DATE IN 5/11/06	SUSPENSE	ENGINEER Will Jones	LOGGED IN 5/12/06	TYPE DHC 3768	APP NO. pTDS0613230804

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

2006 MAY 11 PM 1 43

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Cherry Hlava	Cherry Hlava	Regulatory Analyst	05/09/2006
Print or Type Name	Signature	Title	Date

hlavacl@bp.com
e-mail Address

District I
1625 N. French Drive, Hobbs, NM 88240

2000
District II
811 South First Street, Artesia, NM 88210

District III
1000 Rio Brazos Road, Aztec, NM 87410

Pools
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107A
Revised May 15,

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87505

APPLICATION TYPE
_X_ Single Well
___ Establish Pre-Approved

EXISTING WELLBORE
_X_ Yes __ No

APPLICATION FOR DOWNHOLE COMMINGLING

DHC-3708

BP America Production Company Operator | **P. O. Box 3092 Houston, TX 77253** Address

Riddle F LS Lease | **5** Well No. | **Unit A Section 32 T28N, R08W** Unit Letter-Section-Township-Range | **San Juan** County

OGRID No. **000778** Property Code **000978** API No. **30-045-07052** Lease Type: **X** Federal ___ State ____ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	**Blanco PC South**	**Otero Chacra** (WINDES)	**Blanco Mesaverde**
Pool Code	**72439**	**82329**	**72319**
Top & Bottom of Pay Section (Perforated or Open-Hole Interval)	**2250' – 2290'**	**TBD**	**4427' – 4658'**
Method of Production (Flowing or Artificial Lift)	**Artificial Lift**	**Artificial Lift**	**Artificial Lift**
Bottomhole Pressure	**130**	**750**	**450**
Oil Gravity or Gas BTU (Degree API or Gas BTU)	**1211**	**1250**	**1331**
Producing, Shut-In or New Zone	**Producing**	**New Zone**	**Producing**
Date and Oil/Gas/Water Rates of Last Production.	Date: Rates:	Date: Rates:	Date: Rates:
Fixed Allocation Percentage	Oil % Gas %	Oil % Gas %	Oil % Gas %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes_X_ No____
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes____ No____

Are all produced fluids from all commingled zones compatible with each other? Yes_X_ No____

Will commingling decrease the value of production? Yes____ No_X_

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes_X_ No____

NMOCD Reference Case No. applicable to this well: _____

Attachments:
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools
List of all operators within the proposed Pre-Approved Pools
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
Bottomhole pressure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Cherry Hlava TITLE **Regulatory Analyst** DATE **05/09/2006**

TYPE OR PRINT NAME **Cherry Hlava** TELEPHONE NO. **(281) 366-4081**

SJ Basin Tri-Mingle Procedure

Well Name: **Riddle F LS 5**
Date: **May 2, 2006**
Location: **T28N-R8W-Sec32**
API #: **30-045-07052**
County: **San Juan**
State: **New Mexico**
Horizon: **Mesaverde/PC add Chacra**

Objective: Perforate and frac Chacra, and downhole tri-mingle PC, Mesaverde & Chacra

1. TOH with completion.
2. Perforate and fracture Chacra.
3. Land tbg and return well to production.
4. Downhole tri-mingle PC, Chacra, and Mesaverde.

Procedure:

1. Perform pre-rig site inspection. Check for: size of location, Gas Taps, other wells, other operators, running equipment, wetlands, wash (dikes req.), H2S, barriers needed for equipment, Landowner issues, location of pits (buried lines in pits), Raptor nesting, critical location, check anchors. Check ID wellhead, if earth pit is required have One Call made 48 hours prior to digging.

2. Perform second site visit after lines are marked to ensure all lines clear marked pit locations. Planning and Scheduling to ready location for rig.

3. RU slickline unit or wireline unit. Pressure test lubricator and equipment. RIH and set **two** barriers (CIBP, tbg collar stop w/plug, or plug set in nipple) for isolation in both tubing strings.

4. Check and record tubing, casing, and bradenhead pressures. Ensure production casing has double casing valves installed. Double valve all casing strings.

5. MIRU workover rig. LO/TO all necessary equipment including but not limited to: meter run, Automation, Separators and water lines.

6. Blow down well. Kill with 2% KCL water ONLY if necessary.

7. Check all casing strings to ensure no pressure exist on any annulus. **The operations of removal of wellhead and installation of BOP's will be performed under a dispensation for one (1) barrier on the backside.**

8. Nipple down Wellhead. NU BOPs and diversion spool with 3" outlets and 3" pipe to the blow tank. BOP should be equipped with 1 ¼" offset pipe ram. Pressure test BOPs to

200 psi above BHP. Monitor flowing casing pressure with gauge (with casing flowing to blow tank) throughout workover.

9. Install stripping rubber, pull tubing hanger up above pipe rams, shut-in pipe rams, remove stripping rubber. Strip tubing hanger OOH. Re-install stripping rubber.

10. TOH and LD 1-1/4" EUE production tubing currently set at 2312'. Using approved "Under Balance Well Control Tripping Procedure".

11. Change BOP pipe ram and stripping rubber to 2". TOH w/ packer and 2" production tubing currently set at 4671'. Using approved "Under Balance Well Control Tripping Procedure".

12. TIH w/ 5-1/2" scraper. Check the distance between the top of the blind rams and the length of the bottom hole assembly that is being run. If the BHA is too long then the well has to be top killed and monitored prior to opening bind rams. RIH to PBTD at 4,770'. POOH.

13. Set composite bridge plug at 4,377'. Fill casing w/ 2%KCl from the bottom to PC (2250') with +/- 53 bbls.

14. RU E-line equipment. Pressure test lubricator and equipment. Log well w/ CBL from 4,377' to TOL'. Contact Jesse Gracia after determining TOC to discuss packer placement or remedial cement squeeze.

15. Prepare for explosive operations. Follow Schlumberger Explosive SOP including radio silence, suspension of welding operations, and isolation of electrical devices from the work area. Perform Pre-job Safety Meeting to review JSA and procedures. Meeting should address the VDR (vehicle data recorder) System that Bp people have installed on their vehicles. They must be shut off at the 300 foot sign by hitting 00 and then the enter button, and then wait for about 5 minutes for the unit to turn off. When the green light goes out, call the control center at 326-9475. This number is on a pickup list in the Optimizer room and should be your first point of contact followed by the front desk then the weekend pager. Verify the unit is not transmitting. You then can drive to location and park, but do not to exceed 10 Miles/hr. Note: 20 MPH will turn unit back on. If someone has On Star on their vehicle they cannot enter closer than 300 foot. On Star cannot be turned off. PLEASE take special caution. This is in conjunction with all cell phones, pagers, radios and any electronic devise that transmits a signal.

16. RIH with 3-1/8" casing guns w/lubricator and perforate Menefee formation. (50 Holes Total)

2 SPF:

17. RIH w/ 3-1/2" frac string and 5 ½" x 3 ½" packer. Set packer at +/-2390'.

18. Install and monitor production casing and treating pressure during entire job in frac van via pressure transducers on production casing and treating line. Spearhead 500 gal 15%

HCL, establish injection rate, and proceed with fracture stimulation according to Schlumberger schedule. Maintain surface pressures less than 5,000 psi during frac job. Flush frac with foam. Fill out GWSI scorecard.

19. Flowback frac immediately. Flow well through choke manifold on ¼", ½" and ¾" chokes increasing drawdown until well dies or stabilizes. This is to aid in reducing sand flowback. Recommend 8 hours of flow for each choke size.

20. TOH w/ frac string and packer.

21. Rig up air package/unit, pressure test all lines (Testing procedure to be supplied from air company), TIH with tubing and bit for 5 1/2" casing. Cleanout fill to BP set at +/-4,377'.

22. RIH w/ frac string and 3 ½" x 5 ½" packer. Set packer at +/- 2390' and **perform flow test on Menefee and document in DIMS.**

23. Set composite bridge plug @ +/- 3850'.

24. Refill casing up to PC perfs with +/- 40 bbl 2% KCl water.

25. RIH with 3-1/8" HSD casing guns w/lubricator and perforate Chacra formation. (50 Holes Total)

2 SPF:

26. RIH w/ 3 ½" frac string and 3 ½" x 5 ½" packer. Set packer at +/- 2,390'

27. Install and monitor production casing and treating pressure during entire job in frac van via pressure transducers on production casing and treating line. Spearhead 500 gal 15% HCL, establish injection rate, and proceed with fracture stimulation according to Schlumberger schedule. Maintain surface pressures less than 5,000 psi during frac job. Flush frac with foam. Fill out GWSI scorecard.

28. Flowback frac immediately. Flow well through choke manifold on ¼", ½" and ¾" chokes increasing drawdown until well dies or stabilizes. This is to aid in reducing sand flowback. Recommend 8 hours of flow for each choke size.

29. TOH w/ frac string and packer.

30. Rig up air package/unit, pressure test all lines (Testing procedure to be supplied from air company), TIH with tubing and bit for 5 1/2" casing. Cleanout fill to BP set at +/-3,850'.

31. RIH w/ frac string and packer. Set packer at +/-2390' and **perform flow test on Chacra and document in DIMS. Contact Cherry (281-366-4081) after DIMS input is complete.**

32. TOH w/ frac string and packer.

33. TIH w/ tubing and bit for 5-1/2" casing. Drill out BP set at 3,850' and 4,377'. Cleanout to PBTD at 4,770'.

34. Rabbit tubing and RIH with 2-3/8" production tubing (with muleshoe, F-nipple with plug, 4 ft pup, X-nipple with plug).

35. Land 2-3/8" production tubing at +/-4,578'. Lock down 2 3/8" tubing hanger and bonnet.

36. Pressure test tubing to 500 psi with air unit, make sure tubing spool valves are open. Care should be taken during pressure testing of the tubing due to potential problem caused if tubing parts close to surface or above the hanger. Check all casing string for pressure. **The operations of removal of wellhead and installation of BOP's will be performed under a dispensation for one (1) barrier on the backside.**

37. ND BOP's. NU Wellhead. During Master valve placement ensure the top of hanger has spacer nipple in place to bottom of bonnet flange so plunger equipment will not hang up through tree. Pressure test Wellhead.

38. RU WL unit. Run gauge ring for 2-3/8" tubing. Pull plugs and set tubing stop for plunger. Communicate plunger equipment status to IC room personnel.

39. RD slickline unit.

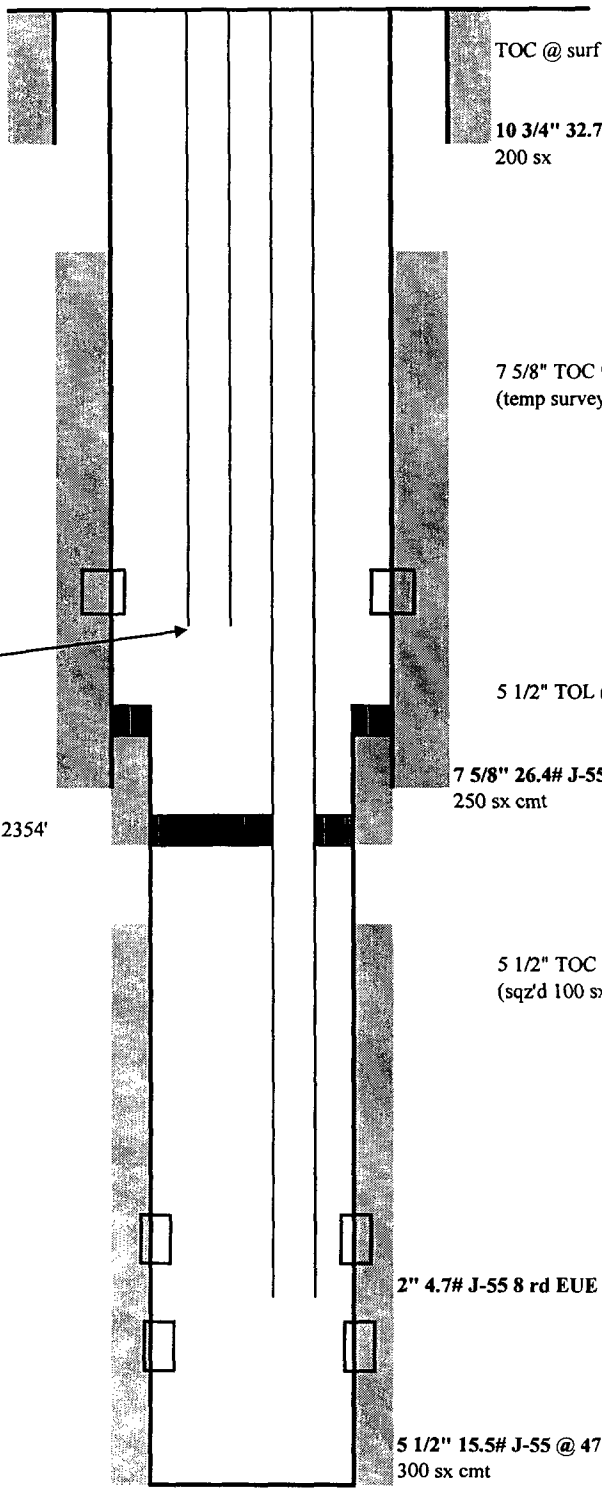
40. Test well for air. Return well to production and downhole tri-mingle PC, Chacra and Mesaverde.

Riddle F LS 005 PC/MV

API# 3004507052

Sec 32, T28N, R8W

GL: 5939'



History:
- Drilled & completed in 1957

PC Perforation
2250' - 2290', 39.5 klbs sand

Mesaverde perforations:
4427' - 4658', frac'd w/ 60 klbs sand

PBTD: 4770'
TD: 4718'

updated: 04/26/06 JG

Riddle F LS 5		
Pictured Cliffs Formation		
API #	3004507052	
Starting 1/92 thru 12/28		
Exponential Decline		
Qi =	20.4	mcfd
Qf =	3.6	mcfd
D =	7.25%	per year

1-Nov-2005

Date	Gas Rate mcf/d	Gas Volume MMSCF	Date	Gas Rate mcf/d	Gas Volume MMSCF	Date	Gas Rate mcf/d	Gas Volume MMSCF	Date	Gas Rate mcf/d	Gas Volume MMSCF
1/15/06	20	0.6	3/15/09	16	0.5	5/15/12	12	0.4	7/15/15	10	0.3
2/15/06	20	0.6	4/15/09	16	0.5	6/15/12	12	0.4	8/15/15	10	0.3
3/15/06	20	0.6	5/15/09	16	0.5	7/15/12	12	0.4	9/15/15	10	0.3
4/15/06	20	0.6	6/15/09	16	0.5	8/15/12	12	0.4	10/15/15	10	0.3
5/15/06	20	0.6	7/15/09	15	0.5	9/15/12	12	0.4	11/15/15	10	0.3
6/15/06	19	0.6	8/15/09	15	0.5	10/15/12	12	0.4	12/15/15	10	0.3
7/15/06	19	0.6	9/15/09	15	0.5	11/15/12	12	0.4	1/15/16	9	0.3
8/15/06	19	0.6	10/15/09	15	0.5	12/15/12	12	0.4	2/15/16	9	0.3
9/15/06	19	0.6	11/15/09	15	0.5	1/15/13	12	0.4	3/15/16	9	0.3
10/15/06	19	0.6	12/15/09	15	0.5	2/15/13	12	0.3	4/15/16	9	0.3
11/15/06	19	0.6	1/15/10	15	0.5	3/15/13	12	0.4	5/15/16	9	0.3
12/15/06	19	0.6	2/15/10	15	0.4	4/15/13	12	0.4	6/15/16	9	0.3
1/15/07	19	0.6	3/15/10	15	0.5	5/15/13	12	0.4	7/15/16	9	0.3
2/15/07	19	0.5	4/15/10	15	0.4	6/15/13	11	0.3	8/15/16	9	0.3
3/15/07	18	0.6	5/15/10	14	0.5	7/15/13	11	0.4	9/15/16	9	0.3
4/15/07	18	0.6	6/15/10	14	0.4	8/15/13	11	0.4	10/15/16	9	0.3
5/15/07	18	0.6	7/15/10	14	0.4	9/15/13	11	0.3	11/15/16	9	0.3
6/15/07	18	0.5	8/15/10	14	0.4	10/15/13	11	0.4	12/15/16	9	0.3
7/15/07	18	0.6	9/15/10	14	0.4	11/15/13	11	0.3	1/15/17	9	0.3
8/15/07	18	0.6	10/15/10	14	0.4	12/15/13	11	0.3	2/15/17	9	0.2
9/15/07	18	0.5	11/15/10	14	0.4	1/15/14	11	0.3	3/15/17	9	0.3
10/15/07	18	0.6	12/15/10	14	0.4	2/15/14	11	0.3	4/15/17	9	0.3
11/15/07	17	0.5	1/15/11	14	0.4	3/15/14	11	0.3	5/15/17	9	0.3
12/15/07	17	0.5	2/15/11	14	0.4	4/15/14	11	0.3	6/15/17	9	0.3
1/15/08	17	0.5	3/15/11	14	0.4	5/15/14	11	0.3	7/15/17	8	0.3
2/15/08	17	0.5	4/15/11	14	0.4	6/15/14	11	0.3	8/15/17	8	0.3
3/15/08	17	0.5	5/15/11	13	0.4	7/15/14	11	0.3	9/15/17	8	0.3
4/15/08	17	0.5	6/15/11	13	0.4	8/15/14	11	0.3	10/15/17	8	0.3
5/15/08	17	0.5	7/15/11	13	0.4	9/15/14	10	0.3	11/15/17	8	0.3
6/15/08	17	0.5	8/15/11	13	0.4	10/15/14	10	0.3	12/15/17	8	0.3
7/15/08	17	0.5	9/15/11	13	0.4	11/15/14	10	0.3	1/15/18	8	0.3
8/15/08	16	0.5	10/15/11	13	0.4	12/15/14	10	0.3	2/15/18	8	0.2
9/15/08	16	0.5	11/15/11	13	0.4	1/15/15	10	0.3	3/15/18	8	0.3
10/15/08	16	0.5	12/15/11	13	0.4	2/15/15	10	0.3	4/15/18	8	0.2
11/15/08	16	0.5	1/15/12	13	0.4	3/15/15	10	0.3	5/15/18	8	0.3
12/15/08	16	0.5	2/15/12	13	0.4	4/15/15	10	0.3	6/15/18	8	0.2
1/15/09	16	0.5	3/15/12	13	0.4	5/15/15	10	0.3	7/15/18	8	0.2
2/15/09	16	0.5	4/15/12	13	0.4	6/15/15	10	0.3	8/15/18	8	0.2

Riddle F LS 5													
MesaVerde Formation													
API #	**3004507052**												
Starting 1/92 thru 12/28													
Exponential Decline													
Qi =	89	mcfd		1-Nov-2005									
Qf =	10	mcfd											
D =	9.00%	per year											
Date	**Gas Rate mcf/d**	**Gas Volume MMSCF**		**Date**	**Gas Rate mcf/d**	**Gas Volume MMSCF**		**Date**	**Gas Rate mcf/d**	**Gas Volume MMSCF**		**Date**	**Gas Rate mcf/d**	**Gas Volume MMSCF**
01/15/06	87	3		05/15/09	64	2		9/15/12	46	1		1/15/16	34	1
02/15/06	87	2		06/15/09	63	2		10/15/12	46	1		2/15/16	34	1
03/15/06	86	3		07/15/09	63	2		11/15/12	46	1		3/15/16	33	1
04/15/06	85	3		08/15/09	62	2		12/15/12	45	1		4/15/16	33	1
05/15/06	85	3		09/15/09	62	2		1/15/13	45	1		5/15/16	33	1
06/15/06	84	3		10/15/09	61	2		2/15/13	45	1		6/15/16	33	1
07/15/06	83	3		11/15/09	61	2		3/15/13	44	1		7/15/16	32	1
08/15/06	83	3		12/15/09	60	2		4/15/13	44	1		8/15/16	32	1
09/15/06	82	2		01/15/10	60	2		5/15/13	44	1		9/15/16	32	1
10/15/06	81	3		02/15/10	59	2		6/15/13	43	1		10/15/16	32	1
11/15/06	81	2		03/15/10	59	2		7/15/13	43	1		11/15/16	31	1
12/15/06	80	2		04/15/10	58	2		8/15/13	43	1		12/15/16	31	1
01/15/07	79	2		05/15/10	58	2		9/15/13	42	1		1/15/17	31	1
02/15/07	79	2		06/15/10	58	2		10/15/13	42	1		2/15/17	31	1
03/15/07	78	2		07/15/10	57	2		11/15/13	42	1		3/15/17	30	1
04/15/07	78	2		08/15/10	57	2		12/15/13	41	1		4/15/17	30	1
05/15/07	77	2		09/15/10	56	2		1/15/14	41	1		5/15/17	30	1
06/15/07	76	2		10/15/10	56	2		2/15/14	41	1		6/15/17	30	1
07/15/07	76	2		11/15/10	55	2		3/15/14	40	1		7/15/17	29	1
08/15/07	75	2		12/15/10	55	2		4/15/14	40	1		8/15/17	29	1
09/15/07	75	2		01/15/11	54	2		5/15/14	40	1		9/15/17	29	1
10/15/07	74	2		02/15/11	54	2		6/15/14	39	1		10/15/17	29	1
11/15/07	73	2		03/15/11	54	2		7/15/14	39	1		11/15/17	29	1
12/15/07	73	2		04/15/11	53	2		8/15/14	39	1		12/15/17	28	1
01/15/08	72	2		05/15/11	53	2		9/15/14	39	1		1/15/18	28	1
02/15/08	71	2		06/15/11	52	2		10/15/14	38	1		2/15/18	28	1
03/15/08	71	2		07/15/11	52	2		11/15/14	38	1		3/15/18	28	1
04/15/08	70	2		08/15/11	52	2		12/15/14	38	1		4/15/18	27	1
05/15/08	70	2		09/15/11	51	2		1/15/15	37	1		5/15/18	27	1
06/15/08	69	2		10/15/11	51	2		2/15/15	37	1		6/15/18	27	1
07/15/08	69	2		11/15/11	50	2		3/15/15	37	1		7/15/18	27	1
08/15/08	68	2		12/15/11	50	2		4/15/15	36	1		8/15/18	27	1
09/15/08	68	2		01/15/12	49	2		5/15/15	36	1		9/15/18	26	1
10/15/08	67	2		02/15/12	49	1		6/15/15	36	1		10/15/18	26	1
11/15/08	67	2		03/15/12	49	2		7/15/15	36	1		11/15/18	26	1
12/15/08	66	2		04/15/12	48	1		8/15/15	35	1		12/15/18	26	1
01/15/09	66	2		05/15/12	48	1		9/15/15	35	1		1/15/19	26	1
02/15/09	65	2		06/15/12	47	1		10/15/15	35	1		2/15/19	25	1
03/15/09	65	2		07/15/12	47	1		11/15/15	34	1		3/15/19	25	1
04/15/09	64	2		08/15/12	47	1		12/15/15	34	1		4/15/19	25	1