

BEFORE THE MONTANA TAX APPEAL BOARD

**FILED**

MAY 24 2018

STATE OF MONTANA,  
DEPARTMENT OF REVENUE,

*Appellant and  
Cross Respondent,*

v.

CHS, INC.,

*Respondent and  
Cross Appellant.*

Montana Tax Appeal Board

Case No.: SPT-2015-33  
(2014 Tax Year)

**FINDINGS OF FACT,  
CONCLUSIONS OF LAW, ORDER,  
AND OPPORTUNITY FOR JUDICIAL REVIEW**

CHS, Inc. challenged the Department of Revenue ("DOR") assessment of its Laurel refinery for tax year 2014. This matter came before the Montana Tax Appeal Board ("Board") for formal hearing November 6 through November 11, 2017. The notice of hearing was given as required by law. CHS was represented by David Charles, John Dyre and Jared LeFevre. The DOR was represented by Peter Crossett, David Stewart, and Anthony Zammit.

Testimony was presented, exhibits were received, proposed findings of fact and conclusions of law, and post-hearing briefs were submitted up until February 22, 2018. The Board having fully considered the testimony, exhibits, and post-hearing submissions, finds that CHS did not present sufficient evidence showing that the DOR improperly valued the CHS Laurel refinery. Furthermore, this Board finds the DOR presented sufficient evidence supporting its value of the CHS Laurel refinery. This Board, therefore, finds as more fully set forth below, that the DOR accurately established market value for the CHS Laurel refinery.

**ISSUES TO BE DECIDED**

The Board was presented with two issues to be decided: (1) whether the DOR's value of \$848,639,534 is the market value of CHS's Laurel refinery for tax year 2014 and (2) whether the DOR equalized the assessed value of the Laurel refinery as it is required to do under the Montana Constitution and Montana law.

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**FINDINGS OF FACT**

1. The DOR is required to assess all taxable property at 100% of its market value and may not adopt a lower or different standard of value from market value except as otherwise provided. MCA § 15-8-111.
2. Market value is defined as “the value at which property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of relevant facts.” MCA §15-8-111(2)(a).
3. If the department uses construction cost as one approximation of market value, the department shall fully consider reduction in value caused by depreciation, whether through physical depreciation, functional obsolescence, or economic obsolescence. MCA §15-8-111(2)(b).
4. The parties stipulated to the following facts:
  - a. CHS owns and operates an approximately 55,000 barrel per day oil refinery in Laurel, Montana commonly known as the Laurel Refinery.
  - b. The Department assessed the Laurel refinery for tax year 2014 at \$848,639,534. Ex. 43.
  - c. To begin the assessment process, in January 2014, the Department sent CHS the Department’s 2014 Property Reporting Form and cover letter. Ex. 40.
  - d. CHS timely completed this form and returned it to the Department.
  - e. After the Department completed its assessment, CHS filed an AB26 form requesting informal review and sought a value of \$345,000,000. Ex. 17.
  - f. The Department issued its final determination letter dated October 14, 2015, and set the value at \$848,639,534. Ex. 38.

**Description of Property**

5. The Laurel refinery, in total, is identified by the following geocodes:
  - a. 03-000D027390-002;
  - b. 03-000D027390-001;
  - c. 03-0821-16-3-20-01-0000;

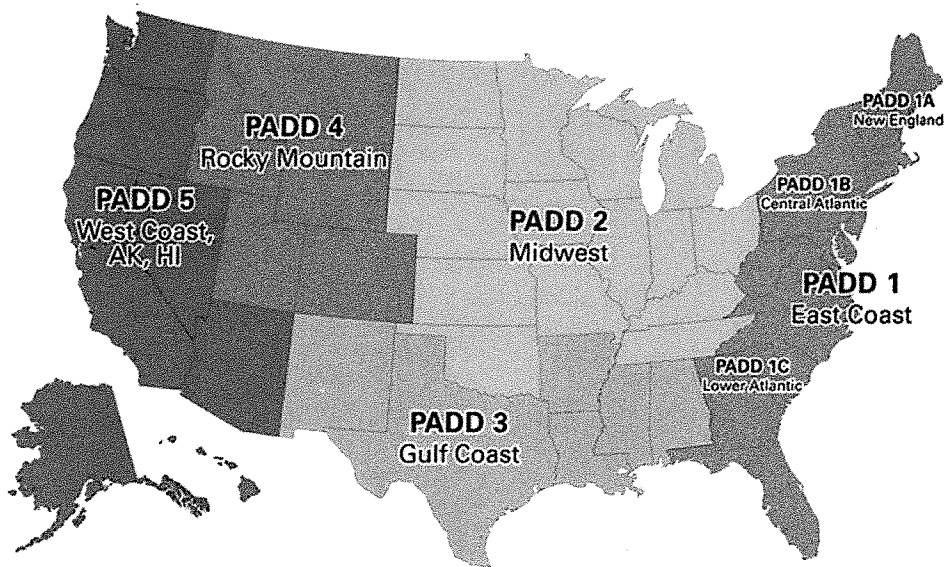
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- d. 03-0821-16-2-08-01-0000;
  - e. 03-0821-16-2-06-01-0000;
  - f. 03-0821-16-3-19-01-0000;
  - g. 03-0821-15-3-07-02-0000;
  - h. 03-0821-16-1-02-02-0000;
  - i. 03-0821-16-1-01-01-0000;
  - j. 03-0821-16-1-02-01-0000;
  - k. 03-0821-16-4-15-05-0000;
  - l. 03-0821-16-4-09-01-0000;
  - m. 03-0821-16-3-01-01-0000;
  - n. 03-0821-16-3-03-01-0000;
  - o. 03-0821-16-4-01-01-0000;
  - p. 03-0821-16-3-15-01-0000;
  - q. 03-0821-16-3-12-01-0000;
  - r. 03-0821-16-3-06-01-0000;
  - s. 03-0821-16-3-18-02-0000;
  - t. 03-0821-16-3-18-01-0000;
  - u. 03-0821-16-3-13-01-0000;
  - v. 03-0821-16-3-13-15-0000;
  - w. 03-0821-16-3-10-01-0000;
  - x. 03-0821-16-3-17-25-0000;
  - y. 03-0821-16-3-17-05-0000;
  - z. 03-0821-16-3-17-10-0000; and
  - aa. 03-0821-16-1-01-02-0000. Ex. 24 and 41.
6. “In describing the U.S. refining industry, the country is often divided into regions. The U.S. government started tracking energy industry statistics as part of the military planning efforts during World War II and divided the country into five Petroleum Administrative for Defense Districts (or PADDs). The designations have continued to be

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used through the industry and the U.S. government provides statistics and analysis of the industry on an ongoing basis using these same regions.” Ex. 2, p. III-2.

7. The PADDs are best shown in the map provided below:



8. The Laurel refinery is located in PADD IV, also known as the Rocky Mountain region. MTAB Hrg. Transcr. 197:19-20. PADD IV is relatively isolated in both input supply and demand for the finished product. *Id.*; Ex. 2, p. III-36-III-45. PADD IV refineries process mostly Canadian crude due to their proximity to the Canadian tar sands and the existing pipeline capacity. *Id.*
9. The Laurel refinery is described as a coking plant because it includes a coker unit which allows the refinery to cull more usable petroleum products from different types of crude and thus sell more sophisticated distillates. YCTAB Transcr. 34:22; Ex. 2, p. VI-1-VI-4.
10. Over the ten years before the lien data for the 2014 tax year, presumably 2003 to 2013, CHS invested more than \$800,000,000 in projects maintaining and improving the Laurel refinery. MTAB Hrg. Transcr. 625:1-3; 665:9-22; 666:15-18.
11. The Laurel refinery employs 310 women and men. MTAB Hrg. Transcr. 58:5-6.

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**AB-26-appeal and outcome**

12. CHS requested an AB-26 review on or about August 3, 2014. CHS asserted the Laurel refinery had a total value of \$345,000,000. DOR Complaint, Ex. B; Ex. 17.
13. The DOR issued its 2014 final determination of value on October 14, 2015, and declined to reduce its value of the Laurel refinery for the following reasons:
  - a. The DOR used the same valuation methodology for all three refineries, therefore the DOR did meet its requirement to equalize CHS's refinery.
  - b. The DOR did not find sufficient comparable sales to use the comparable sales approach.
  - c. The DOR did not find any data warranting additional application of functional obsolescence and/or economic obsolescence for the value of the refinery.
  - d. The DOR concluded the income approach would be the best way to value this property, but CHS had refused to provide income data the DOR needed to complete an income analysis of value to compare both values. DOR Complaint, Ex. E.

**CTAB-appeal and outcome**

14. CHS appealed the DOR's final AB-26 decision to the Yellowstone County Tax Appeal Board (YCTAB) on October 26, 2015. DOR Complaint, Ex. A.
15. CHS requested the YCTAB find its CHS Laurel Refinery had a market value of \$200,000,000; \$1,000,000 for the land and \$199,000,000 for the improvements, personal property, and everything else. *Id.*
16. On December 10, 2015, the YCTAB heard CHS's appeal. YCTAB Hrg. Transcr. 1:1.
17. Attorney Jared LeFevre represented CHS. YCTAB Hrg. Transcr. 1:11. Shelly Nauman, the Energy Finance Manager at the Laurel refinery testified on behalf of CHS.
18. Attorney Brendan Beatty represented the DOR. YCTAB Hrg. Transcr. 2:1. Industrial appraisers Seth Carlson and Doug Ream testified on behalf of the DOR.

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19. CHS presented an appraisal and an equalization analysis, both completed by Kathy Spletter of Stancil and Co., to support its request to find the refinery had a total value of \$200,000,000. YCTAB Hrg. Transcr. 21:3; DOR Complaint, Ex. C. Ms. Spletter did not testify before the YCTAB.
20. On December 10, 2015, the YCTAB issued its decision finding the Laurel refinery had a market value of \$510,000,000 as of January 1, 2014. DOR Complaint, ¶ 24.

**Appeal to the Montana Tax Appeal Board**

21. The DOR appealed the YCTAB's decision to this Board on January 11, 2016 and requested this Board find it had accurately determined the market value of the Laurel refinery.
22. CHS cross-appealed the YCTAB's decision to this Board on January 11, 2016 and requested this Board find the CHS Laurel refinery has a market value of \$200,000,000.

**Procedural history prior to Montana Tax Appeal Board Hearing**

23. The parties engaged in complex and lengthy motion practice prior to MTAB hearing this tax appeal.
24. On February 12, 2016, this Board approved the parties' joint proposed scheduling order.
25. On February 22, 2016, CHS filed a Petition for Interlocutory Adjudication with the Yellowstone County District Court. On May 6, 2016, the Court granted DOR's Motion to Dismiss CHS's Petition, ruling that this Board is the appropriate venue to resolve all questions of fact in this appeal. *CHS, Inc. v. DOR*, DV 16-269, Montana Thirteenth Judicial District Court, Judge Russell C. Fagg.
26. On May 20, 2016, the DOR filed a motion to compel CHS to provide income information, including expenses and revenue for its CHS Laurel refinery.
27. On May 23, 2016, CHS filed a motion for a protective order to prevent the DOR from obtaining the income information for the CHS Laurel refinery.
28. On May 26, 2016, this Board granted DOR's request to vacate the February 12, 2016, scheduling order.
29. On June 3, 2016, the DOR opposed CHS's motion for a protective order.

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30. On June 8, 2016, CHS filed a motion to withdraw its motion for a protective order and agreed to provide its income information to the DOR. CHS also informed this Board it would “confer with counsel for DOR to discuss a proposed scheduling order to set this matter for a hearing, along with dates for discovery, exports [sic] and motions and then advise the Montana Tax Appeal Board when this has occurred.”
31. On September 6, 2016, this Board had not received a proposed scheduling order from the parties and issued an order requiring the parties to file a proposed scheduling order on or before September 30, 2016.
32. On September 27, 2016, the DOR filed a proposed scheduling order. CHS did not file a proposed scheduling order and the parties did not stipulate to any dates or deadlines.
33. On September 29, 2016, CHS filed a motion to bifurcate the equalization issue from the valuation issue and requested this Board make a decision on the equalization issue before requiring the parties to present their evidence on valuation. CHS asserted bifurcation was necessary to “promote judicial economy, bring a speedy resolution to this matter, and avoid the financial burden that unnecessarily protracted litigation will place upon CHS and the State of Montana.”
34. On September 30, 2016, this Board issued a scheduling order which adopted the dates in the DOR’s September 27, 2016 proposed scheduling order.
35. On October 4, 2016, the DOR opposed CHS’s motion to bifurcate.
36. Also, on October 4, 2016, the DOR filed a motion for sanctions against CHS for not producing income information despite CHS’s June 8, 2016 motion to withdraw its protective order and agreement to provide income information to the DOR.
37. On October 13, 2016, CHS requested a scheduling conference to address this Board’s September 30, 2016 scheduling order.
38. On October 17, 2016, CHS filed its reply brief in support of its motion to bifurcate.
39. On October 20, 2016, this Board denied CHS’s October 13, 2016 request for a scheduling conference, noting the age of the case and the need to have a schedule for the appeal, which at that time had been pending for 10 months.

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40. On November 3, 2016, this Board denied CHS's motion to bifurcate. This Board determined it "must hear CHS' arguments as to why the DOR's value is incorrect along with DOR's evidence to support its valuation, before the Board can consider CHS's proposed equalized value." This Board determined market value and equalization should not be separated as requested by CHS.
41. On November 23, 2016, CHS filed a "Motion to Vacate Hearing and to Reschedule Expert Rebuttal Other Deadlines."
42. On November 25, 2016, this Board found CHS had articulated sufficient good cause and granted CHS' November 23, 2016 motion. This Board calendared a scheduling conference for December 5, 2016.
43. After the December 5, 2016 scheduling conference, on December 8, 2016, the parties filed a "Joint Proposed Scheduling Order," which this Board reviewed and approved on December 13, 2016.
44. On January 23, 2017, the DOR moved for partial summary judgment, asserting CHS could never prove, as a matter of law, that the DOR failed to equalize its assessed value of the Laurel refinery.
45. On February 21, 2017, CHS opposed the DOR's motion for partial summary judgment.
46. On March 2, 2017, this Board scheduled oral argument as to the DOR's motion for partial summary judgment for April 19, 2017.
47. On March 8, 2017, CHS filed a "Motion for Judgment as a Matter of Law that DOR cannot ask for and the Board Cannot Grant an Increase CHS's Assessment or Taxes." CHS argued that this Board, in finding market value, could not go above what the YCTAB determined because the DOR has no right of appeal. CHS argued the holding in *Puget Sound Energy Inc. v. State*, 2011 MT 141, did not apply because this tax appeal involves industrial property under MCA § 15-2-301, whereas *Puget Sound Energy Inc.* involved centrally assessed property and no facts were heard by a CTAB pursuant to MCA § 15-2-302.
48. On March 20, 2017, the DOR filed its reply brief as to its motion for partial summary judgment.



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49. On March 28, 2017, the DOR opposed CHS's "Motion for Judgment as a Matter of Law that DOR cannot ask for and the Board Cannot Grant an Increase CHS's Assessment or Taxes." The DOR claimed Montana law, as affirmed by the Montana Supreme Court in *Puget Sound Inc.*, grants this Board authority to set market value, even if the amount is higher or lower than the DOR's assessed value or the value found by YCTAB.
50. On April 6, 2017, the DOR moved to permit Peter Crossett to appear *pro hac vice* in this tax appeal. CHS did not object to this motion.
51. On April 6, 2017, CHS filed a "Motion to Strike or Disregard the Montana Department of Revenue's Response to CHS' Motion for Judgment as a Matter of Law on Increasing Assessment or Taxes." CHS claimed the DOR had filed its opposition brief five days late and thus it should be ignored.
52. Also, on April 6, 2017, CHS requested mediation pursuant to MCA § 15-1-212.
53. On April 7, 2017, CHS filed a "Reply Brief in Support of its Motion that the Board Cannot Increase CHS's Assessment or Taxes."
54. On April 10, 2017, the DOR filed a motion non-opposing CHS's request for mediation, but requested an expedited schedule.
55. On April 11, 2017, this Board granted the DOR's motion to allow Peter Crossett to appear *pro hac vice* in this matter.
56. On April 12, 2017, CHS filed a reply brief in support of its "Motion for Mediation" and objected to the DOR's request for an expedited briefing schedule.
57. On April 13, 2017, this Board granted mediation as requested by CHS and denied DOR's request for an expedited mediation schedule, noting MCA §§ 15-1-212 and 15-1-213 specifically set forth mediation scheduling requirements.
58. On April 13, 2017, the DOR opposed CHS's motion to strike the DOR's March 28, 2017 filing which opposed CHS's motion that this Board could not increase the assessment above the YCTAB's decision.
59. On April 19, 2017, this Board held oral argument on the DOR's motion for partial summary judgment.
60. On April 25, 2017, the parties filed a joint proposed amended scheduling order.

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61. On April 26, 2017, CHS filed its reply brief as to its “Motion to Strike or Disregard the Montana Department of Revenue’s Response to CHS’ Motion for Judgment as a Matter of Law on Increasing Assessment or Taxes.”
62. On April 28, 2017, this Board issued an Order denying the DOR’s motion for partial summary judgment. This Board determined CHS had presented sufficient evidence to show a genuine issue of material fact existed as to whether the DOR equalized the values of the three Yellowstone County refineries.
63. On April 28, 2017, this Board also issued an Order denying CHS’s motion that this Board cannot increase assessments in a tax appeal and also denied CHS’s motion to strike the DOR’s responsive brief. This Board found the Montana Supreme Court decision in *Puget Sound Energy Inc.* applies to this appeal, as this Board is required to find market value. This Board also clarified the DOR does have an appeal right as noted under MCA § 15-2-301, as the statute specifically identifies the Department as a potential “aggrieved” party which can appeal a CTAB decision.
64. On October 19, 2017, CHS filed a “Motion in Limine to Exclude Certain Anticipated Rebuttal Testimony.” CHS argued because Mr. Pomykacz and Mr. Watson were not included in the Amended Sur-Rebuttal Expert and Fact Witness disclosure, they were barred from testifying in response to CHS’s rebuttal experts.
65. On October 23, 2017, because the parties agreed to a different venue for the hearing, this Board issued a Notice of Hearing reiterating when and where this hearing would occur.
66. On October 27, 2017, the parties filed a proposed pre-trial order setting forth stipulated facts ¶4 *supra*, a list of stipulated exhibits, the parties proposed witnesses, and a list of objections to all other proposed exhibits.
67. On November 1, 2017, CHS filed a trial brief.
68. On November 2, 2017, the DOR filed a motion to strike CHS’s trial brief.
69. On November 2, 2017, the DOR filed its opposition to the CHS’s October 19, 2017 motion in limine.
70. On November 2, 2017, CHS opposed the DOR’s motion to strike its trial brief.

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- 71. On November 2, 2017, this Board issued a Pre-Trial Order, which adopted the parties' joint pre-trial order and allowed CHS's trial brief and provided for post-trial briefing.
- 72. On November 3, 2017, this Board issued an order denying CHS's motion in limine.
- 73. On November 3, 2017, CHS filed a "Brief Regarding Intangible Property."

**Montana Tax Appeal Board Hearing**

- 74. The hearing began on November 6, 2017. Based on the parties' stipulation, CHS presented its case first. The DOR presented its case next and then CHS presented a rebuttal case.
- 75. CHS called the following witnesses:
  - a. Pat Kimmet of CHS;
  - b. Kathy Spletter of Stancil and Company;
  - c. Duncan Wohlgenant of CHS;
  - d. Robert Clark of Stancil and Company;
  - e. Dr. Hal Heaton;
  - f. Dr. John Lacey; and
  - g. Dan Ostendorf of CHS.
- 76. The DOR called the following witnesses:
  - a. Seth Carlson, industrial appraiser for DOR;
  - b. James Watson of Federal Appraisal and Consulting; and
  - c. Mark Pomykacz of Federal Appraisal and Consulting.
- 77. The parties stipulated to the admission and inclusion of the following exhibits into the record:
  - a. Ex. 1: Stancil and Company Equalization Report (May 15, 2015);
  - b. Ex. 2: Stancil and Company Appraisal Report (June 22, 2015);
  - c. Ex. 3: Federal Appraisal and Consulting review of Stancil Equalization Report (October 15, 2016);
  - d. Ex. 4: Stancil and Company Revised Appraisal Report (January 6, 2017);
  - e. Ex. 5: Federal Appraisal and Consulting Appraisal Report (February 10, 2017);

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- f. Ex. 7: Federal Appraisal and Consulting Review of Stancil's Revised Appraisal Report (March 17, 2017);
- g. Ex. 8: Stancil and Company review of Federal Appraisal and Consulting's Appraisal Report (March 20, 2017);
- h. Ex. 9: Expert Report of Dr. John Lacey (March 20, 2017);
- i. Ex. 10: Expert Report of Dr. Hal Heaton titled "On the Approaches Used by Federal Appraisal and Consulting to Estimate the Discount and Capitalization Rates for the CHS Laurel Refinery (March 20, 2017);
- j. Ex. 11: Dr. Heaton CV;
- k. Ex. 12: Stancil and Co. Revised Review of Federal Appraisal and Consulting's Appraisal Report (May 30, 2017);
- l. Ex. 13: Federal Appraisal and Consulting Review Report of the Stancil and Company's Revised Review of Federal Appraisal and Consulting's 2017 Appraisal Report (June 12, 2017);
- m. Ex. 14: CHS Deep Cut Vacuum Distillation Project Phase II;
- n. Ex. 15: CHS Mild Hydrocracking Project;
- o. Ex. 16: CHS Mild Hydrocracking Project;
- p. Ex. 17: CHS AB-26 request;
- q. Ex. 18: CHS Laurel Refinery Capital Expenditures 2011-2015;
- r. Ex. 19: CHS Laurel Refinery Projected Cash flows 2014-2018;
- s. Ex. 20: CHS 2014 Capital Plan with notes;
- t. Ex. 21: Email from Shelly Naumann to Kathy Spletter (November 18, 2014);
- u. Ex. 22: CHS Laurel Refinery historical turnaround costs;
- v. Ex. 23: CHS Laurel Refinery operating margin analysis;
- w. Ex. 24: Summary of all CHS's properties, geocodes, and values as set by the DOR;
- x. Ex. 25: DOR analysis of other refinery sales as to market approach;
- y. Ex. 30: Kathy Spletter notes from CHS Laurel Refinery visit;
- z. Ex. 31: Stancil notes from CHS Laurel Refinery visit;

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- aa. Ex. 33: Jim Watson's major project experience;
- bb. Ex. 34: Watson chart on refinery sales expressed as dollars per distillation capacity and percentage of replacement cost new;
- cc. Ex. 38: DOR's Final Determination Letter-AB-26 (October 14, 2015);
- dd. Ex. 39: Yellowstone County Tax Appeal Board appeal decision;
- ee. Ex. 40: DOR reporting form letter sent to all taxpayers subject to industrial assessment;
- ff. Ex. 41: CHS Laurel refinery property record card;
- gg. Ex. 42: Summary of CHS heavy equipment values;
- hh. Ex. 43: DOR's 2014 assessment notice to CHS;
- ii. Ex. 44: DOR Obsolescence study for CHS Laurel refinery's machinery and equipment;
- jj. Ex. 45: PADD map;
- kk. Ex. 49: DOR's YCTAB hearing exhibits;
- ll. Ex. 52: CHS's 2012 10-K form;
- mm. Ex. 53: CHS's 2013 10-K form;
- nn. Ex. 54: CHS's 2014 annual report;
- oo. Ex. 56: Email between DOR's Kory Hofland and CHS's Shelly Nauman (November 25, 2014);
- pp. Ex. 61: CHS's 2014 EBITDA and sales;
- qq. Ex. 70: Kathy Spletter Affidavit (February 21, 2017);
- rr. Ex. 71: CHS 2013 annual report;
- ss. Ex. 74: 2014 DOR class code;
- tt. Ex. 83: Email between Bill Trout and Kathy Spletter (March 30, 2015);
- uu. Ex. 89: TA History;
- vv. Ex. 90: Photo of CHS's Laurel refinery;
- ww. Ex. 92: CHS Laurel refinery operations summary 2011-2013;
- xx. Ex. 93: CHS calendar year expenses for Laurel refinery 2011-2013;

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- yy. Ex. 94: CHS Laurel refinery capital budget projects 2011-2013;
  - zz. Ex. 95: CHS source documents for margin analysis;
  - aaa. Ex. 96: CHS Laurel refinery gross margin for 2011;
  - bbb. Ex. 97: CHS Laurel refinery gross margin for 2012;
  - ccc. Ex. 100: CHS refining operations margin analysis; and
  - ddd. Ex. 101: CHS Laurel refinery capital projects for FY 2014.
78. During the hearing, CHS submitted, and this Board admitted, the following exhibits:
- a. Ex. 102: Summary of refinery sales;
  - b. Ex. 102A: Summary of refinery sales highlighted with sales Kathy Spletter worked on;
  - c. Ex. 103: Description of CHS's Laurel refinery;
  - d. Ex. 104: Flow chart explaining how CHS's Laurel refinery works;
  - e. Ex. 105: Chart including data of the three Yellowstone river county refineries;
  - f. Ex. 107: Solomon survey CHS Laurel refinery inefficiencies;
  - g. Ex. 108: CHS financial information prepared for 10-K form;
  - h. Ex. 109: Areas of obsolescence – CHS YCTAB power-point presentation;
  - i. Ex. 110: Portion of PBF Energy's presentation on acquisition of Chalmette refinery;
  - j. Ex. 111: Portion of PBF Energy's presentation on acquisition of Torrance refinery;
  - k. Ex. 112: Portion of Petroplus' presentation on acquisition of Delaware City refinery;
  - l. Ex. 113: Charts showing projected gasoline demand trends;
  - m. Ex. 114: Other refinery market sales;
  - n. Ex. 115: Three pages from Appendix C of Ex. 12;
  - o. Ex. 116: Stancil and Co. equalization analysis graphs;
  - p. Ex. 117: Portion of CHS's presentation to the YCTAB – Comparison of the three Yellowstone County refineries – value as a percent of RCN;
  - q. Ex. 118: Portion of CHS's presentation to the YCTAB-Summary of equalization analysis based on complexity barrel;

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- r. Ex. 119: Portion of Marathon Petroleum's presentation on the acquisition of the Texas City refinery;
  - s. Ex. 119A: Additional pages to Ex. 119;
  - t. Ex. 119B: Marathon Petroleum's presentation on the acquisition of the Texas City refinery (complete);
  - u. Ex. 120: Business enterprise value explanations;
  - v. Ex. 121: Robert Clark of Stancil and Company – Qualifications;
  - w. Ex. 122: 2014 presentation by Robert Clark on valuing intangible assets;
  - x. Ex. 128: Seth Carlson refineries sales information he maintained;
  - y. Ex. 129: MCA 15-8-111;
  - z. Ex. 130: Various press releases on refinery transactions;
  - aa. Ex. 133: MCA 15-9-101;
  - bb. Ex. 135: Handwritten notes-Watson;
  - cc. Ex. 136: Handwritten notes-Watson;
  - dd. Ex. 136A: Handwritten notes-Watson;
  - ee. Ex. 139: Email exchange between Federal Appraisal and Consulting and the DOR's Derek Bell (July 1, 2015);
  - ff. Ex. 143: Summary of Accounting Policies;
  - gg. Ex. 144: Stancil and Company's information on use of industry benchmarks in refinery valuations;
  - hh. Ex. 145: Stancil and Company's review of Federal Appraisal and Consulting's refinery sales analysis;
  - ii. Ex. 147: Stancil and Company's comparison and review of Federal Appraisal and Consulting's appraisal as to projected operating costs;
  - jj. Ex. 148: Refinery write-downs;
  - kk. Ex. 149: Photograph of chart created by Kathy Spletter during her rebuttal testimony.
79. During the hearing, the DOR submitted, and this Board admitted, the following exhibits:
- a. Ex. 123: CHS's property reporting form for 2014 filed with the DOR;

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- b. Ex. 124: Explanation of TRAT calculations;
- c. Ex. 125: Demonstrative exhibit showing how the DOR calculates the value of reported industrial property;
- d. Ex. 126: CHS Laurel refinery personal property value for 2014;
- e. Ex. 127: Oil and Gas Journal crack spread analysis;
- f. Ex. 134: Changes in Stancil and Co.'s appraisal values across various reports;
- g. Ex. 141: Analysis of Historical Earnings at CHS Laurel Refinery; and
- h. Ex. 142: Table of Impacts from WACC Assumptions.

**General information about oil refineries**

80. At its most basic, an oil refinery converts crude oil (a raw material) using a variety of processing units into products that people want, principally high value products like transportation fuels such as gasoline, diesel and jet fuel, along with a lot of smaller volume products like heating oil and naptha, and finally asphalt is what remains at the end of the process as a low value residual product.
81. There are three different types of refineries:

A **topping plant** is the simplest kind of refinery. It basically means the crude oil is coming in, it's going through a distillation process. Crude oil is a mixture of hydrocarbons with different boiling points. So the first thing you do is just like you might distill water from alcohol in a whiskey still or something like that, you separate the crude oil into various components: Naphtha, gas oil, diesel, jet fuel, and then the bottom or residuum. Often in a topping plant you may have one or two additional units on the back end of that; typically it's a reforming unit. You may have some hydrotreating. But in a topping plant there is no what they call either catalytic cracking or thermal cracking, which is what a coker does.

The next, what we conventionally call the next level of sophistication or conversion is a **cracking plant**. And a cracking plant is where you add in cracking operations like a fluid catalytic cracking unit or a hydrocracking unit in some cases. And what it does is it takes some of the lower grade products that come out of the crude distillation unit that really aren't marketable and breaks those long chain molecules into smaller molecules, which lets you



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then produce more gasoline and distillates, which the market does want.

And then what you would generally call the most sophisticated type of plant is a **coking plant**. And this is where you take a cracking plant and add a delayed coking unit, which then upgrades basically the bottom or the asphaltic material and through thermal cracking creates additional gasoline and distillate product. So by adding these additional process units, you're taking part of the low value part of the crude oil barrel and making additional higher-valued products. Testimony of James Watson, MTAB Hrg. Transcr. 734:3-735:14 [emphasis added].

82. The more complex a refinery is, the more raw material it can convert into higher value products which should correspond with that refinery making more profit: thus a coking refinery is a more complex refinery than a topping refinery or a cracking refinery. MTAB Hrg. Transcr. 734:3-735:14

**CHS's case**

83. CHS is a farmer-owned cooperative with about 6,500 member-owners in the state of Montana. MTAB Hrg. Transcr. 33:11. CHS exists to supply different services to their farmer owners, primarily fuels and seed. MTAB Hrg. Transcr. 34:19-21, 38:15-16. CHS' principal offices and senior management are located Minnesota. MTAB Hrg. Transcr. 38:10-11.
84. CHS owns and operates two refineries: the Laurel refinery and another in McPherson, Kansas which produces "almost twice the amount of product" that the Laurel refinery produces. MTAB Hrg. Transcr. 38:18-23. The Laurel refinery was started in 1930 and CHS has owned and operated it since 1943. MTAB Hrg. Transcr. 33:17-19.
85. Pat Kimmet is the refinery manager at the Laurel refinery, a position he has held since 2001. MTAB Hrg. Transcr. 35:18-20. Mr. Kimmet testified that he went to work for Dow Chemical in 1974 when he graduated from Montana State University with a degree in mechanical engineering. MTAB Hrg. Transcr. 33. He moved back to Montana to work at the Laurel refinery in 1981 and held a number of different positions before being promoted to refinery manager. MTAB Hrg. Transcr. 35:1 - 22.

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86. Mr. Kimmet testified that CHS obtains the majority of the crude oil processed at the Laurel refinery from Canada and the rest comes from northwest Montana, the Cut Bank area, Chinook and Sunburst, and a little bit from Wyoming. MTAB Hrg. Transcr. 49:5-16. The fuel produced at the Laurel refinery is sold south to Wyoming through a common carrier pipeline and west to western Montana, Idaho, and Washington, and some does get distributed by both truck and rail, which is more expensive. MTAB Hrg. Transcr. 51:12-17.
87. The parties stipulated that the Laurel refinery produces approximately 55,000 barrels per day.<sup>1</sup>
88. Up until 2008 the Laurel refinery had been a cracking refinery. Between 2005 and 2008, CHS installed a 15,000 barrel a day coker at the Laurel refinery converting the refinery to a coking refinery. This was a major construction project that took several years to complete and included other capital improvements to the refinery.
89. Mr. Kimmet testified that the Laurel refinery is located in the Yellowstone River valley, within 15 miles of two other refineries: the Philips 66 refinery and the ExxonMobil refinery. MTAB Hrg. Transcr. 114:13-17 (all three refineries will be collectively referred to in this opinion as the “Yellowstone County refineries”).
90. Mr. Kimmet testified that all three of the Yellowstone County refineries share the following similar characteristics:
- a. All three refineries obtain crude from the same sources. MTAB Hrg. Transcr. 50-51.
  - b. All three refineries use atmospheric crude distillation. MTAB Hrg. Transcr. 68:17-18.
  - c. All three refineries have hydrotreating. MTAB Hrg. Transcr. 68:18.

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<sup>1</sup> There was much testimony throughout the hearing regarding the different ways the Laurel refinery reports its capacity, different reporting methods indicated it produces anywhere from 55,000 up to 59,000 barrels per day; the parties stipulated to 55,000 barrels per day so this Board will adopt that number for purposes of this Order.

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- d. All three refineries have mild hydrocracking, as well as some hydrogen production. MTAB Hrg. Transcr. 68:19.
  - e. They also all have cat crackers, reformers, and HF alkylation units. MTAB Hrg. Transcr. 68:22-24.
  - f. They all also have vacuum distillation. MTAB Hrg. Transcr. 68:19.
  - g. Lastly, all three have the same marketing areas. MTAB Hrg. Transcr. 51:21-25.
91. Mr. Kimmet also assumes that all three refineries have the same or similar cash flows because they are all starting with the same amount of crude and are selling the same product, but he also acknowledged he has not seen actual income data from either of the two other refineries to conclusively establish this fact. MTAB Hrg. Transcr. 115:6-21.
92. Mr. Kimmet testified that ExxonMobil's refinery differed from the CHS Laurel refinery in the following ways:
- a. ExxonMobil has a full hydrocracker, which "allows [a refinery] to make more diesel fuel from a crude component."; MTAB Hrg. Transcr. 69:13-14, 72:9-11.
  - b. ExxonMobil has a much bigger cat cracker; MTAB Hrg. Transcr. 73:23
93. Mr. Kimmet testified that the Phillips 66 refinery has the following differences from the CHS Laurel refinery:
- a. Phillips 66 has a greater total capacity up to 80,000 barrels, in part because its coker can process approximately 22,000 barrels a day and its catalytic cracker can process up to 23,000 barrels a day [as compared to 15,000 and 16,000 for the Laurel refinery respectively]. MTAB Hrg. Transcr. 71-74.
  - b. Phillips 66 has a much bigger cat cracker; MTAB Hrg. Transcr. 73:23

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94. Mr. Kimmet admitted that the Laurel refinery has the newest coker of the three refineries, but characterized the coker project as a “stay in business project.” MTAB Hrg. Transcr. 127:5-8. He stated that once built, all cokers are “about the same” regardless of their age. MTAB Hrg. Transcr. 47:23-24.
95. The coker project, built between 2005 and 2008, cost CHS \$418 million. MTAB Hrg. Transcr. 844:9-10. Mr. Kimmet testified that CHS built a 15,000 barrel a day coker because they could not afford to build a 20,000 barrel a day unit - which would have been a better match for their capacity. MTAB Hrg. Transcr. 48:7-18. As a result, CHS still has residual asphalt to sell because the plant does not have the capacity to process all of the crude into higher value fuels. *Id.*
96. However, in terms of adding value to the refinery, Mr. Kimmet testified that the Laurel refinery’s coker is “almost identical to the one at [Phillips 66].” MTAB Hrg. Transcr. 48:2-4. In contrast, to CHS’ cost, the Phillips 66 refinery’s coker was installed in 1992 for a cost of \$143 million. MTAB Hrg. Transcr. 1140:14-18.
97. Based on his knowledge<sup>2</sup> of the Yellowstone County refineries, Mr. Kimmet speculated that the Phillips 66 refinery has “the most flexibility” and more “growth potential” than both the Laurel refinery and the ExxonMobil refinery. MTAB Hrg. Transcr. 72:18-19.
98. The Laurel refinery, Mr. Kimmet testified, receives “heavy crude . . . [which has] a lot of acids in it and corrosive material.” MTAB Hrg. Transcr. 66:4-5. Because of these acids, “a lot of corrosion can occur.” MTAB Hrg. Transcr. 66:7-8. To address this potential for corrosion CHS “shut[s] these facilities down . . . once every four or five years to go in and we totally take everything apart and look to make sure that they’re safe.” MTAB Hrg. Transcr. 66:8-12. These maintenance shutdowns – which affect half of the Laurel refinery at a time – are called turnarounds. MTAB Hrg. Transcr. 66:8-9.
99. These turnarounds result in large costs for the Laurel refinery. *Id.* Mr. Kimmet believes that the addition of the coker will significantly increase their historic turnaround costs.

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<sup>2</sup> Mr. Kimmet testified that his knowledge of the other two refineries is limited to that information which is publicly available. MTAB Hrg. Transcr. 146:14-147:9.

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MTAB Hrg. Transcr. 67:8-13. For example, a turnaround in 2018 is estimated to have a total cost of \$92 million. MTAB Hrg. Transcr. 96:2-5; Ex. 21, 22.

100. Mr. Kimmet then testified about the significant inefficiencies at the Laurel refinery. Mr. Kimmet first noted the Laurel refinery has two smaller crude units rather than one large crude unit. *Demonstrative Ex. 103*; MTAB Hrg. Transcr. 55:12-57:2. As a result, the Laurel refinery needs twice as many process heaters to operate the two crude units. *Id.* Ideally, according to Mr. Kimmet, a refinery would have one larger crude unit and need fewer process heaters which would be more efficient because there is only one crude unit to heat. *Id.* Instead, because the CHS Laurel refinery has two crude units it needs approximately 22 process heaters for those units. *Id.* Mr. Kimmet continued that the Laurel refinery consists of two strippers instead of one large stripper, and four sulfur plants instead of one. *Id.* Mr. Kimmet testified that having multiple smaller units significantly increase's CHS' maintenance costs as compared to plants with single larger units. *Id.* The plant configuration reflects the history of the Laurel plant, that CHS has added processing units as it has had money available to invest, but this approach has left CHS with a plant that is much less efficient than if someone were to build a new plant today to match CHS' current capacity. *Id.*
101. Mr. Kimmet spent some time discussing why he believes the Laurel refinery has higher maintenance costs than the other two Yellowstone County refineries. Regarding process heaters, Mr. Kimmet testified that Phillips 66 has "one or two more" but they also have "significantly higher capacity", and that ExxonMobil refinery only has 13 process heaters (as compared to CHS' 22) because, according to Mr. Kimmet's testimony, Phillips 66 was very well designed at the time it was built in 1949. MTAB Hrg. Transcr. 83:7-13.
102. Mr. Kimmet testified that the Laurel refinery has had to install "45, 46, 47" CEMs<sup>3</sup> to comply with environmental regulations and that each CEM costs "half a million to a

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<sup>3</sup>Continuous Emission Monitor ("CEM").

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million dollars per CEM just to install them.” MTAB Hrg. Transcr. 84:3-15. Each CEM requires additional maintenance that adds cost to operating the Laurel refinery. *Id.* In comparison, Mr. Kimmet testified the Phillips 66 refinery has about 17 CEMs, and the ExxonMobil refinery has about 11 CEMs. MTAB Hrg. Transcr. 84:16-20.

103. Mr. Kimmet testified about the excess operating costs that exist at the Laurel refinery due to its age and the piecemeal manner in which the refinery was built and improved over time. He also explained how many of the refinery’s capital improvements were not the result of brand new construction but rather the innovation of their engineers who have been able to reuse existing refinery equipment in a number of places. MTAB Hrg. Transcr. 106:21 -107:25. The way in which the physical plant is configured reflects the way in which the refinery has grown over time from a very small plant into today’s refinery. *Id.* There is not a lot of space between or around the units because they have reused existing equipment when possible and added new equipment around that, which has resulted in a plant with very tight spacing. *Id.* This piecemeal and innovative repurposing of older equipment adds to the refinery’s maintenance and operating costs in a way that would not be reflected in a more efficiently built or newer plant. *Id.*
104. To conclude his testimony about the inefficiencies of the Laurel refinery, Mr. Kimmet broadly explained a confidential report called the Solomon survey. Mr. Kimmet explained that the Solomon survey is a study that is released every two years to provide benchmarks for certain performance measures, wherein a refinery can compare itself to other refineries- in terms of operating costs, i.e. how much is your refinery spending on items like personnel, operating costs, maintenance, etc. as compared to other refineries, which can be then used to help managers identify those areas where they can make improvements to operate more efficiently. MTAB Hrg. Transcr. 86:11-90:8, *Ex. 107*.<sup>4</sup> Mr. Kimmet did not know what

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<sup>4</sup> The Solomon survey contains confidential data that each refinery reports to Solomon on the grounds that Solomon keeps the trade secrets and other business information confidential. As such, CHS got very limited permission from Solomon Associates to disclose two pages out of their Solomon report for this tax appeal but none of the other pages of the report were produced. Ms. Spletter testified that companies can, and do, disclose their quartile rankings, for example a company will make note if they have moved up a quartile on conference calls with industry analysts. MTAB Hrg. Transcr. 221:1-7.

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the peer group is that CHS has been compared to in this report titled “2012 North and South American Fuels Refinery Performance Analysis CHS-Laurel US Refinery Industry Peer Group”. MTAB Hrg. Transcr. 159:15-23. This one-page summary of the Solomon report indicates that the Laurel refinery is ranked in the first quartile (top 25% of the US Refinery Industry Peer Group) for its process, the second quartile for mechanical reliability and in the last quartile for its Energy efficiencies, Personnel costs, total maintenance costs and cash operating expenses. Ex. 107.

105. Next, Mr. Kimmet testified about Renewable Identification Number (“RINs”), and how they affect operating costs for the CHS Laurel refinery. MTAB Hrg. Transcr. 91:6-92:5. Mr. Kimmet described RINs as part of the federal government’s fuel efficiency regulations, and RINs specifically were put in place to encourage the use of ethanol in the country. MTAB Hrg. Transcr. 92:8-11. RINs are mandatory credits for renewable additions, such as ethanol.
106. Mr. Kimmet testified that CHS “actually just pays money for RINs. RINs are on the open market and you buy RINs . . . to cover the gasoline and diesel that we sell.” MTAB Hrg. Transcr. 91:18-23.
107. Mr. Kimmet testified that CHS’ two refineries together spend “very close to \$200 million a year for RINs” and that RINs represent “the biggest single cost that we have.” MTAB Hrg. Transcr. 92:23-25; 92:2-4. There was no testimony on the amount of RINs purchased for the Laurel refinery standing alone.
108. Mr. Kimmet next discussed the increased costs he believes CHS had to spend to build the Laurel refinery coker due to the timing of the project; costs which he believes are much higher than either Phillips 66 or ExxonMobil spent when they built their cokers. MTAB Hrg. Transcr. 97:24-98:10. He explained that CHS was building their coker during the aftermath of hurricane Katrina which significantly increased CHS’ costs to build. Repairs and rebuilding of the Gulf refineries led to a shortage of labor and materials, and ultimately CHS had to bring in welders from the Philippines and the materials CHS needed were temporarily more expensive due to the high demand. *Id.* Ultimately, Mr. Kimmet concluded that “[s]o we paid multiples more than what I think more even [than] the

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replacement cost would be today because we had to spend so much money given the circumstances.” MTAB Hrg. Transcr. 98:7-10.

109. Mr. Kimmet testified that he thought the CHS Laurel refinery was worth “somewhere between 400 and \$450 million.” MTAB Hrg Transcr. 40:12-13, 43:15-16. Mr. Kimmet testified that he looked at some sales of other refineries and then reached this conclusion of value by comparing his knowledge of how each of the Yellowstone County refineries operates with the DOR’s assessed values for them. MTAB Hrg Transcr. 134:16-135:16. He ultimately reached his conclusion that the DOR’s assessed value of the Laurel refinery is not fair because the three Yellowstone County refineries all process the same type of crude and produce similar amounts of products to sell into the same market place, and yet DOR’s assessed value for the Laurel refinery is essentially the same as the combined DOR assessed values for the two other refineries. *Id.*
110. Mr. Kimmet admitted he had not toured either of the two other Yellowstone County refineries recently and only conducted some fence-line reviews of those refineries. MTAB Hrg. Transcr. 126:16-20; 145:23-146:6. Mr. Kimmet also agreed he did not know how much the other two refineries had invested in their refineries over the last seven years. MTAB Hrg. Transcr. 126:23-127:4.
111. Mr. Kimmet also testified about the 2012 sale of the Calumet refinery in Great Falls, Montana. Ex. 102A. The Calumet refinery sold for \$126 million dollars. *Id.* In 2012, the refinery was a cracking refinery; meaning it did not have a coker which placed the Calumet refinery “at a disadvantage” when compared to the three Yellowstone County refineries Ex. 102A; MTAB Hrg. Transcr. 163:2-8. At the time of the sale, the Calumet refinery produced 10,500 barrels per day; almost 1/6<sup>th</sup> of the Laurel refinery’s production. *Id.* Mr. Kimmet admitted if an individual simply took the Calumet sale price and multiplied it to reflect the Laurel refinery’s capacity, the amount – for a refinery without a coker – would be \$650 million. MTAB Hrg. Transcr. 138:9-16. However, Mr. Kimmet opined that the Calumet refinery purchase price was too high because Calumet was primarily looking to expand its operations into the northern market, which made it willing to pay more than



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- market value for the refinery because it was really seeking entry into this market. MDOR Hrg. Transcr. 161:13-22.
112. Regarding the DOR's value of the Laurel refinery, CHS did not provide income data so that the DOR could complete an income approach to valuation for the 2014 tax year. MTAB Hrg. Transcr. 164:7-12. Mr. Kimmet testified that CHS did not provide income information to DOR because he was "very concerned as plant manager about the confidentiality of that information." *Id.*
113. Lastly, Mr. Kimmet stated he could not dispute the fact that the net book value of the Laurel refinery on January 1, 2014 was \$822 million as reported to its member-owners in the 2104 CHS Annual Report. Ex. 54, MTAB Hrg. Transcr. 148:4-9. Further, Mr. Kimmet did not know the net book value of either of the other two Yellowstone County refineries. MTAB Hrg. Transcr. 148:14-17.
114. Ms. Kathy G. Spletter of Stancil & Co. testified next as an expert witness on behalf of CHS. For background, Ms. Spletter graduated with a B.S. in Chemical Engineering from Texas A&M University in 1979, after which she went to work at Mobil's Beaumont, Texas refinery as a processing engineer, holding several different positions in a manner similar to Mr. Kimmet's work experience at CHS, until she was promoted to work at Mobil's headquarters in Fairfax, Virginia. Ex. 1 App.C-2 p.2, MTAB Hrg. Transcr. 169:8-170:11. Ms. Spletter left Mobil in 1987 to go into consulting with a firm that has morphed into her current employer, Stancil & Co. MTAB Hrg. Transcr. 170:20-171:3. Ms. Spletter testified that she has been involved as a consultant in a number of purchases and sales of refineries over the last fifteen years, and highlighted sales on Ex. 102A that she was personally involved in. MTAB Hrg. Transcr. 175:6-178:16. Ms. Spletter explained that while most of Stancil & Co.'s consulting work for refineries in mergers and acquisitions, she will also appraise complex properties and when necessary provide expert testimony at hearings and trials. Ex. 1 App. C-2 p.3; MTAB Hrg. Transcr. 170:12-172:11.
115. Ms. Spletter is not an IAAO licensed appraiser (International Association of Assessing Officers), but she does hold the Accredited Senior Appraiser ("ASA") credential granted

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- by the American Society of Appraisers. Ex. 1 App. C-2 p.2; MTAB Hrg. Transcr. 439:18-21.
116. Ms. Spletter testified that CHS retained Stancil & Co. in October of 2014. MTAB Hrg. Transcr. 166:9. Ms. Spletter testified that it was unclear what CHS wanted Stancil to do because CHS did not want to provide Stancil with their income data, but eventually after Stancil provided some options, CHS asked Stancil & Co. to prepare an equalization analysis. Ex. 1; MTAB Hrg. Transcr. 166:11-17. On May 15, 2015, Stancil provided CHS with an equalization analysis wherein Ms. Spletter, and her associate Robert Clark, compared the DOR's assessed values of the four oil refineries located in Montana to "determine for the January 1, 2014 tax year whether or not the Laurel refinery is being assessed in an equitable manner with other property." Ex. 1 p.3 Bates CHS TY2014 000654.
117. The equalization analysis *does not* provide an opinion of Market Value for the Laurel refinery as defined in MCA § 15-8-111(2)(a). Ex. 1 p.1, App. A p.A-1; MTAB Hrg. Transcr. 352:5-18. Instead, it attempts to find an equalized value using only the DOR's assessed values for the two other Yellowstone County refineries as compared to each refinery's production capacities. *Id.* p. A-1. Stancil attempted to use two different methods to reach benchmarked numbers to compare assessed values: (1) value as a percent of replacement cost new ("RCN") and (2) value-per-complexity barrel. *Id.* p. 10.
118. Using the first method "value as a percent of RCN", Stancil calculated the RCN for each refinery using 2007 refinery process units cost curves published in the *Oil & Gas Journal* and publicly known data about each refinery's configuration and capacity. *Id.* p. 11-12. The RCN numbers were then multiplied by a factor of 1.15 to reflect a location adjustment between the U.S. Gulf Coast and Billings and then by a factor of 1.22 to reflect the passage of time between 2007 and 2014.<sup>5</sup> *Id.* p. 12. Ms. Spletter then divided each refineries' RCN by its published crude capacity to calculate a "value as % of RCN." *Id.* p.12-13. The

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<sup>5</sup> There is nothing in the analysis or record to support how these factors were actually calculated.

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analysis concluded with the following statement that sets forth all of the assumptions that must be made to reach the conclusion:

Since RCN of the Laurel refinery is between the RCN of the other two refineries, in relative terms the replacement cost estimates demonstrate that *if all other attributes were equal*, the assessed value of the Laurel refinery would be expected to be between the assessed values of the Phillips 66 Billings refinery and the ExxonMobil Billings refinery. *This would be premised on an assumption of assessed values at the same percent of replacement cost for all three refineries. Id. p.13 [emphasis added].*

119. The second method, “value-per-complexity barrel” required Stancil to first calculate a complexity factor for each refinery.<sup>6</sup> The resultant complexity number for the Laurel refinery was 12.7, which was bracketed by the two other Billings refineries at 14.0 for the Phillips 66 refinery and 10.0 for the ExxonMobil. Ex. 1, p.14. Stancil then calculated a “value per complexity dollar” by taking the DOR’s 2014 assessed value for each refinery and dividing that by the product of the refinery’s complexity and its crude capacity which calculated that the DOR assessed the Laurel refinery at \$1,204 per-complexity barrel. The same calculation assessed Phillips 66 at \$617 per-complexity barrel and ExxonMobil at \$538 per-complexity barrel. *Id. p.16.* Stancil next calculated the DORs assessments as a percent of replacement cost new (“RCN”) to conclude that the Laurel refinery is being assessed at 54% of *estimated* RCN while Phillips 66 is assessed at 27.8% of *estimated* RCN and ExxonMobil at 23.3% of *estimated* RCN. *Id.* Stancil clearly states the assumptions that it needed to make to reach the conclusions of this method:

All of the refineries have operated for many years on the current site and gradually evolved to the capacity and complexity present as of January 1, 2014. Therefore, *all of the refineries have significant obsolescence present. Id. p.15 [emphasis added].*

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<sup>6</sup> A complexity factor is a common benchmark used in the refining industry as a tool to measure the relative processing intensity, or sophistication of a refinery. Ex. 1 p. 13. The resultant complexity number indicates what the balance of units looks like at a refinery. Stancil utilized the data from the *Oil and Gas Journal* to calculate complexity numbers for each of the Yellowstone County refineries. *Id.*

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120. In conclusion, Stancil took the average of the assessed ratios for Phillips 66 and Exxon Mobil and applied it to each of the benchmark numbers calculated for the Laurel refinery to conclude that \$400 million is an equalized assessed value for the Laurel refinery *without adjustment for other attributes for the difference in the refineries*. *Id.* p. 16. The analysis then proceeds to make a ten percent reduction to this number to adjust for differences in refineries configuration, regulatory considerations and crude receipt logistics to reach an ultimate determination that the equalized value of the Laurel refinery is \$360 million.
121. Ms. Spletter admitted that had she conducted the analysis for the ExxonMobil refinery, the equalized value for the ExxonMobil refinery would be higher than the DOR assessed value, because as a simple function of math, the methodology will simply force the third value, or the value being compared, in the direction of the two DOR values it is being compared against, since it is the average of these two that is being used to determine the value of the third. MTAB Hrg. Transcr. 352:19-353:17.
122. At a later date, CHS asked Stancil to appraise the Laurel refinery under the condition that CHS was not willing to give Stancil any of their income information. MTAB Hrg. Transcr. 167:9-19. Stancil accepted the assignment, and they prepared an appraisal report with the limiting condition that it did not include an income approach to value which also required them to make an extraordinary assumption<sup>7</sup> regarding the value of the intangible assets because without any income data Stancil would not be able to calculate an intangible value. *Id.*
123. Ms. Spletter testified that before CHS's request, she has never before prepared a full appraisal report without including an income approach to value. MTAB Hrg. Transcr. 363:3-7.
124. In December of 2014, Ms. Spletter and her co-worker Robert Clark spent two days in Montana to inspect and gather data about the Laurel refinery. MTAB Hrg. Transcr. 189-

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<sup>7</sup> An extraordinary assumption is "an assumption, directly related to the specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions." Ex. 2 p.I-3 citing The Appraisal Foundation, *Uniform Standards of Professional Appraisal Practice*, 2014-2015 Edition, Washington D.C., p. U-3.

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192. Both Ms. Spletter and Mr. Clark made notes during their site visit and those notes indicate that they were collecting very detailed information about both the physical configuration of the plant along with meeting notes of the different CHS employees they interviewed during that visit. Exs. 30, 31.
125. Stancil produced their first appraisal report on June 22, 2015, but as the table below shows, over the ensuing two-year period, Stancil revised their appraisal three times, both to correct for math errors and later to calculate an income approach using income data about their own client, CHS, which they obtained, not from their client, but from an appraisal prepared by the DOR's expert witness. Exs. 2, 4, 8, 12. The chart below summarizes the different market values Stancil found for the Laurel refinery, representing Stancil's ever-changing opinion of market value as of the lien date of January 1, 2014.

Date	Document Title	Income Approach to Value	Sales Approach to Value	Cost Approach to Value	Final Determination of Value
22-Jun-15	Appraisal Report	N/A	\$315,000,000	\$150,000,000	\$200,000,000
6-Jan-17	Revised Appraisal Report	N/A	\$315,000,000	\$300,000,000	\$300,000,000
20-Mar-17	Review Appraisal Report of FAC Appraisal	\$55,000,000	\$190,000,000	\$60,000,000	\$100,000,000
30-May-17	Revision of March 20, 2017 Report	\$50,000,000	\$190,000,000	\$60,000,000	\$100,000,000

- Each of these appraisal reports states that it was “completed in conformance with the Uniform Standards of Professional Appraisal Practice (USPAP).” Ex. 2, p.1, Ex. 4, p.1, Ex. 8 p.1, Ex. 12 p.1.
126. The June 22, 2015, appraisal report starts with a comprehensive overview of the refining industry and descriptive narrative of the historical market conditions and trends culminating with the January 1, 2014 lien date for this appeal. Ex. 2. pp. III-1-III-52. Ms. Spletter also described those conditions in her testimony:

If you look at the bar chart on the last page here [ex. 110], you can clearly see a downward trend. What happened is we had an unusual set of circumstances in about 2004 through mid-2007 that drove up margins in the industry throughout the country. . . there has been an anomalous time in about '11 through early '14 for this region of the country. But back in '04 to mid-'07 time period, that's the time period that some people will call the golden age of refining and

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values went up briefly because people wanted immediate entry into the market and then what we've see subsequent to that is values have come down. MTAB Hrg. Transcr. 183:23-184:10.

127. The report goes into a lot of detail and explains the unique geographic characteristics of PADD IV, supporting Ms. Spletter's testimony that while supply and demand have been historically well balanced in PADD IV (refined products produced match consumer demand), Ms. Spletter speculates that consumer demand for gasoline in PADD IV will start to decline as fuel efficiency standards increase and ethanol blends increase. Ex. 2 III-39-43; MTAB Hrg. Transcr. 196-199.
128. Ms. Spletter testified that decreasing demand for gasoline, coupled with increasing and unknowable future environmental regulations, the unpredictable future of RIN costs, and consolidation within the industry, has driven the market values for refineries down starting in the late 2000s. Ex. 110 bates CHS TY2014 011821; MTAB Hrg. Transcr. 202-213.
129. After the industry overview, the report gives a very detailed description of the physical characteristics of the Laurel refinery and Stancil's opinion about its competitive position in the marketplace. Ex. 2, V-1 - VII-13. Ms. Spletter testified that the Laurel refinery is well positioned in a stable market, but that there is not a lot of opportunity for growth because of the small population, also the refinery is able to process heavy crudes which are generally cheaper, but they are also more corrosive thus increasing the costs of maintenance. MTAB Hrg. Transcr. 213-214. Ms. Spletter testified that the spacing of the units is very tight necessitating longer turnaround times because large equipment cannot get in and around the plant easily, and she confirmed Mr. Kimmet's testimony that there are significant inefficiencies in the way the plant is configured because there are multiple processing units where a more efficient plant would have single larger units. MTAB Hrg. Transcr. 215:1-216:17.
130. With the context of this information, the report describes the two methods Stancil used to appraise the Laurel refinery; the comparable sales approach and the cost approach. Ex. 2 VII-1-5.
131. Ms. Spletter described the comparable sales approach as: ". . . where you look towards sales of other properties and adjust those sales to be comparable to your subject property

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to provide an indication of value.” MTAB Hrg. Transcr. 223:18-22. Regarding the accuracy of the market sales approach, Ms. Spletter testified,

[W]hile I would agree that [the market sales approach] is not the best tool to get a precise value for a refinery, it does give you an indicative range. It gives you a reasonableness check. It’s the only thing that we can look to that gives us information on the actual market. It’s not just a hypothetical.

Now, we do have to use judgment in making adjustments to get those sales to be comparable sales. Buyers and sellers aren’t interested in the sales. They want to know where the sales data would, what kind of results the sales data would say for the property in question. And, furthermore, our typical process is before we start work for a client, we’ll do a comp sales analysis and then once they get an answer, get to where they think they’re going to negotiate the value, you revisit the comp sales. MTAB Hrg. Transcr. 225:3-23.

132. To start the analysis, Stancil compiled a list of refinery sales that occurred between 2009 and 2013, the five-year period prior to the appraisal date, from which they chose five sales that, in their opinion, were the most similar and thus useful for determining a value of the Laurel refinery. Ex. 2, bates 000388 Table VIII-1 and bates 000394 Table VIII-2 (later updated in Ex. 12 bates 011730 to correct the refinery purchase price of the ACON sale from \$178 million to \$358 million); Exs. 114, 115. Ms. Spletter testified that they chose these five sales because they were located in regions mirroring PADD IV and possess capacities and styles much like the Laurel refinery. MTAB Hrg. Transcr. 235:6-11.
133. For each of these refinery sales, Stancil calculated a dollar per complexity-barrel value (using data published in the *Oil & Gas Journal* to calculate an RCN for each refinery) which was then time adjusted to the DOR lien date, to consider “the impact of inflation.” Ex. 2 bates 000394-000401; Ex. 115; MTAB Hrg. Transcr. 230:7-18. For the pre-lien date sales, the calculations showed time adjusted dollars per complexity-barrel ranging from \$51 to \$1,653. Ex. 114. The list of the five comparable sales had a time adjusted dollar per complexity barrel range of \$515 to \$1,653. Ex. 115; MTAB Hrg. Transcr. 233:13-20. The complexity of these five refineries ranged from 6.9 to 9.2 and all are less than the Laurel refinery’s complexity factor of 12.7. Ex. 115. As to these five sales, Ms. Spletter then

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found each refinery's replacement cost new and thus determined the refinery's value as a percent of replacement cost new. *Id.* Lastly, she considered a variety of factors – which included regulatory considerations, location, configuration, and age – to adjust her comparable sales so those comparable sales mirrored the Laurel refinery. MTAB Hrg. Transcr. 245:13-249:6.

134. When all the adjustments were completed, Stancil concluded the Laurel refinery had a value of \$315,000,000 under the comparable sales approach MTAB Hrg. Transcr. 258:6-10; Ex. 102.
135. The report next discusses how Stancil reached a value for the Laurel refinery using the cost approach. Ex. 2 IX-1 - IX-21. Ms. Spletter defined the cost approach as, “an estimated replacement cost new for the refinery and then reduces that for physical depreciation and then functional and economic obsolescence.” MTAB Hrg. Transcr. 257:25 - 258:4.
136. Regarding the cost approach for the CHS Laurel refinery, Ms. Spletter explained that they calculated a replacement cost new, which assumes that the configuration is the same in terms of how much crude capacity can be processed but also assumes the plant is streamlined, “[i]n other words, we would have just one crude unit. We would have the sulfur units combined to be more efficient. We replace the same utility as far as the ability to process crude and the same types of unit, but we use current technology.” MTAB Hrg. Transcr. 259:9-18.
137. Stancil calculated a replacement cost new for the Laurel refinery of \$1.81 billion. Ex. 2, p. IX-8. They next determined the physical deterioration of the Laurel refinery as a function of the expected service life of the equipment, the age of the equipment and its condition. *Id.* p. IX-9. Stancil used a Percent Good Formula and calculated an overall Percent Good factor of 65% for the Laurel refinery which resulted in a replacement cost new less depreciation value of \$1.2 billion. *Id.* p. IX-11; MTAB Hrg. Transcr. 261:5-10.
138. Ms. Spletter explained that she then reduced the replacement cost new less physical deterioration by the functional and economic obsolescence to capture the inefficiencies they observed in CHS' operating expenses, construction, maintenance and repairs costs, and the two-page excerpt of the Solomon report, to reach a final conclusion of value using



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the cost approach of \$150 million. Ex. 2, p. 2; MTAB Hrg. Transcr. 262:1 - 278:21. Stancil ascribed a *\$1.05 billion* reduction for functional and economic obsolescence, which results in a final conclusion of value that is just 8.3% of its replacement cost new.

139. To try and explain this extraordinary conclusion, Ms. Spletter testified that anyone looking at purchasing a refinery,

. . . doesn't care what the current owner has on their books for the value of the refinery. We see refineries sell for under book value all the time. It happens because there are a lot of ongoing capital needs in a refinery that don't add value and so, therefore, you'll see the book value go up over time because of these additions but, yet, that doesn't mean the market value is changed. It's the old adage that, you know, cost does not equal value. MTAB Hrg. Transcr. 321:11-20.

140. Finally, Stancil reconciled the sales approach and the cost approach to reach the conclusion that the Laurel refinery had a market value of \$200 million as of January 1, 2014. Ex. 2, p. 2; MTAB Hrg. Transcr. 168:25-169:26. Ms. Spletter testified she gave "more weight . . . on the cost approach because [she] had more property-specific data to utilize." MTAB Hrg. Transcr. 358:11-12. The written report expands on this explanation as follows:

The conclusion of value places more weight on the Cost Approach analysis due to the use of objective, property-specific data that is available for use in the appraisal and the fact that this approach directly provides an indication of the tangible property value without the need for an Extraordinary Assumption. The strength of the Comparable Sales Approach is that it relies on data from the market as to the value of refineries. However, as described above, the sales values considered in the analysis are Business Enterprise Values, which include both tangible and intangible assets.  
Ex. 2, p.2.

141. The second appraisal report was prepared by Stancil to correct a math error identified by the DOR's experts when they reviewed the report. The cover letter for the second appraisal explains the change as follows:

The corrections required impact numerical values in the report, but none of the text in the report has changed other than modifications to the description of the calculation of an element of functional obsolescence in the Cost Approach. The numerical changes occur

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due to a correction in the formulas used in the quantification of  
functional obsolescence of the Laurel refinery.  
Ex. 4., p.1.

142. This math correction resulted in a doubling of the value reached using the cost approach, *an increase from \$150 million to \$300 million.* Ex. 4 bates 001454-001480. Stancil reconciled the new cost value with the \$315 million reached under the earlier sales approach to find a final determination of market value of \$300 million, a significantly different estimate of value. *Id.*
143. On March 20, 2017, Stancil issued a review appraisal report summarizing their review of the appraisal report prepared by Federal Appraisal and Consulting (“FAC”), the DOR expert witnesses. Ex. 8. In an unexpected turn of events that was never properly explained by CHS, FAC’s appraisal report included an income approach to value using financial data CHS had provided to FAC at the request of the DOR, data CHS never did provide to its own expert witnesses. Exs. 8, 12.
144. Now that Stancil had the Laurel refinery’s income information, Stancil performed a new appraisal that included an income approach to value the property, ostensibly as part of the appraisal review of the FAC report. MTAB Hrg. Transcr. 364:10-14.
145. Ms. Spletter testified “everybody does an income approach for an acquisition and when they do an income approach they do a [discounted case flow] methodology.” MTAB Hrg. Transcr. 279:2 - 4. For the discounted cash flow methodology, Ms. Spletter explained that they calculated EBITDA, earnings before interest, taxes, depreciation, amortization, by determining the gross margin (the difference between product revenues and feed stock) and subtracting four types of operating costs: (1) variable operating costs that vary with the amount of crude run; (2) fixed costs that will not change with the amount of crude run (for example, labor costs); (3) administrative costs or the cost of administrative overhead; and (4) turnaround costs (the costs for the periodic shutdown of the refinery process units). MTAB Hrg. Transcr. 279:7 - 281:9.
146. To minimize areas of disagreement between the experts, Stancil accepted and used FAC’s projected gross margins because, while their methods varied slightly, the differences in the final results were not significant. Ex. 8 p. 37, Ex. 12 p. 37. Differences between Stancil

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- and FAC occur in three specific areas of costs, projected turnaround costs, corporate overhead costs, and the future operating costs of RINs. Ex. 8 p.38, Ex. 12 p. 38.
147. FAC utilized a ten-year average of historic turnaround costs and then annualized and increased that number by 50% to project future turnaround costs; however Stancil believes the 50% increase is not enough to fully capture the future turnaround costs of the refinery which now includes the coker installed in 2008, along with changing industry regulations (such as minimizing flare emissions). Ex. 8 p.39-40; Ex. 12 p. 38-39; MTAB Hrg. Transcr. 286:2-290:15. Instead of the 50% increase in annualized turnaround costs FAC projected, Stancil projected annualized future turnaround costs in excess of 270% of the historical average. Exs. 22, 93; Ex. 8 p.39; Ex. 12. p. 39.
148. Stancil objected to FAC's adoption of CHS' actual overhead costs arguing that if the Laurel refinery were a standalone refinery its overhead costs would likely be greater than they currently are because CHS would not benefit from the synergy of belonging to a larger corporation. Ex. 8 p. 39, Ex. 12 p. 30-40, Ex. 23, MTAB Hrg. Transcr. 291:12 - 296:17.
149. The final disagreement over costs between FAC and Stancil was on the projected costs of RINs; costs that both sets of experts had to calculate whole cloth due to the fact that, as of 2014, CHS had not allocated any RIN costs to the Laurel refinery. Ex. 8 p. 40. FAC projected RIN costs of \$3.5 million a year, while Stancil projects one year of RIN costs in 2014 of \$19.1 million and then projects a ten-year average of \$5.4 million beginning in 2015. Ex. 8 p.41, Ex. 12 p 41-42. While Stancil states that they could not find an explanation of the basis for FAC's projected RINs costs, this Board finds that to be true of both expert reports and the various witnesses that testified about RINs only further muddled the waters. *Id.* The future cost of RINs appears to be completely speculative, and while clearly a concern, the Board heard much of conflicting testimony about CHS's cost for RINs, ranging from not actually paying anything as of 2013, they might pay \$3.5 million a year for RINs going forward, \$19 million in one year followed by \$5.4 million in subsequent years, \$36 million for RINs in 2014, and \$200 million in one year for RINs. MTAB Hrg. Transcr. 91-92, 298, 808, 1088. Ms. Spletter did testify on cross-examination that the difference in RINs "[i]t's not real material, no, because the numbers that we've

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included, it was I believe about 19 million and then 5 million thereafter and so it's not a big number and it doesn't drive the overall difference in value." MTAB Hrg. Transcr. 430:15-19.

150. Once Stancil calculated the Laurel refinery's projected operating costs, they had to calculate a discount rate to estimate the projected cash flows. MTAB Hrg. Transcr. 304:17-19.
151. Stancil calculated a 'market-derived discount rate', where they looked at a number of refinery sales transactions and modeled an implied rate of return using data obtained from public sources; for example, refinery buyer's purchasing projections and comments made by refiners on earnings calls. MTAB Hrg. Transcr. 304:21-305:10. Ms. Spletter testified that they calculated a discount rate with a base rate of 15%, and 16.4% once they added the property tax component. MTAB Hrg. Transcr. 305:19.
152. After calculating the discount rate, Ms. Spletter next explained that Stancil calculated the "working capital that is necessary for the refinery operating and is a component of business enterprise value." MTAB Hrg. Transcr. 306:9-11. This working capital is removed from the discounted cash flow. MTAB Hrg. Transcr. 307:22-25.
153. Ms. Spletter, after calculating the EBITDA and the discount rate, then determined the discounted cash flow. MTAB Hrg. Transcr. 308:4-6. The business enterprise value and the intangibles then had to be subtracted out to reach the market value of the refinery's physical assets. *Id.*
154. Using the income approach described above, Ms. Spletter determined the CHS Laurel refinery had a value of \$55 million. *Id.*
155. Stancil's March 20, 2017 appraisal review also amended the sales approach and cost approach values.
156. As to the sales approach, Stancil now found the CHS Laurel refinery had a revised value of \$190 million; *a \$125 million reduction* from the January 6, 2017 revised appraisal report. Ex. 8, p.2. This revised value is inexplicably far less than for example, the non-coking Calumet Wisconsin refinery which sold for \$240,000,000 in 2011 with a capacity of 38,000 barrels per stream day. Ms. Spletter asserted the revised value under the sales

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approach changed because the extraordinary assumption setting the value of the intangibles at 25 percent of the business enterprise value, was actually 38 percent.

MTAB Hrg. Transcr. 358:14-359:11; 369:9-11.

157. As to the cost approach, Stancil found the Laurel refinery had a revised value of \$60 million; *a \$240 million reduction* from the January 6, 2017 revised appraisal report. *Id.*
158. Reconciling the three approaches, Ms. Spletter determined the CHS Laurel refinery had a revised market value of \$100 million. *Id.*
159. On May 30, 2017, Stancil issued a revision to the March 20, 2017 report. Ex. 12, p.2. The revised income approach calculated a value of \$50 million for the CHS Laurel refinery; *a \$5 million reduction* from the calculation in March 20, 2017. *Id.* Even with this change, the ultimate determination of market value for the Laurel refinery remained unchanged at \$100 million. *Id.*
160. Ms. Spletter next discussed net book value and noted refineries will sell for above net book value and below netbook value. MTAB Hrg. Transcr. 431:17-23. Ms. Spletter testified if a refinery sells for less than net book value, the entity acquiring the refinery will “take an impairment” on their financial statements. MTAB Hrg. Transcr. 431:24-432:9.
161. Duncan Wohlgenant testified next on behalf of CHS. Mr. Wohlgenant has worked in the refinery industry for 30 years. Hrg., Transcr. 473:5-9. He has worked for CHS the last 10 years. MTAB Hrg. Transcr. 474:9. Mr. Wohlgenant began working at the CHS Laurel refinery in 2007 to help with the coker construction project and then train employees how to use the coker. MTAB Hrg. Transcr. 473:14-18.
162. Mr. Wohlgenant testified that he had worked at several refineries within PADD IV during his career, including the Billings Phillips 66 refinery. MTAB Hrg. Transcr. 474:23-476:12, 477:24-478:3. He testified that he last toured the Philips 66 plant in 1997. MTAB Hrg. Transcr. 488:7-14.
163. When asked which refinery he would want to own, Mr. Wohlgenant testified the Phillips 66 refinery because,

It’s quite a bit newer in most of it than – well, it was originally built in ’49. CHS was built back in, before 1930, I believe. I know that

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CHS has modified a number of its units. Its number 2 crude unit, I believe, was a thermal cracker once so it's been what I would term a house renovation that didn't always turn out like your wife wanted it, probably a little bit that way.

[Phillips 66] was built in '49. I don't think they've modified quite as much. I think it was perhaps built a little better in the beginning because it was a grassroots refinery at that time. It is in town, a lot tighter, which is not a good thing . . . But I would probably select that one. MTAB Hrg. Transcr. 478:23-479:11.

164. Rob Clark, of Stancil & Co., testified next. He worked as a consultant for CHS and assisted Ms. Spletter in the valuation of intangible assets and "tangible personal property for the Laurel refinery." MTAB Hrg. Transcr. 494:2-5.
165. Mr. Clark has worked for both counties and privately – valuing refineries for over thirty years. MTAB Hrg. Transcr. 495:14-499:20.
166. Mr. Clark found the Laurel refinery had a total of \$29.3 million in intangible assets. MTAB Hrg. Transcr. 495:3. The intangible assets included \$3.1 million in workforce, \$7.3 million in engineering drawings, \$2.0 million in custom software, and \$16.9 million in going concern value. MTAB Hrg. Transcr. 494:21-495:3.
167. Mr. Clark interviewed people who worked at the Laurel refinery about the type of workforce in place, their seven proprietary custom computer software systems, and also their approximately 35,000 engineering drawings to determine the above values. MTAB Hrg. Transcr. 515:14-519:22.
168. After Mr. Clark finished, CHS rested its case and reserved the rest of its time for rebuttal.

**The DOR's case**

169. Seth Carlson testified first for the Montana Department of Revenue. Mr. Carlson is a certified industrial appraiser for the DOR and he valued the Laurel refinery for the 2014 tax year, and has done so for the prior seven years. MTAB Hrg. Transcr. 564:12-565:2.
170. Mr. Carlson has a degree in mechanical engineering from Tulane University. MTAB Hrg. Transcr. 556:12-14. He began with the DOR in 2004 in liquor licensing then transferred to the industrial appraisal unit in June 2005. MTAB Hrg. Transcr. 558:10-11.

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171. Mr. Carlson has taken appraisal classes from the International Association of Assessing Officers and the Appraisal Institute. MTAB Hrg. Transcr. 558:14-25.
172. Mr. Carlson works in the Centrally Assessed and Industrial Property Unit of the DOR. MTAB Hrg. Transcr. 559:3-5. His day-to-day duties include assessing mines, sawmills, commercial grain elevators, fertilizer plants, and oil refineries. MTAB Hrg. Transcr. 560:1-8.
173. Mr. Carlson and his co-workers in the DOR Centrally Assessed and Industrial Property Unit assess approximately 200 industrial facilities every year. MTAB Hrg. Transcr. 562:1-3. Mr. Carlson testified that all 200 industrial properties in Montana are assessed using the same cost approach method that he used to value the Laurel refinery. MTAB Hrg. Transcr. 562:1-13.
174. For the 2014 tax year, Mr. Carlson personally assessed 50 properties. MTAB Hrg. Transcr. 562:13-15.
175. Regarding the four Montana refineries, Mr. Carlson has personally visited and toured each of those refineries at least every other year. MTAB Hrg. Transcr. 563:11-14. He testified he has toured and physically inspected the Laurel refinery and the Phillips 66 refinery about eight times. MTAB Hrg. Transcr. 569:10-12.
176. Mr. Carlson was responsible for assessing all three Yellowstone County refineries for the tax years 2007 through 2012. MTAB Hrg. Transcr. 563:24-25.
177. In 2014, Mr. Carlson was personally responsible for assessing the Laurel refinery and the Phillips 66 refinery. MTAB Hrg. Transcr. 563:18-21. Mr. Carlson's co-worker Arend Collen appraised the ExxonMobil refinery in 2014. MTAB Hrg. Transcr. 564:5-8.
178. Mr. Carlson testified he regularly reads and relies on the following types of information to understand refineries and the petroleum refining industry: (1) SEC filings, like 10-Ks; (2) Oil & Gas Journal; (3) sales reports to the Energy Information Administration; (4) internet searches for sales of refineries which may include reading information on a company's website. MTAB Hrg. Transcr. 567:7-568:19.
179. Mr. Carlson has reviewed, for example, transcripts of CHS's annual meeting with its shareholders. MTAB Hrg. Transcr. 567:12-19.

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180. Mr. Carlson testified his approach is dictated by, and consistent with ARM 42.22.1309. As such he considered the cost approach, the income approach and the market approach. MTAB Hrg. Transcr. 577:21-22. Regarding the market sales approach to finding value, Mr. Carlson testified he looks at market sales, but the inquiry is limited by the few sales and the limited data about what property is included in those sales. *Id.* He would need detailed information about the sales to help adjust for any the conditions of a sale, and physical components of properties in those sales to make accurate adjustments so that they can be truly comparable with Montana refineries. MTAB Hrg. Transcr. 578:12-25. While a sale price might be reported or otherwise available, the important details of a sale that can provide insight into comparability are not. Ultimately, Mr. Carlson determined there were not enough recent sales of refineries to accurately determine the CHS Laurel refinery's value using the market approach. MTAB Hrg. Transcr. 617:11-16; 620:6-21.
181. Next, as to the income approach, Mr. Carlson testified, "the biggest thing for us is having the income and expense data from the company." MTAB Hrg. Transcr. 579:1-2.
182. Mr. Carlson testified he formally requested, but never received, the specific financial data required as part of the appraisal process to use the income approach to value any of the refineries. MTAB Hrg. Transcr. 579:6-9. So, Mr. Carlson could not use the income approach to value the Laurel refinery.
183. With incomplete background market sales data, few comparable refinery sales, and no income data from the company, Mr. Carlson testified this left only the cost approach to value the Laurel refinery to maintain compliance with ARM 42.22.1306 and 1309.
184. According to Mr. Carlson, the goal in the DOR's cost approach is to arrive at the replacement cost new and then to apply depreciation to determine market value as of the lien date. So, for every industrial property, the DOR's appraisers take the actual installed costs, as reported to them by the property owner, and time trend that forward to the replacement cost new for the year under review, so in this appeal all of the cost to install all of Laurel refinery's assets were trended forward to January 1, 2014, and then apply depreciation to reflect the actual age and condition of the assets as of January 1, 2014. MTAB Hrg. Transcr. 693:2-10.



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185. The DOR's approach was later described by other witnesses as a reproduction cost new. MTAB Hrg. Transcr. 857:22-858:8.
186. Mr. Carlson relies on the installed equipment cost as reported to the DOR by CHS. To obtain accurate data for the DOR's cost approach, DOR appraisers send property reporting forms to taxpayers each year. MTAB Hrg. Transcr. 579:15-25. All industrial properties receive this reporting form and submit the data to the DOR as part of the cost appraisal procedure. Id.
187. CHS completed the property reporting form, signed the form, and returned it to the DOR. MTAB Hrg. Transcr. 580:10-11, 583:20-21; Ex. 123.
188. On the property reporting form, CHS listed each piece of equipment at the refinery, followed by a serial number, the year the equipment was purchased, and the purchase price of the equipment. MTAB Hrg. Transcr. 582:17-22; Ex. 123.
189. Mr. Carlson then corresponded with Shelley Naumann of CHS to resolve questions about certain property. MTAB Hrg. Transcr. 583:9-11.
190. Reviewing the reported property, Mr. Carlson found "for the machinery and equipment or actually for all of the refinery less the inventory and construction work in progress and material supplies, going up approximately 200 million dollars between end of year 2012 and end of year 2013 as far as the installed cost for their equipment." MTAB Hrg. Transcr. 585:3-8.
191. CHS's report also included a list of assets disposed of during the 2013 calendar year on this form. MTAB Hrg. Transcr. 587:18-25. Mr. Carlson removed these assets from the DOR's records for the Laurel refinery. MTAB Hrg. Transcr. 589:4-8.
192. CHS also reported all the new construction on the same form. MTAB Hrg. Transcr. 592:12-20. The DOR tries to complete a site visit to verify the new construction. Id.
193. Using this information, Mr. Carlson took the reported information, along with the Marshall and Swift trend and depreciation tables, inputted it into the DOR's computer system, Orion, to determine the Laurel refinery's market value. MTAB Hrg. Transcr. 590:8-25.
194. According to Mr. Carlson, Marshall & Swift "is a service that looks at the cost to build equipment. It establishes validated trending tables and depreciation schedules for valuation

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- purposes.” He testified Marshall & Swift data is the standard in the appraisal industry, used throughout the state for residential, commercial, and industrial property. MTAB Hrg. Transcr. 576:9-15. The data from Marshall & Swift is standardized for uniformity.
195. As to the cost approach, Mr. Carlson testified he is directed by ARM 42.22.1306 to trend and bend each piece of equipment’s original installed cost to the lien date. MTAB Hrg. Transcr. 574:23-577:12. Mr. Carlson testified that he takes the list of CHS’s installed costs for all of the equipment that is in place at the refinery and trends that cost to current dollars using trend tables taken from Marshall & Swift valuation service. These tables are published by the DOR annually pursuant to A.R.M 42.22.1307. *Id.* This trended value becomes the DOR’s replacement cost new for all equipment that is in place at the refinery. *Id.* Mr. Carlson then applied a 16-year depreciation schedule that the DOR has developed specifically for the refining industry, pursuant to A.R.M. 42.22.1308, to reach a replacement cost new less depreciation. MTAB Hrg. Transcr. 575:16-20.
196. Under the DOR cost approach as directed by ARM 42.22.1306 industrial appraisers depreciate industrial property from new to fully depreciated using a 16-year life for machinery equipment. MTAB Hrg. Transcr. 577:7-9.
197. Using the 16-year depreciation scale and the Marshall & Swift tables, assets are reduced each year based on a percentage basis which considers the condition of the equipment; i.e. the age and what it provides. For example, a piece of equipment can be depreciated down to 5 percent if the equipment has only scrap value. MTAB Hrg. Transcr. 704:10-11. Equipment that is old but still working condition is depreciated to a floor of 20 percent good. MTAB Hrg. Transcr. 702:1-6.
198. The trend and depreciation tables used by the DOR are updated annually and are subject to public notice and hearing requirements that allow affected taxpayers to comment on the proposed table values. MTAB Hrg. Transcr. 591:5-7.
199. For example, Mr. Carlson explained how an asset with an original installed cost of \$1.76 million in 1997, reduced for depreciation and obsolescence, will have an assessed value of \$54,181 on the lien date. MTAB Hrg. Transcr. 599:15-603:20. Ex 125 bates 027135.

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200. Mr. Carlson used this method to reach a reproduction cost new for the Laurel Refinery of approximately \$1.5 billion. After reductions for depreciation Mr. Carlson determined a market value as of January 1, 2014 in the amount of \$848,639,534. MTAB Hrg. Transcr. 603:24-604:4; 606:18; Ex. 126.
201. After explaining how he determined the Laurel refinery's value, Mr. Carlson discussed what happened after CHS received its assessment notice and challenged the DOR's value.
202. Mr. Carlson testified that during the AB-26 informal review he requested CHS's net book value because "the net book value is essentially what a company or corporation would be telling their shareholders that they believe the value to be for the company for SEC purposes." MTAB Hrg. Transcr. 616:22-25.
203. CHS did not provide Mr. Carlson with the refinery's net book value during the AB-26 informal review. MTAB Hrg. Transcr. 619:3-5.
204. Mr. Carlson testified that CHS asked for additional time to complete its own appraisal. The appraisal report, completed by Ms. Spletter, valued the refinery at \$200 million, significantly less than the value CHS was requesting. MTAB Hrg. Transcr. 619:15-19; *see also supra* ¶¶ 14 - 16. CHS provided no explanation for the difference in values.
205. Mr. Carlson also testified CHS had previously argued the DOR had not accounted sufficiently for economic obsolescence, and the DOR and CHS had been close as to their physical deterioration calculations for the CHS Laurel refinery. MTAB Hrg. Transcr. 621:9-25. Furthermore, previously CHS and the DOR were close as to physical deterioration. MTAB Hrg. Transcr. 621:9-10. However, with Ms. Spletter's report, CHS now argued for a larger amount of functional obsolescence. *Id.* Mr. Carlson stated he could not follow Ms. Spletter's calculations or recreate her formulas to understand the foundation for her lower values. MTAB Hrg. Transcr. 622:1-13.
206. Comparing CHS to the other two Yellowstone County refineries, Mr. Carlson testified that the effective age of the Laurel Refinery is newer than the two other refineries. He postulated that the other refineries are going to have to spend money later to make similar upgrades to compete with CHS. He estimated that over the prior ten years CHS had spent around \$800 million dollars on the plant. MTAB Hrg. Transcr. 624:9-15; 624:25-625:3.

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207. Mr. Carlson testified as to his opinion about the effective age of the Laurel refinery. Mr. Carlson explained that only \$1.7 million of the original installed cost of equipment currently in use, was actually put into use more than sixty years ago. Furthermore, over 70 percent of the original installed cost of equipment has been installed within the last ten years. Despite starting construction in 1939, only 1.27 percent of the machinery and equipment in use today dates back to the startup date. MTAB Hrg. Transcr. 628:13-25. The refinery has been constantly maintained and improved over the years.
208. Next, Mr. Carlson discussed his evaluation of economic obsolescence. He determined through publicly available sources that the PADD IV region has been stable and continues to be profitable, and thus there is no indication he needed to apply any economic obsolescence to the Laurel refinery given the profitability of the oil refining business in PADD IV. MTAB Hrg. Transcr. 634:7-636:19. Mr. Carlson testified the DOR did not find any economic obsolescence for any of the Yellowstone refineries. MTAB Hrg. Transcr. 639:4-11.
209. Mr. Carlson admitted on cross-examination that he had not seen a 55,000 to 60,000 barrel per day refinery sell for \$848,000,000. MTAB Hrg. Transcr. 651:24-652:3.
210. Mr. Carlson also testified Ms. Spletter had calculated a replacement cost new (before considering depreciation or any type of obsolescence) for the CHS refinery of \$1.8 billion, while he had found a reproduction cost new for the refinery (before any deductions for depreciation or obsolescence) of \$1.5 billion. MTAB Hrg. Transcr. 663:16-21.
211. Concerning CHS's investment of \$800 million into its plant, Mr. Carlson stated he found nothing in CHS' annual report to shareholders indicating the investment would not generate revenue or "that they essentially wasted \$700 million" or "that the investment hadn't been a wise investment." MTAB Hrg. Transcr. 665:9-22; 666:15-18.
212. To conclude, Mr. Carlson stated in valuing the Yellowstone County refineries using the cost approach, the DOR merely values the assets or property as reported to the Department by the taxpayers.
213. James Watson testified next on behalf of the DOR.

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214. Mr. Watson is a certified and licensed appraiser who works for Watson Millican & Company and in this matter worked as a consultant for Federal Appraisal & Consulting (FAC). MTAB Hrg. Transcr. 710:10-25. He assisted FAC in completing an appraisal of the Laurel refinery and completed several appraisal reviews critical of Stancil's changing reports and appraisals. FAC has historically represented the taxing entities in property tax disputes.<sup>8</sup>
215. Mr. Watson has a Bachelor of Science in mechanical engineering from Southern Methodist University in Dallas as well as a Master of Business Administration degree from the University of Dallas. MTAB Hrg. Transcr. 724:3-9 MTAB Hrg. Transcr. 714:10-14. Mr. Watson holds an American Society of Appraisers certification with specialty in machinery and technical specification categories. 724:3-9 MTAB Hrg. Transcr. 714:10-14.
216. Mr. Watson summarized his background and experience as an appraiser and an expert in valuing refineries, chemicals, and other oil and gas assets. MTAB Hrg. Transcr. 723:11-18. In his work, Mr. Watson has mostly represented taxing bodies and has represented refineries only three times. MTAB Hrg. Transcr. 724:21-725:2; 825:13-20.
217. According to Mr. Watson, a party considering purchasing a refinery will only look at cash flow, and thus will have a discounted cash flow study completed. MTAB Hrg. Transcr. 728:16-21.
218. Mr. Watson described the discounted cash flow analysis as a calculation to project maintenance expense going forward to maintain the equipment and an estimate of a capital requirement. He testified a capital requirement is a base level of sustaining capital that refiners must spend going forward and that buyers evaluating a refinery must make an evaluation of projected maintenance and capital requirements via a discounted cash flow analysis. MTAB Hrg. Transcr. 729:17-730:1.
219. According to Mr. Watson, the following factors affect a refinery's discounted cash flow analysis: (1) the refinery's location; (2) the age and condition of the refinery's assets; (3)

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<sup>8</sup> FAC's work was done after the work by the DOR was completed which resulted in the DOR finding a value using the cost approach of \$848,639,534.

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- the refinery's complexity; and (4) a refinery's configuration. MTAB Hrg. Transcr. 728:20-733:24.
220. Mr. Watson testified that over the last 20 years he has seen a slow but steady increase in the United States' refining capacity. He has observed that smaller and less sophisticated refineries, especially in the more competitive areas, have shut down. He testified that the capacity loss has been more than offset by expansions of other refineries. Watson noted that despite a plateau from 2011 to 2014, the industry has been growing at about 1 percent a year and there are still expansion projects going on. MTAB Hrg. Transcr. 737:8-19.
221. Regarding regional PADD IV's refining capacity and production, Mr. Watson testified that over the last 15 years, refinery capacity in PADD IV is growing, from 550,000 barrels a day up to 665,000 barrels a day, a significant increase. He continued that when considering average operable capacity in PADD IV, the existing refineries are expanding to increase this capacity. MTAB Hrg. Transcr. 743:3-17.
222. Mr. Watson calculated and considered all three appraisal approaches in his appraisal of the Laurel refinery. MTAB Hrg. Transcr. 738:9-18.
223. As for the market sales approach, Mr. Watson reviewed refinery sales in the five years prior to the lien date of January 1, 2014. MTAB Hrg. Transcr. 753:16-17. Mr. Watson then narrowed these sales down to "five refineries of similar size" and did not include any coastal sales. MTAB Hrg. Transcr. 757:12-15.
224. Mr. Watson's comparable refinery sales included the following: (1) 2009 Holly, Tulsa East, Oklahoma; (2) 2010 Northern Tier St. Paul Park, Minnesota; (3) 2011 Calumet, Superior, Wisconsin; (4) 2011 CVR Energy Wynnewood, Oklahoma; and (5) 2010 Calumet Great Falls, Montana. MTAB Hrg. Transcr. 757:19-23. To obtain accurate data about these sales, Mr. Watson reviewed the 10-K or SEC filings "where the buyer has actually gone and done the final purchase price allocation." MTAB Hrg. Transcr. 847:19-21.
225. Mr. Watson then adjusted these sales for location and production using EIA stream day capacities. MTAB Hrg. Transcr. 758:2-10.
226. Using the market sales approach, Mr. Watson found the CHS Laurel refinery had a value of \$1.2 billion. MTAB Hrg. Transcr. 758:14-17.

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227. Next, Mr. Watson undertook a cost approach, calculating a replacement cost new of a newly built refinery with similar utility depreciated with a 1.25% reinvestment rate. He also took into account the Solomon survey and other factors Ms. Spletter had considered as to obsolescence. MTAB Hrg. Transcr. 760:6-770:3.
228. After these adjustments, Mr. Watson determined the CHS Laurel refinery had a RCNLD value of \$970 million. MTAB Hrg. Transcr. 770:8-10.
229. Lastly, Mr. Watson, in conjunction with Mr. Pomykacz of FAC consulting, appraised the CHS refinery using an income approach, specifically using the discounted cash flow method. MTAB Hrg. Transcr. 770:17-20.
230. In completing the income approach, Mr. Watson and Mr. Pomykacz reviewed CHS's income information. MTAB Hrg. Transcr. 774:14-20. Those filings showed the CHS Laurel refinery reported the following net earnings for the corresponding calendar years:
- a. Calendar year 2011: \$279,675,000 in total net earnings;
  - b. Calendar year 2012: \$390,791,000 in total net earnings;
  - c. Calendar year 2013: \$188,514,000 in total net earnings;
  - d. Calendar year 2014: \$299,816,000 in total net earnings; and
  - e. Calendar year 2015: \$93,534,000 in total net earnings. Ex. 23.
231. Mr. Watson and Mr. Pomykacz concluded that the Laurel refinery had a value of \$884 million under the income approach. MTAB Hrg. Transcr. 781:11-14.
232. FAC reconciled the three approaches to value to find an ultimate determination of market value for the Laurel refinery of \$884,000,000 as of January 1, 2014. Ex. 5.
233. Mr. Watson then outlined the flaws and errors he found in the various Stancil appraisal reports. These were primarily Stancil's changes for functional obsolescence due to excess operating cost estimates, the math error, and the change of value of operating costs by application of a new location factor. He was troubled by the extreme changes in value from the first appraisal report of June 2015, to the very different assumptions and estimates of value for the same property, as of the same lien date, 18 months later. MTAB Hrg. Transcr. 788:4-16.

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234. Regarding Ms. Spletter's market approach and her adjusted refinery sales, Mr. Watson was critical of the inconsistency of adjusting one sale upward by 30 percent, then applying negative adjustments between 30 to 50 percent downward to the others. He questioned Stancil's choice to consider comparing three cracking refineries with inferior technology to the subject, yet still apply substantial negative adjustments to reach an adjusted sales price. MTAB Hrg. Transcr. 790:17-25.
235. Mr. Watson also expressed concern about the amount of depreciation Ms. Spletter applied under her replacement cost new formulation, stating she concluded to a value of the taxable property under the cost approach of \$60 million. Watson divided that number by the RCN [i.e. replacement cost new] from Stancil's cost approach of \$1.8 billion, to arrive at 3.3 percent good, *a 97 percent depreciation on an operating refinery* (emphasis added). He testified his own analysis of sales of inoperable refineries showed that they were selling as scrap for at least 5, 6 and 7 percent of RCN. MTAB Hrg. Transcr. 795:9-19.
236. Mr. Watson also believed Ms. Spletter had used excessive operating cost projections in her discounted cash flow method. MTAB Hrg. Transcr. 850:14-23; 851:1-8. According to Mr. Watson, FAC estimated the CHS Laurel refinery's operating cost projections would be 13 to 15 percent higher than the actual three-year historical average. *Id.* Mr. Watson questioned Ms. Spletter's estimate that the CHS Laurel refinery's operating cost projections would be 40 percent higher than the actual three-year historical average. *Id.* This assumption significantly reduces the conclusion of value under the DCF method.
237. On cross-examination, Mr. Watson agreed if the cost of RINs increased, the CHS Laurel refinery's EBITDA would decrease. MTAB Hrg. Transcr. 822:10-11. He also agreed if the total maintenance costs increased, that too would reduce EBITDA. MTAB Hrg. Transcr. 822:23-25; 824:4-9.
238. Mr. Watson explained the \$418 million coker project included both the coker and other improvements; thus the \$418 million project includes many assets other than just the coker. MTAB Hrg. Transcr. 844:9-15.
239. Mr. Pomykacz testified next.



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240. He has a bachelor's degree from Rutgers University in political science. He is an accredited senior member of the American Society of Appraisers. He has a State License for commercial real estate appraisal by reciprocity in Montana and is a member of the Institute for Professionals in Taxation. He is a licensed commercial real estate appraiser in about twelve states including Montana. Mr. Pomykacz has held an MAI designation with the Appraisal Institute for seventeen years. MTAB Hrg. Transcr. 860:5-22; 947:23-948:14.
241. Mr. Pomykacz has never been involved in the purchase or sale of an oil refinery but has been involved with the appraisal of 12 refineries. MTAB Hrg. Transcr. 947:11-14; 862:12.
242. Mr. Pomykacz testified that in his time in the appraisal field, he has never encountered a situation like this case, where consultants and valuation experts issued numerous reviews and continued to adjust their conclusion of value, as Stancil has done. MTAB Hrg. Transcr. 871:18-23. As to these numerous reports, Mr. Pomykacz stated appraisers have two purposes: one is to have the skills to recognize and opine calculated value; the other is to do it in a way that is objective and clear and meaningful. In his opinion, the number of reports and revisions issued by Stancil complicate the user's ability to use these reports. MTAB Hrg. Transcr. 871:25-872:6.
243. Mr. Pomykacz also criticized the lack of clarity in Stancil & Co.'s appraisal reviews and opined that the reports and reviews provided were not USPAP compliant with common standards of industrial appraising. He testified an interested party could not read the Stancil May 30, 2017 revised appraisal and review it on its own. He opined Stancil lost the credibility to clarify any opinion of value when Stancil forced the reader to read the prior Stancil & Co. appraisals in addition to the May 30, 2107 appraisal and review to understand its conclusions of value. He claimed the reader may even have to go back two appraisals to get all the rationale and data needed to understand and evaluate Stancil's conclusion.
- In my opinion, that's not an acceptable way to report an opinion of value and your rationale behind it. The appraiser should have issued a new full appraisal with all the documents required to get to that value conclusion. MTAB Hrg. Transcr. 872:11-22.
244. Pursuant to Ms. Spletter agreeing to conduct an appraisal assignment with the limiting condition that she would not have CHS's income data, Mr. Pomykacz testified that in the

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community of professional appraisers it is not an acceptable limiting condition for this purpose and use. He concluded that the client in effect has allowed the appraisal process to be compromised and that is not an acceptable USPAP condition. He testified that both experts have indicated the income approach is the best to determine the market value of a refinery. Pomykacz testified that while the other approaches could possibly get you into a ballpark, they are not going to give you a number with the accuracy, or the precision that's required for this kind of a venue for the appraisal. MTAB Hrg. Transcr. 933:1-9.

- 245. Mr. Pomykacz claimed Ms. Spletter could have completed an income approach using publicly available market data. MTAB Hrg. Transcr. 934:2-12.
- 246. Mr. Pomykacz testified the first step in FAC's cost approach was to complete a replacement cost new value for the refinery. MTAB Hrg. Transcr. 881:2-5. This contrasted with Mr. Carlson, who in his cost approach started with a reproduction cost new. MTAB Hrg. Transcr. 881:12-21. However, FAC's replacement cost new was higher than the DOR's reproduction cost new and he opined that both methods are considered accurate. MTAB Hrg. Transcr. 881:22-25.
- 247. Mr. Pomykacz speculated the DOR's reproduction cost new was lower than FAC's replacement cost new because the DOR used a 15 or 16-year trend factor. MTAB Hrg. Transcr. 882:10-21.
- 248. Using the income data provided by CHS to FAC during the pendency of this tax appeal, Mr. Pomykacz testified about his income approach to valuing the CHS Laurel refinery, which included calculating the intangible value of the business, determining the discount rate for financing, and the beta measures for the refinery. MTAB Hrg. Transcr. 893:2-906:16.
- 249. Mr. Pomykacz admitted he made a .37 percent mistake on his beta measure calculation for the CHS Laurel refinery but testified it did not affect his conclusion of the refinery's equity and ultimately did not require FAC to change their determination of value using the income method. Beta data points are a measurement of accuracy in testing daily stock pricing. MTAB Hrg. Transcr. 900:4 -8; 906:7-16.

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250. Using the above information validated against several different income approaches, Mr. Pomykacz determined the CHS Laurel refinery had the following business enterprise values: \$870 million, \$1.4 billion, and \$1.3 billion depending on the income approach used. MTAB Hrg. Transcr. 918:25-919:1.
251. After reducing the business enterprise values for intangibles and other factors, Mr. Pomykacz and Mr. Watson determined the CHS Laurel refinery's value was \$884 million, giving most weight to the income approach. MTAB Hrg. Transcr. 927:20-24.

**CHS's rebuttal case**

252. After the DOR rested its case, CHS commenced its rebuttal case.
253. Dr. Hal Heaton testified first. Dr. Heaton is a professor of finance at Brigham Young University. MTAB Hrg. Transcr. 964:15-21. He has a PhD in finance from Stanford University. MTAB Hrg. Transcr. 968:1-5. He has also taught at the University of Santa Clara and the Harvard Business School. MTAB Hrg. Transcr. 968:7-8.
254. For many years, Dr. Heaton has presented at the Wichita Conference on property taxation. MTAB Hrg. Transcr. 969:11-13. He has a myriad of published articles on property taxation. MTAB Hrg. Transcr. 969:14-17.
255. Dr. Heaton is not a member of the appraisal institute and has no appraisal designations. MTAB Hrg. Transcr. 1020:9-18.
256. CHS hired Dr. Heaton as an expert with the limited scope of reviewing FAC's discounted cash flow and capitalization rates. MTAB Hrg. Transcr. 1019:1-8. He testified that when he was hired he was told he had two weeks to prepare the report, which was then extended for an additional two weeks, and he estimated that he spent a total of between 20 and 25 hours working on the report. MTAB Hrg. Transcr. 1018:18-1019:1, 1028:19-20. Dr. Heaton was not provided any of Stancil's reports and was not provided any of CHS's income data. MTAB Hrg. Transcr. 1019:17-1020:10.
257. Dr. Heaton reviewed FAC's discounted cash flow and found there were "major errors . . . resulting in a rate that is substantially too low." MTAB Hrg. Transcr. 966:8-11. Dr. Heaton, in particular, disagreed with Mr. Pomykacz's assertion that refineries are not risky and

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instead found that refineries' "highs are higher, the lows lower. That's what we mean by risk. It's highly, highly volatile." MTAB Hrg. Transcr. 972:10-21.

258. Dr. Heaton defined betas as:

Betas are the measure of risk. The market is our measuring device. Basically if you're equal in risk of the market you have a beta of 1. So a beta of 1.5 means you're 50 percent riskier than the market. That would be a very risky stock. Anything less than 1 is considered low risk, and there are very few companies that fit into that category. MTAB Hrg. Transcr. 973:3-9.

259. Dr. Heaton reviewed published betas for various companies and opined that FAC's betas did not approximate the risk associated with a refinery. MTAB Hrg. Transcr. 975:7-979:14. Dr. Heaton determined FAC found a low beta for refineries by including diverse companies that are not exclusively operating refineries in their data set. MTAB Hrg. Transcr. 986:7-989:2. A lower beta, Dr. Heaton testified, will decrease the discount rates and thus increase the fair market value. MTAB Hrg. Transcr. 1001:3-11.

260. Dr. Heaton admitted he did not have an opinion of the Laurel refinery's market value as of January 1, 2014. MTAB Hrg. Transcr. 1014:11-13.

261. Dr. Heaton also stated he had been involved in seven or eight tax appeal matters in 2017 and in all of them he represented the taxpayer. MTAB Hrg. Transcr. 1014:19-1015:4. In each of these tax appeal cases Dr. Heaton was involved in, he concluded the taxing authority had used the wrong discount rate. MTAB Hrg. Transcr. 1015:1-7.

262. Dr. Heaton testified that published betas can have a wide variance depending on whether one looks at a one-year weekly, three-year weekly, or five-year weekly analysis. MTAB Hrg. Transcr. 1028:2-14. Dr. Heaton stated that he prefers a five-year weekly analysis, but given the severe time crunch he was under to prepare the report quickly, he did not complete a five-year weekly analysis when reviewing the accuracy of FAC's betas. MTAB Hrg. Transcr. 1028:2-20.

263. Dr. Lacey testified next for CHS. Dr. Lacey is a "professor of accountancy and research fellow at California State University, Long Beach." MTAB Hrg. Transcr 1043:4-6. Dr.

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Lacey testified about how to identify intangible assets in the appraisal process. MTAB Hrg. Transcr. 1044:1-4.

264. Dr. Lacey defined intangible assets as:

. . . assets that have value that don't have physical presence. So as my mentor said, "intangible assets are assets that have value but you can't kick them." So things like patents, copyrights, trademarks, and that elusive goodwill would all be examples of intangible assets. MTAB Hrg. Transcr. 1049:14-20.

265. Dr. Lacey generally testified to the fact when a business is sold there are often intangibles included, like goodwill, patents, or workforce, which must be removed if an individual wants to determine the actual value of the bricks and mortar. MTAB Hrg. Transcr. 1053:5-1055:9.

266. Mr. Ostendorf, the senior vice president of finance for CHS based out of CHS's primary offices located in Inver Grove Heights, Minnesota, testified next. MTAB Hrg. Transcr. 1084:5-6, 8-9.

267. Mr. Ostendorf testified that as of December 31, 2013, the Laurel refinery had a book value of "roughly about \$822 million." MTAB Hrg. Transcr. 1089:5-6. He proceeded to explain that CHS has not undertaken an impairment analysis of the refinery even though both Mr. Kimmet and Ms. Spletter testified, that in their opinion, the market value of the refinery was significantly below book value, because under accounting rules there has not been a triggering event, either a sale of the refinery or consistent losses that are expected to continue indefinitely into the future, that would require CHS to report an impairment on the Laurel refinery.<sup>9</sup> MTAB Hrg. Transcr. 1089:7-25.

268. On cross-examination, Mr. Ostendorf testified that the Laurel refinery has been in a positive cash flow position for the last five years, that the minimum internal hurdle rate for new projects at the Laurel refinery is 12 percent<sup>10</sup>, that CHS' return on the Laurel coker

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<sup>9</sup> Under general accounting principles, a company needs to recognize an impairment loss when the asset's market value is less than the asset's book value.

<sup>10</sup> A hurdle rate is the minimum rate of return a company expects to earn before investing in a project,

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project was significantly north of 30 percent at the five-year mark, and that CHS's weighted average cost of capital (WACC) was in the 8 percent range. MTAB Hrg. Transcr. 1107:7-11, 1104:9-15, 1111:3-10.

269. Ms. Spletter then testified again and was CHS' last rebuttal witness.
270. First, Ms. Spletter contested Mr. Pomykacz's assertions that her appraisal and reports did not comply with USPAP requirements. MTAB Hrg. Transcr. 1121:10-18.
271. Second, Ms. Spletter discussed why she disagrees with the DOR's method for determining market value for the CHS Laurel refinery when considering the Phillips 66 refinery and the CHS Laurel refinery's coker project in particular:

[CHS] put in in 2008 and they spent 418 million. P66 put theirs in in 1992. Mr. Wholgenant testified that they spent 143 million on that, including some other process facilities, but for easy numbers we're going to just say 143. . . The difference between '92 and 2008 is that they would then go to 210 million. But the other thing is that's a 20,00 barrel a day [coker for Phillips 66 and [CHS] is a 15,000 barrel a day. . . This will never allow them to equal that. . . So this disadvantage just keeps growing through time and, yet, these two units do essentially the same thing. If anything, CHS only has 15,000 barrels a day so they're not a full coking refinery. . . So we have a balanced refinery over here with a lower-based cost that will never be recouped in terms of equalizing these values. MTAB Hrg. Transcr. 1141:1-1142:19.

272. According to Ms. Spletter, both FAC and Stancil calculated that a replacement coker for the CHS Laurel refinery would cost \$205 to 220 million. MTAB Hrg. Transcr. 1143:1-12. Ms. Spletter determined, as a result, in 2008 CHS overpaid by almost \$200 million for its coker because construction costs were so high in a post-hurricane Katrina and hurricane Rita economic environment. MTAB Hrg. Transcr. 1144:3-16.
273. Ms. Spletter agreed reproduction cost is an acceptable methodology and further that trending is an appropriate method used to calculate a refinery's reproduction cost new. MTAB Hrg. Transcr. 1213:22-1214:1.

**Post-trial Briefing**

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274. After the hearing, the parties agreed to a post-trial briefing schedule. On December 11, 2017, this Board received a copy of the hearing transcript. This Board issued an order requiring the parties simultaneously file post-trial briefs before the close of business on January 26, 2018.
275. On January 23, 2018, DOR filed an unopposed motion for extension of time where the parties agreed post-trial briefs would be submitted simultaneously before the close of business on February 3, 2018.
276. On January 24, 2018, this Board granted the parties' extension of time.
277. On February 2, 2018, the parties simultaneously filed Proposed Findings of Fact and Conclusions of Law along with briefs in support of their Proposed Findings of Fact and Conclusions of Law.
278. On February 7, 2018, DOR filed a Motion to Strike CHS' submission of an excel spreadsheet which contained a formula to assist this Board in determining market value. On February 12, 2018, CHS filed an opposition brief to the DOR's Motion to Strike. On February 22, 2018, DOR filed a reply brief.
279. This Board hereby denies DOR's Motion to Strike.
280. To whatever extent the following conclusions of law may be construed as findings of fact, they are incorporated accordingly.

**Conclusions of Law**

281. To whatever extent the foregoing findings of fact may be construed as conclusions of law, they are incorporated accordingly.

**Jurisdiction**

282. The Montana Tax Appeal Board has jurisdiction over this matter. MCA § 15-2-301.
283. This appeal is for the 2014 tax year.
284. MCA § 15-2-301(4) (2013) states

In connection with any appeal under this section, the state board is not bound by common law and statutory rules of evidence or rules of discovery and may affirm, reverse, or modify any decision. To the extent that this section is in conflict with the Montana

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Administrative Procedure Act this section supersedes that act. The state tax appeal board may not amend or repeal any administrative rule of the department. The state tax appeal board shall give an administrative rule full effect unless the board finds a rule arbitrary, capricious, or otherwise unlawful.

285. Under this statute, this Board hears cases *de novo* and can “receive new evidence.” *CHS, Inc. v. DOR*, 2013 MT 100, ¶ 29; *see also McDunn v. Arnold*, 2013 MT 138, ¶ 22 [“A trial *de novo* means trying the matter anew, the same as if it had not been heard before and as if no decision had been previously rendered.”].

**Taxpayer’s Burden**

286. The taxpayer bears the burden of proving the error of DOR’s appraisal. *Farmers Union Cent. Exch., Inc. v. Dep’t of Revenue of State of Mont.*, 272 Mont. 471, 476, 901 P.2d 561, 564 (1995); *Western Air Lines, Inc. v. Michunovich*, 149 Mont. 347, 353, 428 P.2d 3, 7 (1967).
287. The DOR cannot, however, rely entirely on the presumption in its favor and must present a modicum of evidence showing the propriety of their value. *Western Air Lines*, 149 Mont. at 353, 428 P.2d at 7.

**Market Value**

288. In determining market value, the Montana Supreme Court has held that this Board . . . possesses authority to assess a taxpayer’s market value at 100% market value, even if the assessment exceeds the Department’s original assessment. To conclude otherwise would hamstring STAB’s authority to conduct a contested case under MAPA and to reach an independent assessment. The statutory mandate that all property “must be assessed at 100% of its market value” applies equally to the Department and to [this Board]. *Puget Sound Energy, Inc. v. State, Dept. of Revenue*, 2011 MT 141, ¶ 37, 361 Mont. 39, 48, 255 P.3d 171, 177.

289.MCA § 15-8-111 states

- (1)All taxable property must be appraised at 100% of its market value except as otherwise provided.



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(2)(a) Market value is the value at which property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts.

- 290. MCA § 15-8-111(2)(b) states, “If the department uses the cost approach as one approximation of market value, the department shall fully consider reduction in value caused by depreciation, whether through physical depreciation, functional obsolescence, or economic obsolescence.”
- 291. All industrial improvements shall be valued by the use of the Montana Appraisal Manual. ARM 42.22.1304(1).
- 292. The DOR values industrial property, other than land “by trending the original installed cost to a current replacement cost, then depreciating on an age/life basis to compensate for ordinary physical deterioration and/or functional obsolesce.” ARM 42.22.1306.
- 293. The trending factors for all property other than land or improvements to land shall be published annually by the department. These factors will be taken from the Marshall & Swift Valuation Service Guide except in those instances when the taxpayer can demonstrate to the department that another source of information will provide a more reliable indication of replacement/reproduction cost and thus the resulting ‘market value’ for the industry as a whole.” ARM 42.22.1307.
- 294. If adequate market data exists, the department may apply the approaches to valuation described in ARM 42.22.1309. ARM 42.22.1306.
- 295. When determining the market value of industrial properties, department appraisers may consider, based on generally accepted appraisal principles, the cost approach, the income approach, and the market approach to value, if the necessary information is available. ARM 42.22.1309(1).
- 296. Extraordinary functional and/or economic obsolescence is treated on a case-by-case basis. ARM 42.22.1309(2).

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**Discussion**

297. At the hearing, this Board heard evidence about three appraisal approaches: (1) the cost approach; (2) the market approach; and (3) the income approach.
298. The DOR's reproduction cost new less depreciation relied on the information provided by CHS.
299. CHS had the burden of showing DOR's determination of market value lacked merit. However, very little evidence at the hearing undermined the accuracy of Mr. Carlson's value. To calculate the Laurel refinery's value, Mr. Carlson followed ARM 42.22.1306. He testified he did not have any income data to complete an income approach. He testified he did not have sufficient recent refinery sales information to conduct a valid comparable sales analysis of value. He could only use the cost approach to determine the CHS Laurel refinery's market value. Mr. Carlson's cost approach relied on the assets and cost information reported by CHS. He then used Marshall & Swift – along with Orion – to trend the costs to present dollars and then reduced the values based on a 16-year depreciation cycle and obsolescence schedule. In the end, Mr. Carlson's value for the Laurel refinery closely matched the net book value CHS reports. CHS's expert, Ms. Spletter, admitted "trend and bend" as utilized by the DOR is an accepted method to reach a determination of market value.
300. During the discovery process of this tax appeal, the DOR eventually obtained the income data for the Laurel refinery. The DOR had its expert, FAC, calculate the Laurel refinery's market value using this income data. FAC, using the income approach, determined the CHS Laurel refinery had a value of \$884 million.
301. CHS attempted to refute the DOR's cost and income value conclusions with Stancil's various reports and Ms. Spletter's testimony.
302. The difficulty of accurately calculating complex formulas is significant. The cumulative effect of even small errors can result in huge swings in value, which with every swing diminishes the credibility of the estimate.

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303. In general, the simple fact of submitting four successive reports concluding to three drastically different estimates of value increasingly brought their credibility into question. Ms. Spletter's final determination of market value constantly changed. Almost every report issued had a different value; rising and falling by hundreds of millions of dollars. The Board's job is to find value as of the lien date. A moving target makes that task almost impossible.
304. While appraisal methods are complicated and small variations in inputs may result in large swings in final values, at the end of the day, the Board must find a market value for the Laurel refinery. We are not authorized to set a value range. Nor are we authorized to adopt new techniques (even if they are used in the industry for some purposes). To that extent, CHS' current case presented us with a number of moving targets as to value, with little consistency as to a single number. Thus, further undercutting any foundation of credibility.
305. This Board found significant problems with all three of Stancil's appraisal approaches and hence the final calculations of the market value of the Laurel refinery.
306. Regarding the comparable sales approach, all of the refineries Ms. Spletter considered were less complex than the Laurel refinery. The Great Falls, Montana Calumet refinery sold for \$126,000,000 in 2012. The refinery was far less complex than the Laurel refinery. The refinery had a production capacity of 10,500 barrels per stream day; thus, approximately 16 percent of the production capacity of the Laurel refinery. Adjusting the Calumet refinery simply based on production to match the Laurel refinery would result in a refinery value of at least \$600,000,000; even before adjusting for the Laurel refinery's greater complexity. Similarly, the Superior, Wisconsin Calumet refinery sold for \$240,000,000. The refinery was also far less complex than the Laurel refinery. The refinery had a production capacity of 38,000 barrels per stream day; thus, approximately 55 percent of the Laurel refinery's capacity. Adjusting the Superior Calumet refinery to match the capacity of the Laurel refinery yields a value of approximately \$480,000,000; before adjusting for the Laurel refinery's greater complexity. Generally, if the Calumet refinery sales were adjusted to match the complexity of the Laurel refinery – in particular to adjust for the large difference between a cracking plant and a coking plant – this Board believes

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both of the Calumet refineries sales would have a comparable value which supports the DOR's cost approach value.

307. This Board does not accept that Ms. Spletter used the market sales approach to find the Laurel refinery has a value of only \$190,000,000, a market value that is \$50,000,000 less than a 38,000 barrel per stream day, cracking refinery located in Superior, Wisconsin, a refinery that is less complex and has less production.
308. As to the income approach, Stancil's income approach values for the Laurel refinery lacks support, especially when considering CHS's net earnings. Ms. Spletter determined the CHS refinery had a value of \$50,000,000 to \$55,000,000 using the income approach, when during the 2011 through 2014 calendar years, CHS had on average, annual net earnings of \$289,000,000. Even using the 2015 calendar year net earnings of \$93,000,000, that would yield \$43,000,000 more than the total value of the Laurel refinery Ms. Spletter calculated using income data. While this Board recognizes the volatility of the refinery industry as well as the unpredictable future cost of RINs, this Board does not find it credible that a refinery, which over a four-year period which averaged net annual earnings of \$289,000,000, and which has invested over \$800,000,000 in the refinery over the last ten years, has a market value of only \$50,000,000 to \$55,000,000.
309. Lastly, under the cost approach, Ms. Spletter calculated significant amounts of functional and economic obsolescence, amounts which strain credibility. Ms. Spletter's replacement cost new (RCN) for the refinery was \$1.8 billion; thus \$300,000,000 more than the DOR's RCN value. However, Ms. Spletter then calculated, in her January 6, 2017 report, \$1.5 billion in depreciation and obsolescence. Next, in the March 20, 2017 report, Ms. Spletter calculated \$1.74 billion in depreciation and obsolescence. Using these numbers, in January 2017, Ms. Spletter found the Laurel refinery was 16 percent good. Two months later, in March 2017, Ms. Spletter found the Laurel refinery was approximately 3 percent good; despite testimony that even closed or scrap refineries sell for prices between 5 to 7 percent

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of their RCN.<sup>11</sup> This Board finds that the Laurel refinery, which has generated \$289 million of average profit over four calendar years, has a market value that is greater than 3 percent good, and has a value that is significantly greater than closed or scrap value plants. For example, the DOR's cost approach found that the market value of the Laurel refinery is 56 percent good of the RCN. Using Stancil's RCN and assuming the refinery was only 40 percent good, their cost approach would have yielded a value of approximately \$720,000,000; much closer to the DOR's determination of the CHS Laurel refinery's value than the values of \$60,000,000 or even \$300,000,000 which Ms. Spletter found at one time in Stancil's reports.

310. CHS spent considerable time at the hearing attacking FAC's income analysis approach. However, this Board must determine whether the DOR's value under any approach accurately and correctly determined market value. Only if there was insufficient evidence supporting the DOR's determination of market value for the Laurel refinery would this Board then consider whether FAC had accurately captured the Laurel refinery's value. CHS failed to show the DOR used an improper appraisal approach. CHS may disagree with the DOR's use of a cost approach to reach market value, but there is no evidence that shows Mr. Carlson misapplied the cost approach or that there was insufficient evidence supporting the value he calculated.
311. The closest CHS came to directly contesting DOR's methodology was the testimony concerning the extra costs CHS incurred when it followed through on a prior plan to install a coker unit at the Laurel refinery. In the aftermath of Hurricane Katrina there was a shortage of skilled labor and materials. That shortage drove costs much higher than originally anticipated. The testimony was the refinery cost \$418 million to build and a similar unit built at Phillips 66 in 1999 cost under \$200 million (in 2014 dollars). This testimony highlighted the volatility of the refining business. It was not used to directly

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<sup>11</sup> See *supra* ¶ 304.

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engage the DOR's decision not to allow any deductions for economic obsolescence. Arguably, although CHS failed to tie the threads together, some \$200 to \$225 million might have been added to the DOR deduction. It was not, because there was insufficient credible evidence on the amount allocated for this obsolescence presented by CHS.

312. CHS invested heavily in experts Heaton and Lacey who testified, respectively, on the Betas used by FAC in FAC's income-based analysis and the value of intangibles and the faults Lacey saw with the amounts found in FAC's intangible factors. This heavy reliance focused solely on the DOR's experts' manipulations of two factors used in multi-factor and multi-step calculations for an income analysis of value. The testimony had little bearing on the accuracy of DOR's determination of value using the cost methodology, also known as "trend and bend". Betas and intangibles whether accurate or fantasy play no role in any replacement cost new less depreciation formulas used by the DOR appraisers.
313. To conclude, CHS failed to present sufficient reliable, credible evidence both in undercutting the DOR's data and methods and supporting its own analysis. CHS failed to show the lists of assets Mr. Carlson obtained from CHS and his application of "trend and bend" incorrectly determined the Laurel refinery's market value. CHS then failed to present sufficient credible evidence supporting their determination of the Laurel refinery's market value. Instead, a closer review of Ms. Spletter's various approaches to value the refinery supported, rather than undermined, the value DOR found for the Laurel refinery.

**Equalization**

314. Article VIII, Section 3 of the Montana Constitution states, "The state shall appraise, assess, and equalize the valuation of all property which is to be taxed in the manner provided by law."
315. Under the chapter titled "Appraisal," MCA § 15-7-112 states
- The method of appraisal and assessment provided for in 15-7-111 must be used in each county of the state so that comparable properties with similar full market values and subject to taxation in Montana have substantially equal taxable values in the tax year and, for class ten property, substantially equal taxable values at the end of each cyclical revaluation cycle.

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316. Under the chapter titled “Equalization,” MCA § 15-9-101 reiterates MCA § 15-7-112, stating

- (1) The department shall adjust and equalize the valuation of taxable property among the several counties, between the different classes of taxable property in any county and in the several counties, and between individual taxpayers and shall do all things necessary to secure a fair, just, and equitable valuation of all taxable property among counties, between the different classes of property, and between individual taxpayers.

317. The Montana Supreme Court has suggested MCA § 15-7-112 and MCA § 15-9-101 state the same equalization principles. In *Ostergren v. Department of Revenue*, the Montana Supreme Court commented

We said in *Roosevelt v. Montana Dept. of Revenue*, 1999 MT 30, 293 Mont. 240, 975 P.2d 295 that:

The combined effect of Article VIII, Section 3 of the Montana Constitution, §§ 15-7-112 and 15-9-101(1), MCA requires standardized appraisal methods throughout the state with the ultimate goal that the valuation of taxable property be equalized among the various counties in the state and among individual taxpayers. 2004 MT 30, ¶ 20, 319 Mont. 405, 410 – 411, 85 P.3d 738, 742.

The Montana Supreme Court, therefore, found the Montana Constitution and corresponding statutes require the DOR to use standardized appraisal methods in order to ensure taxable property values have been equalized.

318. The Montana Supreme Court adopted the six-factor *Maxwell* test, set forth by the Iowa Supreme Court in *Maxwell v. Shrivvers*, 133 N.W.2d 709, 711 (Iowa 1965) that a taxpayer must prove in order to obtain relief upon the ground that his property is assessed inequitably. *Department of Revenue v. State Tax Appeal Board*, 188 Mont. 244, 250, 613 P.2d 691, 694-695 (1980). The factors are: (1) that there are other similar properties within a reasonable area; (2) the amount of assessments on those properties; (3) the actual values of those properties; (4) the actual value of the subject property; (5) the assessment complained of; and (6) by comparison, the subject property is assessed at a higher portion

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of its actual value than the ratio existing between the assessed and actual values of the similar properties. The *Maxwell* test thus requires several valuation-related findings of fact. *CHS, Inc. v. DOR*, 2013 MT 100, ¶ 33, 369 Mont. 505, 513, 299 P.3d 813, 818.

319. Regarding equalization and the DOR's mass appraisal responsibilities, the Montana Supreme Court has said,

The Department's method of assessing property and estimating market values is by no means perfect, and will occasionally miss the mark when it comes to the Constitution's goal of equalizing property valuation. However, perfection in this field is, for all practical purposes, unattainable due to the logical and historical preference for a market-based method, and the occasional lack of market data. Nonetheless . . . the Department's interdisciplinary method – which utilizes the market data approach, the income approach, the cost approach, or some combination of these approaches – is a reasonable attempt to equalize appraisal of real property throughout the State and it comports with the most modern and accurate appraisal practices available. *Albright v. State*, 281 Mont. 196, 213, 933 P.2d 815, 826 (1997).

320. In *Ostergren*, the Montana Supreme Court stated, “while the two properties BFI and the landfill in Great Falls are both landfills, there are numerous distinct factors that go into assessing tax liabilities.” 2004 MT 30, ¶ 21. Therefore, two similar properties – even the same kinds of properties – may have distinguishing factors which require different tax values for each property. Different values, as the Montana Supreme Court found in *Ostergren*, does not mean the DOR failed to equalize.

321. In *DOR v. PPL Montana*, the Montana Supreme Court found the DOR had properly equalized the properties and noted the following relevant fact:

STAB concluded, in fact, that DOR utilized the same methodology and approach in appraising the Montana taxable properties owned by PPLM, Puget, and Avista. 2007 MT 310, ¶ 35, 340 Mont. 124, 133, 172 P.3d 1241, 1247.

322. CHS relied on Ms. Spletter's equalization report to assert the Laurel refinery had not been equalized. This Board has already noted it has found Ms. Spletter's data and testimony lacked credibility. Ms. Spletter's equalization report simply averaged the DOR's assessed



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values from Phillips 66 refinery and ExxonMobil refinery and then applied complexity factors to reach its conclusion that the DOR's Laurel refinery value was not equalized. She admitted her conclusions would have been different if she was conducting an equalization approach for Phillips 66 or ExxonMobil and used the Laurel refinery's DOR value as one of the two data points for comparison. Ms. Spletter's equalization report and subsequent testimony does not establish any of the *Maxwell* factors which is required by law to find equalization problems.

323. The equalization analysis reaches conclusions that are based on assumptions layered upon assumptions, which renders the report, while interesting, unreliable for any purpose related to this Board's task of finding market value or to determine whether DOR followed its constitutional mandate to equalize values.
324. The testimony is uncontradicted that the DOR must follow the Montana Appraisal Manual. Given that requirement, Stancil's equalization analysis, which relies on Ms. Spletter's testimony that when buying and selling refineries, industry analysts calculate and use various indicia of value such as dollar per complexity barrel of product to determine relative values, is not a method approved in Montana to appraise industrial property.
325. While dollars per complexity barrel may be used in the industry to gauge relative values, it is, first, not an appraisal technique. Second, DOR is constrained to follow the statutes and rules in effect now, not those that may be adopted someday by taxing jurisdictions to set value. CHS may believe the method they advocate is better suited to determine value, but as of this hearing, it is not the law in Montana. In fact, use of this method for one refinery would mean no equalization among the four Montana refineries, as all have been valued following the existing ARMs.
326. All of the evidence presented shows the three Yellowstone County refineries – CHS, Phillips 66, and ExxonMobil – were all valued using the same methodology and approach: replacement cost new less depreciation.
327. CHS failed to satisfy the *Maxwell* factors. CHS never showed the actual market value for the other two Yellowstone County refineries. The DOR could have made a mistake in how they valued those other refineries. Those other refineries may have misreported certain

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assets. This Board heard no evidence that the assessed values for the other two Yellowstone County refineries were the actual market values for those refineries. This failure proves fatal to CHS's claims, because it directly undermines Stancil's equalization analysis and fails to establish the second *Maxwell* factor.

328. Instead, this Board heard testimony confirming the Laurel refinery was not the same as the other two Yellowstone County refineries. First, the Laurel refinery, all things considered, is a newer refinery. Only 1.27 percent of the Laurel refinery remains from the 1930s. The majority of the Laurel refinery is new – and when considered as a whole – newer than the other two Yellowstone County refineries. CHS's refinery will therefore have a longer life and will have lower maintenance costs. Second, unlike the other two Yellowstone County refineries, CHS has invested over \$800 million dollars over the last ten years in its Laurel refinery. This corresponds to the first point made here: the Laurel refinery has newer assets which do not warrant being depreciated like the other two Yellowstone refineries. Like *Ostergren*, the fact these are similar industrial properties in fairly close proximity is not dispositive. This Board finds there are sufficient differences between these refineries which account for the differences in appraised values and thus erodes CHS's equalization claim.

329. CHS requests a perfect mass appraisal process. But, as the Montana Supreme Court stated in *Albright*, perfection is unattainable. This Board finds that a lack of convincing evidence has been presented by CHS showing the DOR failed to equalize the Laurel refinery. Instead, CHS has merely highlighted some of the inherent difficulties in appraising property in a mass appraisal state and the administrative impossibilities of what CHS believes should be the proper method undertaken by a state agency in valuing industrial property. *Albright v. State*, 281 Mont. 196, 208-209 (1997).

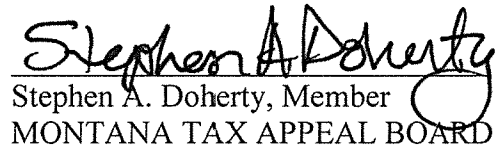
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ORDER

330. The DOR's appeal is GRANTED. The December 10, 2015 decision of the YCTAB is VACATED.
331. This Board finds the CHS Laurel refinery, as defined in ¶ 5 of the attached Findings of Fact, has a value of \$848,639,534 for the 2014 tax year.
332. CHS's cross-appeal is DENIED.

Ordered May 24<sup>th</sup>, 2018.

  
David L. McAlpin, Chairman  
MONTANA TAX APPEAL BOARD

  
Stephen A. Doherty, Member  
MONTANA TAX APPEAL BOARD

  
Valerie A. Balukas, Member  
MONTANA TAX APPEAL BOARD

**Notice:** You may be entitled to judicial review of this Order by filing a petition in Montana District Court within 60 days of the service of this Order. Mont. Code Ann. § 15-2-303(2).

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**Certificate of Service**

I certify that I caused a true and correct copy of the foregoing *Findings of Fact, Conclusions of Law, Order and Opportunity for Judicial Review* to be sent by United States Mail via Print and Mail Services Bureau of the State of Montana on May 24 2018 to:

**Jon Dyre**

**Jared M. LeFevre**

**David Charles**

Crowley Fleck PLLP

490 N. 31<sup>st</sup> St.

P.O. Box 2529

Billings, MT 59103-2529

**David Stewart**

**Anthony Zammit**

Montana Department of Revenue

Legal Services Office

P.O. Box 7701

Helena, MT 59604-7701

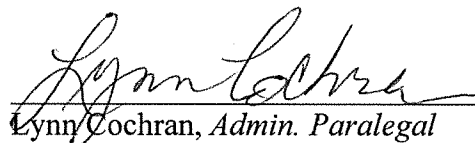
**Peter Crossett (Pro Hac Vice for the DOR)**

Barclay Damon

Barclay Damon Tower

125 E. Jefferson St.

Syracuse, New York 13202



Lynn Cochran, Admin. Paralegal

MONTANA TAX APPEAL BOARD