

NM OIL CONSERVATION

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

ARTESIA DISTRICT

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-015-45872		2 Pool Code 98220		3 Pool Name PURPLE SAGE; WC (GAS)	
4 Property Code 324981		5 Property Name ROCK RIDGE FEDERAL WCXY			6 Well Number 5H
7 OGRID No. 15363		8 Operator Name MURCHISON OIL AND GAS, LLC			9 Elevation 2914.2

10 Surface Location

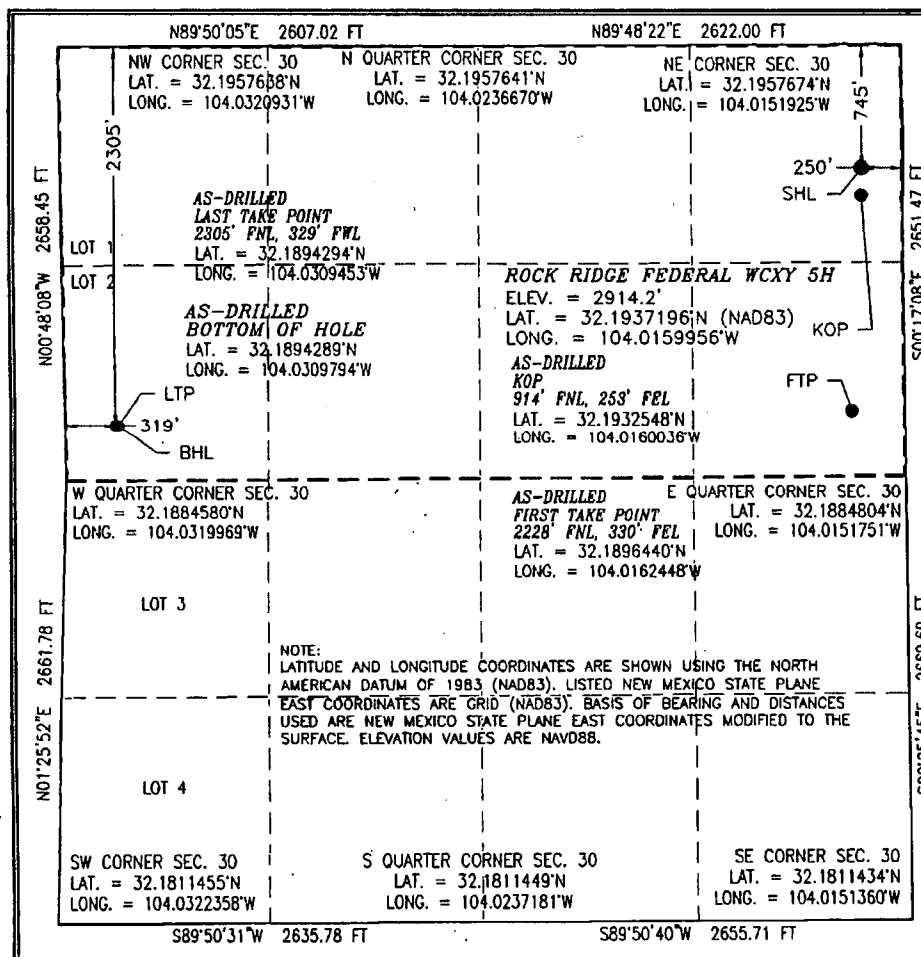
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	30	24 S	29 E		745	NORTH	250	EAST	EDDY

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	30	24 S	29 E		2305	NORTH	319	WEST	EDDY

12 Dedicated Acres 320	13 Joint or Infill	14 Consolidation Code	15 Order No.
----------------------------------	--------------------	-----------------------	--------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



16 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *[Signature]* Date: **10/11/19**

Printed Name: **Gary R. Cooper**

E-mail Address: **rcooper@jdmii.com**

17 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: **JUNE 19, 2019**

Signature and Seal of Professional Surveyor:

Certificate Number: **512797**

NEW MEXICO SURVEYORS ASSOCIATION

PROFESSIONAL SURVEYOR



7821 Will Rogers Blvd.
Fort Worth, Texas 76140
817.568.1038 (office)
817.568.1499 (fax)
www.msdir.com

MS Directional Survey Data Certification

NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 21 2019

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MS Directional Job Number: MSMO-66373
Survey Type: MWD
Operating Company: Murchison Oil & Gas, LLC
Well Name & Number: Rock Ridge Federal WCXY 5H
Location: Eddy County, NM
API Number: 30-015-45872
Tie In Depth: Surface
Surveyed Depths: 95' – 14,470' MD
Projected TD Survey: 14,538' MD
Dates Performed: 07/11/2019 – 08/30/2019

I certify that the data is true, correct and complete and within the limitations of the tool set forth by MS Directional; that I am authorized and qualified to make this report and that I have reviewed this report and find it conforms to the principles and procedures as set forth by MS Directional.

Digitally signed by:

MWD Surveyor Name: Justin Burkett

Date: 09-22-2019

Email: Justin.Burkett@msdir.com

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Company:		Murchison Oil & Gas, LLC									
Well Name:		Rock Ridge Federal WCXY 5H									
Location:		Edddy County, NM									
Rig:		Latshaw #7				Magnetic Declination:		6.81		REFERENCED TO GRID NORTH	
Job Number:		MSMO-66373									
API #:		30-015-45872									
Vertical Section Azimuth:				251.15		Proposed Direction:		251.15			
Survey Calculation Method:				Minimum Curvature							
PTB:	MD		INC		AZM	TVD	N/S		E/W		VS
	14,538		91.3		268.8	9731.8	-1574.58		-4631.65		4891.97
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance Azm		DLS/ 100	BUR/ 100'
TIE IN	0	0.00	0.00	0.00	0.00	0.00		0.00			
1	95	0.50	32.90	95.00	0.35	0.23	-0.33	0.41	32.90	0.53	0.53
2	135	0.70	226.20	135.00	0.33	0.14	-0.24	0.36	23.81	2.98	0.50
3	226	0.90	132.60	225.99	-0.54	0.27	-0.08	0.61	153.69	1.29	0.22
4	316	1.30	119.30	315.98	-1.52	1.68	-1.10	2.27	132.17	0.52	0.44
5	400	1.80	105.30	399.94	-2.34	3.78	-2.83	4.45	121.69	0.74	0.60
6	488	1.80	61.70	487.91	-2.05	6.33	-5.33	6.65	107.90	1.52	0.00
7	578	2.10	10.40	577.86	0.25	7.87	-7.53	7.88	88.20	1.90	0.33
8	669	1.60	328.90	668.82	2.97	7.52	-8.08	8.09	68.42	1.53	-0.55
9	729	1.60	318.10	728.79	4.32	6.53	-7.57	7.83	56.53	0.50	0.00
10	789	1.50	315.00	788.77	5.49	5.41	-6.90	7.71	44.57	0.22	-0.17
11	882	1.20	306.00	881.74	6.93	3.76	-5.80	7.88	28.52	0.39	-0.32
12	977	1.50	297.60	976.72	8.09	1.86	-4.37	8.30	12.93	0.38	0.32
13	1,071	1.80	263.80	1070.68	8.50	-0.70	-2.08	8.53	355.29	1.07	0.32
14	1,166	2.20	256.90	1165.62	7.92	-3.96	1.19	8.86	333.45	0.49	0.42
15	1,260	2.50	259.50	1259.54	7.14	-7.73	5.01	10.53	312.73	0.34	0.32
16	1,354	1.90	234.40	1353.48	5.86	-11.02	8.53	12.48	298.02	1.19	-0.64
17	1,448	2.10	222.40	1447.42	3.68	-13.44	11.53	13.94	285.32	0.49	0.21
18	1,543	2.20	233.60	1542.35	1.31	-16.09	14.80	16.14	274.67	0.45	0.11
19	1,638	2.20	233.40	1637.28	-0.85	-19.02	18.27	19.04	267.43	0.01	0.00
20	1,731	2.00	226.40	1730.22	-3.04	-21.63	21.45	21.84	262.00	0.35	-0.22
21	1,825	3.40	208.20	1824.12	-6.63	-24.13	24.98	25.02	254.65	1.73	1.49
22	1,918	5.30	192.80	1916.85	-13.25	-26.39	29.25	29.52	243.34	2.38	2.04
23	2,012	6.70	193.20	2010.33	-22.82	-28.60	34.44	36.59	231.42	1.49	1.49
24	2,107	8.40	184.60	2104.51	-35.13	-30.42	40.14	46.47	220.89	2.14	1.79
25	2,201	9.40	170.70	2197.38	-49.55	-29.73	44.15	57.79	210.96	2.51	1.06
26	2,295	10.80	168.20	2289.92	-65.75	-26.69	46.50	70.96	202.09	1.56	1.49
27	2,389	10.20	170.00	2382.35	-82.57	-23.44	48.86	85.83	195.85	0.73	-0.64
28	2,483	9.60	168.40	2474.95	-98.44	-20.42	51.13	100.54	191.72	0.70	-0.64
29	2,577	9.50	167.50	2567.65	-113.69	-17.17	52.98	114.98	188.59	0.19	-0.11
30	2,671	8.50	164.30	2660.49	-127.96	-13.61	54.22	128.68	186.07	1.19	-1.06
31	2,765	8.70	163.60	2753.43	-141.46	-9.72	54.91	141.80	183.93	0.24	0.21
32	2,859	9.50	165.00	2846.25	-155.78	-5.71	55.73	155.88	182.10	0.88	0.85
33	2,953	10.40	163.80	2938.83	-171.42	-1.33	56.64	171.42	180.44	0.98	0.96



SURVEY CALCULATION PROGRAM

9/23/19 10:27

Company:		Murchison Oil & Gas, LLC												
Well Name:		Rock Ridge Federal WCXY 5H												
Location:		Eddy County, NM												
Rig:		Latshaw #7					Magnetic Declination:		6.81		REFERENCED TO GRID NORTH			
Job Number:		MSMO-66373												
API #:		30-015-45872												
Vertical Section Azimuth:			251.15			Proposed Direction:		251.15						
Survey Calculation Method:			Minimum Curvature											
PTB:	MD		INC		AZM		TVD		N/S		E/W		VS	
	14,538		91.3		268.8		9731.8		-1574.58		-4631.65		4891.97	
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance		Azm	DLS/ 100	BUR/ 100'		
34	3,047	11.30	163.00	3031.15	-188.37	3.73	57.33	188.41		178.87	0.97	0.96		
35	3,140	12.40	163.30	3122.17	-206.65	9.26	58.00	206.86		177.43	1.18	1.18		
36	3,234	13.70	162.90	3213.74	-226.96	15.44	58.72	227.48		176.11	1.39	1.38		
37	3,329	14.10	166.70	3305.96	-248.97	21.41	60.18	249.89		175.09	1.05	0.42		
38	3,424	14.40	168.70	3398.04	-271.82	26.38	62.85	273.09		174.46	0.61	0.32		
39	3,518	14.40	169.60	3489.08	-294.77	30.78	66.11	296.38		174.04	0.24	0.00		
40	3,612	13.70	171.80	3580.27	-317.29	34.48	69.88	319.16		173.80	0.94	-0.74		
41	3,707	14.00	173.00	3672.51	-339.83	37.49	74.32	341.89		173.71	0.44	0.32		
42	3,801	14.00	170.60	3763.72	-362.33	40.73	78.52	364.62		173.59	0.62	0.00		
43	3,896	14.70	170.40	3855.75	-385.56	44.62	82.35	388.13		173.40	0.74	0.74		
44	3,990	14.40	171.00	3946.74	-408.86	48.43	86.26	411.72		173.24	0.36	-0.32		
45	4,085	13.90	174.20	4038.86	-431.88	51.43	90.86	434.93		173.21	0.98	-0.53		
46	4,179	12.80	173.90	4130.32	-453.47	53.68	95.71	456.63		173.25	1.17	-1.17		
47	4,273	13.30	174.20	4221.89	-474.58	55.88	100.45	477.86		173.28	0.54	0.53		
48	4,366	12.70	173.10	4312.51	-495.37	58.19	104.98	498.78		173.30	0.70	-0.65		
49	4,461	13.10	172.40	4405.11	-516.41	60.87	109.24	519.98		173.28	0.45	0.42		
50	4,555	14.10	172.50	4496.47	-538.32	63.77	113.58	542.08		173.24	1.06	1.06		
51	4,649	13.50	170.60	4587.76	-560.50	67.06	117.63	564.49		173.18	0.80	-0.64		
52	4,743	13.00	170.60	4679.25	-581.75	70.58	121.17	586.02		173.08	0.53	-0.53		
53	4,838	13.60	171.10	4771.71	-603.33	74.05	124.85	607.86		173.00	0.64	0.63		
54	4,932	13.30	174.00	4863.13	-625.00	76.89	129.17	629.71		172.99	0.79	-0.32		
55	5,026	13.70	175.70	4954.53	-646.85	78.86	134.37	651.64		173.05	0.60	0.43		
56	5,120	14.70	175.90	5045.66	-669.85	80.54	140.20	674.68		173.14	1.07	1.06		
57	5,215	13.90	173.90	5137.72	-693.22	82.62	145.79	698.13		173.20	0.99	-0.84		
58	5,309	14.10	172.40	5228.92	-715.80	85.33	150.51	720.86		173.20	0.44	0.21		
59	5,404	13.40	172.70	5321.20	-738.19	88.26	154.98	743.44		173.18	0.74	-0.74		
60	5,498	13.70	172.00	5412.58	-760.01	91.19	159.25	765.46		173.16	0.36	0.32		
61	5,592	14.30	171.30	5503.79	-782.51	94.50	163.39	788.20		173.11	0.66	0.64		
62	5,686	13.60	171.90	5595.02	-804.93	97.81	167.50	810.85		173.07	0.76	-0.74		
63	5,781	13.90	172.40	5687.30	-827.30	100.89	171.81	833.43		173.05	0.34	0.32		
64	5,875	14.00	171.80	5778.52	-849.74	104.01	176.11	856.08		173.02	0.19	0.11		
65	5,970	14.40	170.10	5870.62	-872.75	107.68	180.07	879.37		172.97	0.61	0.42		
66	6,065	15.80	169.20	5962.34	-897.10	112.13	183.72	904.08		172.88	1.49	1.47		
67	6,159	14.30	167.90	6053.11	-921.02	116.97	186.88	928.42		172.76	1.64	-1.60		



SURVEY CALCULATION PROGRAM

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SURVEY CALCULATION PROGRAM

9/23/19 10:27

WGS 84 GZ

Company:		Murchison Oil & Gas, LLC									
Well Name:		Rock Ridge Federal WCXY 5H									
Location:		Eddy County, NM									
Rig:		Latshaw #7		Magnetic Declination:		6.81	REFERENCED TO GRID NORTH				
Job Number:		MSMO-66373									
API #:		30-015-45872									
Vertical Section Azimuth:			251.15		Proposed Direction:		251.15				
Survey Calculation Method:			Minimum Curvature								
PTB:	MD		INC		AZM	TVD	N/S	E/W		VS	
	14,538		91.3		268.8	9731.8	-1574.58	-4631.65		4891.97	
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance Azm		DLS/ 100	BUR/ 100'
102	9,434	5.10	280.20	9266.65	-1473.02	183.00	302.74	1484.35	172.92	4.03	3.79
103	9,528	17.20	272.50	9358.70	-1471.67	164.93	319.40	1480.89	173.61	12.94	12.87
104	9,621	26.00	277.20	9445.09	-1468.51	130.90	350.58	1474.33	174.91	9.64	9.46
105	9,715	33.80	274.90	9526.52	-1463.69	84.34	393.09	1466.12	176.70	8.39	8.30
106	9,808	42.60	261.60	9599.66	-1466.08	27.22	447.92	1466.34	178.94	12.91	9.46
107	9,903	50.10	259.80	9665.19	-1477.25	-40.55	515.67	1477.81	181.57	8.01	7.89
108	9,998	57.10	258.80	9721.53	-1491.47	-115.64	591.32	1495.94	184.43	7.42	7.37
109	10,093	69.00	259.50	9764.51	-1507.35	-198.66	675.02	1520.39	187.51	12.54	12.53
110	10,187	76.50	263.90	9792.38	-1520.23	-287.41	763.17	1547.16	190.71	9.14	7.98
111	10,267	78.20	265.80	9809.90	-1527.23	-365.15	839.00	1570.28	193.45	3.14	2.13
112	10,362	83.00	266.50	9825.41	-1533.52	-458.63	929.50	1600.63	196.65	5.10	5.05
113	10,456	87.50	268.10	9833.19	-1537.93	-552.18	1019.46	1634.05	199.75	5.08	4.79
114	10,550	92.20	269.10	9833.44	-1540.22	-646.13	1109.10	1670.26	202.76	5.11	5.00
115	10,644	93.80	269.30	9828.52	-1541.53	-739.98	1198.35	1709.94	205.64	1.72	1.70
116	10,738	94.00	269.40	9822.12	-1542.60	-833.76	1287.44	1753.50	208.39	0.24	0.21
117	10,832	91.60	269.50	9817.53	-1543.50	-927.64	1376.58	1800.80	211.01	2.56	-2.55
118	10,926	90.80	269.40	9815.56	-1544.40	-1021.61	1465.80	1851.72	213.48	0.86	-0.85
119	11,020	91.30	269.30	9813.84	-1545.47	-1115.59	1555.08	1906.04	215.82	0.54	0.53
120	11,114	89.60	269.10	9813.10	-1546.78	-1209.57	1644.45	1963.57	218.03	1.82	-1.81
121	11,209	89.40	268.90	9813.93	-1548.44	-1304.56	1734.88	2024.73	220.11	0.30	-0.21
122	11,303	91.20	269.60	9813.44	-1549.67	-1398.54	1824.22	2087.44	222.07	2.05	1.91
123	11,398	92.00	269.60	9810.79	-1550.33	-1493.50	1914.30	2152.69	223.93	0.84	0.84
124	11,492	92.40	269.60	9807.18	-1550.99	-1587.43	2003.40	2219.34	225.67	0.43	0.43
125	11,586	90.80	269.00	9804.55	-1552.13	-1681.38	2092.69	2288.27	227.29	1.82	-1.70
126	11,680	91.10	269.30	9803.00	-1553.53	-1775.36	2182.07	2359.10	228.81	0.45	0.32
127	11,774	91.30	269.30	9801.03	-1554.68	-1869.33	2271.38	2431.34	230.25	0.21	0.21
128	11,868	91.60	269.30	9798.65	-1555.82	-1963.29	2360.67	2505.02	231.60	0.32	0.32
129	11,963	92.00	269.00	9795.66	-1557.23	-2058.24	2450.98	2580.95	232.89	0.53	0.42
130	12,057	91.30	268.30	9792.96	-1559.45	-2152.17	2540.59	2657.76	234.07	1.05	-0.74
131	12,152	92.40	268.60	9789.89	-1562.02	-2247.08	2631.24	2736.65	235.20	1.20	1.16
132	12,244	92.50	270.20	9785.96	-1562.98	-2338.99	2718.53	2813.14	236.25	1.74	0.11
133	12,339	91.20	270.70	9782.89	-1562.23	-2433.94	2808.14	2892.17	237.31	1.47	-1.37
134	12,433	90.00	271.20	9781.91	-1560.67	-2527.92	2896.58	2970.87	238.31	1.38	-1.28
135	12,526	90.40	271.20	9781.58	-1558.73	-2620.90	2983.94	3049.38	239.26	0.43	0.43

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V09.04.02

Company:		Murchison Oil & Gas, LLC												
Well Name:		Rock Ridge Federal WCXY 5H												
Location:		Eddy County, NM												
Rig:		Latshaw #7					Magnetic Declination:		6.81		REFERENCED TO GRID NORTH		▼	
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#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure		DLS/ 100	BUR/ 100'			
								Distance	Azm					
136	12,621	89.90	270.70	9781.33	-1557.15	-2715.88	3073.33	3130.61	240.17	0.74	-0.53			
137	12,715	93.00	270.60	9778.95	-1556.08	-2809.83	3161.89	3211.94	241.02	3.30	3.30			
138	12,810	91.80	271.30	9774.98	-1554.51	-2904.74	3251.20	3294.54	241.85	1.46	-1.26			
139	12,904	90.30	270.50	9773.25	-1553.03	-2998.71	3339.65	3377.00	242.62	1.81	-1.60			
140	12,998	90.90	270.60	9772.27	-1552.13	-3092.70	3428.31	3460.33	243.35	0.65	0.64			
141	13,092	90.10	269.50	9771.45	-1552.05	-3186.69	3517.23	3544.55	244.03	1.45	-0.85			
142	13,186	91.60	269.00	9770.06	-1553.28	-3280.67	3606.57	3629.80	244.66	1.68	1.60			
143	13,280	91.20	268.20	9767.76	-1555.58	-3374.61	3696.22	3715.89	245.25	0.95	-0.43			
144	13,374	92.50	268.30	9764.72	-1558.45	-3468.52	3786.01	3802.55	245.81	1.39	1.38			
145	13,467	94.20	269.30	9759.29	-1560.39	-3561.33	3874.48	3888.18	246.34	2.12	1.83			
146	13,561	91.90	268.90	9754.29	-1561.87	-3655.18	3963.77	3974.89	246.86	2.48	-2.45			
147	13,656	92.20	269.10	9750.89	-1563.52	-3750.11	4054.14	4062.99	247.37	0.38	0.32			
148	13,751	92.60	269.00	9746.91	-1565.10	-3845.01	4144.46	4151.34	247.85	0.43	0.42			
149	13,845	90.40	269.40	9744.45	-1566.41	-3938.96	4233.80	4238.99	248.31	2.38	-2.34			
150	13,939	88.70	269.50	9745.19	-1567.31	-4032.95	4323.04	4326.79	248.76	1.81	-1.81			
151	14,032	89.90	270.00	9746.33	-1567.72	-4125.94	4411.17	4413.74	249.19	1.40	1.29			
152	14,126	92.80	270.10	9744.11	-1567.63	-4219.90	4500.07	4501.67	249.62	3.09	3.09			
153	14,221	91.80	269.00	9740.30	-1568.38	-4314.82	4590.14	4591.02	250.02	1.56	-1.05			
154	14,315	91.60	268.80	9737.51	-1570.18	-4408.76	4679.62	4680.03	250.40	0.30	-0.21			
155	14,409	91.60	269.00	9734.89	-1571.99	-4502.71	4769.12	4769.23	250.75	0.21	0.00			
156	14,470	91.30	268.80	9733.34	-1573.16	-4563.68	4827.19	4827.21	250.98	0.59	-0.49			
PTB:	14,538	91.30	268.80	9731.80	-1574.58	-4631.65	4891.97	4891.98	251.22	0.00	0.00			