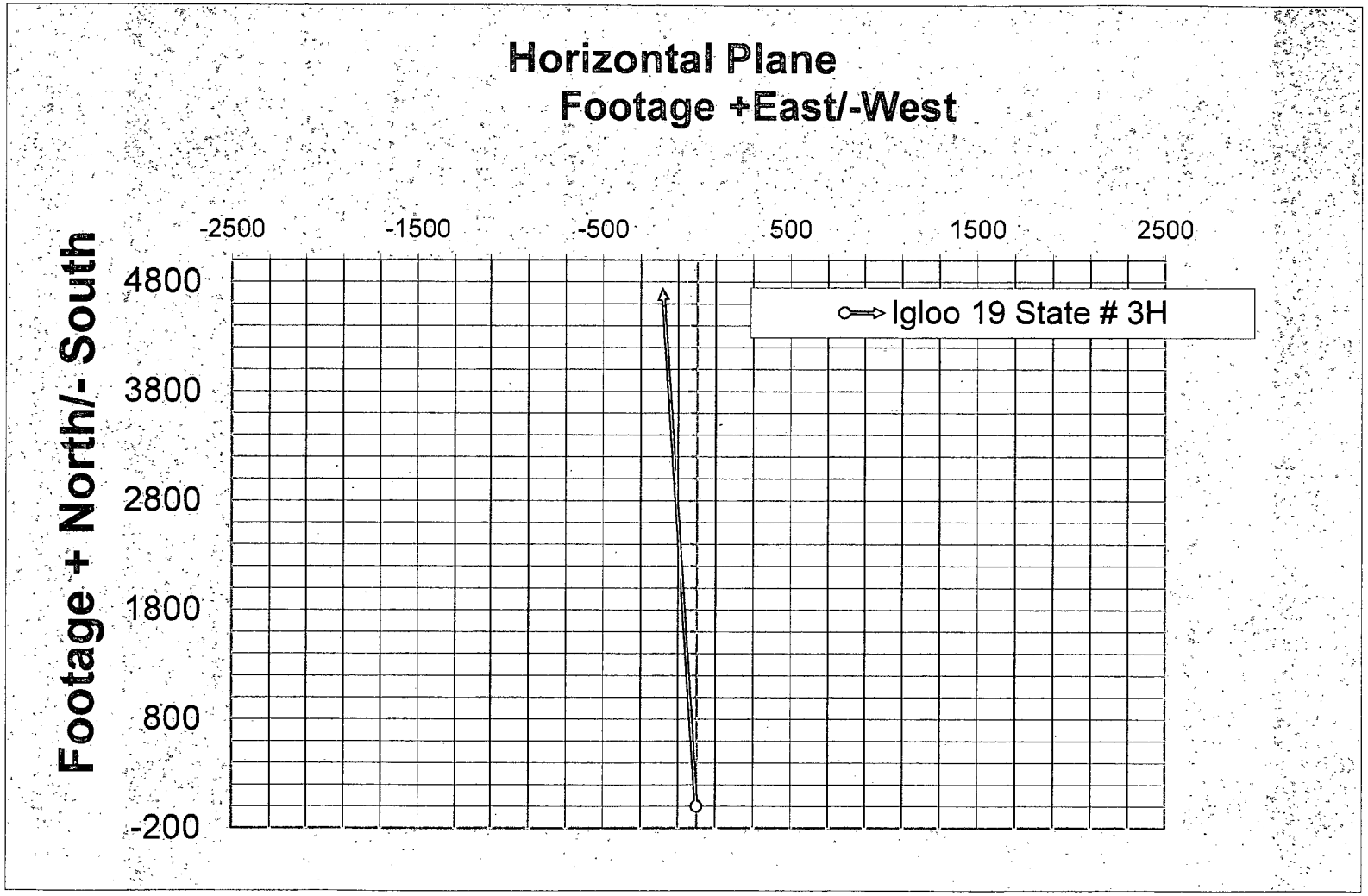
DISTANCE TABLE

STATION A	STATION B	
400.00	600.00	
300.00	400.00	
100.00	300.00	
3 D DISTANCE BETWEEN STATION A AND STATION B	300.00	ft
Calculator =		

TABLE OF SURVEY STATIONS

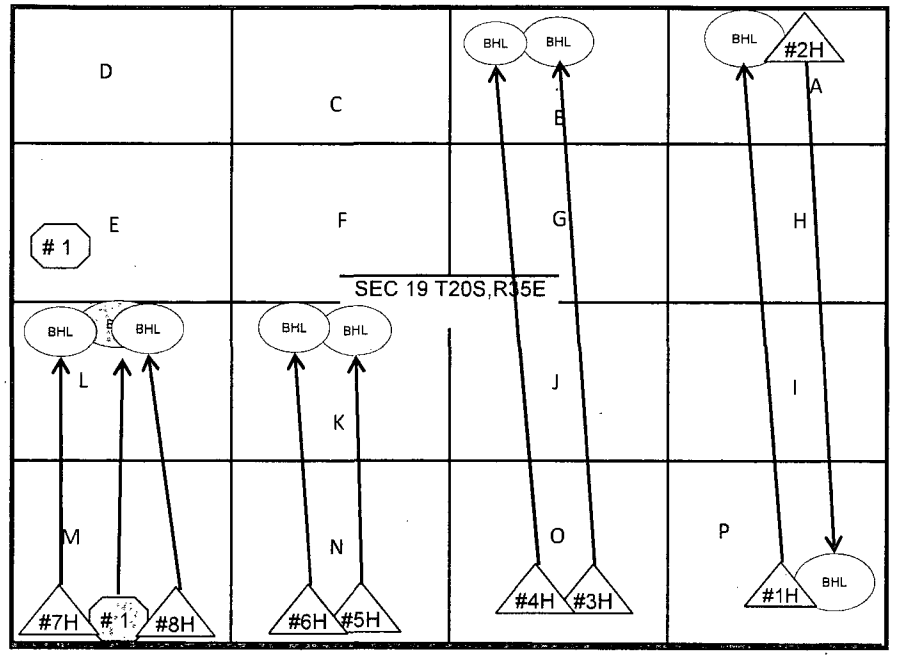
STA #	ΔMD ft	INCL deg	AZIM deg	MD ft	TVD ft	N+/S- ft	E+/W- ft	DLS deg/100FT
1	TIE POINT =>	0	0	11000.00	11000.00	0.00	0.00	-
2	100	10	357.8	11100.00	11099.49	8.70	-0.33	10.00
3	100	20	357.8	11200.00	11195.96	34.53	-1.33	10.00
4	100	30	357.8	11300.00	11286.48	76.71	-2.95	10.00
5	100	40	357.8	11400.00	11368.29	133.95	-5.15	10.00
6	100	50	357.8	11500.00	11438.91	204.52	-7.86	10.00
7	100	60	357.8	11600.00	11496.20	286.27	-11.00	10.00
8	100	70	357.8	11700.00	11538.40	376.72	-14.47	10.00
9	100	80	357.8	11800.00	11564.25	473.12	-18.18	10.00
10	100	90	357.8	11900.00	11572.96	572.54	-21.99	10.00
11	18	91.77	357.8	11918.00	11572.68	590.52	-22.69	9.83
12	100	91.77	357.8	12018.00	11569.59	690.40	-26.52	0.00
13	100	91.77	357.8	12118.00	11566.50	790.28	-30.36	0.00
14	100	91.77	357.8	12218.00	11563.41	890.16	-34.20	0.00
15	100	91.77	357.8	12318.00	11560.32	990.03	-38.03	0.00
16	100	91.77	357.8	12418.00	11557.24	1089.91	-41.87	0.00
17	100	91.77	357.8	12518.00	11554.15	1189.79	-45.71	0.00
18	100	91.77	357.8	12618.00	11551.06	1289.67	-49.54	0.00
19	100	91.77	357.8	12718.00	11547.97	1389.55	-53.38	0.00
20	100	91.77	357.8	12818.00	11544.88	1489.43	-57.22	0.00
21	100	91.77	357.8	12918.00	11541.79	1589.31	-61.05	0.00
22	100	91.77	357.8	13018.00	11538.70	1689.18	-64.89	0.00
23	100	91.77	357.8	13118.00	11535.61	1789.06	-68.73	0.00
24	100	91.77	357.8	13218.00	11532.53	1888.94	-72.57	0.00
25	100	91.77	357.8	13318.00	11529.44	1988.82	-76.40	0.00
26	100	91.77	357.8	13418.00	11526.35	2088.70	-80.24	0.00
27	100	91.77	357.8	13518.00	11523.26	2188.58	-84.08	0.00
28	100	91.77	357.8	13618.00	11520.17	2288.46	-87.91	0.00
29	100	91.77	357.8	13718.00	11517.08	2388.33	-91.75	0.00
30	100	91.77	357.8	13818.00	11513.99	2488.21	-95.59	0.00
31	100	91.77	357.8	13918.00	11510.90	2588.09	-99.42	0.00
32	100	91.77	357.8	14018.00	11507.82	2687.97	-103.26	0.00
33	100	91.77	357.8	14118.00	11504.73	2787.85	-107.10	0.00
34	100	91.77	357.8	14218.00	11501.64	2887.73	-110.94	0.00
35	100	91.77	357.8	14318.00	11498.55	2987.61	-114.77	0.00
36	100	91.77	357.8	14418.00	11495.46	3087.48	-118.61	0.00
37	100	91.77	357.8	14518.00	11492.37	3187.36	-122.45	0.00
38	100	91.77	357.8	14618.00	11489.28	3287.24	-126.28	0.00
39	100	91.77	357.8	14718.00	11486.20	3387.12	-130.12	0.00
40	100	91.77	357.8	14818.00	11483.11	3487.00	-133.96	0.00
41	100	91.77	357.8	14918.00	11480.02	3586.88	-137.79	0.00
42	100	91.77	357.8	15018.00	11476.93	3686.76	-141.63	0.00
43	100	91.77	357.8	15118.00	11473.84	3786.63	-145.47	0.00
44	100	91.77	357.8	15218.00	11470.75	3886.51	-149.30	0.00
45	100	91.77	357.8	15318.00	11467.66	3986.39	-153.14	0.00
46	100	91.77	357.8	15418.00	11464.57	4086.27	-156.98	0.00
47	100	91.77	357.8	15518.00	11461.49	4186.15	-160.82	0.00
48	100	91.77	357.8	15618.00	11458.40	4286.03	-164.65	0.00
49	100	91.77	357.8	15718.00	11455.31	4385.91	-168.49	0.00
50	100	91.77	357.8	15818.00	11452.22	4485.79	-172.33	0.00
51	100	91.77	357.8	15918.00	11449.13	4585.66	-176.16	0.00
52	100	91.77	357.8	16018.00	11446.04	4685.54	-180.00	0.00
53	64	91.77	357.8	16082.00	11444.06	4749.46	-182.46	0.00


Igloo BRR State # 3H
Igloo 19 State # 3H
Total Vertical Depth
0
2000
4000
6000
8000
10000
12000
14000
-100
900
1900
2900
3900
4900
5900
6900
7900
8900
Vertical Section


Horizontal Plane
Footage +East/-West
Footage + North/- South
-2500
-1500
-500
500
1500
2500
4800
3800
2800
1800
800
-200
Igloo 19 State # 3H

IGLOO 19 STATE 3H _ 3rd Bone Springs Horizontal

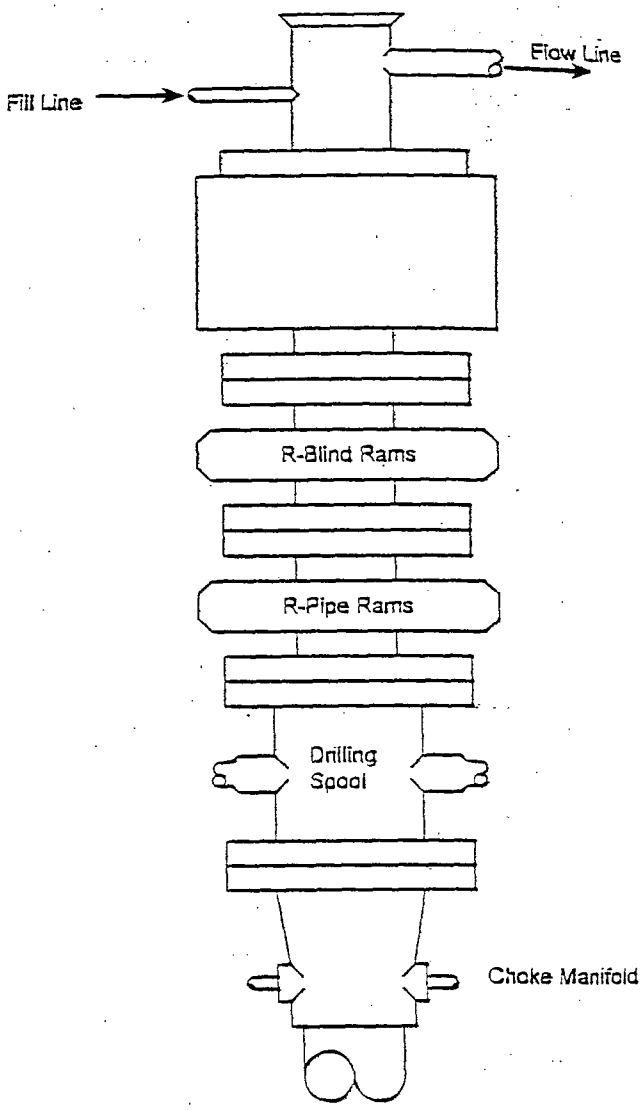
SW/SE Sec 19, T-20-S, R-35-E, Lea County, New Mexico



Well Name	Surface Location	Depth and Strata	Current Prod Zone	Plan Bottom Hole Location	
IGLOO 19 STATE #3H	200 FSL & 1800 FEL	TD = 16,000 3rd Bone Sprgs	Not Drilled	330 FNL & 1980 FEL	Caza Operating,LLC
IGLOO 19 STATE #1H	200 FSL & 660 FEL	TD = 14,900 2nd Bone Sprgs	Not Drilled	330 FNL & 950 FEL	Caza Operating,LLC
IGLOO 19 STATE #2H	200 FNL & 660 FEL	TD = 16,000 ft 3rd Bone Sprgs	Drilled	330 FSL & 350 FEL	Caza Operating,LLC
IGLOO 19 STATE #4H	200 FSL & 2000 FEL	TD = 14,900 2nd Bone Sprgs	Not Drilled	330 FNL & 2200 FEL	Caza Operating,LLC
IGLOO 19 STATE #5H	200 FSL & 2000 FWL	TD = 16,000 3rd Bone Sprgs	Not Drilled	2310 FSL & 1980 FWL	Caza Operating,LLC
IGLOO 19 STATE #6H	200 FSL & 1800 FWL	TD = 14,900 2nd Bone Sprgs	Not Drilled	2310 FSL & 1660 FWL	Caza Operating,LLC
IGLOO 19 STATE #7H	200 FSL & 600 FWL	TD = 14,900 2nd Bone Sprgs	Not Drilled	2310 FSL & 350 FWL	Caza Operating,LLC
IGLOO 19 STATE #8H	200 FSL & 800 FWL	TD = 16,000 3rd Bone Sprgs	Not Drilled	2310 FSL & 660 FWL	Caza Operating,LLC
ICE CHEST BVC STATE COM #1H	100 FSL & 660 FWL	TD = 12,685 3rd Bone Sprgs	Not Drilled	2310 FSL & 660 FWL	Yates.expired Permit

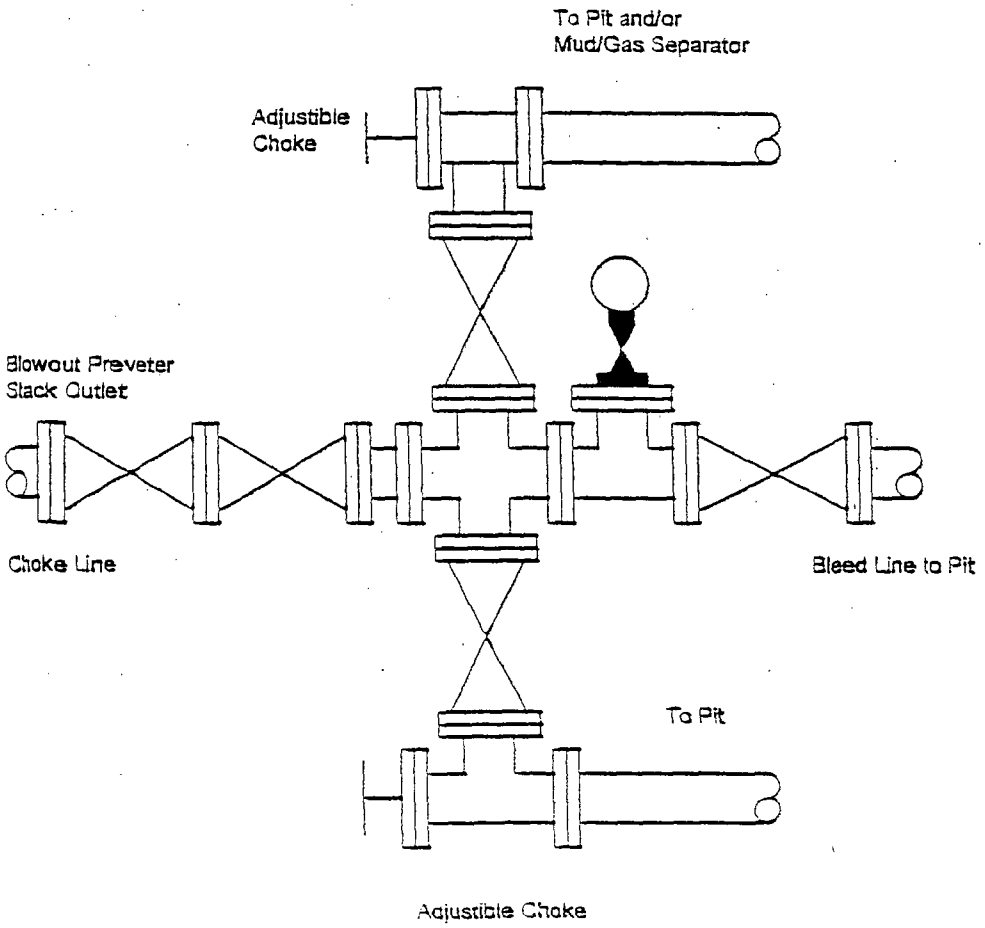
BLOWOUT PREVENTER SYSTEM

5000 PSI

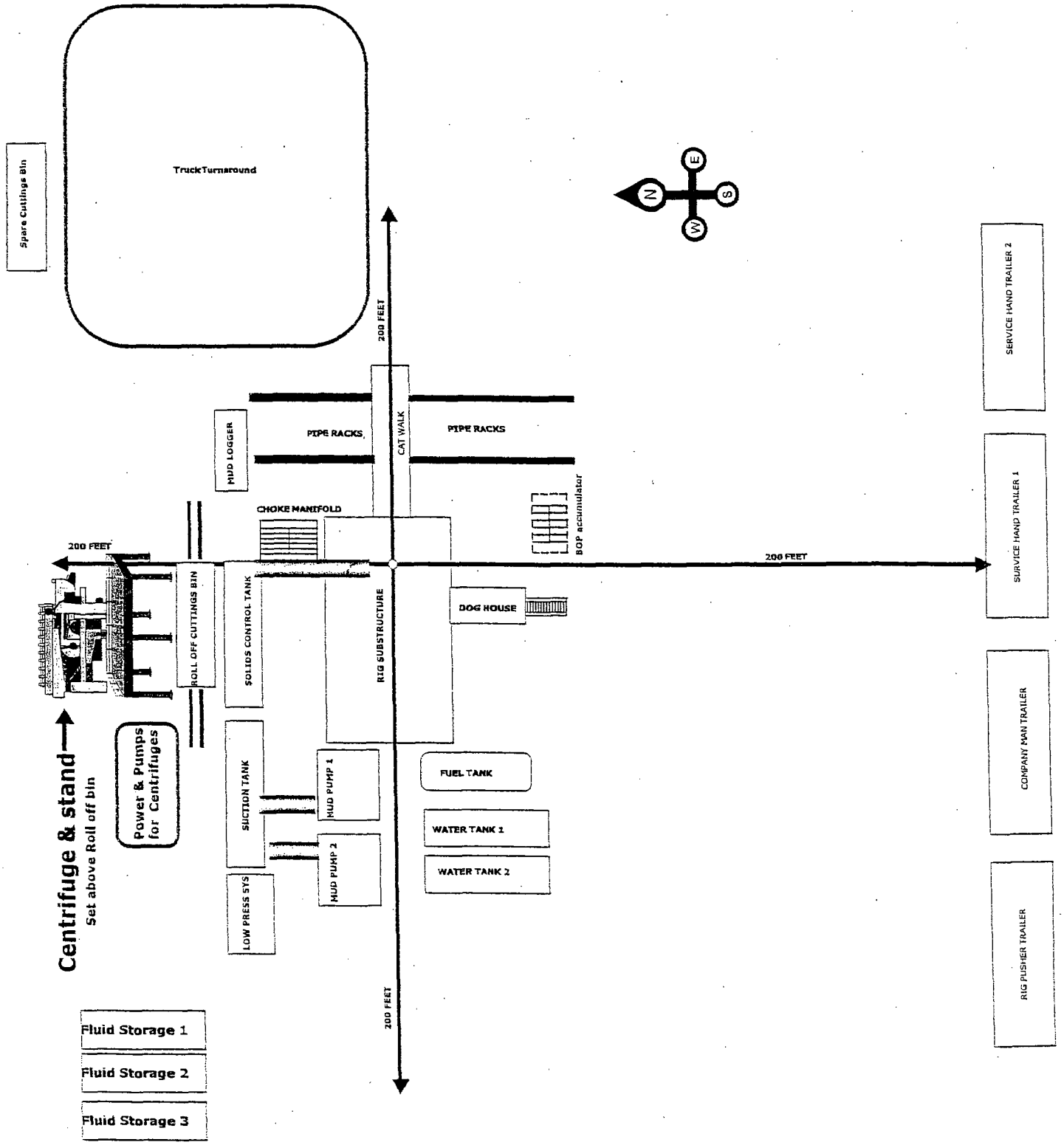


Type 1500 SERIES
5000 psi WP

Choke Manifold Assembly for 5M WP System



Closed Loop Oil Well



Note: The Rig and Closed System Company for this well have not been selected thus the set up shown is simply generic.

Caza Petroleum

Closed Loop Drilling System

Operations and Maintenance Plan

Closed Loop equipment will be inspected and monitored closely on a daily basis by each drilling rig Tour and by those hired specifically to operate the equipment. Any leak or release detected will be repaired immediately and the proper NMOCD official will be notified within the 48 hr requirement. A large release will require Caza Operating, LLC representatives to contact BLM immediately at the Carlsbad office "575 234 5972" Hobbs "575 393 3612" as well as the NMOCD @ 575 393 6161 as stated by NMOCD rule 116.

Closure Plan

During and after drilling operations, liquids (which apply), all drill cuttings and drilling fluids will be hauled and disposed of at the R-360 disposal (permit number NM 01-0006) located about 30 miles East of Carlsbad, New Mexico. An alternate approved disposal site has been selected Parabo disposal "Sundance " which is 4 miles East of Eunice (permit number NM 01-0003). The Second site would be used in the event of economics or physical problems with R-360 disposal.