DISTRICT COURT, WATER DIVISION 1, COLORADO Weld County Courthouse P. O. Box 2038 Greeley, CO 80632	DATE FILED: May 2, 2023 CASE NUMBER: 2019CW3220  A COURT USE ONLY
CONCERNING THE APPLICATION FOR AMENDMENT OF AN AUGMENTATION PLAN OF INDEPENDENCE WATER AND SANITATION DISTRICT, Applicant,	Case Number: 2019CW3220
IN ELBERT COUNTY  FINDINGS OF FACT, CONCLUSIONS OF	DF LAW, JUDGMENT AND DECREE

A claim for approval of an amendment of a plan for augmentation was filed in this case on November 25, 2019. All matters contained in the application having been reviewed, such testimony having been taken and evidence presented as was necessary, and being otherwise fully advised in the premises, it is hereby the Findings of Fact, Conclusions of Law, Judgment and Decree, as follows:

#### **FINDINGS OF FACT**

1. Name and Address of Applicant:

Independence Water and Sanitation District 2370 Antelope Ridge Trail Parker, CO 80138

- 2. <u>Statements of Opposition</u>: Numerous statements of opposition were filed. The time for filing of statements of opposition has expired.
- 3. <u>Subject Matter Jurisdiction</u>: Timely and adequate notice of the application was published as required by statute, and the Court has jurisdiction over the subject matter of this proceeding and over the parties affected hereby, whether they have appeared or not.
- 4. <u>Consultation</u>: The Water Referee consulted with the Division Engineer, as required by C.R.S. § 37-92-302(4), on the application, on February 10, 2020, and the Division Engineer filed its summary of consultation on February 28, 2020. A written response was not required.
- 5. <u>Prior Decree Information</u>: Case No. 2006CW59, decreed on September 5, 2006, confirmed groundwater rights associated with 1012 acres located in all of Section 15, and the W1/2 and SW1/4 SE1/4 of Section 14, Township 7 South, Range 65 West of

the 6th P.M., Elbert County, Colorado, as described and shown on **Exhibit A** ("Subject Property"). The decree in Case No. 2006CW59 ("06CW59 Decree") confirmed rights to groundwater underlying the Subject Property in the not nontributary Upper Dawson, and the nontributary Lower Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers, including the right to use up to 288.3 acre-feet per year from the Upper Dawson aquifer which may be used, reused, and successively used for domestic, industrial, commercial, irrigation, stock watering, fire protection, and exchange and augmentation purposes, both on and off the Subject Property, subject to the need for a plan for augmentation.

- 5.1 The 06CW59 Decree also approved a plan for augmentation allowing use of a portion of the Upper Dawson groundwater, 75 acre-feet per year, for irrigation and in-house use on the Subject Property.
- 6. Applicant is the owner of a portion of the decreed Upper Dawson rights, 61.5 acre-feet per year, a portion of the Laramie-Fox Hills rights reserved for replacement of post-pumping depletions, 61.5 acre-feet per year, and a corresponding portion of the plan for augmentation, and has an option to purchase an additional 13.5 acre-feet per year of each.
  - 6.1 Applicant also owns the following portions of water rights in the 06CW59 Decree:

83 acre-feet per year from the Lower Dawson Aquifer. 388.5 acre-feet per year from the Denver Aquifer. 345.6 acre-feet per year from the Arapahoe Aquifer.

- 7. <u>Amendment to Plan for Augmentation</u>: By this decree, the decreed uses under the 06CW59 Decree are amended to include use, reuse, and successive use for in-house, municipal, domestic, industrial, commercial, irrigation, stock watering, fire protection, and exchange and augmentation purposes, on and off the Subject Property. The amount remains unchanged at 75 acre-feet per year. Exchange and/or augmentation may only occur pursuant to a lawfully authorized exchange or plan for augmentation.
- 8. Depletions from Pumping: The State of Colorado's Denver Basin depletion model has been updated since 2006 (AUG3, updated February 2019). Modeled stream depletions from pumping under the amended augmentation plan are shown in the depletion tables contained in **Exhibit B**, for both Sections 14 and 15. As modeled, Section 14 shows higher depletion percentages. Depletions shall be calculated by assuming the maximum amount of pumping for each year and replacements will be made based on the annual depletions in the Section 14 table contained in **Exhibit B**. Maximum depletions in Section 14 during pumping, assuming use of 75 acre-feet per year for 100 years, occur in the 100th year, and equals approximately 3.49% of the annual amount pumped, or 2.62 acre-feet per year.

- 9. Replacement During Pumping: A portion of the return flows from use of the not nontributary Upper Dawson Aquifer groundwater, whether via onsite wastewater treatment or via the Independence Water Resource and Recovery Facility ("IWRRF"), will be dedicated to replacement of depletions under this plan in amounts required to meet the replacement obligation defined in Paragraph 8. Since consumptive uses are possible, which uses might not themselves generate adequate return flow, Applicant shall also dedicate to replacement under this plan return flow from the IWRRF in the amounts required from any reusable source that can legally be used for augmentation purposes under this plan, which shall be relinquished to the stream or tributary groundwater system. Any further reuse, successive use or disposition of Applicant's wastewater will account for and not use wastewater used for replacement purposes in this plan or any wastewater that is being used to meet the required relinquishment for nontributary wells. If the accounting does not show adequate wastewater discharged so as to replace depletions, Applicant shall pump and directly release nontributary Denver and Arapahoe Aquifer groundwater in the amount needed to replace all depletions. Direct discharge of nontributary groundwater, and discharge of wastewater from the IWRRF, will be made to Henderson Gulch, a tributary to Running Creek, and all claimed return flows are within the Running Creek drainage.
  - 9.1 <u>Irrigation Return Flows</u>: Water discharged from the IWRRF will be used to provide irrigation on the Subject Property in the amount of approximately 156 acre-feet per year. According to the terms of the 06CW59 Decree, consumptive use from irrigation will be approximately 90%. Therefore, return flows from irrigation should be approximately 15.6 acre-feet annually, which is sufficient to replace the depletions during pumping under this plan. All water discharged from the IWRRF will be metered.
- 10. Post-Pumping Depletions: Assuming maximum pumping of 75 acre-feet per year for 100 years from the Upper Dawson Aquifer, the maximum total depletion to the affected stream system, Running Creek, will be approximately 5.23% or 3.92 acrefeet in the 195th year as modeled in Section 14. Applicant shall reserve 75 acre-feet per year, 7500 acre-feet total, of water from the nontributary Laramie-Fox Hills Aquifer for replacement of post-pumping depletions. Applicant may substitute the use of other nontributary groundwater, including return flows, either underlying the Subject Property, or from another location which is legally available for such purpose, for replacement of post-pumping depletions at such time that post-pumping depletions may begin. The Court retains continuing jurisdiction in this matter to determine if the supply is adequate.
  - 10.1 Post-pumping depletions shall be replaced for the shortest of the following periods: (1) the period provided by C.R.S. § 37-90-137(9)(c.5); (2) the period subsequently specified by the Colorado General Assembly, should it specify one, provided this plan is amended to so provide; (3) the period specified by the State Engineer, should he do so and have jurisdiction to do so; (4) the period established by rulings of the Colorado Supreme Court; or (5) upon determination by this Court, upon petition and notice to the parties and the

- State Engineer, that Applicant has complied with the applicable statutory requirement.
- 10.2 Applicant will begin making post-pumping replacements when either; (1) the total amount of water (7,500 acre-feet of Upper Dawson Aquifer groundwater) allowed to be withdrawn has been withdrawn from the well(s); (2) the Applicant, or its successors in interest, have acknowledged in writing that all withdrawals for beneficial use through the well(s) have permanently ceased; or (3) for a period of 10 consecutive years no withdrawals of groundwater have occurred through the well(s). At the time that post-pumping depletions begin as described in this paragraph, Applicant, or its successors in interest, are required to replace post-pumping depletions, subject to the terms and conditions of this decree. This condition constitutes a covenant running with the land.
- 11. Failure of Applicant, or its successors in interest, to comply with the terms of this decree may result in an order from the Division Engineer's office to curtail or eliminate pumping of the well(s). This decree shall be recorded in the real property records of Elbert County so that a title examination of the property, or any part thereof, shall reveal to all future purchasers the existence of this decree.
- 12. <u>Administration of Plan for Augmentation</u>:
  - 12.1 Applicant shall report to the Division Engineer for Water Division 1 upon request, a summary of the annual withdrawals from the well or wells, the annual depletion, the amount of replacement water discharged to the stream system from each source, the total amount of replacement water, the net effect on the stream and any other information reasonably required by the Division Engineer to administer this decree on an accounting form acceptable to the Division Engineer.
  - 12.2 All withdrawals which are the subject of this decree shall be metered.
  - 12.3 Pursuant to C.R.S. § 37-92-305(8), the State Engineer shall curtail all out-of-priority diversions, the depletions from which are not so replaced as to prevent injury to vested water rights.
- 13. No Injury to Other Groundwater Users: Objectors claim Applicant's plan will lower water levels in their Upper Dawson Aquifer wells. So long as Applicant uses only the amount of Upper Dawson groundwater available to it by law in compliance with the terms and conditions of this decree and the 06CW59 Decree, the resulting impact to water levels within the aquifer is allowed and is not considered injury to the rights of other well owners or users.
- 14. <u>No Claim of Injury to Vested Water Rights or Decreed Conditional Water Rights</u>: No owner of or person entitled to use water under a vested water right or decreed

- conditional water right has appeared or claimed injury, and there is no evidence of any such injury.
- 15. <u>No Injury</u>: The amended plan for augmentation will not injuriously affect the owner of or persons entitled to use water under a vested water right or a decreed conditional water right.

### **CONCLUSIONS OF LAW**

- 16. This Court has jurisdiction over the subject matter of these proceedings and over all who may be affected thereby, whether they have chosen to appear or not, pursuant to C.R.S. §§ 37-90-137(6), and 37-92-302 through 37-92-305.
- 17. Timely and adequate notice of the pendency of this action was given in the manner provided by law.
- 18. The amendment decreed herein is permissible under governing law and meets all the requirements for a plan for augmentation for the withdrawal of not nontributary groundwater from the Upper Dawson Aquifer. C.R.S. § 37-90-137(9)(c.5).
- 19. The terms and conditions as set forth in this decree for the amended plan for augmentation will prevent injury to the owners of, or persons entitled to use, water under a vested water right or a decreed conditional water right pursuant to C.R.S. § 37-92-305.
- 20. Material injury to vested nontributary groundwater rights shall not be deemed to result from the reduction of either hydrostatic pressure or water level in the aquifer, C.R.S. § 37-90-137(4)(c).
- 21. Groundwater in the Upper Dawson Aquifer in this location is "not nontributary groundwater" as defined in C.R.S. § 37-90-103(10.7), the use of which will deplete the flow of a natural stream at an annual rate of greater than one-tenth of one percent of the annual rate of withdrawal. Judicial approval of a plan for augmentation is required prior to the use of not nontributary groundwater. C.R.S. § 37-90-137(9)(c.5)(I)(A).
- 22. Applicant may withdraw up to 75 acre-feet per year, and no more than 7,500 acre-feet total, of not nontributary groundwater from the Upper Dawson Aquifer under the plan for augmentation decreed herein pursuant to C.R.S. § 37-90-137(9)(c.5).
- 23. Decrees approving plans for augmentation for the use of not nontributary groundwater from the Upper Dawson Aquifer must provide for the replacement of actual out-of-priority depletions to the stream caused by withdrawals from the wells and must meet all other statutory criteria for the plans. C.R.S. §37-90-137(9)(c.5)(B). Withdrawal

- and use of 75 acre-feet per year, and no more than 7,500 acre-feet total, from the Upper Dawson Aquifer under this amended plan for augmentation will not cause material injury to the rights of any water user in the Upper Dawson Aquifer.
- 24. The anti-speculation doctrine, which was first developed as a limitation on conditional decrees and which mandates a threshold showing of a proposed non-speculative, beneficial use before the development of a water project, is not applicable to a judicial determination of available nontributary groundwater outside of designated basins. Anti-speculation is applied by the State Engineer during the well permitting process. *E. Cherry Creek Valley Water & Sanitation Dist. v. Rangeview Metro. Dist.*, 109 P.3d 154, 158 (Colo. 2005).
- 25. A plan for augmentation shall be approved if it will not injuriously affect the owner of or persons entitled to use water under a vested water right or a decreed conditional water right. C.R.S. § 37-92-305(3)(a).
- 26. Vested "water rights" and decreed "conditional water rights" refer to rights under the prior appropriation system to use "waters of the state," meaning surface water or tributary groundwater. C.R.S. §§ 37-92-103(6), (12) and (13). Nontributary and not nontributary groundwater are not "waters of the state" and rights to nontributary and not nontributary groundwater are neither "water rights" nor "conditional water rights." In this context, an augmentation plan is intended to prevent injury to owners or users of surface water or tributary groundwater.
- 27. Since this amended plan for augmentation will not injuriously affect the owner of or persons entitled to use water under a vested water right or a decreed conditional water right, it shall be approved. C.R.S. § 37-92-305(3)(a).

### **JUDGMENT AND DECREE**

- 28. The foregoing Findings of Fact and Conclusions of Law are fully incorporated herein.
- 29. The amended plan for augmentation described in Paragraphs 7 through 12 above is approved, subject to the terms and conditions enumerated herein.
- 30. Retained Jurisdiction for Plan for Augmentation:
  - 30.1 Pursuant to C.R.S. § 37-92-304(6), the Court retains continuing jurisdiction over the plan for augmentation decreed herein for reconsideration of the question whether the provisions of this decree are necessary and/or sufficient to prevent injury to vested water rights of others. The Court also has jurisdiction for the purposes of determining compliance with the terms of the augmentation plan.
  - 30.2 Any party seeking to invoke the retained jurisdiction of the Court shall file a verified petition with the Court. The petition to invoke retained jurisdiction or

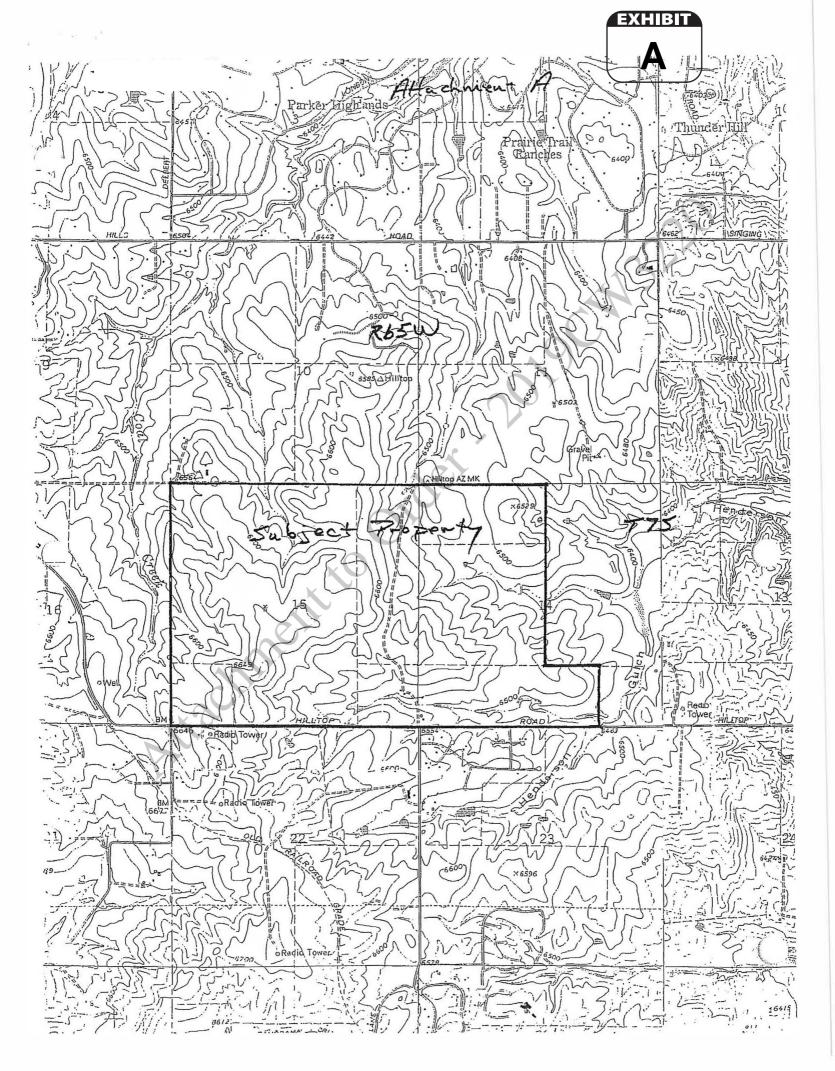
to modify this decree shall set forth with particularity the factual basis and the requested decretal language to effect the petition. The party lodging the petition shall have the burden of going forward to establish prima facie facts alleged in the petition. If the Court finds those facts to be established, Applicant shall thereupon have the burden of proof to show: (1) that any modification sought by Applicant will avoid injury to other appropriators, or (2) that any modification sought by Objector is not required to avoid injury to other appropriators, or (3) that any term or condition proposed by Applicant in response to the objector's petition does avoid injury to other appropriators.

30.3 The Court retains jurisdiction for the purpose of determining whether the continued reservation of the nontributary water for use on the Subject Property is required. After notice to the State Engineer's Office, if Applicant can demonstrate to the Court that post-pumping depletions need no longer be replaced, the Court may remove the requirement that the nontributary water must be reserved.

Date: May 2, 2023.

Todd L. Taylor Water Judge

Water Division One



# SECTION 14 INDEPENDENCE WATER & SANITATION DISTRICT MODELED STREAM DEPLETIONS - PUMPING UPPER DAWSON AQUIFER



Pumping the Full 75 af/yr

No Years														
5         0.01         0.01         255         5.12         3.84         505         4.09         3.07         755         3.12         2.34           10         0.05         0.04         260         5.11         3.83         510         4.07         3.05         760         3.11         2.32           20         0.19         0.14         270         5.08         3.81         520         4.05         3.04         765         3.02         2.32           20         0.19         0.14         270         5.08         3.81         520         4.03         3.02         770         3.07         2.31           25         0.30         0.22         275         5.06         3.78         530         3.98         2.99         780         3.04         2.28           35         0.58         0.43         285         5.03         3.77         555         3.96         2.97         785         3.03         2.27           40         0.74         0.56         290         5.51         3.75         640         3.94         2.96         790         3.01         2.22           40         0.74         0.56         3.93														
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70         2 00         1.50         320         4.89         3.67         570         3.82         2.86         820         2.91         2.18           75         2.24         1.86         325         4.87         3.65         575         3.80         2.85         825         2.90         2.17           80         2.49         1.86         330         4.83         3.62         585         3.76         2.82         835         2.87         2.15           90         2.98         2.24         340         4.81         3.61         590         3.74         2.80         840         2.85         2.14         95         3.24         2.43         345         4.79         3.59         595         3.72         2.79         845         2.84         2.13         100         3.49         2.62         350         4.75         3.56         600         3.89         2.77         845         2.84         2.12         105         3.74         2.80         355         4.75         3.56         605         3.68         2.76         855         2.81         2.10         101         3.97         2.97         3.00         4.73         3.55         610 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>,</td><td></td><td></td><td></td></td<>											,			
75											/			
80         2.49         1.86         330         4.85         3.64         580         3.78         2.82         830         2.88         2.16           85         2.73         2.05         335         4.83         3.62         585         3.76         2.82         835         2.87         2.15           90         2.98         2.24         340         4.81         3.61         590         3.74         2.80         840         2.85         2.14         95         3.24         2.43         345         4.79         3.59         595         3.72         2.79         845         2.84         2.13         100         3.49         2.62         350         4.77         3.58         600         3.68         2.77         860         2.82         2.12         101         105         3.74         2.80         355         4.75         3.56         605         3.68         2.74         860         2.82         2.12         101         101         3.97         2.97         360         4.73         3.55         615         3.60         2.74         860         2.79         2.09         115         4.17         3.53         615         3.62         2.71         <										7.1				
85         2,73         2,05         335         4,83         3,62         585         3,76         2,28         835         2,87         2,15           90         2,98         2,24         340         4,81         3,61         590         3,74         2,80         840         2,85         2,14           95         3,24         2,43         345         4,79         3,59         595         3,72         2,79         865         2,82         2,12           105         3,74         2,80         355         4,77         3,58         600         3,98         2,77         850         2,82         2,12           110         3,97         2,97         360         4,73         3,55         610         3,66         2,73         865         2,81         2,10           115         4,17         3,13         365         4,71         3,53         616         3,64         2,73         865         2,78         2,08           115         4,17         3,13         365         4,61         3,64         2,27         865         2,78         2,08           125         4,50         3,38         3,75         4,66         3,50 <td></td>														
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95 3.24 2.43 345 4.79 3.59 600 3.69 2.77 850 2.82 2.12 100 3.49 2.62 350 4.75 3.56 600 3.69 2.77 850 2.82 2.12 105 3.74 2.80 355 4.75 3.56 600 3.69 2.77 850 2.82 2.12 105 3.74 2.80 355 4.75 3.56 600 3.69 2.77 850 2.82 2.12 105 3.74 2.80 355 4.75 3.56 600 3.69 2.77 850 2.82 2.12 105 2.00 110 3.97 2.97 360 4.73 3.55 610 3.66 2.74 860 2.79 2.09 115 4.17 3.13 365 4.71 3.53 615 620 3.62 2.71 870 2.76 2.07 125 4.50 3.38 375 4.66 3.50 625 3.60 2.70 875 2.75 2.06 130 4.64 3.48 380 4.64 3.48 630 3.58 2.68 880 2.73 2.05 135 4.76 3.57 385 4.62 3.46 635 3.56 2.67 885 2.72 2.04 140 4.85 3.64 330 4.60 3.45 640 3.54 2.65 890 2.70 2.03 145 4.94 3.70 395 4.58 3.43 645 640 3.54 2.65 890 2.70 2.03 145 4.94 3.70 395 4.58 3.43 645 650 3.50 2.62 900 2.67 2.01 155 5.06 3.79 400 4.55 3.42 650 3.50 2.62 900 2.67 2.01 155 5.06 3.79 400 4.53 3.40 650 3.48 2.61 905 2.66 2.00 160 5.11 3.83 410 4.51 3.38 660 3.46 2.60 910 2.65 1.99 165 5.14 3.86 415 4.94 3.37 665 3.44 2.58 915 2.63 1.97 170 5.17 3.88 420 4.47 3.35 670 3.43 2.57 920 2.62 1.96 175 5.19 3.89 425 4.44 3.33 675 3.41 2.56 925 2.60 1.95 180 5.21 3.91 430 4.42 3.32 680 3.39 2.54 930 2.59 1.94 185 5.22 3.91 430 4.42 3.32 680 3.39 2.54 930 2.59 1.94 185 5.22 3.91 430 4.42 3.32 680 3.39 2.54 930 2.59 1.94 185 5.22 3.91 430 4.42 3.32 680 3.39 2.54 930 2.59 1.94 185 5.22 3.91 445 4.38 3.28 690 3.35 2.51 940 2.56 1.92 195 5.23 3.92 445 4.33 3.25 700 3.32 2.49 950 2.54 1.90 2.05 5.23 3.92 445 4.33 3.25 700 3.32 2.49 950 2.54 1.90 2.05 5.23 3.92 445 4.33 3.25 700 3.32 2.49 950 2.54 1.88 215 5.22 3.91 465 4.27 3.20 715 3.28 2.45 965 2.50 1.87 2.20 5.21 3.91 465 4.27 3.20 715 3.20 2.44 950 2.44 1.88 2.35 2.44 1.88 2.35 5.18 3.88 480 4.20 3.15 775 3.23 2.42 970 2.48 1.86 2.55 2.50 3.90 2.45 1.88 2.55 2.50 3.90 2.45 1.88 2.55 2.50 3.90 2.45 1.88 2.55 2.50 3.90 2.45 1.88 2.55 2.50 3.90 2.45 1.88 2.55 2.50 3.90 2.45 1.88 2.55 2.50 3.90 2.45 1.88 2.55 2.50 3.90 2.45 1.88 2.55 2.50 3.90 2.45 1.88 2.55 2.50 3.90 2.45 1.88 2.55 2.50 3.90 2.45 1.88 2.50 3.50 3.20 3.20 3.20 3.20 3.20 3.20 3.20 3.2														
100         3.49         2.62         350         4.77         3.58         600         3.89         2.77         850         2.82         2.12           105         3.74         2.80         355         4.75         3.56         605         3.68         2.74         860         2.79         2.09           115         4.17         3.13         365         4.71         3.53         615         3.64         2.73         865         2.79         2.09           120         4.35         3.26         3.70         4.68         3.51         620         3.62         2.71         870         2.76         2.07           125         4.50         3.38         375         4.66         3.50         625         3.60         2.70         875         2.75         2.06           130         4.64         3.48         380         4.62         3.46         635         3.56         2.67         885         2.72         2.04           140         4.85         3.64         390         4.60         3.45         640         3.54         2.65         890         2.72         2.04           140         4.85         3.64         4.93														
105   3.74   2.80   355   4.75   3.56   605   3.68   2.76   855   2.81   2.10     110   3.97   2.97   360   4.73   3.55   610   3.66   2.73   865   2.78   2.08     120   4.35   3.26   370   4.68   3.51   620   3.62   2.71   870   2.76   2.07     125   4.50   3.38   375   4.66   3.50   625   3.60   2.70   875   2.75   2.06     130   4.64   3.48   380   4.64   3.48   630   3.58   2.68   880   2.73   2.05     135   4.76   3.57   385   4.62   3.46   635   3.56   2.67   885   2.72   2.04     140   4.85   3.64   3.90   4.60   3.45   640   3.54   2.65   890   2.70   2.03     145   4.94   3.70   3.95   4.58   3.43   645   3.52   2.64   895   2.69   2.02     150   5.00   3.75   400   4.55   3.42   650   3.50   2.62   900   2.67   2.01     160   5.11   3.83   410   4.51   3.38   660   3.46   2.60   910   2.65   1.99     160   5.11   3.88   420   4.47   3.35   667   3.44   2.58   915   2.63   1.97     170   5.17   3.88   420   4.47   3.35   667   3.44   2.56   925   2.60   1.95     185   5.22   3.91   435   4.40   3.30   685   3.37   2.53   3.92   446   4.35   3.27   695   3.33   2.54   930   2.55   1.94     190   5.23   3.92   446   4.35   3.27   695   3.33   2.50   945   2.55   1.91     200   5.23   3.92   446   4.35   3.27   695   3.30   2.47   955   2.55   1.91     200   5.23   3.92   446   4.35   3.27   695   3.33   2.50   945   2.55   1.91     200   5.23   3.92   446   4.35   3.27   695   3.30   2.47   955   2.55   1.91     200   5.23   3.92   446   4.35   3.27   695   3.33   2.50   945   2.55   1.91     201   5.23   3.92   446   4.35   3.27   695   3.30   2.47   955   2.52   1.89     202   5.23   3.92   446   4.35   3.27   695   3.30   2.47   955   2.52   1.89     203   5.18   3.88   485   4.18   3.13   735   3.19   2.39   985   2.44   1.83     240   5.17   3.88   490   4.16   3.12   740   3.18   2.38   990   2.43   1.82     240   5.17   3.88   490   4.16   3.12   740   3.18   2.38   990   2.43   1.82     241   5.17   3.88   490   4.16   3.12   740   3.18   2.38   990   2.43   3.82     242   5.17   3.88   490   4														
110         3.97         2.97         360         4.73         3.55         610         3.66         2.74         860         2.79         2.09           115         4.17         3.13         365         4.71         3.53         615         3.64         2.73         865         2.78         2.08           120         4.35         3.26         370         4.68         3.51         620         3.62         2.71         870         2.76         2.07           125         4.50         3.38         375         4.66         3.50         625         3.60         2.70         875         2.75         2.06           130         4.64         3.48         380         4.64         3.48         380         4.60         3.45         635         3.56         2.67         885         2.72         2.04           140         4.85         3.64         390         4.60         3.45         640         3.54         2.65         880         2.70         2.03           145         4.94         3.70         385         4.58         3.42         660         3.50         2.62         900         2.67         2.01           155 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>V</td> <td></td> <td></td> <td></td> <td></td> <td></td>									V					
115         4.17         3.13         365         4.71         3.53         616         3.64         2.73         865         2.78         2.08           120         4.35         3.26         370         4.68         3.51         620         3.62         2.71         870         2.76         2.07           130         4.64         3.48         380         4.64         3.48         630         3.58         2.68         880         2.73         2.05           135         4.76         3.57         385         4.62         3.46         635         3.56         2.67         885         2.72         2.04           140         4.85         3.64         390         4.60         3.45         640         3.54         2.65         889         2.72         2.04           145         4.94         3.70         395         4.58         3.43         645         3.52         2.64         895         2.69         2.02           155         5.06         3.79         405         4.53         3.40         655         3.48         2.61         905         2.66         2.00           165         5.14         3.83         410 </td <td></td>														
120         4.35         3.26         370         4.68         3.51         620         3.62         2.71         870         2.76         2.07           125         4.50         3.38         375         4.66         3.50         625         3.60         2.70         875         2.75         2.06           130         4.64         3.48         380         4.62         3.46         635         3.56         2.67         885         2.72         2.04           140         4.85         3.64         390         4.60         3.45         640         3.54         2.65         890         2.70         2.03           145         4.94         3.70         395         4.55         3.42         650         3.50         2.62         900         2.67         2.01           155         5.06         3.79         405         4.53         3.40         655         3.48         2.61         905         2.66         2.00           160         5.11         3.83         410         4.51         3.38         660         3.44         2.58         915         2.65         1.99           165         5.14         3.86         415 </td <td></td>														
125         4.50         3.38         375         4.66         3.50         625         3.60         2.70         875         2.75         2.06           130         4.64         3.48         380         4.64         3.48         630         3.58         2.68         880         2.73         2.05           140         4.85         3.64         390         4.60         3.45         640         3.54         2.65         890         2.70         2.03           145         4.94         3.70         395         4.58         3.43         645         3.52         2.64         895         2.69         2.02           150         5.00         3.75         400         4.55         3.42         650         3.50         2.62         900         2.67         2.01           155         5.06         3.79         405         4.53         3.40         655         3.48         2.61         905         2.66         2.00           160         5.11         3.83         410         4.51         3.38         660         3.44         2.58         915         2.63         1.97           170         5.17         3.88         420 </td <td></td>														
130       4.64       3.48       380       4.64       3.48       630       3.58       2.68       880       2.73       2.05         135       4.76       3.57       385       4.62       3.46       635       3.56       2.67       885       2.72       2.04         140       4.85       3.64       390       4.60       3.45       640       3.54       2.65       890       2.70       2.03         145       4.94       3.70       395       4.58       3.43       645       3.52       2.64       895       2.69       2.02         150       5.00       3.75       400       4.55       3.42       650       3.50       2.62       900       2.67       2.01         155       5.06       3.79       405       4.53       3.40       655       3.48       2.61       905       2.66       2.00         160       5.11       3.83       410       4.51       3.38       660       3.44       2.58       915       2.63       1.99         165       5.14       3.86       415       4.49       3.37       665       3.44       2.58       915       2.63       1.97														
135         4.76         3.57         385         4.62         3.46         635         3.56         2.67         885         2.72         2.04           140         4.85         3.64         390         4.60         3.45         640         3.54         2.65         890         2.70         2.03           145         4.94         3.70         395         4.58         3.43         645         3.52         2.64         895         2.69         2.02           150         5.00         3.75         400         4.55         3.42         650         3.50         2.62         900         2.67         2.01           155         5.06         3.79         405         4.53         3.40         655         3.48         2.61         905         2.66         2.00           160         5.11         3.83         410         4.51         3.38         660         3.46         2.58         915         2.65         1.99           170         5.17         3.88         420         4.47         3.35         670         3.43         2.57         920         2.62         1.96           175         5.19         3.89         425 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>- (</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							- (							
145         4.94         3.70         395         4.58         3.43         645         3.52         2.64         895         2.69         2.02           150         5.00         3.75         400         4.55         3.42         650         3.50         2.62         900         2.67         2.01           155         5.06         3.79         405         4.53         3.40         655         3.48         2.61         905         2.66         2.00           160         5.11         3.83         410         4.51         3.38         660         3.46         2.60         910         2.65         1.99           165         5.14         3.86         415         4.49         3.37         665         3.44         2.58         915         2.63         1.97           170         5.17         3.88         420         4.47         3.35         670         3.43         2.57         920         2.62         1.96           175         5.19         3.89         425         4.44         3.33         675         3.41         2.56         925         2.60         1.95           180         5.21         3.91         435 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>A CONTRACTOR OF THE CONTRACTOR</td> <td></td> <td></td> <td></td> <td>2.67</td> <td></td> <td></td> <td></td> <td></td>						A CONTRACTOR OF THE CONTRACTOR				2.67				
150         5.00         3.75         400         4.55         3.42         650         3.50         2.62         900         2.67         2.01           155         5.06         3.79         405         4.53         3.40         655         3.48         2.61         905         2.66         2.00           160         5.11         3.83         410         4.51         3.38         660         3.46         2.60         910         2.65         1.99           165         5.14         3.86         415         4.49         3.37         665         3.44         2.58         915         2.63         1.97           170         5.17         3.88         420         4.47         3.35         670         3.43         2.57         920         2.62         1.96           175         5.19         3.89         425         4.44         3.33         675         3.41         2.56         925         2.60         1.95           180         5.21         3.91         430         4.42         3.32         680         3.39         2.54         930         2.59         1.94           185         5.22         3.91         435 </td <td>140</td> <td>4.85</td> <td>3.64</td> <td>390</td> <td>4.60</td> <td>3.45</td> <td></td> <td>640</td> <td>3.54</td> <td>2.65</td> <td></td> <td>890</td> <td>2.70</td> <td>2.03</td>	140	4.85	3.64	390	4.60	3.45		640	3.54	2.65		890	2.70	2.03
155         5.06         3.79         405         4.53         3.40         655         3.48         2.61         905         2.66         2.00           160         5.11         3.83         410         4.51         3.38         660         3.46         2.60         910         2.65         1.99           165         5.14         3.86         415         4.49         3.37         665         3.44         2.58         915         2.63         1.97           170         5.17         3.88         420         4.47         3.35         670         3.43         2.57         920         2.62         1.96           175         5.19         3.89         425         4.44         3.33         675         3.41         2.56         925         2.60         1.95           180         5.21         3.91         430         4.42         3.32         680         3.37         2.53         935         2.58         1.93           190         5.23         3.92         440         4.38         3.28         690         3.35         2.51         940         2.56         1.92           195         5.23         3.92         445 </td <td>145</td> <td>4.94</td> <td>3.70</td> <td>395</td> <td>4.58</td> <td>3.43</td> <td></td> <td>645</td> <td>3.52</td> <td>2.64</td> <td></td> <td>895</td> <td>2.69</td> <td>2.02</td>	145	4.94	3.70	395	4.58	3.43		645	3.52	2.64		895	2.69	2.02
160         5.11         3.83         410         4.51         3.38         660         3.46         2.60         910         2.65         1.99           165         5.14         3.86         415         4.49         3.37         665         3.44         2.58         915         2.63         1.97           170         5.17         3.88         420         4.47         3.35         670         3.43         2.57         920         2.62         1.96           175         5.19         3.89         425         4.44         3.33         675         3.41         2.56         925         2.60         1.95           180         5.21         3.91         430         4.42         3.32         680         3.39         2.54         930         2.59         1.94           185         5.22         3.91         435         4.40         3.30         685         3.37         2.53         935         2.58         1.93           190         5.23         3.92         440         4.38         3.28         690         3.35         2.51         940         2.56         1.92           195         5.23         3.92         455 </td <td>150</td> <td>5.00</td> <td>3.75</td> <td>400</td> <td>4.55</td> <td>3.42</td> <td></td> <td>650</td> <td>3.50</td> <td>2.62</td> <td></td> <td>900</td> <td>2.67</td> <td>2.01</td>	150	5.00	3.75	400	4.55	3.42		650	3.50	2.62		900	2.67	2.01
165         5.14         3.86         415         4.49         3.37         665         3.44         2.58         915         2.63         1.97           170         5.17         3.88         420         4.47         3.35         670         3.43         2.57         920         2.62         1.96           175         5.19         3.89         425         4.44         3.33         675         3.41         2.56         925         2.60         1.95           180         5.21         3.91         430         4.42         3.32         680         3.39         2.54         930         2.59         1.94           185         5.22         3.91         435         4.40         3.30         685         3.37         2.53         935         2.58         1.93           190         5.23         3.92         440         4.38         3.28         690         3.35         2.51         940         2.56         1.92           195         5.23         3.92         445         4.35         3.27         695         3.33         2.50         945         2.55         1.91           200         5.23         3.92         450 </td <td>155</td> <td>5.06</td> <td>3.79</td> <td>405</td> <td>4.53</td> <td>3.40</td> <td></td> <td>655</td> <td>3.48</td> <td>2.61</td> <td></td> <td>905</td> <td>2.66</td> <td>2.00</td>	155	5.06	3.79	405	4.53	3.40		655	3.48	2.61		905	2.66	2.00
170       5.17       3.88       420       4.47       3.35       670       3.43       2.57       920       2.62       1.96         175       5.19       3.89       425       4.44       3.33       675       3.41       2.56       925       2.60       1.95         180       5.21       3.91       430       4.42       3.32       680       3.39       2.54       930       2.59       1.94         185       5.22       3.91       435       4.40       3.30       685       3.37       2.53       935       2.58       1.93         190       5.23       3.92       440       4.38       3.28       690       3.35       2.51       940       2.56       1.92         195       5.23       3.92       445       4.35       3.27       695       3.33       2.50       945       2.55       1.91         200       5.23       3.92       450       4.33       3.25       700       3.32       2.49       950       2.54       1.90         205       5.23       3.92       460       4.29       3.22       710       3.28       2.46       960       2.51       1.88	160	5.11	3.83	410	4.51	3.38		660	3.46	2.60		910	2.65	1.99
175         5.19         3.89         425         4.44         3.33         675         3.41         2.56         925         2.60         1.95           180         5.21         3.91         430         4.42         3.32         680         3.39         2.54         930         2.59         1.94           185         5.22         3.91         435         4.40         3.30         685         3.37         2.53         935         2.58         1.93           190         5.23         3.92         440         4.38         3.28         690         3.35         2.51         940         2.56         1.92           195         5.23         3.92         445         4.35         3.27         695         3.33         2.50         945         2.55         1.91           200         5.23         3.92         450         4.33         3.25         700         3.32         2.49         950         2.54         1.90           205         5.23         3.92         460         4.29         3.22         710         3.28         2.46         960         2.51         1.89           210         5.23         3.91         465 </td <td>165</td> <td>5.14</td> <td>3.86</td> <td>415</td> <td>4.49</td> <td>3.37</td> <td></td> <td>665</td> <td>3.44</td> <td>2.58</td> <td></td> <td>915</td> <td>2.63</td> <td>1.97</td>	165	5.14	3.86	415	4.49	3.37		665	3.44	2.58		915	2.63	1.97
180       5.21       3.91       430       4.42       3.32       680       3.39       2.54       930       2.59       1.94         185       5.22       3.91       435       4.40       3.30       685       3.37       2.53       935       2.58       1.93         190       5.23       3.92       440       4.38       3.28       690       3.35       2.51       940       2.56       1.92         195       5.23       3.92       445       4.35       3.27       695       3.33       2.50       945       2.55       1.91         200       5.23       3.92       450       4.33       3.25       700       3.32       2.49       950       2.54       1.90         205       5.23       3.92       450       4.33       3.25       700       3.32       2.49       950       2.54       1.90         205       5.23       3.92       455       4.31       3.23       705       3.30       2.47       955       2.52       1.89         210       5.23       3.92       460       4.29       3.22       710       3.28       2.46       960       2.51       1.88	170	5.17	3.88	420	4.47	3.35		670	3.43	2.57		920	2.62	1.96
185         5.22         3.91         435         4.40         3.30         685         3.37         2.53         935         2.58         1.93           190         5.23         3.92         440         4.38         3.28         690         3.35         2.51         940         2.56         1.92           195         5.23         3.92         445         4.35         3.27         695         3.33         2.50         945         2.55         1.91           200         5.23         3.92         450         4.33         3.25         700         3.32         2.49         950         2.54         1.90           205         5.23         3.92         455         4.31         3.23         705         3.30         2.47         955         2.52         1.89           210         5.23         3.92         460         4.29         3.22         710         3.28         2.46         960         2.51         1.88           215         5.22         3.91         465         4.27         3.20         715         3.26         2.45         965         2.50         1.87           220         5.21         3.91         470 </td <td>175</td> <td>5.19</td> <td>3.89</td> <td>425</td> <td>4.44</td> <td>3.33</td> <td></td> <td>675</td> <td>3.41</td> <td>2.56</td> <td></td> <td>925</td> <td>2.60</td> <td>1.95</td>	175	5.19	3.89	425	4.44	3.33		675	3.41	2.56		925	2.60	1.95
190       5.23       3.92       440       4.38       3.28       690       3.35       2.51       940       2.56       1.92         195       5.23       3.92       445       4.35       3.27       695       3.33       2.50       945       2.55       1.91         200       5.23       3.92       450       4.33       3.25       700       3.32       2.49       950       2.54       1.90         205       5.23       3.92       455       4.31       3.23       705       3.30       2.47       955       2.52       1.89         210       5.23       3.92       460       4.29       3.22       710       3.28       2.46       960       2.51       1.89         215       5.22       3.91       465       4.27       3.20       715       3.26       2.45       965       2.50       1.87         220       5.21       3.91       470       4.24       3.18       720       3.24       2.43       970       2.48       1.86         225       5.20       3.90       475       4.22       3.17       725       3.23       2.42       975       2.47       1.85					/ \ /									
195       5.23       3.92       445       4.35       3.27       695       3.33       2.50       945       2.55       1.91         200       5.23       3.92       450       4.33       3.25       700       3.32       2.49       950       2.54       1.90         205       5.23       3.92       455       4.31       3.23       705       3.30       2.47       955       2.52       1.89         210       5.23       3.92       460       4.29       3.22       710       3.28       2.46       960       2.51       1.89         215       5.22       3.91       465       4.27       3.20       715       3.26       2.45       965       2.50       1.87         220       5.21       3.91       470       4.24       3.18       720       3.24       2.43       970       2.48       1.86         225       5.20       3.90       475       4.22       3.17       725       3.23       2.42       975       2.47       1.85         230       5.19       3.89       480       4.20       3.15       730       3.21       2.41       980       2.46       1.84														
200     5.23     3.92     450     4.33     3.25     700     3.32     2.49     950     2.54     1.90       205     5.23     3.92     455     4.31     3.23     705     3.30     2.47     955     2.52     1.89       210     5.23     3.92     460     4.29     3.22     710     3.28     2.46     960     2.51     1.88       215     5.22     3.91     465     4.27     3.20     715     3.26     2.45     965     2.50     1.87       220     5.21     3.91     470     4.24     3.18     720     3.24     2.43     970     2.48     1.86       225     5.20     3.90     475     4.22     3.17     725     3.23     2.42     975     2.47     1.85       230     5.19     3.89     480     4.20     3.15     730     3.21     2.41     980     2.46     1.84       235     5.18     3.88     485     4.18     3.13     735     3.19     2.39     985     2.44     1.83       240     5.17     3.88     490     4.16     3.12     740     3.18     2.38     990     2.43     1.82  <														
205     5.23     3.92     455     4.31     3.23     705     3.30     2.47     955     2.52     1.89       210     5.23     3.92     460     4.29     3.22     710     3.28     2.46     960     2.51     1.88       215     5.22     3.91     465     4.27     3.20     715     3.26     2.45     965     2.50     1.87       220     5.21     3.91     470     4.24     3.18     720     3.24     2.43     970     2.48     1.86       225     5.20     3.90     475     4.22     3.17     725     3.23     2.42     975     2.47     1.85       230     5.19     3.89     480     4.20     3.15     730     3.21     2.41     980     2.46     1.84       235     5.18     3.88     485     4.18     3.13     735     3.19     2.39     985     2.44     1.83       240     5.17     3.88     490     4.16     3.12     740     3.18     2.38     990     2.43     1.82														
210     5.23     3.92     460     4.29     3.22     710     3.28     2.46     960     2.51     1.88       215     5.22     3.91     465     4.27     3.20     715     3.26     2.45     965     2.50     1.87       220     5.21     3.91     470     4.24     3.18     720     3.24     2.43     970     2.48     1.86       225     5.20     3.90     475     4.22     3.17     725     3.23     2.42     975     2.47     1.85       230     5.19     3.89     480     4.20     3.15     730     3.21     2.41     980     2.46     1.84       235     5.18     3.88     485     4.18     3.13     735     3.19     2.39     985     2.44     1.83       240     5.17     3.88     490     4.16     3.12     740     3.18     2.38     990     2.43     1.82														
215     5.22     3.91     465     4.27     3.20     715     3.26     2.45     965     2.50     1.87       220     5.21     3.91     470     4.24     3.18     720     3.24     2.43     970     2.48     1.86       225     5.20     3.90     475     4.22     3.17     725     3.23     2.42     975     2.47     1.85       230     5.19     3.89     480     4.20     3.15     730     3.21     2.41     980     2.46     1.84       235     5.18     3.88     485     4.18     3.13     735     3.19     2.39     985     2.44     1.83       240     5.17     3.88     490     4.16     3.12     740     3.18     2.38     990     2.43     1.82														
220     5.21     3.91     470     4.24     3.18     720     3.24     2.43     970     2.48     1.86       225     5.20     3.90     475     4.22     3.17     725     3.23     2.42     975     2.47     1.85       230     5.19     3.89     480     4.20     3.15     730     3.21     2.41     980     2.46     1.84       235     5.18     3.88     485     4.18     3.13     735     3.19     2.39     985     2.44     1.83       240     5.17     3.88     490     4.16     3.12     740     3.18     2.38     990     2.43     1.82														
225     5.20     3.90     475     4.22     3.17     725     3.23     2.42     975     2.47     1.85       230     5.19     3.89     480     4.20     3.15     730     3.21     2.41     980     2.46     1.84       235     5.18     3.88     485     4.18     3.13     735     3.19     2.39     985     2.44     1.83       240     5.17     3.88     490     4.16     3.12     740     3.18     2.38     990     2.43     1.82														
230     5.19     3.89     480     4.20     3.15     730     3.21     2.41     980     2.46     1.84       235     5.18     3.88     485     4.18     3.13     735     3.19     2.39     985     2.44     1.83       240     5.17     3.88     490     4.16     3.12     740     3.18     2.38     990     2.43     1.82														
235     5.18     3.88     485     4.18     3.13     735     3.19     2.39     985     2.44     1.83       240     5.17     3.88     490     4.16     3.12     740     3.18     2.38     990     2.43     1.82														
240     5.17     3.88     490     4.16     3.12     740     3.18     2.38     990     2.43     1.82														
245 515 3.87   1 495 4.14 3.10   1 745 3.16 2.37   1 905 2.42 1.81														
	245	5.15	3.87	495	4.14	3.10		745	3.16	2.37		995	2.42	1.81
250 5.14 3.85   500 4.11 3.08   750 3.14 2.36   1000 2.41 1.80	250	5.14	3.85	500	4.11	3.08		750	3.14	2.36		1000	2.41	1.80

# SECTION 15 INDEPENDENCE WATER & SANITATION DISTRICT MODELED STREAM DEPLETIONS - PUMPING UPPER DAWSON AQUIFER

Pumping the Full 75 af/yr

Depletions     Volume     Depletions     Volume     Depletions     Volume       No. Years     %     af/yr     No. Years     %     af/yr     No. Years     %	Depletions Volume Years % af/yr
5 000 000   055 540 007   505 404 040   7	55 000 0.40
	55 3.20 2.40
	60 3.18 2.39 3.16 3.37
	65 3.16 2.37
	70 3.15 2.36
	75 3.13 2.35 80 3.11 2.33
	3.11 2.33 85 3.09 2.32
	90 3.08 2.31
	95 3.06 2.30
	95 3.00 2.30 00 3.04 2.28
	05 3.03 2.27
	10 3.01 2.26
	15 2.99 2.25
	20 2.98 2.23
	25 2.96 2.22
	30 2.94 2.21
	35 2.93 2.20
	40 2.91 2.18
	45 2.90 2.17
	50 2.88 2.16
	55 2.87 2.15
	60 2.85 2.14
	65 2.83 2.12
	70 2.82 2.11
	75 2.80 2.10
	80 2.79 2.09
	85 2.77 2.08
	90 2.76 2.07
	95 2.74 2.06
	00 2.73 2.05
	05 2.71 2.03
	10 2.70 2.02
	15 2.68 2.01
	20 2.67 2.00
	25 2.65 1.99
	30 2.64 1.98
185 4.87 3.65 4.57 3.42 685 3.46 2.59 9	35 2.63 1.97
	40 2.61 1.96
	45 2.60 1.95
	50 2.58 1.94
205 5.03 3.77 455 4.47 3.35 705 3.38 2.54 9	55 2.57 1.93
210 5.06 3.79 460 4.45 3.34 710 3.36 2.52 9	60 2.56 1.92
215 5.08 3.81 465 4.42 3.32 715 3.35 2.51 9	65 2.54 1.91
220 5.10 3.83 470 4.40 3.30 720 3.33 2.49 9	70 2.53 1.90
	75 2.51 1.89
230 5.13 3.85 480 4.35 3.27 730 3.29 2.47 9	80 2.50 1.88
235 5.14 3.86 485 4.33 3.25 735 3.27 2.45 9	85 2.49 1.87
	90 2.47 1.86
245 5.16 3.87 495 4.28 3.21 745 3.24 2.43 9	95 2.46 1.85
250 5.16 3.87 500 4.26 3.19 750 3.22 2.41 10	000 2.45 1.84