

Results of Directional Survey

API number:	30-025-41544		
OGRID:		Operator:	COG OPERATING LLC
		Property:	ALBATROSS STATE COM # 2H

surface	ULSTR:	B	30	T 18S	R 35E
				190 FNL	1980 FEL

BH Loc	ULSTR:	O	30	T 18S	R 35E
14962	MD	10465.7	TVD	342 FSL	1850 FEL
				4938 FNL	

Top Perf/OH	ULSTR:	B	30	T 18S	R 35E
10479	MD	10280.6	TVD	466 FNL	1981 FEL

Bot Perf/OH	ULSTR:	O	30	T 18S	R 35E
14865	MD	10463.9	TVD	438 FSL	1860 FEL
				4842 FNL	

	MD	N/S	E/W	VD
	10447	-245.46	-0.87	10271.55
TOP PERFS/OH	10479	-276.14	-0.90	10280.64
	10479	-276.14	-0.90	10280.64
	14819	-4605.76	116.15	10463.73
BOT PERFS/OH	14865	-4651.57	120.20	10463.89
	14914	-4700.37	124.51	10464.07

NEXT TO LAST	14914	-4700.37	124.51	10464.07
LAST READING	14962	-4748.08	129.53	10465.74
TD	14962	-4748.08	129.53	10465.74

Surface Location	190	FN	1980	FE
Projected BHL	4938	FN	1850	FE
Location of				
Top Perfs/OH	466	FN	1981	FE
Bottom Perfs/OH	4842	FN	1860	FE

SUMMARY of Subsurface Locations

Surface Location	B-30-18S-35E	190	FN	1980	FE	Vert. Depth
Top Perfs/OH	B-30-18S-35E	466	FN	1981	FE	10280.64
Bottom Perfs/OH	O-30-18S-35E	4842	FN	1860	FE	10463.89
Projected TD	O-30-18S-35E	4938	FN	1850	FE	10465.74

JUL 08 2014



A GYRO TECHNOLOGIES INC. COMPANY

P.O. Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

HOBBS OCD

JUL 01 2014

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May 1, 2014

COG Operating LLC (Concho)
One Concho Center
600 W. Illinois Avenue
Midland, TX 79701

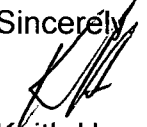
Attn: Kanicia Castillo

Re: **Albatross State Com No 002H**

Please find enclosed a copy of the survey from 0' to 9,667' ran on the above referenced well.

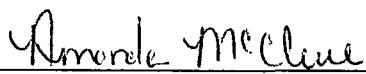
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

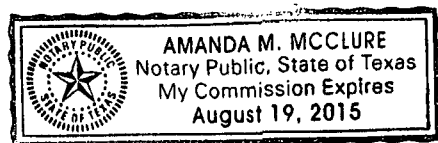
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 1 day of May,
A.D., 2014, by Keith Havelka.


Amanda McClure
Notary Public, State of Texas





Company: COG Operating-Concho
Lease/Well: Albatross State Com/No 002H
Location: Sec30 T18S R35E
Rig Name: Pioneer 20
State/County: New Mexico/Lea
Latitude: 32.73, Longitude: -103.49
GRID North is 0.45 Degrees East of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB = 17 Feet

HOBBS OCD

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ... com #2h gyro survey-de_01.ut

Minimum Curvature Method

Report Date/Time: 5/1/2014 / 14:04

VES Survey International

West Texas

Surveyor: Chris Bankson

432-563-5444

Albatross State Com No 002H / API 30-025-41544

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Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.40	3.60	100.00	0.34	0.02	0.34	0.34	3.60	0.40
200.00	0.54	349.28	200.00	1.15	-0.04	1.15	1.15	357.79	0.19
300.00	0.59	342.85	299.99	2.11	-0.28	2.11	2.13	352.33	0.08
400.00	0.69	338.06	399.98	3.16	-0.66	3.16	3.23	348.17	0.12
500.00	0.70	339.60	499.98	4.29	-1.10	4.29	4.43	345.62	0.02
600.00	0.59	6.68	599.97	5.38	-1.25	5.38	5.52	346.87	0.32
700.00	0.56	11.33	699.97	6.36	-1.10	6.36	6.46	350.20	0.06
800.00	0.27	9.81	799.96	7.07	-0.97	7.07	7.14	352.23	0.29
900.00	0.38	13.27	899.96	7.62	-0.85	7.62	7.67	353.64	0.11
1000.00	0.41	17.52	999.96	8.28	-0.67	8.28	8.31	355.40	0.04
1100.00	0.32	17.71	1099.96	8.89	-0.48	8.89	8.90	356.94	0.09
1200.00	0.48	24.27	1199.96	9.53	-0.22	9.53	9.54	358.69	0.17
1300.00	0.46	35.37	1299.95	10.24	0.19	10.24	10.25	1.05	0.09
1400.00	0.49	44.17	1399.95	10.88	0.72	10.88	10.91	3.79	0.08
1500.00	0.45	55.77	1499.94	11.41	1.35	11.41	11.49	6.73	0.10
1600.00	0.31	43.50	1599.94	11.83	1.86	11.83	11.97	8.93	0.16
1700.00	0.53	34.04	1699.94	12.41	2.31	12.41	12.62	10.52	0.23
1800.00	0.70	19.17	1799.93	13.37	2.77	13.37	13.65	11.69	0.23

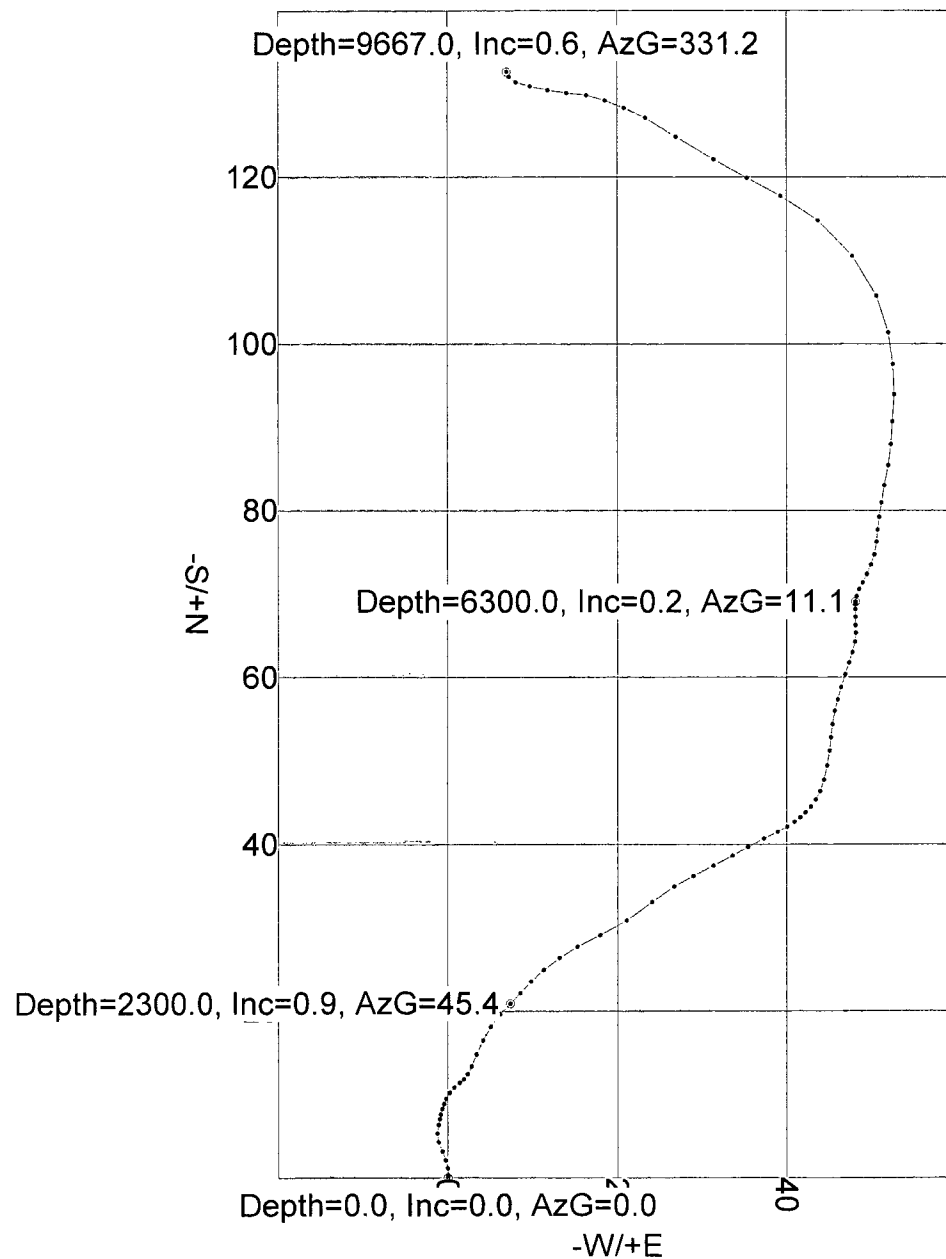
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	1.03	21.68	1899.92	14.78	3.30	14.78	15.15	12.58	0.34
2000.00	1.09	28.84	1999.91	16.46	4.09	16.46	16.96	13.96	0.15
2100.00	1.09	29.63	2099.89	18.12	5.02	18.12	18.80	15.49	0.02
2200.00	1.06	41.64	2199.87	19.64	6.11	19.64	20.57	17.27	0.23
2300.00	0.95	45.35	2299.85	20.91	7.31	20.91	22.15	19.27	0.13
2400.00	1.05	40.67	2399.84	22.19	8.50	22.19	23.76	20.95	0.13
2500.00	1.11	46.14	2499.82	23.56	9.79	23.56	25.51	22.58	0.12
2600.00	1.27	48.25	2599.80	24.97	11.32	24.97	27.41	24.39	0.16
2700.00	1.40	56.45	2699.77	26.38	13.17	26.38	29.48	26.52	0.23
2800.00	1.47	57.84	2799.74	27.74	15.27	27.74	31.66	28.83	0.08
2900.00	1.99	66.02	2899.70	29.13	17.94	29.13	34.21	31.63	0.57
3000.00	2.16	56.63	2999.63	30.87	21.10	30.87	37.39	34.35	0.38
3100.00	2.11	51.09	3099.56	33.07	24.11	33.07	40.92	36.10	0.21
3200.00	1.58	58.74	3199.51	34.94	26.73	34.94	43.99	37.41	0.58
3300.00	1.39	64.85	3299.47	36.18	29.01	36.18	46.37	38.73	0.25
3400.00	1.69	60.19	3399.44	37.42	31.39	37.42	48.84	39.99	0.32
3500.00	1.24	63.45	3499.41	38.64	33.63	38.64	51.23	41.04	0.46
3600.00	1.17	57.92	3599.38	39.67	35.47	39.67	53.21	41.80	0.14
3700.00	1.25	64.75	3699.36	40.67	37.32	40.67	55.20	42.54	0.17
3800.00	0.81	60.72	3799.35	41.48	38.92	41.48	56.88	43.17	0.45
3900.00	0.67	62.03	3899.34	42.10	40.05	42.10	58.11	43.57	0.14
4000.00	0.51	49.94	3999.33	42.66	40.90	42.66	59.10	43.80	0.20
4100.00	0.48	50.94	4099.33	43.22	41.57	43.22	59.97	43.89	0.03
4200.00	0.50	43.53	4199.32	43.80	42.20	43.80	60.82	43.94	0.06
4300.00	0.57	38.49	4299.32	44.50	42.81	44.50	61.75	43.89	0.09
4400.00	0.60	31.30	4399.31	45.34	43.39	45.34	62.76	43.74	0.08
4500.00	0.71	24.97	4499.31	46.34	43.92	46.34	63.85	43.46	0.13
4600.00	0.95	14.31	4599.30	47.71	44.39	47.71	65.17	42.94	0.29
4700.00	1.05	9.73	4699.28	49.42	44.75	49.42	66.67	42.16	0.13
4800.00	1.01	8.96	4799.27	51.19	45.04	51.19	68.18	41.35	0.05
4900.00	0.84	2.07	4899.25	52.79	45.21	52.79	69.50	40.57	0.20
5000.00	0.99	8.91	4999.24	54.38	45.37	54.38	70.81	39.84	0.18
5100.00	0.88	12.63	5099.23	55.97	45.67	55.97	72.24	39.21	0.13
5200.00	0.76	13.49	5199.22	57.36	45.99	57.36	73.52	38.72	0.12
5300.00	0.97	18.31	5299.21	58.81	46.41	58.81	74.92	38.28	0.23
5400.00	0.91	18.57	5399.19	60.36	46.93	60.36	76.46	37.86	0.06
5500.00	0.79	17.45	5499.18	61.78	47.39	61.78	77.86	37.49	0.11
5600.00	0.70	18.31	5599.17	63.01	47.79	63.01	79.08	37.17	0.10
5700.00	0.77	9.05	5699.16	64.25	48.08	64.25	80.25	36.81	0.14

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	0.48	357.54	5799.16	65.33	48.17	65.33	81.17	36.40	0.31
5900.00	0.57	358.48	5899.15	66.24	48.14	66.24	81.89	36.00	0.09
6000.00	0.57	2.20	5999.15	67.24	48.14	67.24	82.69	35.60	0.04
6100.00	0.47	355.01	6099.15	68.14	48.13	68.14	83.43	35.23	0.12
6200.00	0.20	4.42	6199.14	68.73	48.10	68.73	83.89	34.99	0.27
6300.00	0.18	11.13	6299.14	69.06	48.15	69.06	84.19	34.88	0.03
6400.00	0.56	10.98	6399.14	69.70	48.27	69.70	84.78	34.71	0.38
6500.00	0.49	27.52	6499.14	70.56	48.56	70.56	85.65	34.54	0.17
6600.00	0.55	29.50	6599.13	71.36	49.00	71.36	86.56	34.48	0.06
6700.00	0.75	21.46	6699.13	72.39	49.48	72.39	87.68	34.35	0.22
6800.00	0.65	26.38	6799.12	73.50	49.97	73.50	88.88	34.21	0.12
6900.00	0.86	12.81	6899.11	74.73	50.38	74.73	90.13	33.99	0.27
7000.00	0.89	5.71	6999.10	76.24	50.63	76.24	91.51	33.59	0.11
7100.00	0.78	2.39	7099.09	77.69	50.73	77.69	92.78	33.15	0.12
7200.00	0.98	9.99	7199.08	79.21	50.91	79.21	94.16	32.73	0.24
7300.00	1.01	7.93	7299.06	80.93	51.18	80.93	95.75	32.31	0.05
7400.00	1.41	10.87	7399.04	83.01	51.53	83.01	97.71	31.83	0.40
7500.00	1.39	11.67	7499.01	85.41	52.01	85.41	100.00	31.34	0.03
7600.00	1.58	2.13	7598.97	87.97	52.31	87.97	102.35	30.74	0.31
7700.00	1.57	6.17	7698.94	90.71	52.50	90.71	104.81	30.06	0.11
7800.00	2.14	1.56	7798.88	93.95	52.70	93.95	107.72	29.29	0.59
7900.00	2.03	353.58	7898.82	97.58	52.56	97.58	110.83	28.31	0.31
8000.00	2.36	350.04	7998.74	101.36	52.00	101.36	113.93	27.16	0.36
8100.00	2.96	336.64	8098.64	105.77	50.62	105.77	117.26	25.58	0.86
8200.00	3.42	322.89	8198.48	110.52	47.80	110.52	120.41	23.39	0.89
8300.00	3.41	308.89	8298.31	114.77	43.68	114.77	122.80	20.84	0.83
8400.00	2.67	297.78	8398.17	117.72	39.30	117.72	124.11	18.46	0.94
8500.00	2.46	299.90	8498.07	119.88	35.38	119.88	124.99	16.44	0.23
8600.00	2.73	299.43	8597.96	122.12	31.45	122.12	126.10	14.44	0.27
8700.00	3.25	302.79	8697.83	124.82	26.99	124.82	127.71	12.20	0.55
8800.00	1.71	300.48	8797.73	127.12	23.32	127.12	129.24	10.39	1.55
8900.00	1.51	289.40	8897.69	128.31	20.79	128.31	129.98	9.20	0.37
9000.00	1.27	294.04	8997.66	129.20	18.54	129.20	130.52	8.17	0.26
9100.00	1.34	278.08	9097.64	129.81	16.37	129.81	130.84	7.19	0.37
9200.00	1.38	275.97	9197.61	130.10	14.00	130.10	130.86	6.14	0.06
9300.00	1.20	281.81	9297.58	130.44	11.78	130.44	130.97	5.16	0.23
9400.00	1.23	282.42	9397.56	130.89	9.71	130.89	131.25	4.24	0.03
9500.00	0.79	291.24	9497.54	131.37	8.01	131.37	131.61	3.49	0.46
9600.00	0.53	339.37	9597.54	132.06	7.20	132.06	132.25	3.12	0.59

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
9667.00	0.61	331.18	9664.53	132.66	6.92	132.66	132.84	2.99	0.17



VES Survey International
West Texas
Surveyor: Chris Bankson
432-563-5444
Albatross State Com No 002H / API 30-025-41544



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VES Survey Date: 04/18/2014

HOBBS OCD

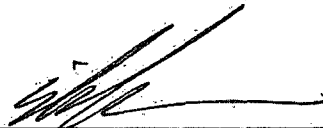
JUL 01 2014

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State of New Mexico
County of Lea

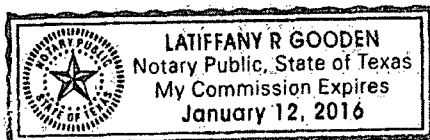
I, Michael K. Baber, certify that: I am employed by Terra Directional Services LLC; that I did on the day(s) of 4/4/14 through 4/27/14 conduct or supervise the taking of a MWD survey from a depth of 9783 feet to a depth 14962 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Terra Directional Services LLC; that I am authorized and qualified to make this report; that this survey was conducted at the request of Concho Oil & Gas for the Albatross State Com #2H Well API 30-025-41544 in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Terra Directional Services LLC.



Michael K. Baber
MWD Operations Manager

State of Texas
County of Brewer

Before me, a notary public, on this day personally appeared Michael K. Baber, known to me to be the person whose name is subscribed to the foregoing document and, being by me first duly sworn, declared that the statements therein contained are true and correct.





Notary Public's Signature



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JUL 01 2014
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Customer Name: COG Operating LLC
Well Name: Albatross State Com 2H
API/AFE Number: 30-025-41544
County / Parish: Lea County

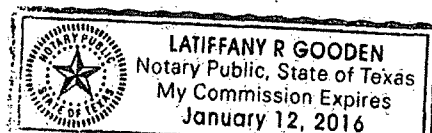
M.W.D. Operator: Rusty Whitfield
Directional Driller: Chris Thille
Total Magnetic Correction: 6.79
Job #: NM-426

Vertical Section: 179.44

Tie In Survey(s) Provided By:

VES - GYRO

	Meas. Depth	Inc.	Azm.	T.V.D.	Ver. Sect.	+N / -S	+E / -W	Dist.	Angle	DLS
Tie - In										
0	9667.00	0.61	331.18	9664.54	-132.57	132.65	6.93	0.00	0.00	0.00
1	9783.00	1.60	199.30	9780.53	-131.60	131.66	6.10	131.80	2.65	1.77
2	9815.00	4.20	199.10	9812.48	-130.07	130.13	5.57	130.25	2.45	8.13
3	9846.00	6.20	198.40	9843.35	-127.42	127.47	4.67	127.56	2.10	6.45
4	9878.00	9.10	190.50	9875.07	-123.30	123.34	3.66	123.40	1.70	9.62
5	9909.00	12.90	185.70	9905.49	-117.45	117.49	2.87	117.52	1.40	12.60
6	9943.00	17.30	184.20	9938.31	-108.64	108.66	2.12	108.69	1.12	12.99
7	9974.00	22.20	182.40	9967.48	-98.19	98.21	1.54	98.22	0.90	15.93
8	10005.00	27.30	181.70	9995.62	-85.23	85.24	1.08	85.25	0.73	16.48
9	10037.00	31.40	180.80	10023.51	-69.56	69.57	0.75	69.57	0.62	12.89
10	10068.00	34.50	179.40	10049.52	-52.70	52.71	0.73	52.71	0.79	10.30
11	10100.00	37.50	179.10	10075.40	-33.89	33.90	0.97	33.92	1.65	9.39
12	10132.00	41.10	179.10	10100.16	-13.63	13.64	1.29	13.70	5.41	11.25
13	10164.00	44.40	179.40	10123.66	8.09	-8.08	1.57	8.23	168.97	10.33
14	10195.00	46.30	180.10	10145.44	30.14	-30.13	1.67	30.17	176.83	6.34
15	10227.00	48.80	180.60	10167.04	53.75	-53.74	1.52	53.76	178.38	7.90
16	10259.00	52.10	180.60	10187.41	78.42	-78.41	1.26	78.42	179.08	10.31
17	10291.00	56.30	180.50	10206.13	104.36	-104.35	1.02	104.36	179.44	13.13
18	10323.00	60.90	180.60	10222.80	131.66	-131.66	0.75	131.66	179.67	14.38
19	10355.00	64.20	181.00	10237.54	160.05	-160.05	0.36	160.05	179.87	10.37
20	10383.00	67.20	181.00	10249.07	185.55	-185.56	-0.09	185.56	180.03	10.71
21	10415.00	69.30	180.90	10260.92	215.26	-215.28	-0.58	215.28	180.16	6.57
22	10447.00	71.90	180.20	10271.55	245.44	-245.46	-0.87	245.46	180.20	8.38
23	10479.00	75.10	179.90	10280.64	276.11	-276.14	-0.90	276.14	180.19	10.04
24	10511.00	78.50	179.70	10287.94	307.26	-307.28	-0.79	307.29	180.15	10.64
25	10543.00	82.30	180.00	10293.28	338.81	-338.83	-0.71	338.83	180.12	11.91
26	10575.00	86.00	179.30	10296.54	370.64	-370.66	-0.51	370.66	180.08	11.77
27	10638.00	87.80	178.70	10299.95	433.54	-433.55	0.59	433.55	179.92	3.01
28	10734.00	87.20	178.50	10304.14	529.44	-529.43	2.93	529.44	179.68	0.66
29	10829.00	88.10	178.20	10308.03	624.34	-624.31	5.66	624.34	179.48	1.00
30	10925.00	87.60	178.60	10311.63	720.25	-720.21	8.34	720.26	179.34	0.67
31	11020.00	87.60	179.10	10315.61	815.17	-815.10	10.25	815.17	179.28	0.53
32	11115.00	86.00	179.10	10320.91	910.01	-909.94	11.74	910.02	179.26	1.68
33	11211.00	85.00	179.10	10328.45	1005.71	-1005.63	13.24	1005.72	179.25	1.04
34	11306.00	85.70	178.40	10336.15	1100.39	-1100.30	15.31	1100.40	179.20	1.04
35	11401.00	87.00	177.60	10342.19	1195.17	-1195.04	18.62	1195.19	179.11	1.61
36	11496.00	88.60	177.40	10345.84	1290.04	-1289.88	22.76	1290.08	178.99	1.70
37	11591.00	89.50	179.00	10347.42	1385.00	-1384.82	25.74	1385.05	178.94	1.93
38	11686.00	89.30	180.90	10348.41	1479.99	-1479.81	25.82	1480.03	179.00	2.01
39	11781.00	88.50	181.60	10350.24	1574.92	-1574.76	23.75	1574.94	179.14	1.12
40	11876.00	86.50	181.70	10354.38	1669.76	-1669.63	21.02	1669.76	179.28	2.11
41	11971.00	86.50	180.50	10360.18	1764.54	-1764.43	19.20	1764.54	179.38	1.26
42	12067.00	87.30	179.70	10365.37	1860.39	-1860.29	19.03	1860.39	179.41	1.18
43	12161.00	89.40	179.40	10368.08	1954.34	-1954.24	19.77	1954.34	179.42	2.26
44	12256.00	89.80	179.30	10368.74	2049.34	-2049.23	20.85	2049.34	179.42	0.43



45	12352.00	88.60	179.10	10370.08	2145.33	-2145.21	22.19	2145.33	179.41	1.27
46	12447.00	87.40	178.70	10373.40	2240.26	-2240.14	24.01	2240.27	179.39	1.33
47	12542.00	87.80	178.30	10377.37	2335.17	-2335.02	26.49	2335.17	179.35	0.60
48	12636.00	88.00	177.60	10380.82	2429.07	-2428.90	29.85	2429.08	179.30	0.77
49	12732.00	86.40	177.60	10385.51	2524.91	-2524.70	33.87	2524.92	179.23	1.67
50	12827.00	86.70	180.10	10391.23	2619.72	-2619.50	35.77	2619.74	179.22	2.65
51	12923.00	86.10	180.40	10397.25	2715.52	-2715.31	35.35	2715.54	179.25	0.70
52	13018.00	87.10	179.70	10402.89	2810.35	-2810.14	35.27	2810.36	179.28	1.28
53	13112.00	88.50	179.40	10406.50	2904.27	-2904.06	36.01	2904.28	179.29	1.52
54	13206.00	88.30	179.80	10409.12	2998.24	-2998.02	36.66	2998.25	179.30	0.48
55	13301.00	87.60	180.50	10412.52	3093.17	-3092.96	36.42	3093.17	179.33	1.04
56	13396.00	88.70	180.50	10415.59	3188.10	-3187.91	35.59	3188.10	179.36	1.16
57	13491.00	88.50	179.20	10417.91	3283.07	-3282.87	35.84	3283.07	179.37	1.38
58	13586.00	87.30	177.60	10421.39	3377.98	-3377.77	38.49	3377.99	179.35	2.10
59	13681.00	87.50	176.30	10425.70	3472.79	-3472.53	43.54	3472.81	179.28	1.38
60	13776.00	86.70	175.40	10430.50	3567.48	-3567.16	50.40	3567.52	179.19	1.27
61	13871.00	85.50	175.60	10436.97	3662.04	-3661.65	57.84	3662.11	179.10	1.28
62	13966.00	85.70	175.50	10444.25	3756.54	-3756.08	65.19	3756.65	179.01	0.24
63	14061.00	85.30	174.70	10451.71	3850.98	-3850.44	73.28	3851.14	178.91	0.94
64	14156.00	84.70	174.50	10459.99	3945.28	-3944.66	82.18	3945.52	178.81	0.67
65	14251.00	87.00	174.80	10466.86	4039.69	-4038.99	91.02	4040.02	178.71	2.44
66	14345.00	88.30	175.30	10470.72	4133.33	-4132.56	99.12	4133.75	178.63	1.48
67	14440.00	87.20	178.60	10474.45	4228.16	-4227.34	104.17	4228.62	178.59	3.66
68	14535.00	90.30	178.70	10476.52	4323.11	-4322.28	106.41	4323.59	178.59	3.26
69	14630.00	93.50	178.60	10473.37	4418.04	-4417.19	108.65	4418.52	178.59	3.37
70	14724.00	93.30	178.20	10467.80	4511.86	-4510.99	111.27	4512.36	178.59	0.48
71	14819.00	91.60	175.90	10463.73	4606.68	-4605.76	116.15	4607.23	178.56	3.01
72	14914.00	88.00	174.00	10464.07	4701.37	-4700.37	124.51	4702.02	178.48	4.28
PTB	14962.00	88.00	174.00	10465.74	4749.12	-4748.08	129.53	4749.85	178.44	0.00

