# **REDACTED**

# No. 04-19-00044-CV

# IN THE FOURTH COURT OF APPEALS SAN ANTONIO, TEXAS

TITLE SOURCE, INC.,

Appellant,

v.

HOUSECANARY ANALYTICS, INC., F/K/A CANARY ANALYTICS, INC., Appellee.

Appeal from the 73rd District Court, Bexar County, Texas Trial Court Cause No. 2016-CI-06300 Hon. David A. Canales, Presiding

## **BRIEF OF APPELLEE**

#### ALEXANDER DUBOSE & JEFFERSON LLP

Wallace B. Jefferson State Bar No. 00000019 wjefferson@adjtlaw.com 515 Congress Avenue, Suite 2350 Austin, TX 78701 (512) 482-9300 (512) 482-9303 (Fax)

#### BECK REDDEN LLP

David M. Gunn
State Bar No. 08621600
dgunn@beckredden.com
1221 McKinney, Suite 4500
Houston, TX 77010
(713) 951-3700
(713) 951-3720 (Fax)

#### BAKER BOTTS L.L.P.

Thomas R. Phillips
State Bar No. 00000022
tom.phillips@bakerbotts.com
98 San Jacinto Blvd., Suite 1500
Austin, TX 78701
(512) 322-2500
(512) 332-2501 (Fax)

#### SUSMAN GODFREY L.L.P.

Max L. Tribble, Jr.
State Bar No. 20213950
mtribble@susmangodfrey.com
1000 Louisiana Street, Suite 5100
Houston, TX 77002-5096
(713) 651-9366
(713) 654-6666 (Fax)

Counsel for Appellee, HouseCanary Analytics, Inc. f/k/a Canary Analytics, Inc

# Oral Argument Requested

# Additional Counsel for Appellee, HouseCanary Analytics, Inc. f/k/a Canary Analytics, Inc:

#### ALEXANDER DUBOSE & JEFFERSON LLP

Rachel A. Ekery
State Bar No. 00787424

rekery@adjtlaw.com
Nicholas Bacarisse
State Bar No. 24073872

nbacarisse@adjtlaw.com
515 Congress Avenue, Suite 2350
Austin, TX 78701
(512) 482-9300
(512) 482-9303 (Fax)

#### ALEXANDER DUBOSE & JEFFERSON LLP

Robert B. Dubose State Bar No. 00787396 rdubose@adjtlaw.com 1844 Harvard Street Houston, TX 77008-4342 (713) 523-2358 (713) 522-4553 (Fax)

#### **BECK REDDEN LLP**

Erin H. Huber
State Bar No. 24046118
<a href="mailto:ehuber@beckredden.com">ehuber@beckredden.com</a>
Jim Taylor
State Bar No. 00788512
<a href="mailto:jtaylor@beckredden.com">jtaylor@beckredden.com</a>
1221 McKinney, Suite 4500
Houston, TX 77010
(713) 951-3700
(713) 951-3720 (Fax)

#### BAKER BOTTS L.L.P.

Benjamin A. Geslison State Bar No. 24074269 ben.geslison@bakerbotts.com 98 San Jacinto Blvd., Suite 1500 Austin, TX 78701 (512) 322-2500 (512) 332-2501 (Fax)

#### SUSMAN GODFREY L.L.P.

Matthew C. Behncke State Bar No. 24069355 behncke@susmangodfrey.com Rocco Magni State Bar No. 24092745 rmagni@susmangodfrey.com Bryce T. Barcelo State Bar No. 24092081 bbarcelo@susmangodfrey.com Jonathan J. Ross State Bar No. 00791575 jross@susmangodfrey.com Joseph S. Grinstein State Bar No. 24002188 igrinstein@susmangodfrey.com 1000 Louisiana Street, Suite 5100 Houston, TX 77002-5096 (713) 651-9366 (713) 654-6666 (Fax)

## DAVIS, CEDILLO & MENDOZA, INC.

Ricardo Cedillo State Bar No. 04043600 rcedillo@lawdcm.com 755 E. Mulberry, Suite 500 San Antonio, TX 78212 (210) 822-6666 (210) 822-1151 (Fax)

# THE MACON LAW FIRM, PLLC

R. Laurence Macon State Bar No. 12787500 larry@maconlawfirm.net 750 Rittiman Road San Antonio, Tx 78209 (210) 961-8503 (210) 961-8509 (FAX)

#### SUSMAN GODFREY L.L.P.

Kalpana Srinivasan
(Admitted Pro Hac Vice)
California Bar No. 237460
ksrinivasan@susmangodfrey.com
1901 Avenue of The Stars, Suite 950
Los Angeles, CA 90067
(310) 789-3100
(310) 789-3150 (Fax)

#### SUSMAN GODFREY L.L.P.

Elisha B. Barron
(Admitted Pro Hac Vice)
New York Bar No. 5036850
ebarron@susmangodfrey.com
1301 Ave. of the Americas, 32nd Fl.
New York, NY 10019
(212) 336-8330
(212) 336-8340 (Fax)

#### **IDENTITY OF PARTIES AND COUNSEL**

In addition to the counsel listed in Appellant's brief, please note the appearance of the following additional counsel for Appellee:

Robert B. Dubose State Bar No. 00787396 rdubose@adjtlaw.com

#### **ALEXANDER DUBOSE & JEFFERSON LLP**

1844 Harvard Street Houston, TX 77008-4342 (713) 523-2358 (713) 522-4553 (Fax)

Kalpana Srinivasan Admitted *Pro Hac Vice* California Bar No. 237460 ksrinivasan@susmangodfrey.com

#### SUSMAN GODFREY L.L.P.

1900 Avenue of The Stars, Suite 1400 Los Angeles, CA 90067 (310) 789-3100 (310) 789-3150 (Fax)

> Elisha B. Barron Admitted *Pro Hac Vice* New York Bar No. 5036850 ebarron@susmangodfrey.com

#### SUSMAN GODFREY L.L.P.

1301 Avenue of the Americas, 32nd Fl. New York, NY 10019 (212) 336-8330 (212) 336-8340 (Fax)

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#### STATEMENT OF THE CASE

Nature of the case

Title Source, Inc. ("TSI") undertook a systematic and wide-reaching campaign to steal HouseCanary's highly valuable trade secrets related to real estate valuation analytics. TSI approached HouseCanary under the false pretense of a legitimate business partnership, but instead exploited its access to HouseCanary's intellectual property so it could reverse engineer HouseCanary's trade secrets and build competing products. TSI intentionally violated strict contractual limitations on its ability to reverse engineer, database, warehouse and use HouseCanary data and confidential information to build derivative products (PX-1; PX-2; PX-3). TSI also falsely represented that it would work as HouseCanary's business partner to roll out an appraisal software product and induced HouseCanary to build a custom version for TSI. TSI never paid HouseCanary anything, despite its contractual promises, nor did it roll out the appraisal software as it had pledged. Instead. TSI demanded a contract amendment TSI the retroactively granting right capture HouseCanary's intellectual property and build derivative products, all while hiding the very derivative products it had developed using HouseCanary's trade secrets.

Trial court

Hon. David A. Canales, 73rd Judicial District Court of Bexar County

Proceedings below

TSI filed suit for fraud and breach of contract, seeking punitive damages. 1[CR]24. HouseCanary counterclaimed on the same theories. 1[CR]32.

HouseCanary added allegations of trade secret misappropriation under Tex. Civ. Prac. & Rem. Code ch. 134A (the Texas Uniform Trade Secret Act ("TUTSA")) after uncovering a TSI presentation detailing TSI valuation models and technology, which TSI deponents denied under oath existed. 2[CR]3555.

The case proceeded to a seven-week trial, where the jury heard the testimony of 15 fact witnesses and 5 expert witnesses and received more than 1400 admitted exhibits.

The jury sided with HouseCanary on every single issue in the charge. See **Tab A** (verdict). It found that TSI willfully misappropriated HouseCanary's trade secrets, breached three contracts, and committed fraud. The jury also rejected all of TSI's affirmative claims against HouseCanary for fraud and breach of contract.

The trial court held a multi-day hearing on TSI's motion for judgment notwithstanding the verdict and HouseCanary's claim for attorneys' fees and prejudgment interest. The court denied TSI's motion in full and rendered judgment on the verdict on the fraud and statutory misappropriation claims. 2[2dSCR]4048. HouseCanary did not elect, and thus the court did not award, any recovery for breach of contract. The court also awarded attorneys' fees and interest.

TSI moved for a new trial one month later, alleging newly-discovered evidence in the form of witness testimony. 3[2dSCR]4445. But none of the witnesses were "new," as TSI had named each on its trial witness list but chose not to call them. 3[2dSCR]5097; *see* 3[2dSCR]5081-84.

The court denied the motion for new trial after taking testimony, in its discretion, from those witnesses over a several-day hearing. 3[2dSCR]6485.

# STATEMENT REGARDING ORAL ARGUMENT

HouseCanary agrees that oral argument would be appropriate.

#### **ISSUES PRESENTED**

- 1. Does sufficient evidence support the recovery for trade secret misappropriation?
- 2. Does sufficient evidence support the recovery for fraud?
- 3. Does sufficient evidence support the breach of contract findings?
- 4. Does sufficient evidence support the findings of actual damages?
- 5. Do the punitive damage awards—which conform to the 2:1 ratio set by Tex. Civ. Prac. & Rem. Code § 134A.004(b)—exceed the limits imposed by the Texas and United States Constitutions?
- 6. Did the trial court abuse its discretion in the way it worded the trade secret questions in the jury instructions?
- 7. Did the trial court abuse its discretion in declining to grant the motion for new trial?

#### **INTRODUCTION**

For seven weeks a jury witnessed TSI's clandestine scheme to seize HouseCanary's secrets, as revealed through internal emails that TSI thought would never see the light of day. TSI had a secret name for HouseCanary: the "Birdcage," a clever reference to TSI's "capturing the data [HouseCanary] provide[s]." DX-274. TSI boasted about "making progress on developing our complexity model using HouseCanary data." DX-604 at 6. TSI

found that "[b]rainstorming data we need turns out a lot harder than I thought." DX-135. By the end of trial, the jury knew that TSI based its modeling on "[t]he usage of the HC data" (DX-290). The jury read TSI's gleeful pronouncement: "Wow this is indeed helpful! I am surprised that HC is willing to share these information." (DX-344). Of course, HouseCanary had only been "willing" to do so with robust intellectual property protections that barred the precise use for which TSI covertly enlisted HouseCanary's intellectual property.

TSI had decided, months before it was caught, that it could have all of this proprietary information without paying the tab. It joked darkly that "Wiping a Vendor Wipes the fee." DX-1072. And the jury saw how—after its theft—TSI tried to demand HouseCanary accept an amendment to the parties' contract ratifying its misconduct. DX-208; DX-593. HouseCanary unequivocally said "no."

TSI employees—including its chief information officer Jeff Hu—swore under oath in depositions "[w]e don't have that" when asked whether TSI had products competing with HouseCanary's offerings. 37RR28. The jury then heard TSI and Quicken Loans' witnesses acknowledge at trial the existence of TSI's competing valuation model, but now claiming it as TSI's independent innovation. Similarly, TSI's Claude Wang denied having another competing real estate analytic product, until HouseCanary played an internal audio file in which he described that competing product in detail. PX-400, DX-827.

Faced with this avalanche of incriminating evidence, TSI's CEO Jeff Eisenshtadt eventually conceded on cross examination the company developed products that "derive from the HouseCanary data" and had a "database design for databasing HouseCanary's data." 11RR56, 83.

After HouseCanary presented evidence of TSI's duplicitous scheme, TSI suggested to the jury—and argued to the court during a motion for directed verdict—that it had *never* signed one of the contracts establishing trade secret protections, the NDA. 46RR132. Remarkably, TSI made those assertions to the jury after TSI itself had filed affirmative claims under the same contract. Then, in the waning days of trial, HouseCanary revealed and had admitted TSI's fully-executed NDA, which TSI conceded to the court it had known about all along. 47RR99; DX-1085.

None of this appears in TSI's meticulously sanitized brief. Instead, TSI contends there is "no-evidence" of its theft. This Court deserves an accurate accounting of the evidence. It is entitled to know the basis for the jury's verdict. HouseCanary defended itself from TSI's meritless lawsuit intended to pressure HouseCanary into a one-sided deal. HouseCanary's counterclaims ultimately uncovered the full scope of TSI's depravity. An objective view of the substantial evidence and record ratifies the jury's verdict.

#### STATEMENT OF FACTS

Title Source, Inc. ("TSI") is "a company that is in the business of providing [real estate] appraisals." 8RR9. Headquartered in Detroit, Michigan, TSI is a Quicken Loans affiliate and a member of the Quicken Family of Companies ("FOC"). 13RR49, 54-55; 29RR170. TSI sells its appraisal services to lenders, home sellers, and others seeking accurate market information. 8RR9-11; 9 RR15.

Because "appraisals take a long time," TSI sought "to make sure that they're done fast and quick and efficient." 9RR15. This would require technology TSI did not have—including the ability to generate valuations with accurate algorithmic modeling. TSI explored a possible solution—Automated Valuation Models ("AVMs"), which use computer formulas to generate virtually instantaneous home values, "free from human bias and objectivity." DX-781 at 1–2. TSI recognized that "AVM is the future," *id.* at 7, and that it desperately needed to "hurry up" and obtain this "game changer" technology to avoid being left behind. 9RR18; PX-53.

TSI turned to HouseCanary—a San Antonio-based technology company. 1[CR]540-41. Since its founding in 2012, HouseCanary has invested millions of dollars compiling proprietary algorithms, software, and data for analyzing and valuing real estate—revolutionizing the way business is done in the multibillion-dollar home loan industry. 27RR182-87; 8RR57; 40RR30, 33-35. HouseCanary's research team devoted years to gathering data to build the most accurate AVM in the

industry. 27RR91-93, 108, 120, 126-27; 40RR32-33. TSI recognized the value of HouseCanary's trade secrets and offered effusive praise, calling HouseCanary's technology the "first disruptive technology in the valuation industry." PX-424H; 43RR96-99; DX-1027; *see also* 9RR18 (TSI: "This would have been a game changer for us. We would have been able to provide our appraisal services far more efficiently than we do today."). TSI was aware of publicly available AVMs—like Zillow—and had even paid for other private valuation tools like Compinator. But TSI's chief appraiser said these AVMs were not accurate enough to serve its customers and thus were "not a preferred method." 22RR17. TSI's data analytics leader Bryan Wang agreed TSI needed something "more accurate than Zillow and Compinator." 29RR85-86.

# The Non-Disclosure Agreement (NDA)

The parties executed a non-disclosure agreement (NDA) in December 2013 to govern TSI's initial diligence. PX-1. The NDA required TSI to apprise any employee receiving HouseCanary confidential information of TSI's promise to safeguard HouseCanary's secrets. *Id.* § 2(A).

The NDA required TSI not to "disassemble or decompile software, or otherwise attempt to reverse engineer the design and function of any of the Confidential Information," and also not to develop "any software product or business system derived from or which otherwise uses any of the Confidential Information."

*Id.* (§ 2(A)). The NDA prohibited TSI from using any Confidential Information for any purpose "other than for the stated Purpose of the Disclosure," which the NDA defined narrowly as facilitating discussions about, and the evaluation of, a potential business relationship between the parties. *Id.* 

#### The Master Software License Agreement (MSLA)

For the next year, TSI conducted extensive diligence into HouseCanary's technology. TSI wanted HouseCanary to develop a custom product—a software program for performing appraisals that baked in HouseCanary's proprietary valuation technology. 9RR17-20, 28; 26RR72; 29RR29. On its own dime, HouseCanary began developing an appraiser application that could be used remotely or by desktop. 40RR111; 41RR61.

After TSI tested the appraiser product, 9RR62; DX-41; DX-169, the parties formalized the relationship by signing a Master Software License Agreement ("MSLA") on January 29, 2015. PX-2. Following a 4-month free evaluation period, TSI agreed to pay \$20 to \$30 for each appraisal that employed the HouseCanary application. PX-2 at §§ 2.1-2.2, 2.4, & 7. The MSLA incorporated the NDA's protections. *Id.* § 8.1.

During the evaluation period, TSI's chief appraiser, Jordan Petkovski, was "[b]lown away" by HouseCanary's appraiser application and said the "[p]roduct looks great." Tab D (DX-1027). TSI's VP of Operations, David Majewski,

described HouseCanary's technology to TSI CEO Jeff Eisenshtadt as "an excellent differentiator for TSI(FOC) in this space." PX-424H.

### The Amended MSLA (AMSLA)

After both using HouseCanary's analytics and considering other industry alternatives, PX-424H, TSI pursued a comprehensive licensing agreement with HouseCanary. In addition to HouseCanary's software appraiser application, TSI sought access to HouseCanary's proprietary "Value Reports" and individual AVMs for specific properties on a per transaction basis. PX-3; 27RR27-28. Value Reports were elaborate property reports. With each one, TSI received a download of around 1,000 data points, including comparable sales for that property. 27RR172; 35RR121.

TSI negotiated the AMSLA down to \$5 million a year by promising to provide HouseCanary with two highly valuable benefits: (1) an irrevocable license to TSI's historical appraisal data; and (2) any ongoing data generated by appraisers using the HouseCanary software. PX-3 §§ 4, 9.2; 41RR59-61. TSI was also "obligat[ed]" "without limitation" to make HouseCanary's appraiser application available to TSI's stable of 20,000 outside panel appraisers. PX-2 § 5.1; 20RR39. TSI promised the parties would be "Partners." PX-3 § 9.2.

Despite its enthusiasm about the TSI agreement, HouseCanary was preeminently protective of its intellectual property. 40RR68. It thus made sure the

AMSLA had stringent safeguards against TSI exploiting HouseCanary's intellectual property to create its own products. The AMSLA provided a "Limited License" for TSI (and Quicken Loans) to use the licensed software, data, and analytics for "internal purposes" only. PX-3 § 2.2. Among the numerous restrictions therein, TSI could not:

- (1) "use any Appraisal, analytics, metrics, reports, or any Data for any purpose other than as expressly set forth herein;" *id.* at 13;
- (2) "create any database or derivative products," *id.*; or
- (3) "decompile, disassemble, scrape, decode, reverse translate, or reverse engineer any analytics, metrics or reports," *id*.

TSI, knowing HouseCanary viewed these provisions as essential, tried to remove them so that it could "skin the report and use the data elsewhere internally." Tab D, DX-1004 at 13. HouseCanary's response was unambiguous: "This entire section must be reverted. The license grant is limited." *Id.* HouseCanary never did, and never would, grant an unlimited license to use, much less to warehouse, its data and trade secrets. 40RR132-33; 43RR66-69.

HouseCanary also demanded and received assurances that TSI was not in the business of developing real estate valuation analytics, including its own AVM, similarity score, or complexity score. 35RR127-31. A former TSI employee, Charles Watson, testified: "The leadership that I reported to directly had assured HouseCanary and their team members and leadership that that was not what we were in the business of doing." *Id.* at 127-28. Those commitments proved false.

# TSI steals HouseCanary's technology

TSI flouted HouseCanary's restrictions at every turn. It made HouseCanary's confidential information available to its employees without apprising them of the sweeping use restrictions. 10RR14-15, 99; 26RR52, 58-59. The TSI group working with HouseCanary—the "Torchwood" team—overlapped substantially with the team secretly developing TSI's own AVM.

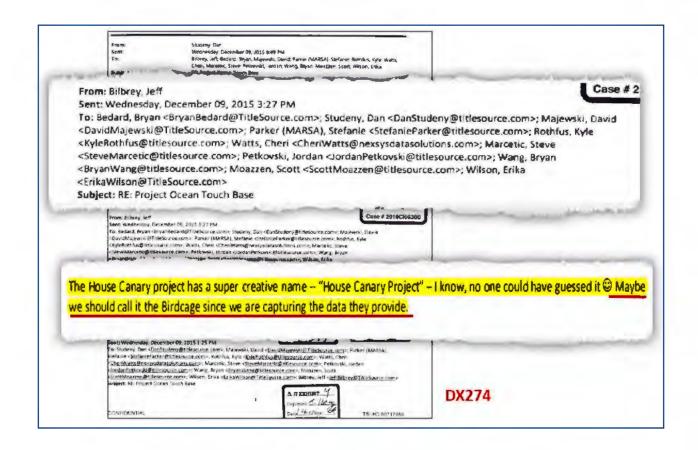
TSI's internal emails revealed its premeditated goal to amass HouseCanary's proprietary data and technical information:

- Before the parties signed the AMSLA, Bryan Wang, TSI's Team Leader of Data Analytics, wrote that TSI was "more interested in knowing what data" HouseCanary had than hearing about HouseCanary's own products. Tab D (PX-55). Internally TSI expressed the desire for data to "use/build products for ourselves." Tab D (DX-120).
- TSI wanted "underlying data behind the product" from HouseCanary to "develop new models." Tab D (DX-1024 at 8, 20).

TSI even joked about how blatantly and comprehensively it was capturing HouseCanary's data:

9

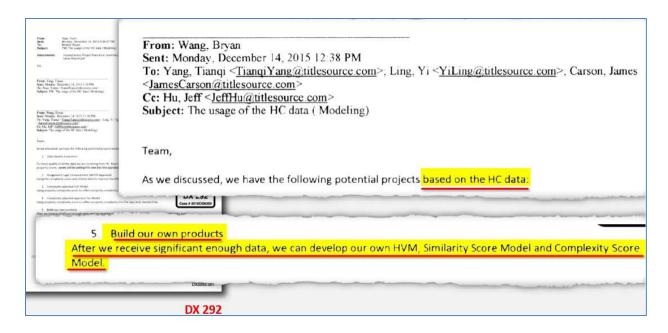
<sup>&</sup>lt;sup>1</sup> In the science fiction television series *Doctor Who*, the Torchwood Institute used "alien technology to help the British Empire through reverse engineering." Sophie Brown, *The GeekMom Guide to Fictional Military and Government Branches*, WIRED (Feb. 11, 2013), https://www.wired.com/2013/02/guide-military-government/; *see* 13RR153-54; PX-17.



Contrary to its pledges, TSI planned to use HouseCanary's data to develop its own real estate valuation products, including an AVM, for itself, and the Quicken Loans enterprise:

- Following orders from TSI team leader Bryan Wang, TSI employee Tianqi Ryan Yang took HouseCanary's data dictionary to create a list of variables for TSI's own product (Tab D, DX-135) and ultimately to generate TSI's data dictionary,
- TSI created a "data storage solution" to database HouseCanary's data as 2,000 files rolled in a day. Tab D (DX-604.005). TSI's CEO Eisenshtadt admitted that two months after signing the restrictive agreements, TSI nonetheless was laying out a database design for warehousing HouseCanary's data. 11RR83.

TSI's internal emails made its intentions plain:



Tab D, (DX-292). TSI's CEO Eisenshtadt conceded on cross-examination that everything in this email reflected products that would derive from the HouseCanary data. 11RR56.

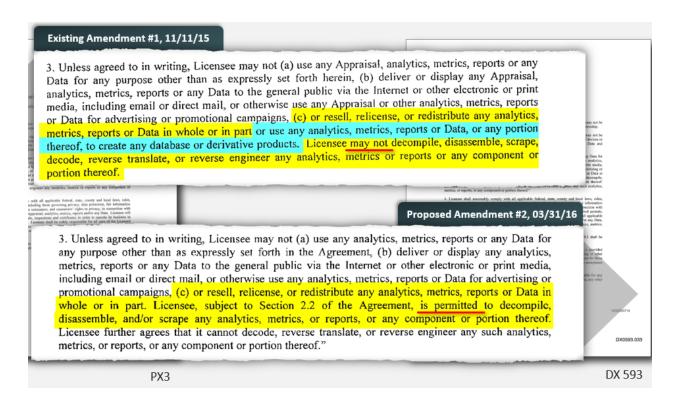
TSI made good on these sinister plans. The data and analytics that TSI improperly harvested from HouseCanary directly became the basis for TSI's own products, including its MyAVM:

- TSI used HouseCanary's data dictionary to build its own similarity score. Tab D (DX-344).
- TSI built its own "complexity model using HouseCanary data" and continued to train the model with the data. Tab D (DX-604.005-6).
- In August 2015, after HouseCanary provided TSI with 10,000 model outputs and variables under an NDA (DX-112), Tianqi Ryan Yang—assigned to create TSI's similarity score and AVM—studied HouseCanary's AVM trade secrets to understand how they worked. DX-128. Yang created "R code" to directly test his TSI model against the HouseCanary model in order to improve the TSI model's accuracy. Tab D (DX-134).

- In September 2015, TSI's data science team discussed "implementation of the HVE model" and noted: "We need to make sure that data that we keep our databases in sync with House Canary's data." DX-146. HVE or "Home Value Estimator" is a synonym for an AVM, and TSI used the terms AVM and HVE interchangeably. 34RR160.
- On January 6, 2016, Ryan Yang received attributes of HouseCanary's similarity score model, which HouseCanary provided based on express representations that TSI was not developing its own valuation models. Yang wrote: "Wow this is indeed helpful! I am surprised that HC is willing to share these [sic] information." Tab D (DX-344); 35RR36. TSI harvested the attributes from HouseCanary's similarity score. Tab D (DX-319).
- On March 16, 2016, Yang laid out his timeline for the remainder of 2016: (1) "validating data coming from HC"; (2) "working on complexity score"; (3) "working on similarity score"; (4) "working on AVM model." Tab D (DX-557).
- On June 6, 2016, less than two months after TSI terminated and sued HouseCanary, Bryan Wang announced, "we have developed an automated valuation model based on the data we have." DX-657.
- On July 18, 2016, TSI announced internally that Ryan Yang—the employee who had been working with HouseCanary's data and model—"finished the first version of the Appraised Value Model." DX-668.
- On August 18, 2016, Bryan Wang announced the "in-house AVM" and credited TSI employees Claude Wang, along with Victor Zhang and Ryan Yang, both of whom worked closely with the HouseCanary data and analytics throughout the HouseCanary relationship. DX-692.
- Shortly after, TSI unveiled its MyAVM to the FOC at the Quicken Loans Technology Conference. PX-400.

## TSI attempts to hide its misconduct through an amended deal

Seeking to legitimize retroactively its theft, TSI tried to bully HouseCanary into signing a new license agreement. On March 31, 2016, TSI claimed falsely that HouseCanary had failed to deliver on the appraiser application as promised but offered to overlook this alleged breach if HouseCanary capitulated to a restructured agreement. DX-593. TSI's proposed amendment deleted the language (in blue below) protecting HouseCanary's trade secrets and converted "may not" to "is permitted" in order allow TSI to "decompile, disassemble, and/or scrape any analytics, metrics, or reports, or any component or portion thereof." Compare PX-3 at 13 to DX-593 at 33.



This amendment was TSI's after-the-fact effort to ratify what it had already done in complete defiance of the restrictions of the NDA, the MSLA, and the AMSLA. HouseCanary refused and refuted the claims of breach of the underlying agreement—which turned out to be entirely pretextual. DX-618.

## TSI files this lawsuit

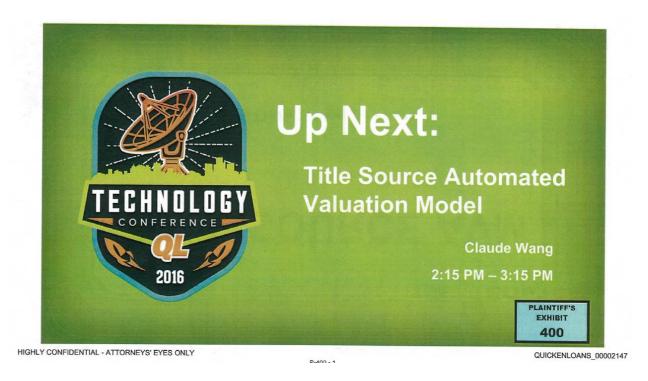
If TSI perceived a material breach in the contract, it was obliged to give HouseCanary 30 days' notice and a chance to cure. PX-3 § 7.2. But it broke that promise, too. Instead, TSI preemptively sued on allegations of fraud and breach of contract and publicly served HouseCanary CEO Jeremy Sicklick at an industry trade convention. 1[CR]24; 10RR49-50. Days later, TSI terminated the contract. 9RR118; PX-338. HouseCanary filed an answer and counterclaims, asserting that TSI was the one who had committed the fraud and breach of contract. 1[CR]32. TSI never paid HouseCanary a cent, even as it downloaded more than 150,000 Value Reports and millions of accompanying analytic data points under the AMSLA. DX-651; 12RR82-83. On the day it terminated the agreement, TSI flooded HouseCanary's system with thousands of fake addresses, including a cynical message: "Wiping a Vendor Wipes the fee." DX-1072; 44RR90-97.



During discovery, TSI claimed it did not even *have* valuation analytics like an AVM. TSI's Chief Information Officer, Jeff Hu was asked: "so no one at TSI,

as far as you're aware, was looking at building their own products, like AVM models, similarity score model or complexity score model?" 37RR28. Hu replied: "We don't have that." *Id*.

But the truth prevailed: HouseCanary found an inadvertently-posted presentation on the Internet, with TSI data modeler Claude Wang describing to a Quicken Loans technology conference how TSI had created its own AVM and similarity score, among other things. PX-400.



HouseCanary brought the presentation to court to demand the documents TSI had failed to disclose. The trial court twice had to compel TSI to provide discovery about software models whose very existence it had earlier denied. 2[CR]3251;

3[CR]4322. The evidence revealed TSI's raw theft, its concealment, and its coverup. *Compare* 37RR28 *with* PX-400.

Caught red-handed, TSI pivoted at trial. It stopped denying the existence of its TSI AVM (although the jury saw that, too, through deposition testimony)—and instead contended that Claude Wang, acting as a lone wolf, developed the TSI AVM in two months from scratch.

Wang's testimony, implausible on its face, was further contradicted by documents confirming that TSI employees like Ryan Yang, who had worked directly with HouseCanary's data, played a critical role in developing MyAVM. DX-134; DX-146; DX-668. Wang's presentation at the Quicken Loans conference also touted TSI's similarity score. PX-400; DX-827; \_\_\_\_\_\_\_. When confronted with his recorded statements to his colleagues,

TSI found it highly lucrative to build its own products on HouseCanary's technology both for itself and to service its affiliate Quicken Loans, which is owned by the same parent company. 9RR149; 11RR56; 13RR47-48. TSI now tries to distance itself from Quicken Loans—even going so far as casting it as a "third party." Br.48. But the record overflows with evidence these affiliates were intertwined. After TSI obtained HouseCanary's trade secrets, TSI and Quicken Loans formally

merged their data analytics teams. That included moving TSI's AVM modeler Claude Wang to become a Quicken Loans modeler: "The combined teams would provide a community of knowledge sharing for advance analytics across the FOC." DX-669. Within weeks of the merger, the QL-TSI Data Science Team made clear that the AVM would be "Integrate[d] with TSI and **QL** Systems" in the future. *Id*.

TSI and Quicken Loans recognized the enormous value and benefit from collectively having an in-house valuation technology. DX-659 ("An in-house AVM would be greatly beneficial for all FoCs for its transparency, low cost, and being customizable to meet all kinds of business need."); DX-781 (white paper by the "QL-TS Data Science Team" stating that it was "excited to introduce our brand new Title Source AVM and discuss the use cases for the FOC"). TSI reaped huge benefits by allowing Quicken Loans to use its AVM – built on HouseCanary's technology.

TSI took other precarious positions at trial, all of which backfired. Although TSI sued HouseCanary under the NDA for breach, 13RR136-37, TSI asserted at trial that it never signed the NDA. *See* 46RR132 ("the Nondisclosure Agreement is not binding...it was never signed by Title Source...."). Yet HouseCanary found a fully-executed copy of the NDA, which TSI had hidden on its privilege log. 47RR99; DX-1085.

Likewise, TSI pinned its fraud claim on an October 2014 HouseCanary presentation about its Appraisal Application. PX-7. This claim fell apart when the

jury learned the presentation was a draft the parties had been working on together and contained requests *from TSI* to include the very parts of the presentation TSI claimed fraudulently induced it. 19RR43; 22RR56-57, 82, 98.

Days before trial ended, TSI announced publicly it was changing its name to "Amrock"—part of a rebranding effort to promote its "real estate analytics" prowess. It wasn't enough to take HouseCanary's technology; TSI wanted to directly compete. DX-1066 ("The Amrock brand is a reflection of who we are today, a leading-edge provider of FinTech services."); DX-1067 ("Amrock offers the following solutions: ... Appraisal (Origination and alternative valuation products including ... AVM's.")). TSI's application for an Amrock trademark confirmed its calculated intent to seize HouseCanary's business advantage. DX-1065 (identifying "real estate data analytics" as a core business area).

TSI kept this Amrock rebranding under wraps (even during discovery) and never mentioned it during trial – plainly hoping trial would end before its launch date – until HouseCanary inquired. 37RR53 ("Q. So you didn't tell us anything about Amrock, did you, sir? A. No, I did not."). TSI's CEO Eisenshtadt admitted that TSI began to implement its plan to rebrand as Amrock around March 2016—exactly as TSI was in the midst of seeking to ratify its theft of HouseCanary's intellectual property through an amended contract, and just before TSI terminated and sued HouseCanary. 37RR56 ("Q. Well, you said you have been doing or

working on this for, what, a couple of years? What was your testimony? A. I'd say about 18 months.").

The jury rejected TSI's claims and accepted HouseCanary's evidence. *See* Tab A.

In the seven months between the jury verdict (March 2018) and the judgment (October 2018), TSI devised a new strategy to seize victory from defeat. In its motion for new trial (3[2dSCR]4427), TSI alleged newly-discovered evidence under Tex. R. Civ. P. 324(b)(1). Its claim revolved around (a) one witness whom TSI had put on the stand for days, and (b) four witnesses whom TSI put on its witness list but decided not to call. 3[2dSCR]5081-84, 5097.

Jordan Petkovski, TSI's star witness and a consultant for TSI throughout trial, gave days of testimony attacking HouseCanary's products. 18RR92 to 24RR15. Long after the jury rejected this tale, TSI reversed course to claim that Petkovski was a "secret agent" of HouseCanary—based on supposed "new" evidence that Petkovski had hoped to get a job at HouseCanary. 3[2dSCR]5206. The claim was irreconcilable with Petkovski's testimony, which was fully adverse to HouseCanary. It was also false and stale: it was widely known that Petkovski had sought a job unsuccessfully at HouseCanary—as evidenced by documents HouseCanary produced to TSI in discovery, but which TSI chose to ignore.

The allegedly "new" witnesses—former HouseCanary employees Tom Ciulla, Daniel Majewski, Anthony Roveda, and Tom Walker—were on TSI's own witness list. 3[2dSCR]5081-84. TSI could not prove any of these witnesses were unavailable to it or had any new testimony to offer.

TSI did provide one post-trial revelation that bears on this appeal: Shortly before Judge Canales entered judgment, TSI, fearing a potential injunction that would expose its ongoing misuse of HouseCanary's technology, revealed that on September 14, 2018, six months after the verdict, it had *shut down* its MyAVM product following an "internal investigation" by its own lawyers. 2[2dSCR]3983 ("On September 14, 2018, I approved and supervised the disablement of the MyAVM program on the Amrock servers."). After first denying having an AVM, then having to concede that its AVM existed but insisting it was developed without HouseCanary's trade secrets, TSI finally admitted that it needed to shut down its AVM which was built on another company's technology.

## **SUMMARY OF THE ARGUMENT**

HouseCanary did not seek out this lawsuit. HouseCanary wanted to do business with TSI and expected its business partner to keep its many promises. But TSI had few scruples. It pillaged HouseCanary's intellectual property, bullied HouseCanary by filing this suit, and hid the facts and circumstances of its wrongs. Having been dragged into court, HouseCanary exposed TSI's conduct for the theft that it was.

# I. Liability Is Established.

TSI professes that jury findings "are not lightly overturned" (Br.39), but then savages nearly every finding the jury made. According to TSI, the seven-week trial exposed no misappropriation or fraud. TSI is faithful to neither the record nor the standard of review. TSI simply seeks to relitigate the facts de novo on appeal, except that it ignores the mountain of evidence that refutes its narrative.

In the contracts it made with HouseCanary—contracts that it never intended to keep—TSI pledged it would not capture HouseCanary's data and store it in a database and that it would not to reverse engineer HouseCanary's intellectual property. It systematically broke those commitments. TSI captured HouseCanary's data, acquired HouseCanary's trade secrets, and built its own competing products on the scaffolding of its theft. A trail of TSI's documents, emails, and PowerPoints drove this point home for the jury.

## II. The Actual Damages Are Established.

By statute, actual damages for trade secret misappropriation can include "unjust enrichment caused by misappropriation that is not taken into account in computing actual loss." Tex. Civ. Prac. & Rem. Code § 134A.004. The jury found damages using that measure, and the evidence fully supports the finding. *E.g.*, DX-36; DX-499, DX-1029. All of the inputs utilized by HouseCanary's expert were fully vetted for the jury or waived. The jury heard about the extensive use and benefit to TSI by taking HouseCanary's technology. As for fraud damages, the jury was asked to quantify lost profits, which it did with ample support from the record. *E.g.*, DX-1024; DX-1029; PX-3; DX-102; DX-108; DX-245.

## III. The Punitive Damages Are Appropriate.

TSI contends the punitive damages should be deleted (Br.57-58) or reduced (Br.59-61). TSI does not argue the jury exceeded the 2:1 ratio set by the trade secret statute, nor could it do so. *See* Tex. Civ. Prac. & Rem. Code § 134A.004(b). The record fully justifies the punitive damages.

TSI willfully and maliciously violated the trade secret statute. Externally, it vowed to respect HouseCanary's intellectual property. But internally, it spoke of hoarding data and using it for prohibited purposes. TSI elevated reverse engineering to an art form and tried to cover up the wrongdoing. It never paid HouseCanary a

penny, while downloading more than 150,000 Value Reports and millions of accompanying analytic data points under the AMSLA.

Of course, it was TSI that first put punitive damages in play by seeking them *against* HouseCanary when TSI first filed suit. That effort failed, but TSI's own conduct supported the jury's findings.

#### IV. The 7-Week Trial Should Not Be Wasted.

The trial court properly denied TSI's motion for new trial. There is no infirmity in the phrase "improper means" in the misappropriation questions. The definition of "improper means" tracked the statute. *See* Tex. Civ. Prac. & Rem. Code § 134A.002(2). The definition includes misrepresentation, breach of a duty to limit use, and breach of a duty to prohibit discovery of a trade secret. *Id*.

TSI argued to the jury that HouseCanary was guilty of "lies." 49RR54, 57, 58, 68, 84, 86. It claimed HouseCanary's "lies" were a "pattern" (49RR58) and told the jury, "now that the lies have caught up to them, we commit it to your hands." 49RR103. HouseCanary's response identified multiple TSI witnesses who had testified deceitfully. 50RR13. The argument impugned TSI's evidence, not its counsel, as TSI now complains.

Finally, the allegations of newly-discovered evidence come nowhere close to the legal standard for requiring a retrial. The only thing new was TSI's legal team, which disagreed with the decisions made by TSI's trial attorneys. The supposedly "new" witnesses were listed on TSI's own witness list. TSI did not even offer a verified motion to support its showing of diligence—as required by law. TSI opted to spend the seven-week trial questioning a long list of other witnesses. That this approach fared poorly does not entitle TSI to a second bite at the apple.

#### ARGUMENT

- I. The Liability Findings Are Legally Sound and Factually Supported.
  - A. The jury was presented with overwhelming evidence that TSI willfully misappropriated HouseCanary's trade secrets.

TSI's first issue asks whether the jury's verdict is supported by "any" evidence. The record answers that question. TSI stole HouseCanary's trade secrets by acquiring them improperly and using them without authorization. Tex. Civ. Prac. & Rem. Code Ch. 134A.002(3)(A) & (B). Ours is not the typical case, where the trade secret victim can present only circumstantial evidence (evidence which the law says is sufficient). Here, there is *direct* evidence of misappropriation, including TSI's pre-suit internal documents identifying HouseCanary's trade secrets as the source for developing its models. The evidence also shows that TSI tried unsuccessfully to cover its tracks.

Rather than rebut this evidence, TSI introduces a strawman—that HouseCanary's expert conceded that he did not see "fingerprints" of HouseCanary's code in TSI's code. But HouseCanary's misappropriation claim is predicated on reverse engineering, not line-by-line code copying. TSI's sideshow does nothing to undermine the verdict.

# 1. TSI acquired HouseCanary's trade secrets by improper means.

TSI does not meaningfully dispute that HouseCanary possessed valid trade secrets under TUTSA. Nor could it do so. A trade secret includes "all forms and types of information" and includes any "compilation," "method," "technique," "formula," "process," or "procedure." Tex. Civ. Prac & Rem. Code § 134A.002(6); Charge Question 37. Because TSI does not contest the form of Question 37, its complaints must be evaluated against the charge as written. *See Osterberg v. Peca*, 12 S.W.3d 31, 55 (Tex. 2000).

HouseCanary showed that it "spent considerable time and resources developing its [trade secret][,] took reasonable precautions to prevent disclosure of this information to third parties[, and] the information is not readily ascertainable by its competitors and has given them a valuable economic and competitive advantage." *Morgan v. Clements Fluids S. Tex., Ltd.,*—S.W.3d—, 2018 WL 5796994, at \*5 (Tex. App.—Tyler Nov. 5, 2018, no pet.).

TSI claims that it did not "acquire" HouseCanary's trade secrets. Br.25-29. But this misstates the record and the claim. Acquisition by "improper means" includes "theft, bribery, misrepresentation, breach or inducement of a breach of a duty to maintain secrecy, to limit use, or to prohibit discovery of a trade secret, or espionage through electronic or other means." TSI's argument rests on a selective quote from this provision that omits *key words*, such as "to limit use." Br.34. The

parties' agreements required TSI to limit its use of HouseCanary's secrets. Instead, at every turn, TSI secretly expanded its use into territories the agreements prohibited.

Data dictionary: HouseCanary's data dictionary is a trade secret. 27RR141-55, 186;

It is comprised of a massive index of real estate data that HouseCanary uses to build software models. 27RR152-53.

Its data dictionary is arguably the most comprehensive residential real estate dataset in the nation. 27RR152. Even TSI's witnesses understood the "HouseCanary data dictionary was confidential." 21RR56.

HouseCanary's Chief Research Officer Christopher Stroud spent years culling data from licenses and public sources and creating the forecasts and risk metrics that made the data dictionary a key attribute for assessing real estate data. 27RR 9, 27, 30-31, 34, 142, 144-48, 150, 186; 39RR118; 41RR100-01. The dictionary contains HouseCanary's propriety HPI and algorithms. 27RR35. It is the foundation of HouseCanary's AVM and other models. 27RR153-55.

As with its other trade secrets, HouseCanary required TSI to sign an NDA and other agreements promising to keep the data confidential, to refrain from any attempt to reverse engineer the dictionary to discover its original sources and methods, and to instruct its employees not to create a TSI database using HouseCanary's secrets. PX-1; PX-2; PX-3; 27RR136-37, 154; 41RR53.

TSI does not dispute that it acquired the entire data dictionary. It contends instead the dictionary contained inputs from a company called Black Knight, and this defeats the "smoking gun" evidence. Br.30. Not so. HouseCanary obtained a license from that company to help build its database, but the Black Knight input was a small component of a vast creation—which TSI accessed in full. The dictionary assembled data from thousands of categories and applied HouseCanary's intellectual creativity to produce a system that revolutionized the accurate assessment of real estate data. 27RR9, 27, 30-31, 34, 141-50; 39RR118. In fact, much of Chief Research Officer Stroud's time was spent determining what *not* to include from the expansive data sources at the dictionary's disposal. 27RR146-50.

Compilations—even those exploiting public information—are trade secrets if their author expends human and technological capital to build them. *See, e.g., Eagle Oil & Gas Co. v. Shale Expl., LLC*, 549 S.W.3d 256, 269-70 (Tex. App.—Houston [1st Dist.] 2018, pet dism'd) (citing *Computer Assocs. Int'l, Inc. v. Altai, Inc.*, 918 S.W.2d 453, 455 (Tex. 1996)) ("Business compilations, however, can be trade secrets when *the work done* is not generally known or available."); *In re PrairieSmarts LLC*, 421 S.W.3d 296, 304 (Tex. App.—Fort Worth 2014, no pet.) ("Combinations of disclosed technologies may constitute a trade secret."). If HouseCanary's data dictionary were not revolutionary, there would have been no reason for TSI to blatantly copy it rather than build its own. DX-135; DX-136. *Cf.* 

Glob. Water Group, Inc. v. Atchley, 244 S.W.3d 924, 929-30 (Tex. App.—Dallas 2008, pet. denied) (information is a trade secret worthy of protection where a "competitor tried, but failed, to duplicate secret before misappropriation.").

HouseCanary AVMs: HouseCanary's AVMs, along with their outputs, are trade secrets. 27RR112-13, 117, 122-23, 178, 182; 40RR86. Each AVM was a building block for the next one, as these software models are iterative. 40RR46-47. Their foundation was HouseCanary's data dictionary. 27RR153-54. HouseCanary first developed an AVM in January 2015, using a regression model for its Appraiser Application. 27RR 99-100; 39RR103, 106-07; 40RR 41; 43RR 57. To create that AVM, HouseCanary employed its proprietary house pricing index (HPI), which adjusts home prices over time. It used the HPI and the data it had collected to build an analytical tool the industry had never seen before. 27RR20, 118, 154, 182.

HouseCanary began building its Cascade AVM, which had industry-leading accuracy and coverage, in July 2015. 27RR120,126. Despite the countless TSI documents expressing TSI's praise and recognition for the AVM's unique capabilities, TSI's brief asserts HouseCanary merely re-sold AVMs from Black Knight. *See*, *e.g.*, Br.6,42. This is wrong. As HouseCanary made clear to the jury, its Cascade AVM achieved industry-leading results because it was a sophisticated algorithm, which incorporated two Black Knight outputs as components of a substantially more complex model. *See*, *e.g.*, 27RR68-70.

A valuation with the Cascade AVM began with the selection of optimal home characteristics from HouseCanary's data dictionary. HouseCanary studied these characteristic variables for years to identify those that served as the best proxy for value and to filter out those home characteristic variables that created statistical noise. 27RR9, 27, 30-31, 34, 142, 144-48, 150, 186; 39RR118; 40RR100. The model ran the home characteristic variables through HouseCanary's HPI model—a zip code level pricing aggregate adjusted for time—producing an HPI value to account for market-by-market trends smoothed out over time. 27RR80-81, 83-86. The model also ran the identified optimal home characteristic variables through two Black Knight models, one with broad geographical coverage and one with improved accuracy, resulting in two more output values to accompany the HPI value. 27RR68-70. HouseCanary obtained a license from Black Knight for use of its sub-models for this specific purpose. 27RR24, 64-71, 182; 40RR37.

The Cascade AVM then filtered these three sub-values—HPI Value, BK 1 value, and BK 2 value—through yet another proprietary HouseCanary analytical sub-model derived from years of research. This analytical sub-model blended the three sub-values into a final, single Cascade AVM output substantially more accurate than any component parts or market competitors. 27RR70-71, 112-13, 117, 182, 204, 209. TSI itself recognized that AVMs made of multiple inputs were highly valuable. DX-36.

Also in July 2015, HouseCanary built a third in-house AVM—the HC AVM—using its expanded nationwide dataset. 27RR120, 126, 129. HouseCanary incorporated gradient boosting model or GBM (*i.e.*, machine learning) into the HC AVM by early 2016. 27RR127-29; 43RR89-90. These AVMs contained information others in the industry coveted, which explains why HouseCanary refused to disclose their attributes without first compelling an NDA and a license agreement. 27RR182-83; PX-1; PX-2; PX-3.

TSI says cavalierly (without engaging any actual evidence) that HouseCanary made a "sales pitch" and only explained concepts that were "publicly known and used" in the real estate industry. Br.26. If that were the case, TSI simply could have gathered them from what was publicly known. It wasn't and TSI couldn't. *Baxter & Assocs., L.L.C. v. D&D Elevators, Inc.*, which TSI wrongly cites as analogous, involved a customer list that was "not labeled as confidential or proprietary" and which defendants "never saw." No. 05-16-00330-CV, 2017 WL 604043, at \*9-10 (Tex. App.—Dallas Feb. 15, 2017, no pet.).

Likewise, TSI's reference to Zillow's "Zestimate" and the existence of other publicly available AVMs says nothing about the value of HouseCanary's technology. Br.6. TSI desperately wanted a highly accurate AVM that could help it stay ahead. TSI's Bryan Wang conceded that Zillow and even a paid valuation

product called Compinator "are not accurate enough and doesn't arm the banker with enough information to help develop the appraisal." 29RR17.

Similarity score: HouseCanary's similarity score is a trade secret. 27RR162-63; The score ranks comparable properties shown in HouseCanary's Appraiser Application and its Value Reports. 26RR133; 27RR155-56, 172, 184. The similarity score shows the comparable properties used to generate the value. 27RR156, 184. It is built on the data dictionary, also a trade secret. 27RR166-67.

TSI wanted HouseCanary's similarity score attributes to build its own similarity and complexity models (discussed below).<sup>2</sup> *See*, *e.g.*, DX-1024 at 21 ("What are the attributes that make up the Comp Similarity Score? - HC to provide TSI."); 29RR93-96. Chief Research Officer Stroud explained these highly confidential attributes are the foundation for the similarity score. 27RR162-63.

Complexity score: HouseCanary's complexity score is a trade secret. 27 RR 187;

That score uses logics GBM to predict the difficulty in performing an appraisal. 27 RR 187-88, 195. Stroud developed the model using HouseCanary's data dictionary and data compilations. 27 RR 187. As

the model outputs to reverse engineer the trade secret similarity score.

<sup>&</sup>lt;sup>2</sup> TSI muddies the issue by claiming HouseCanary conceded in the federal litigation that its similarity score in (DX-342) is not a trade secret. Br.27-28. HouseCanary did no such thing. HouseCanary recognized that *a document* had become public. That document did not encompass the similarity score trade secret—but instead some of variables that TSI used in conjunction with

with its other trade secrets, HouseCanary provided TSI its complexity score only after TSI signed the NDA and agreements promising not to reverse engineer HouseCanary's information. 40 RR 101-02, 108-09; PX-1; PX-2; PX-3 at 13. TSI conceded that the "proprietary data and analytics that HouseCanary was sharing with TSI ... was confidential information." 21RR55.

TSI contends HouseCanary did not develop the complexity score. Br.28. This assertion is refuted by the evidence. 26RR124-27; 27RR206. TSI also suggests that HouseCanary's "complexity score" was misnamed. Br.28. On the pages cited (38RR114-15), HouseCanary's expert Rhyne discusses HouseCanary's "complexity score"—and how TSI's Ryan Yang was "trying to uncover what HouseCanary uses for their complexity model."

Finally, if, as TSI claims, Br.38, the complexity score had no "actual or potential" value, TSI would not have gone to great lengths to covertly create its complexity score using HouseCanary's data, as the evidence (discussed in Section I.A.2 at p. 49, *infra*) demonstrates. *E.g.*, DX-290; DX-344; 44 RR 25-26. As a case on which TSI relies confirms (Br.28), the "status of the information claimed as a trade secret must be determined through a comparative evaluation of all the relevant factors, including the value, secrecy, and definiteness of the information *as well as the nature of the defendant's misconduct.*" *Glob. Water Group*, 244 S.W.3d at 929.<sup>3</sup>

<sup>3</sup> All emphases have been added throughout.

<u>Data compilation</u>: HouseCanary's data compilation—which includes its data from public sources and licenses and its regression analyses—is a trade secret. 27RR106, 185; *see also In re PrairieSmarts LLC*, 421 S.W.3d at 304; *Bishop v. Miller*, 412 S.W.3d 758, 767 (Tex. App.—Houston [14th Dist.] 2013, no pet.); *Computer Assocs.*, 918 S.W.2d at 455.

HouseCanary devoted years to acquiring and compiling data from public sources (*i.e.*, local tax files, credit bureaus, Census Bureau, Federal Reserve, IRS) and private sources (*i.e.*, licenses for MLS data and AVMs). 27RR22, 83-89, 93-94, 107; 40RR37, 41, 45; PX-62; DX-808. Identifying and compiling the right information was a complex process employing creative human capital. 40RR45. The value of having these data compilations available "is speeding up the development of models that require access to that data." 27RR185.

TSI also believed these data compilations had significant value. On January 7, 2016, Bryan Wang emailed the TSI team working on the HouseCanary engagement, including CIO Hu, confirming that TSI is "develop[ing] a big data solution to store" HouseCanary's trade secrets "for analytics." DX-370. Around the same time, TSI developed database architecture in which HouseCanary's information was fed into a "model database," in direct contravention of TSI's promise in the AMSLA not to "create any database." DX-818; PX-3 at 13. Some of TSI's employees questioned the need to acquire and store extra data, but TSI's

modelers explained that because data was scarce, they needed HouseCanary's. DX-362; 28RR126-30. On cross-examination, TSI CEO Eisenshtadt conceded the AMSLA prohibited TSI from building databases, yet also admitted that internal documents revealed TSI employees were doing just that. 11RR56 (testifying about DX-290).

Against the backdrop of this overwhelming evidence as to the improper acquisition of each trade secret, TSI argues that HouseCanary only provided "generalized descriptions of, and outputs from, its models." Br.25. But the jury saw weeks of evidence showing TSI acquired millions of data points and outputs, stole HouseCanary's complete data dictionary, and exploited its similarity and complexity score attributes. This was exactly what TSI needed to carry out its longstanding plan to reverse engineer HouseCanary's trade secrets.

TSI deliberated about how it would use HouseCanary's trade secret information beyond the scope of TSI's rights. Indeed, internal TSI meeting notes from October 2015 show the company seeking to build an escape hatch into the AMSLA to absolve its abuse of the data limitation provisions. DX-1024 at 8 ("We have to be able to figure out the right language in case we get cold feet while also figuring out what time & talk looks like when we do want to do bigger things with the data (client servicing, marketing, etc.)"). There can be no real debate regarding improper acquisition.

# 2. TSI used HouseCanary's trade secrets to develop its own products

Trade secrets are misappropriated when they are used without consent after receiving the proprietary information "under circumstances giving rise to a duty to maintain the secrecy of or limit the use." Tex. Civ. Prac. & Rem. Code § 134A.002(3)(B)(ii)(b). Trade secret use includes "any exploitation of the trade secret that is likely to result in injury to the trade secret owner or enrichment to the defendant [including] relying on the trade secret to assist or accelerate research or development." Sw. Energy Prod. Co. v. Berry-Helfand, 491 S.W.3d 699, 722 (Tex. 2016). TSI exploited each of HouseCanary's trade secrets in numerous ways, including reverse engineering the outputs generated by HouseCanary's trade-secret protected products, incorporating the trade secrets into TSI's competing technology, and using HouseCanary's models and attributes to "assist or accelerate research or development" related to its own analytical models.

#### **AVMs**

HouseCanary provided TSI with model outputs and variables under an NDA. DX-128. TSI used the HouseCanary data dictionary—which it copied directly—to identify the variables and categories of data HouseCanary had used as the attributes in its AVM. 39RR120-21, 123. Yang—assigned to create TSI's similarity score and AVM—studied HouseCanary's AVM trade secrets to deconstruct their mechanics. *Id.* He wrote code to develop the TSI model by comparing the outputs

from the HouseCanary AVM to the model he had developed. DX-142; 34RR139-42, 144.

He determined HouseCanary was using a "multi-variate linear regression," and he "tried to explain how each property attributes affect property value." *Id.* Yang then created "R code" to *directly* test his TSI model against the HouseCanary model in order to improve the TSI model's accuracy:

DX-134. As TSI's Bryan Wang admitted, the name of the R code file—"HVE\_Model Development.R," directly referred to TSI's HVE model. 29RR112.

Yang compared TSI's model and the HouseCanary model. DX-142. In an "RCode for HVE" email, Yang planned to "check for highly correlated items and drop them" in order to gain further insights into HouseCanary's trade secrets and to improve the accuracy of the HVE model. *Id.* With results in hand, Yang used the HouseCanary outputs to refine his model by identifying highly correlated variables to drop from the algorithm in the hopes of improving performance. 38RR128-31; DX-142. TSI's Bryan Wang admitted that checking for highly correlated variables and dropping them is exactly how you develop and train an AVM. 29RR120-22.

The same categories of variables Yang identified in copying the HouseCanary data dictionary were the final categories of variables that TSI modeler Claude Wang said he independently identified a year later. 38RR125-26.

TSI cites HouseCanary's expert—Thomas Rhyne's testimony—that HouseCanary's "fingerprints" or "references to HouseCanary technology" were not evident in TSI's MyAVM. But HouseCanary has never argued that TSI extracted the literal HouseCanary source code and inserted it directly into MyAVM—nor is that required to prove misappropriation. Rhyne explained how TSI employed the 150,000 JSON data files TSI downloaded from HouseCanary, which comprised millions of data points, to reverse engineer HouseCanary's AVM. 38RR133-34 ("And this is the kind of data that you can use to train a machine model."); 38RR120. Rhyne also opined that TSI's Yang used the first bulk AVM outputs from HouseCanary to refine the TSI HVE model. 38RR119-20; DX-128.

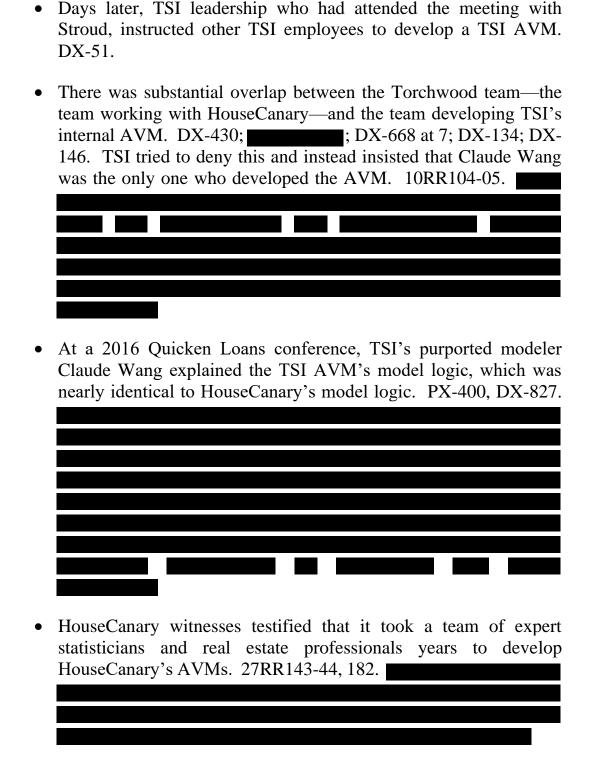
TSI miscasts an examination by its lawyers to claim that HouseCanary's expert Rhyne concluded HouseCanary's information was not used for training data. Br.31; 39RR40. In fact, Rhyne opined TSI "did not independently develop its own AVM and similarity score," but instead "used confidential information they obtained from HouseCanary to reverse engineer the HouseCanary products and, as a result, they accelerated the development of their own AVM and similarity score." 38RR107.

TSI's own technical expert Craig Rosenberg—whose testimony TSI cites nowhere—concluded that TSI could have reverse engineered HouseCanary's AVM. 32RR42 ("Q: It was your opinion that there may have been a possibility that TSI could have reverse engineered HouseCanary's AVM; isn't that right? ... A: At that time—during that time period, in September 2017, I would agree with you.").

TSI seeks to trivialize this evidence by claiming it had stopped working on its own AVM in June 2015 and the documents only show "testing" of the HouseCanary AVMs. 29RR63-64. The jury saw TSI's story fall apart as documents confirmed that TSI surreptitiously was developing its own valuation analytics throughout the HouseCanary engagement. *See, e.g.*, DX-146 (September 2015 internal meeting notes discussing "implementation of the HVE model, version 1.0," including using HouseCanary data and "design[ing] and deploy[ing] this model with an eye towards making it into a product, not just for internal use."); PX-400; DX-688; DX-657.

Other evidence confirmed TSI's use of HouseCanary's trade secrets:

• After the confidentiality agreement was in place, HouseCanary cofounder Stroud told TSI on March 3, 2015, about the specific inputs that HouseCanary used in the regression AVM inside of appraiser. 27RR97-100.



TSI asserts the evidence has nothing to do with the TSI AVM but instead relates to a completely unrelated TSI model known as "HVE." The record defies this

assertion. First, TSI took the opposite position at trial: claiming that HVE and the TSI AVM were *the same* so that TSI could tell the jury it had no reason to copy HouseCanary's trade secrets because its in-house AVM began before the HouseCanary relationship through the TSI HVE. PX-424A; 29RR22-30; 34RR120 ("Q. And, so, as used at TSI, is HVE the same as an AVM? A. Like I said, we used that two words interchangeably."). TSI now contends that its HVE model did not use machine learning. But this is not what TSI told the jury. 34RR160 ("Q. Okay. The HVE model 1.0 that you were working on, did it use machine learning? A. Yes, it did.").

Second, TSI claims the HVE is completely unrelated to the second-generation in-house MyAVM. Br.32. Yet TSI's own evidence demonstrates TSI's AVMs were part of the same ongoing effort to develop an accurate AVM. TSI presented no evidence of a break between different generations of AVMs or of building a clean room to separate the information it acquired from HouseCanary and TSI's own product development. 38RR109-10 (Q. "And, based on your review, did Title Source follow industry custom and practice for clean-room development in developing its own AVM and similarity score?" A. "Not at all. They almost did exactly the opposite."). To the contrary, the overlap in employees working on projects and the storing and sharing of data make clear that HouseCanary's misappropriated trade secrets were part of TSI's MyAVM. See, e.g., DX-592

(March 31, 2016 internal TSI email citing HouseCanary as the "Source" of TSI's "Similarity Score from Comparables"—the same day TSI sent a letter to HouseCanary claiming it had breached the contracts for deliverables).

The evidence exceeds the usual quantum cited in cases affirming misappropriation verdicts. As in GlobeRanger Corp. v. Software AG U.S. of Am., *Inc.*, evidence established that the defendant had access to the trade secrets, obtained that access to trade secrets under false pretenses—here TSI's promise not to develop its own real estate analytics—"all while it was in the process of making its own product." 836 F.3d 477, 499 (5th Cir. 2016). As in Wellogix, Inc. v. Accenture, L.L.P., TSI had access to trade secrets and simultaneously developed a secret corresponding product. 716 F.3d 867, 873 (5th Cir. 2013). As in Southwestern *Energy*, there was a significant gap in the expansive amount of time and resources HouseCanary expended to create its technology with the limited amount of time and resources TSI expended to create its competing technology. See Sw. Energy Prod. Co. v. Berry-Helfand, 411 S.W.3d 581, 599 (Tex. App.—Tyler 2013), aff'd in part, rev'd in part, 491 S.W.3d 699 (Tex. 2016).

# Similarity Score

TSI gained access to and used HouseCanary's proprietary similarity score attributes. For months, TSI asked for access, but HouseCanary hesitated, even with an NDA in place. *See, e.g.*, 40RR101-02, 107; DX-310. Eventually HouseCanary

agreed after TSI gave HouseCanary additional assurances that it was "not in the business of developing its own analytics models" and was not "creating their own AVM similarity score or complexity score." 35RR128. TSI's internal documents proved those assurances were false when made. *See, e.g.*, DX-290. Evidence of gaining access to trade secrets under false pretenses supports an inference of improper use. *See GlobeRanger*, 836 F.3d at 499 (affirming the verdict in part based on defendant's receiving "confidential system keys under the pretense of maintenance").

HouseCanary's trade secrets formed the basis of TSI's similarity score. TSI team leader Bryan Wang's December 14, 2015, email highlighted TSI's goal of using HouseCanary's information to build a TSI similarity score model. DX-290. Multiple tech team updates referenced Yang's work on a similarity score. Yang even testified that he had no idea how to develop a similarity score in 2015, before he began working with HouseCanary. 35RR6-7, 48-49. Yang also admitted that he only began working on the similarity score "after" he received detailed information from HouseCanary about its similarity score. 35RR49. Days before TSI filed this lawsuit, Yang emailed another TSI employee identifying the sources of a variety of model attributes TSI was using: "Source: HouseCanary" for TSI's "Similarity Score from Comparables" attributes. DX-592.

Despite this evidence, TSI insisted at trial that it did not have a similarity score. But in his recorded presentation at the Quicken Loans Conference, Claude Wang bragged about TSI's valuation models, including its similarity score. DX-827 (from the video: "We identify a list of 3 comparables [properties]. Well that's easy because Ryan [Yang] has developed a similarity score. We can easily single out the most similar properties using that score."); id. ("And then we do the average. And actually we use the similarity score to be used as a weight."); 38RR49-50; see also

HouseCanary expert Dan Manheim testified that during his review of source code produced by TSI, he found a folder labeled "similarity score"—which appeared to have been emptied of its contents. 38RR23-25.

TSI argues it did not rely on HouseCanary's trade secrets based on an earlier document that refers to TSI's own similarity score. TSI's theory is not only contradicted by the numerous documents showing TSI copying HouseCanary's similarity score, but also by Yang's testimony that he did all the work on a similarity score and only learned how to do it after receiving HouseCanary's trade secrets. 35RR28, 49. TSI's technical expert Rosenberg testified he had *no* affirmative evidence to show TSI independently developed a similarity score. 32RR27, 29.

# **Data Dictionary**

TSI copied HouseCanary's data dictionary for its own internal product. Not long after receiving HouseCanary's data dictionary, Yang emailed Bryan Wang about the difficulty he was having creating a TSI data dictionary. DX-135. The exchange between Bryan Wang and Yang speaks for itself:

From:

Wang, Bryan

Sent:

Wednesday, August 12, 2015 7:14 PM

To:

Yang, Tianqi

Subject:

RE: Data needed for HC

Can you check the HC data dictionary to make a list?

Bryan Wang

Sent with Good (www.good.com)

From: Yang, Tianqi

Sent: Tuesday, August 11, 2015 5:29:21 PM

To: Wang, Bryan

Subject: Data needed for HC

Bryan,

Brainstorming data we need turns out a lot harder than I thought. I clustered the variables into four groups.

DX-135.

## **Data Compilation**

Through the AMSLA, the parties agreed on a deal in which TSI could use the HouseCanary data on a strictly limited basis. PX-3. But shortly after making that promise, TSI immediately began to employ HouseCanary's data to create its own derivative products. On December 14, 2015, Bryan Wang emailed his employees and Chief Information Officer Jeff Hu with the subject line: "The usage of the *HC data* (Modeling)." DX-290. Wang wrote, "As we discussed, we have the following potential projects based on the HC data: ... 5. Build our own products. *After we receive significant enough data*, we can develop our own HVM, Similarity Score Model and Complexity Score Model.... Let's think big and wide on how to *maximize the value of the HC data to our business.*" *Id*.

TSI's contention that HouseCanary's data lacked value, and therefore TSI had no motive to steal and use it, is refuted in the record:

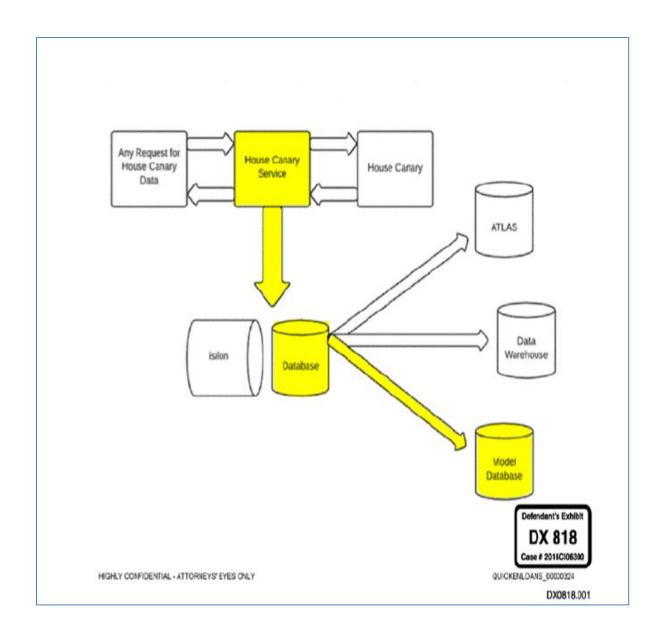
- The TSI project manager assigned to the HouseCanary engagement, Jeff Bilbrey, spelled out in writing exactly how TSI used HouseCanary's data to help TSI's business: "the extra data that we collect will help *improve the accuracy of our data models in the future*." DX-370.
- Bilbrey explained that HouseCanary's data was necessary because TSI's in-house appraisal data was not enough. *Id.* ("Having property information from not only the property that we are doing the loan on, but also possibly property information on surrounding properties in the neighborhood (*as we build out our database*) will *significantly enhance* the ability to have a model that utilizes similar characteristics to drive assignment. *Right now we can only*

leverage the information from the loans that we have had in house.").

- TSI's modeler Ryan Yang also explained: "Having extra data, no matter where the source is from, is *extremely important for analytics* .... market data is one of the most important factors in modeling and is *scarce* due to the amount of business volume. Knowing more about the markets, even if the order is never associated with Title Source, will *significantly improve* model performances." DX-362.
- CEO Eisenshtadt admitted that HouseCanary data was needed to improve model accuracy because TSI had discovered that data was a scarce resource. 11RR69-70 ("Q. So the question I asked you was, Title Source needed HouseCanary data if it wanted to improve its own models because it had already discovered that data was scarce, right? A. Yes. HouseCanary data would help improve.").

TSI contends it cannot have misappropriated HouseCanary's data compilations because it did not obtain data on every property in the United States and did not obtain all of HouseCanary's data. Br.29. TSI received more than sufficient data to develop and train its models. 38RR132-34.

TSI created a database, in direct contravention of the AMSLA, signed just days earlier. In an email thread among Project Torchwood team members, TSI employees discussed "Phase 2" of Project Torchwood: "Develop a 'big data' solution for storing the Torchwood [data] ... Data Warehouse tables for analytics purposes." DX-370 at 7. TSI then created the architecture for that database:



DX-818. TSI stored the data that it received from HouseCanary on its modeling development server. TSI not only used that server for "modeling development," but also to develop the TSI valuation model. 34RR141-42. Similarly, a TSI technology team update stated "(Ryan) [Yang] continues making progress on developing our complexity model *using HouseCanary data*. DX-695 at 38; 39RR124-25. TSI used data for more than purported "testing." Br.38.

## Complexity Score

HouseCanary presented detailed information about its appraisal complexity model. 27RR61-63; 27RR187-88; 40RR108-10; \_\_\_\_\_\_\_. TSI's internal documents show it was building its own complexity score despite its representations otherwise to HouseCanary. DX-238; DX-558; DX-512. Its appraisal complexity model drew as its source HouseCanary. DX-592. TSI's Yang could not "tell for sure" whether the complexity score he worked on related to the HouseCanary complexity score, as opposed to a TSI score. 34RR130:18-131:3.

TSI claims HouseCanary's complexity score had no "value" or alternatively that HouseCanary's information was too "generalized" to be of use. Br.29. Yet, mere days before TSI brought this lawsuit, an internal TSI email detailing TSI's model data attributes listed the "Source" of the "Complexity Score" as "HouseCanary." DX-592.

TSI states that even if TSI did misappropriate HouseCanary's information, TSI cannot be liable because HouseCanary never built its own complexity score. Br.28-29. This claim finds no support in the law. The details about the complexity score are the trade secret – they showed TSI exactly how to build a model and this protectible on its own. 27RR61-63, 187-88; Tex. Civ. Prac. & Rem. Code § 134A.002.

# 3. The evidence establishes the necessary causal link between misappropriation and damages.

TSI contends causation is lacking because HouseCanary did not prove "actual loss" or that TSI "used" the trade secrets. *See* Br.35-36. These arguments ignore TUTSA and the facts.

First, TUTSA includes in actual damages "the unjust enrichment caused by misappropriation that is not taken into account in computing actual loss." Tex. Civ. Prac. & Rem. Code § 134A.004. HouseCanary is thus entitled to recover the amount by which TSI was enriched, *i.e.*, the value TSI placed on the trade secrets it stole.

TSI used HouseCanary's trade secrets to develop its own analytics. Contrary to TSI's assertion that Bratic improperly "assumed" this element, the case TSI cites, Br.35, confirms that the facts on which an expert relies need not "be uncontested or established as a matter of law." *Houston Unlimited, Inc. Metal Processing v. Mel Acres Ranch*, 443 S.W.3d 820, 833 (Tex. 2014).

TSI cannot escape the consequences of its espionage by claiming it has yet to "monetize" MyAVM because it was not sold commercially outside of TSI and Quicken Loans. The evidence shows that TSI benefited tremendously from its lucrative theft. TSI's "monetization" argument ignores that its intended uses were *internal* to the Quicken FOC—its affiliate with a common parent—and, as described below, were expansive and far-reaching. DX-659 ("An in-house AVM would be greatly beneficial for all FoCs for its transparency, low cost, and being customizable

to meet all kinds of business need."); DX-781 ("[W]e are excited to introduce our brand new Title Source AVM and discuss the use cases for the FOC."). TSI utilized the AVM it built as its CEO Eisenshtadt confirmed on the stand: "[MyAVM] is available to Quicken Loans. And I do know the use of it is being used every day to run and test against other appraisal data. So it is being used internally within Title Source...." 37RR175. TSI also publicly promoted its AVM as part of its rebranding to "Amrock" and transition to a financial technology or "FinTech" company. DX-1066; DX-1067.

The Fifth Circuit recently rejected a challenge to unjust enrichment damages under TUTSA and held there was sufficient evidence fitting the "broad definition" of use where the expert relied on evidence that defendant had "uploaded" the trade secret, had "stated in an email, 'I just wanted to make the team aware that we will acquire the distributor base," and had "attempted to integrate" the software. Matter of AmeriSciences, L.P., No. 18-20394, 2019 WL 3046276, at \*8 (5th Cir. July 11, 2019). TSI relies (Br.35-36) on Lakeway Regional Med. Center, LLC v. Lake Travis Transitional LTCH, LLC, No. 03-15-00025-CV, 2017 WL 67245 (Tex. App.—Austin Feb. 17, 2017, pet. denied), an appeal from summary judgment in which the Court, addressing pre-TUTSA misappropriation claims, found zero evidence of any connection between the purported disclosure of trade secrets and the defendant's conduct in guaranteeing a loan. It has no bearing on this case.

## B. HouseCanary's fraud recovery is proper.

HouseCanary developed its appraisal application—software to enable appraisers to evaluate home values incorporating the latest analytical resources and assistive technology—at TSI's request, based on TSI's prediction that it would be "massively valuable" to TSI's business. 40RR67-69. HouseCanary would not have undertaken that work-intensive project if it did not expect to benefit financially, including by: 1) annual contract payments of \$5 million a year; 2) TSI's promise to help deploy the appraiser application broadly in the industry by introducing it to TSI's 20,000 panel appraisers; and 3) an agreement to provide TSI's highly-valuable historical appraisal data and ongoing appraisal data. 16RR94-95; 41RR59-61; 40RR71-72; PX-2 § 5.1; PX-3 § 9. HouseCanary committed substantial time to this project, forgoing other opportunities to focus on TSI's ongoing demands and specification for the appraiser application—all based on TSI's false assurances that HouseCanary would be paid and receive what TSI promised under the contract. 40RR27-30; 43RR102-03.

TSI neither intended to pay nor to comply with its contractual commitments to deploy the software product that TSI induced HouseCanary to build. Fraud is a "promise of future performance ... made with no intention of performing at the time it was made." *Formosa Plastics Corp. USA v. Presidio Eng'rs & Contractors, Inc.*, 960 S.W.2d 41, 48 (Tex. 1998). Breach combined with "slight circumstantial"

evidence of fraud" is some evidence of fraudulent intent. *Aquaplex, Inc. v. Rancho La Valencia, Inc.*, 297 S.W.3d 768, 775 (Tex. 2009).

### 1. The evidence supports the jury's findings of fraud.

TSI pledged a joint working relationship with HouseCanary and promised that the software application "is the biggest disruptive technology in our industry since the PC and the digital camera[.]" DX-1027; 43RR96-98; 40RR67-69 ("Jordan [Petkovski] and David [Majewski] thought that it would be really useful and beneficial to their business if we could integrate the HouseCanary Analytics into a software tool that their appraisers could use"... "massively valuable to us as a business"). TSI represented to HouseCanary that it would work together to build a revolutionary new appraisal product as "Data Partners." *See* PX-3 § 9.2 ("Data Partners"). As part of that partnership, TSI promised to:

- Pay HouseCanary to license the its appraisal application for use by TSI's staff and panel appraisers and to license limited rights to other products for \$5 million per year. PX-2 § 7; PX-3 § 4.
- Make the appraiser application available to its staff and 20,000 panel appraisers. PX-2 § 5.1 (TSI "shall without limitation: make Licensed Software available to each Appraiser delivering residential real estate appraisals and/or appraisal services to Licensee and/or its Affiliates" and defining "appraiser" as "employee or independent contractor"); 18RR95-96; 45RR56.
- Provide HouseCanary with any data generated by the Appraisal Application and to give HouseCanary a broad license to TSI's historical data. PX-3 § 9; 41RR60-62; 44RR12-24.

HouseCanary relied on TSI's representations, including about rolling out the appraiser application, in entering into its contract with TSI. *See*, *e.g.*, DX-809. But TSI never intended to, and never did, perform. First, it planned never to make good on its payment HouseCanary. TSI took steps to include in the agreement "the right language in case we get cold feet" to terminate the AMSLA, which CEO Eisenshtadt agreed meant TSI "want[ed] to bail." DX-1024 at 8, 20; 37RR191.

Second, TSI did not roll out the appraiser application as promised. TSI's project manager testified he spent almost no time on it over the nearly two-year relationship between the parties. 28RR19 (Project manager Jeff Bilbrey: "I had one conversation, but that's it."); DX-373. "No pretense of performance by the defendant" supports an inference of fraudulent intent. *Spoljaric v. Percival Tours*, *Inc.*, 708 S.W.2d 432, 435 (Tex. 1986).

Third, TSI did not intend to provide HouseCanary its current or past historical appraisal data—which had been a key incentive for HouseCanary to build the application. 41RR59-61. TSI CIO Hu, knowing the value of the "massive amount of appraisal data" TSI had committed to send, refused HouseCanary's request for data on the grounds that it was not agreed in the contract. DX-215; DX-220. But it was, and Hu even conceded that he had never read the contract before he made that false assertion. 36RR109; 10RR91-92.

HouseCanary justifiably relied on TSI's misrepresentation that the parties would jointly revolutionize the appraisal industry. HouseCanary agreed to a reduced price in the AMSLA based on the promise of receiving invaluable historical appraisal data (*i.e.*, from \$15 million to \$5 million per year), invested substantial time and resources as a new company to build products for TSI, and raised more capital to work on TSI's products. 40RR27-30; 41RR60-62; 42RR75-76; 43RR102-03; 44RR23. HouseCanary delivered the appraiser application, which was tested by TSI executives and various appraisers.

At trial, TSI sarcastically asked the jury "where is the app?" (4RR36, 37; 8RR23) and repeats that refrain here claiming there was no "functioning version of the app." Br.5,20. The jury read and heard otherwise. DX-106 (TSI's Petkovski: "got it [app] and yes....it's impressive."); DX-479 (TSI's Brocker-Querio: "Damn. This [app] is seriously cool."); PX-424H (TSI's Majewski: "[T]he first disruptive technology in the valuation industry."); DX-1027 (third-party summary of response to appraiser app); PX-301 ("HouseCanary Appraiser is now available on the iOS app store!"). Just two days before TSI signed the AMSLA, its chief appraiser advised internally that he "has already had staff appraisers using HouseCanary portal for the last year." DX 1024 at 20.

HouseCanary's expert Rhyne walked the jury through his step-by-step testing of the appraiser app source code and opined that it matched the specifications in the

parties' agreements. 38RR99 ("And we concluded at the end of that that there was deliverable code, that worked, available. We had looked back to the code that was available in late 2015 and early 2016, and it was there and delivered to TSI."); 38RR95 ("Q. And so the functionality identified in Exhibit B up here at the top of the slide, did you find that functionality was present in the Appraiser application during your Source Code Review? A. Yes.")

But TSI never rolled out HouseCanary's Appraiser Application to all its appraisers and instead unjustifiably terminated the agreement. DX-593; 41RR53. TSI never paid HouseCanary for its products. 40RR124. And TSI never gave its historical data to HouseCanary. 45RR55; DX-618.

TSI asserts that its request for a termination provision was standard practice. Br.38. But the jury had a reasoned basis to reject those arguments, including TSI's refusal to perform what it had promised. *See Estate of Matthews III*, 510 S.W.3d 106, 118 (Tex. App.—San Antonio 2016, pet. denied) ("The responsibility to weigh evidence and assess credibility rests with the jury.").

### 2. TUTSA does not preempt the fraud claims.

TSI argues that HouseCanary's fraud claims run afoul of TUTSA's preemption provision. Br.36-37. As described above, however, HouseCanary's fraud claims relate to TSI's promise to pay for, adopt, and broadly deploy the *appraiser application*—a stand-alone claim from the trade secret misappropriation.

The fraud claim rests on TSI's false representations of material fact in inducing HouseCanary to enter the AMSLA when TSI had no intention of keeping its promises. This is reflected in the jury's answers to the charge's fraud questions. *See* Questions 11-15. Those questions come straight from the Pattern Jury Charge and never mention "misappropriation" or "trade secret."

The fraud damages consist of lost profits of \$33.8 million that HouseCanary would have received had TSI rolled out the Appraiser Application to its appraisers and paid HouseCanary on the contract. The lost profits damages differ by millions of dollars from—and are wholly independent of—HouseCanary's damages for trade secret misappropriation.

Most importantly, HouseCanary had a valid fraud claim even if it never had trade secrets nor established misappropriation. *See Tony Gullo Motors I, L.P. v. Chapa*, 212 S.W.3d 299, 304 (Tex. 2006) ("A contractual promise made with no intention of performing may give rise to an action for fraudulent inducement."). TSI's rests its entire argument on a purported admission by HouseCanary counsel about relying on the "same facts." Br.20. This is completely belied by the distinct record evidence for both described above—which TSI does not attempt to address or demonstrate is overlapping.

### 3. HouseCanary's contract claims are not part of the judgment.

HouseCanary did not elect entry of judgment as to its contract damages, and thus the court did not include contract claims in the judgment. TSI complains about (unspecified) contract answers in the verdict, but it never identifies any error in the judgment. Br.38-39. In any event, the jury had substantial evidence from which to find that TSI breached the contracts with HouseCanary, as described above, including violating the restrictions on use of confidential information, failing to provide a license to the historical appraisal data, refusing to rollout the appraiser application as intended, and not paying HouseCanary anything.

As to TSI's own contract claims, TSI has not identified a single error in the take-nothing judgment against it. TSI failed to secure findings of contract damages (in answer to Questions 20, 26, and 33) and thereby acquiesced in a deemed finding of zero damages on its contract allegations. *Envtl. Procedures, Inc. v. Guidry*, 282 S.W.3d 602, 632 (Tex. App.—Houston [14th Dist.] 2009, pet. denied); *see Little Rock Furniture Mfg. Co. v. Dunn*, 222 S.W.2d 985, 990 (Tex. 1949) (litigant "who did not object to the conditional submission waives the right to have the issue answered and also necessarily waives the right to any benefits which he might receive from a favorable answer to such issue").

### II. The evidence confirms HouseCanary's damages.

TSI impugns the jury's award (and the court that entered judgment) as "staggering," "fanciful," "imaginary," "guesswork," "plucked...out of thin air," and "rank speculation." But TSI's hyperbole cannot mask the futility of its arguments. The jury heard extensive evidence of every aspect of HouseCanary's damages claim, including from HouseCanary's expert (Bratic) and TSI's expert (Ugone). *See* 45RR64-184; 46RR7-121; 47RR23-90. The evidence demonstrates why TSI had a strong motive to steal HouseCanary's technology, and why it was so valuable to TSI.

### A. The reasonably prudent investor measure of damages is correct.

HouseCanary's expert determined the value of the trade secrets to a "reasonably prudent investor." 45RR74-75; 1[2dSCR]716. This is a form of unjust enrichment, a damages methodology TUTSA embraces. *See* TEX. CIV. PRAC. & REM. CODE § 134A.004; *TMRJ Holdings, Inc. v. Inhance Techs., LLC*, 540 S.W.3d 202, 210-11 (Tex. App.—Houston [1st Dist.] 2018, no pet.) (applying TUTSA); *Matter of AmeriSciences, L.P.*, 2019 WL 3046276, at \*8 (affirming damages under this model). It is particularly suited to cases in which the profits of the victim or of the infringer may not quantify the harm from the theft.

Texas applies a "'flexible and imaginative' approach" to "the calculation of damages in misappropriation-of-trade-secrets cases." *Sw. Energy Prod. Co.*, 491 S.W.3d at 710. "[E]ach case is controlled by its own peculiar facts and

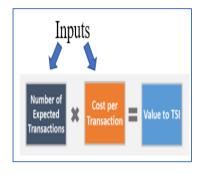
circumstances" and even where "damages are uncertain ... uncertainty should [not] preclude recovery[.]" *Univ. Computing Co. v. Lykes-Youngstown Corp.*, 504 F.2d 518, 538-39 (5th Cir. 1974) (cited by *Sw. Energy Prod. Co.*, 491 S.W.3d at 710).

TSI does not dispute that the "value of the trade secrets to the infringer" is a proper measure of damages for misappropriation. Instead, TSI contends: (1) HouseCanary cannot avail itself of the "reasonably prudent investor" model because its trade secrets were not destroyed; and (2) HouseCanary should have used different inputs—smaller figures—when calculating TSI's "willingness to pay" under the model. TSI's first attack gets it backwards on the law. Its second attack is a factual dispute that the jury appropriately resolved in HouseCanary's favor.

On the first issue, TSI cites a footnote from *University Computing*, 504 F.2d. at 535 & n.26, for the proposition that the reasonably prudent investor model is only available if defendant has "destroyed the value of the trade secret." Br.43-44. This observation, however, applied to models measuring "the value of the secret to the *plaintiff*." 504 F.2d. at 535. Another acceptable damages model is the value of the trade secret to the *defendant*, which the opinion recognized is the "accepted approach where the secret *has not been destroyed*." *Id.* HouseCanary's misappropriation damages model, based on the value to TSI, is not subject to the "destroyed value" requirement. On the second issue, the evidence, as described below, soundly supports HouseCanary's trade secret damages.

## B. The evidence supports HouseCanary's reasonably prudent investor methodology.

To determine the value of the trade secrets to TSI, HouseCanary's expert Bratic calculated the



estimated annual number of uses by TSI employing the HouseCanary valuation technology and multiplied that against his calculated cost per transaction.

Bratic then applied discounting.<sup>4</sup>

4[CR]9699.

discount rate.

Faced with a legally cognizable measure of damages, and a reasonable methodology, TSI is reduced to attacking the inputs Bratic used to determine the value of the trade secrets to TSI. This was a classic factual dispute for the jury to resolve—and it did so in HouseCanary's favor.

The Fifth Circuit recently rejected both a (federal) Rule 702 and a "no-evidence" challenge to trade secret damages based on expert testimony of "what a reasonably prudent investor would have paid for the trade secret." *Matter of* 

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<sup>&</sup>lt;sup>4</sup> It took HouseCanary over two years to develop its software. Bratic thus reasoned that a two-year damages period would be proper for the misappropriation measures of damages. 45RR128. Accordingly, in calculating the damages, Bratic multiplied the number of expected transactions per year times the cost per transaction, and then doubled it. Thereafter he applied a 15.3% discount rate. TSI does not challenge the propriety of a 2-year damages period, Bratic's math, or his

AmeriSciences, L.P., 2019 WL 3046276, at \*8. The Court rejected the Rule 702 attack, concluding that appellants "had the opportunity to try to convince the jury not to give full weight to [the] expert's calculations, through their own expert, but did not persuasively do so." *Id.* at \*7 (internal quotations omitted). As for the noevidence challenge, the Court held there was an "abundance of evidence" for the valuation, including testimony about the value. *Id.* at \*8. "Although Appellants' expert ... offered a differing opinion, the jury agreed with [Appellees' expert]." *Id.*; see also Lincoln Prop. Co. v. DeShazo, 4 S.W.3d 55, 59 (Tex. App.—Fort Worth 1999, pet. denied).

In *Bombardier Aerospace Corp. v. SPEP Aircraft Holdings, LLC*, 572 S.W.3d 213 (Tex. 2019), the Texas Supreme Court rejected in full a no-evidence challenge to an expert's damages opinion based on the diminution in value of an aircraft, including the lost value of the warranties, based on "observations about the marketplace." *Id.* at 226-27. The Court held that the expert "sufficiently linked his conclusions about the Challenger 300's value to available facts about its issues and the marketplace." *Id.* at 227 (citing caselaw that the test is not whether a more precise valuation was possible).

# 1. TSI's own documents and witnesses supported Bratic's estimate of the number of expected uses.

Bratic drew from two sets of numbers in determining the value to TSI—(1) the number of expected uses of HouseCanary's technology by TSI for appraisals, and

(2) the number of expected uses of HouseCanary's technology by TSI for itself and Quicken Loans in connection with customer leads. TSI's own witnesses admitted that TSI had many *other* uses for valuation technology in its business lines. See, e.g., DX-745; 45RR113. But Bratic limited his damages calculations to these use cases. 45RR114.

#### The record supported TSI uses in connection with its a. home appraisals.

Bratic first looked at the value to TSI of using the trade secrets in connection with its home appraisal services. TSI's chief appraiser testified that AVMs are used in the appraisal process (45RR97-98; 19RR90-91), and TSI's new (Amrock) website showed that its appraisals included an AVM. 45RR98. TSI's website touted that it performed 660,000 appraisals per year. <sup>5</sup> 4[CR]9686; 45RR94. TSI's expert did not dispute this number. 47RR38.

#### Including TSI's uses for Quicken Loans was proper. b.

TSI's primary disagreement is that Bratic also quantified TSI's anticipated uses of HouseCanary technology on behalf of its affiliate and customer, Quicken Loans. Br.13, 46-48. The record is replete with evidence that TSI's main goal in obtaining access to HouseCanary's products was to provide them to the FOC, including Quicken Loans and its bankers.

<sup>&</sup>lt;sup>5</sup> TSI judicially admitted in its pleadings that it performed 750,000 appraisals per year. 1[CR]540.

- TSI CEO Eisenshtadt confirmed the intention behind acquiring a license to HouseCanary's data and analytics was for use with Quicken Loans. 9RR149 (Q. "So you're collecting all of this stuff to come up with a product so that you can use it to service Quicken Loans, right? A. Yes.").
- The AMSLA expressly anticipated that Quicken Loans bankers would be the beneficiaries of the limited license TSI acquired to HouseCanary's AVM. PX-3 § 4 ("HC AVM available to QL bankers getting valuation and example comps during initial discussion").
- In February 2016, TSI hosted a meeting with Quicken Loans to discuss "next steps ... to leverage the data from HC further after the Banking deliverable is implemented" for Quicken Loans sales people. Quicken Loans assigned employees to the HouseCanary project (named Project Torchwood) to create a "great resource to leverage." DX-481; DX-483.
- In March 2016, the Quicken Loans technology team in an internal email lauded that, "HC value reports will have QL and TSI speaking the same language." DX-513.004.
- A June 15, 2016 "Business Needs Assessment Report" prepared by TSI's data science team explained that, "[a]n in-house AVM would be greatly beneficial for all FoCs for its transparency, low cost, and being customizable to meet all kinds of business need." The report outlined intended uses by Quicken Loans and another FOC entity, In-House Realty. DX-659.
- CEO Eisenshtadt admitted that "one of the purposes of using HouseCanary data" was "for Quicken bankers to use HouseCanary's AVM to replace the existing product called Compinator." 12RR36-37. In August 2016, TSI unveiled its "Title Source AVM" to the entire FOC and noted that the model "outperforms Compinator." DX-690.
- In a presentation to the "QL-TS Data Science Team," Claude Wang announced "we are excited to introduce our brand new Title Source AVM and discuss the use cases for the FOC," and laid out the many ways in which the FOC would benefit from TSI's AVM developed using HouseCanary's intellectual property. DX-781.
- CEO Eisenshtadt admitted at the time of trial in 2018, TSI's AVM, based on stolen HouseCanary technology, was being used internally by the FOC and that "[i]t is available to Quicken Loans." 37RR174-75. He explained that

MyAVM "is a Title Source product that is available to Quicken Loans" as well as In-House Realty. 37RR145.

- Quicken Loans' banking/operation team requested access to HouseCanary's AVM data in TSI's modeling server, even though TSI (and Quicken Loans) were expressly prohibited from "warehousing" data or using the data to develop derivative models. DX-534. TSI granted Quicken Loans' request. DX-542.
- Ryan Yang admitted he sent a Quicken Loans employee R code "that shows how to extract the HouseCanary values from the TS2modelingdev1 server." 34RR149-150.
- After TSI obtained HouseCanary's trade secrets, TSI and Quicken Loans officially merged their data analytics teams. DX-669. Yang explained how his entire TSI team was "merged into Quicken Loans," 34RR115-16, and "all the employees from the [Title Source] Appraisal Team belong to Quicken Loans." 33RR114-115.

.6 TSI's use of HouseCanary's technology

for Quicken Loans unquestionably constituted a significant and quantifiable financial benefit to TSI.

c. HouseCanary's estimate for usages in connection with "leads" came directly from TSI and Quicken Loans.

Bratic determined the number of expected uses by TSI for itself and for Quicken Loans for pursuing potential leads for loans. 45RR92-93. These uses

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<sup>&</sup>lt;sup>6</sup> TSI's reference to Judge Canales initially questioning before trial whether the use by Quicken Loans was "a stretch" or too "speculative" says nothing about the record at trial. 2RR89-90. After hearing the evidence described above, Judge Canales overruled TSI's objections during Bratic's 3-hour testimony 59 times.

comprised two categories—bulk and inbound leads. The evidence supports the estimated uses for each.

"Bulk leads" are prescreened customer lists for lending transactions.

45RR105. TSI and Quicken Loans wanted the HouseCanary value reports to engage potential customers drawn from these lists. 40RR128. TSI planned to make available HouseCanary's value reports so Quicken Loans could pursue 50,000 bulk leads per day:

Torifilouseca	nary Integration	Description	
Deliverable	Tasks		
Banker to Customer/Value Report			
90 <b>5</b> 000	<6 seconds latency on PDF	TSI requires that all single page Value Report PDFs be provided in under 6 seconds synchronously.	
	Full value report	2000 of value reports ordered per day will be full value reports.	
	Single page version of value report	Requirement that large volume value reports will be single page only	
	50,000 value reports per day	Single page	
	Comp Similarity Score description	Provide description on how similarity score is calculated.	

4[CR]9692; DX-499 at 2; 45RR103-05. The number of expected bulk leads was corroborated by other evidence, including notes from a HouseCanary meeting with TSI showing TSI/QL bulk purchased leads as "2k leads per hour throughout the day." DX-988; 45RR107; 45RR108 (citing discussions with Sicklick and Stroud about "what Title Source was telling them about the volume of transactions"). Projecting this daily figure annually through the 240 working days of the year yielded 12 million annual uses. 45RR93, 110.

TSI did not counter this evidence. In fact, TSI's damages expert Ugone admitted that he *never asked* TSI or Quicken Loans how they were using AVM technology internally or how they processed data about customer inquiries. 47RR73-74, 77.

AVMs also were used in conjunction with "inbound leads," where loan customers initiate an inquiry. Bankers can use value reports and property valuation information to help pursue those inquiries. TSI estimated Quicken Loans would receive 5,000-10,000 such leads per day, and Bratic adopted the low end of that range for his analysis. DX-988. Multiplying TSI's own estimate by work days in a year yielded 1.2 million annual uses. 45RR93, 109-10. Again, TSI's expert Ugone offered no counter to these numbers and chose not to ask anyone at TSI or Quicken about them. 47RR77.

Bratic's reliance on TSI's own statements of its planned uses of trade secrets is typical evidence used to support inputs for trade secret damages. *TMRJ Holdings*, 540 S.W.3d at 210 ("[D]amages may be derived from the trade secrets' present value to the defendant, regardless of whether the plan to use them comes to fruition."); *Matter of AmeriSciences, L.P.*, 2019 WL 3046276, at \*8 ("value a reasonably prudent investor *would have paid*").

# 2. The evidence supports HouseCanary's calculation of the value per use.

After estimating the number of transactions/uses that would employ the valuation technology, Bratic considered a range of values for each transaction/use.

45RR115-16; 4[CR]9700. At the high end were the \$20 to \$30 TSI agreed to pay under the MSLA for each HouseCanary appraisal—which included an AVM and other values generated using HouseCanary's technology. 45RR116; PX-2 § 7.1; 4[CR]9706. The low end was the \$3 to \$4 HouseCanary charged bulk customers for each value report containing an AVM. 45RR116-17. A midpoint number came from TSI's internal discussion of the amount it was already paying on a per transaction basis for an AVM (\$11). 45RR116; DX-36. In that internal discussion, TSI's Director of Data Operations, Bryan Bedard, advised TSI's CEO, Chief Appraiser, and other high-ups that traditional tools were not accurate, identified what TSI was already paying for a more accurate AVM product, and emphasized how valuable it would be to bring that capability in-house.

From:

Sent:
Friday, February 20, 2015 4:11 PM

To:
Aragona, Thomas; Krishnamurthy, Yogita; Pavlak, Mike; Wang, Bryan; Parker (MARSA),
Stefanie; Xiao, Yunni; Campbell, Melissa; Schonberg, Emily; Moazzen, Scott; Eisenshtadt, Jeff;
Petkovski, Jordan; Ling, Yi; Turse, Daniel

Subject:
RE: Appraisal Comparison Tool for Bankers

#### DX-36.

TSI emphasizes the email's concern that \$11 per AVM would be "cost-prohibitive" for voluminous leads. Br.49. But this does not change the *value to TSI*: Each use of an AVM was worth \$11 to TSI—even when it did not own the

One of the AVM products we use (can't remember the name) costs us \$11 per transaction because it aggregates several
other AVM products. It would obviously be cost prohibitive to use this service for each of the hundreds of thousands of
leads bankers work. It would be extremely valuable to have an accurate in-house AVM that we can run without a per
transaction cost.

underlying trade secret. That underscores TSI's incentive to steal this technology. It wanted unfettered access to the trade secrets for an AVM so it could have unlimited use—rather than paying for an AVM on a per-transaction basis.

TSI elected *not to rebut* the \$11 figure. TSI's expert Ugone had unrestricted ability to interview TSI employees, but admitted he never asked TSI to identify the AVM product at issue, how many times it had been used internally, or for which leads. 47RR71-72.

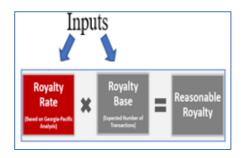
That TSI thinks there was *better* evidence of the value of the trade secrets does not undercut Bratic's calculations, which were based on objective estimates from TSI, not *ipse dixit*. *Sw. Energy Prod. Co.*, 491 S.W.3d at 712 ("[T]he plaintiff need only demonstrate the extent of damages as a matter of just and reasonable inference, even if the extent is only an approximation"); *GlobeRanger*, 836 F.3d at 500 (affirming a damages award "[a]lthough a more precise damages model might have been possible...."); *Bohnsack v. Varco, L.P.*, 668 F.3d 262, 280 (5th Cir. 2012) ("Varco argues that Bohnsack must prove his precise damages to recover for misappropriation. This is incorrect.").

### C. The evidence supported a reasonable royalty.

Because the evidence supports the jury's damages finding based on the value of the trade secrets, the Court need not reach Bratic's alternative damages theory for misappropriation—a reasonable royalty. However, even if the reasonably prudent

investor model were deficient, the jury's \$64.1 million reasonable royalty damages finding is supported by the law and the evidence. 1[2dSCR]716.

TUTSA allows for a reasonable royalty. *See* TEX. CIV. PRAC. & REM. CODE \$ 134A.004; *TMRJ Holdings*, 540 S.W.3d at 209-11. TSI does not challenge the availability of the model, Bratic's methodology, or his calculations. TSI again solely attacks the jury's acceptance of Bratic's inputs to the formula.



### 4[CR]9719

The royalty base shares the "number of expected uses" with the reasonably prudent investor model. It is the number of times TSI would use HouseCanary technology each year for itself and for Quicken Loans—the AVMs used in connection with TSI appraisals and the value reports used in connection with bulk and inbound customer leads.

Bratic considered the same five inputs discussed earlier to calculate the royalty rate: (1) \$3; (2) \$4; (3) \$11; (4) \$20; and (5) \$30. 45RR156. Bratic discarded the \$11 figure he used to determine the value of the trade secrets because that model assumed the investor would *own* the technology. A party negotiating for

a reasonable royalty would not obtain ownership rights but only a license to utilize the trade secrets. 45RR157. A reasonable royalty also assumes the parties would negotiate based on the benefit to the licensor (here TSI) in obtaining the technology. HouseCanary's expert analyzed the factors outlined in the seminal case for analyzing intellectual property damages. *Georgia Pac. Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970); *see* 45RR144-60. Applying these factors, Bratic reasoned that HouseCanary would accept no less than the \$3 to \$4 it charged bulk customers for value reports. He selected the midpoint of that range. 45RR156. TSI's expert offered no alternative rate.

### D. The jury properly rejected TSI's alternative damages evidence.

TSI chose not to present the jury with its own value to the infringer or reasonable royalty model. Instead, TSI asserted that HouseCanary's damages were adequately represented by (1) the limited license agreement between TSI and HouseCanary, or (2) the license agreement between HouseCanary and Black Knight for input data. Neither approximates the value of the trade secrets TSI stole. The jury was free to, and did, disregard this purported "objective" evidence.

# 1. TSI wrongly asserts that an agreement for a limited license accurately reflects the value of trade secrets.

TSI agreed to pay HouseCanary \$5 million per year for a highly restricted license to HouseCanary's valuation products. PX-3 § 4. This was not a reasonable approximation of the value of the trade secrets. First, the agreements strictly

circumscribed TSI's access to HouseCanary's technology on a transactional basis—to pull individual valuation metrics—with extensive restrictions on how those products could be used. PX-3. For example:

- Section 2.2 provided TSI with a "Limited License" to use the licensed software, data, and analytics for "internal purposes" only and the "internal purposes" of Quicken Loans. *Id.* at 1;
- The data in the Appraisal and Value Report were available only on a "transactional level." *Id.* at 11;
- The Licensee "may not ... use any Appraisal, analytics, metrics, reports or any Data for any purpose other than as expressly set forth herein." *Id.* at 13;
- The Licensee may not use "analytics, metrics, reports or Data ... to create any database or derivative products." *Id.*; and
- The Licensee may not "decompile, disassemble, scrape, decode, reverse translate, or reverse engineer any analytics, metrics or reports." *Id*.

The \$5 million price expressly did not include TSI's "capturing" the data HouseCanary had spent so long compiling and storing it in a database. DX-177 ("HC just doesn't want us to pull a million records to warehouse."). That price also expressly prohibited TSI from using HouseCanary materials to divine HouseCanary's analytics and reverse-engineer a competing product. HouseCanary would never have agreed to sell its trade secrets at all—let alone for \$15 million over three years. 40RR132-33.

Second, the \$5 million annual fee did not reflect the true monetary value of the limited license agreement: it was "just part of the equation." 46RR97. Bratic explained, based on testimony from HouseCanary CEO Jeremy Sicklick and on the terms of AMSLA § 9, that in exchange for providing its valuation products, HouseCanary *also* expected to obtain historical appraisal data from TSI—which HouseCanary considered highly valuable and worth \$30 million a year, or \$90 million over 3 years. 46RR93-98. The \$5 million also did not include the financial benefits of rolling out the HouseCanary appraiser application across 20,000 panel appraisers and making it the industry standard. PX-3 § 2; 16RR94-95; 45RR56. TSI latches onto the "cash" value of the AMSLA, ignoring the substantial non-cash consideration.

The Fifth Circuit rejected a similar attempt by an infringer in *GlobeRanger* and affirmed a "value to the defendant" model based entirely on inputs from the plaintiff. 836 F.3d at 501. At trial, defendants presented evidence that misappropriation could only have saved the company \$140,000. *Id.* The jury adopted the plaintiff's model—which used its development costs as a proxy for the value to the defendant—and awarded \$15 million. *Id.* Here, the jury properly rejected Ugone's efforts to limit the value of owning the trade secrets to the \$5 million a year in the contract.

## 2. Black Knight and Compinator do not provide relevant datapoints as to the value of HouseCanary's trade secrets.

The Black Knight-licensed data were mere ingredients that HouseCanary added to its analytics to create its trade secrets. 27RR20-21; 39RR118-19; 40RR38-39; *see supra* at 28-30. The final HouseCanary recipe was "completely different [from Black Knight]" and "significantly outperform[ed] their models." 40RR39. In short, HouseCanary did not offer the Black Knight AVM to TSI, it offered the HouseCanary AVM, and that was much better. 44RR67. TSI provided no evidence at trial (and cites none on appeal, Br.42) to suggest the Black Knight agreement was an appropriate comparable for trade secret rights.

The HouseCanary AVM also consistently outperformed the TSI-licensed AVM called "Compinator." PX-17 at 63; 13RR155-58; 27RR87-89; 29RR151, 157. For single-family dwellings, Compinator's miss rate was 4 times HouseCanary's; for condominiums, it was 3 times; for multifamily dwellings, it was 13% worse; and the rate for all other categories was more than 3.5 times worse. 13RR158; PX-17.040. For this very reason, TSI wanted to replace Compinator with HouseCanary's AVM. 22RR17.

TSI put on virtually no evidence of its previously-licensed AVMs, and no evidence whatsoever that it gained rights to trade secrets by any license agreement. Neither the Black Knight nor the Compinator license fees were reasonable approximations of the value of HouseCanary's stolen trade secrets.

### E. The Period of Misappropriation Damages was Appropriate.

The misappropriation damages period began in 2017, by which time all of the trade secrets were indisputably in existence, not 2015 as TSI suggests. 45RR127-28. TSI announced in late 2016 that it intended to make its AVM available to customers in early 2017, making this an appropriate start date. 45RR128; 4[CR]9708, 9725. Bratic used a January 2015 start date for his discounting period. 45RR137, 162. Had he picked a later date, the damages would have been higher. Bratic's reasonable approximation is not undermined by discounting, which worked in TSI's favor.

TSI's offhand suggestion that the damages period should have ended at the beginning of trial in January 2018 reflects its erroneous assertion that HouseCanary disclosed its trade secrets in a public trial. Br.43. First, this assertion is irrelevant because misappropriation damages of this nature are to be determined as of the time the misappropriation took place—here at least early 2017. Sw. Energy Prod. Co., 491 S.W.3d at 711 ("[B]ecause the precise value of a trade secret may be difficult to determine, the proper measure is to calculate what the parties would have agreed to as a fair price for licensing the defendant to put the trade secret to the use the defendant intended at the time the misappropriation took place.") (quoting Mid-Mich. Comput. Sys., Inc. v. Marc Glassman, Inc., 416 F.3d 505, 510-11 (6th Cir. 2005)); TMRJ Holdings, 540 S.W.3d at 210 ("[T]he jury was asked to calculate what

the parties would have agreed to as a fair price for licensing the defendant to put the trade secret to the use the defendant intended at the time the misappropriation took place.") (quoting *Sw. Energy Prod. Co.*, 491 S.W.3d at 711). If TSI had not misappropriated, there would not have been a trial in the first place.

Second, merely showing an exhibit to a jury in a public trial does not grant the public a right to the exhibits themselves. Dallas Morning News v. Fifth Court of Appeals, 842 S.W.2d 655, 659 (Tex. 1992). That would conflict with the purpose of TUTSA. Cleveland & Coffman, The Texas Uniform Trade Secrets Act, 45-Fall Tex. J. Bus. L. 323, 329 (Fall 2013) ("TUTSA ... provides the ability for aggrieved parties to pursue their legal rights in court without fear of having to disclose the very information they are trying to keep secret."). There was no public disclosure at the time because the trial court issued instructions maintaining the seal on those exhibits. In an opinion released in July 2019, this Court held that the trial court erred in doing Title Source, Inc. v. HouseCanary, Inc., No. 04-18-00509-CV, 2019 WL SO. 2996974 (Tex. App.—San Antonio July 10, 2019, pet. filed). But that ruling came well after Bratic's damages period ended in 2018—and is not retroactive. HouseCanary's trade secrets remain secret to this day, which is why TSI has been fighting in a separate appeal to access them.

Finally, the trade secret exhibits used at trial did not include substantial data TSI took, including the millions of data points and 150,000 value reports (which TSI

continues to keep until this day). TSI cannot seek shelter for its wide-ranging theft described above based on a post-hoc ruling regarding just eight exhibits.

### F. The evidence supports HouseCanary's lost profits damages.

In Question 13, the jury awarded fraud damages for the profits HouseCanary lost as a result of TSI's failure to pay for the HouseCanary appraisal application and its refusal to roll out the software to its staff and panel appraisers. 1[2dSCR]688, 690. The \$33.8 million award represented HouseCanary's expected revenue under the AMSLA from deployment and use of the HouseCanary appraiser application. 1[2dSCR]690.

Under the agreement, TSI committed to rolling out the appraiser application not only to its 200 staff appraisers, but also to the 20,000 panel appraisers who work for TSI and other appraisal management companies. 46RR101-02; 2RR56; 45RR167-68; 9RR31-32; PX-3 § 2; 16RR94-95; 45RR56 (it was TSI's responsibility to get the Appraiser Application into the hands of the appraisers in the field); 45RR167-69; DX-1024.011 (internal TSI document discussing applications of the HouseCanary app and stating, "How can we create more efficiency for staff, then panel?").

HouseCanary would have enjoyed had TSI done what it promised.

HouseCanary's expected lost profits from the rollout of the appraiser application rests on the expected appraisals that would be performed by 1) TSI's inhouse appraisers and 2) TSI's panel appraisers.

For the first number, Bratic used TSI's own admission that it performs 660,000 appraisals annually. 4[CR]9686; DX-1029; 45RR171. This number was not rebutted. For the second figure, Bratic did not assume that all the panel appraisers would adopt HouseCanary's program. Instead, he conservatively estimated half would (10,000), 45RR169; 46RR101-02, even though TSI's own estimate was that this number could exceed 90%. DX-1027.002 (stating that a "small (<10%) segment of current appraisers, mainly those who are older and close to retirement" might not adopt [the] program, but that "the overwhelming majority of appraisers will quickly and gladly adopt the program out of their own self-interest.").

To this group of 10,000 panel appraisers, Bratic applied the 244 appraisals performed on average each year. 45RR170. To prevent any overlap, he subtracted out the 660,000 appraisals already performed by TSI to reach 1,780,000 additional appraisals. *Id.*; 4[CR]9732. Bratic, however, did not use that figure for each year. Assuming there would be a ramp-up period, he started at zero and increased the number on a straight-line basis over the three-year damages period to a total of 1,780,000. 45RR171.

HouseCanary used a three-year damage period for the lost-profits measure. TSI now contends that is too long. But evidence, and TSI's own expert's testimony, supports that period. The MSLA, as amended, had a three-year term, though it could be terminated after just one year. 4[CR]9727; 45RR164; PX-3 § 7. Internal TSI documents demonstrated that TSI expected a three-year contract. 4[CR]9728; DX-108. Even TSI's expert Ugone agreed that, under certain circumstances, damages could be calculated for up to three years. 45RR165; 47RR56.

Looking at the expected appraisals by TSI's appraisers yielded a total of 6,056,167 expected appraisals over three years. 45RR171-72; 4[CR]9733. Translating that number of appraisals into a lost profits amount then required Bratic to calculate the revenues from such appraisals and apply a profit margin.

The revenues associated with the staff appraisals was set in the AMSLA at \$5 million per year. 45RR178; 46RR92. Dividing this amount by the number of annual staff appraisals resulted in a \$7.58 price per appraisal. Bratic then applied this price per appraisal to each of anticipated appraisals by the panel. 45RR177. The sum of these two figures (staff and panel) supplied the revenue figure, leaving only the application of a profit margin. Internal HouseCanary documents estimated these margins at 95%. Tab D (DX-245.003). Most of the costs for a software product is in the development phase, resulting in high profit margins. 45RR173-74. That

<sup>&</sup>lt;sup>7</sup> 95% of \$7.58 is \$7.20.

figure was consistent with Bratic's experience in the software industry—where the costs for a software product are in the development phase. *Id*.

Applying the 95% profit margin to the staff appraisal and panel appraisal revenues, over a three-year period, resulted in a total revenue number of over \$43 million.

	2016	2017	2018	Total
Annual Revenue from TSI	\$5,000,000	\$5,000,000	\$5,000,000	15,000,000
× Profit Margin (95.0%)	95.0%	95.0%	95.0%	95.0%
= Total Profits	\$4,750,000	\$4,750,000	\$4,750,000	\$14,250,000

4[CR]9736 (staff appraisers).

	2016	2017	2018	Total
Profit per Appraisal	\$7.20	\$7.20	\$7.20	\$7.20
× Number of Panel Appraisals	642,778	1,656,389	1,780,000	4,079,167
= Total Profits	\$4,626,054	\$11,920,981	\$12,810,606	\$29,357,641

4[CR]9737 (panel appraisers). After discounting, the result was a lost profits amount of \$33.8 million. 45RR178.

# G. HouseCanary's misappropriation damages do not duplicate its fraud damages.

Contrary to TSI's contention, the damages described above for trade secret misappropriation and fraud are not duplicative. Br.56. TSI fraudulently induced HouseCanary to enter into the AMSLA by promising to pay HouseCanary under the

agreement for its appraisal application (which it never did) and to help popularize the HouseCanary software application (when it had no intention of doing so). 1[2dSCR]688. The fraud damages are based on the profits that HouseCanary would have made had TSI had done what it falsely promised to do. 1[2dSCR]690. HouseCanary would have suffered these damages even if TSI had not misappropriated its trade secrets.

The misappropriation damages represent the value to TSI of the trade secrets it stole. 1[2dSCR]716. HouseCanary would have been entitled to these damages even if TSI had done what it promised (rolled out the appraiser application for use by its in-house and panel appraisers). There is no overlap.<sup>8</sup>

### III. The Evidence Amply Justifies the Exemplary Damages Award.

# A. Clear and convincing evidence supports the imposition of exemplary damages on TSI.

The jury's exemplary damages award for trade secret misappropriation was based on clear and convincing evidence that TSI committed "willful and malicious misappropriation," a defined phrase: "intentional misappropriation resulting from the conscious disregard of the rights of the owner of the trade secret." Tex. Civ. Prac. & Rem. Code. § 134A.002(7). The jury also had ample evidence to support its award of

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<sup>&</sup>lt;sup>8</sup> As for TSI's suggestion the punitive damage awards overlap, this claim is likewise unsupported given the non-overlapping damages models. Also, TSI did not preserve this complaint in the trial court and may not pursue it on appeal. *See* Tex. R. App. P. 33.1.

twice the lost profits as punitive damages for TSI's fraud. As described at length above, overwhelming evidence establishes not just TSI's theft but its intentional conduct, including lying about its planned use for HouseCanary's technology, its intention from the beginning to create its own products using HouseCanary trade secret data and information, and its internal machinations for how to get around the contractual restrictions. And extensive evidence established that HouseCanary was induced to build a software product on false promises that TSI would pay and help HouseCanary's appraisal application become the industry standard. *See* Section I.A-B, *supra*.

The evidence also shows that TSI "specifically intended for [HouseCanary] to suffer substantial injury that was 'independent and qualitatively different' from the compensable harm." Br.57 (citing *Horizon Health Corp. v. Acadia Healthcare Co.*, 520 S.W.3d 848, 867 (Tex. 2017)). TSI made concerted efforts to drive HouseCanary out of business through litigation.

The jury heard that when HouseCanary would not agree to let TSI create its own products using HouseCanary's data, TSI sued HouseCanary for breach of contract, fraud, and tortious interference, seeking millions of dollars in damages, and publicly served HouseCanary's CEO at a trade conference. 10RR49-50; 1[CR]27-30. That same day, TSI flooded HouseCanary's servers with fake addresses one of which was "Wiping a Vendor Wipes the fee." DX-1027. Later, it used an additional

one-dollar claim for breach of a nondisclosure agreement as a pretext to subpoena HouseCanary's existing and potential investors. 10RR43-46. The nondisclosure claim was a specific effort to starve HouseCanary by informing its potential customers and investors that its biggest customer had accused it of fraud. *See Bennett v. Reynolds*, 315 S.W.3d 867, 875 (Tex. 2010) (litigation conduct can support exemplary damages where it relates back to the underlying tort and exacerbates the harm to the injured party).

The quality and quantity of this evidence exceeds the quantum in other trade secret cases. *See, e.g., Wellogix*, 716 F.3d at 884 (affirming \$27.8 million award based on evidence that defendant developed certain technology without informing plaintiff, which had shared confidential information with defendant); *Bridgetree, Inc. v. Red F Mktg. LLC*, No. 3:10-CV-00228-FDW, 2013 WL 443698, at \*20 (W.D.N.C. Feb. 5, 2013) (conduct willful and malicious where "[a]lthough Defendants contend they never fully operated a competing product in the marketplace, evidence showed they nevertheless attempted to develop a competing product using trade secrets taken from Plaintiff.").

### B. The exemplary damages award comports with the U.S. and Texas constitutional standards.

TSI contends that the exemplary damages award violated state and federal due-process requirements. *Id.* Whether an award comports with due process is measured by: "(1) the degree of reprehensibility of the defendant's misconduct;

(2) the disparity between the actual or potential harm suffered by the plaintiff and the punitive damages award; and (3) the difference between the punitive damages awarded by the jury and the civil penalties authorized or imposed in comparable cases." *Horizon Health Corp.*, 520 S.W.3d at 873-74; *BMW of N. Am., Inc. v. Gore*, 517 U.S. 559, 574-75 (1996). These factors are satisfied here.

#### 1. The record contains sufficient evidence of reprehensibility.

"[T]he most important indicium of the reasonableness of a punitive damages award is the degree of reprehensibility of the defendant's conduct." *Gore*, 517 U.S. at 575. In evaluating reprehensibility, courts look to whether:

- (1) the harm was physical rather than economic;
- (2) the tortious conduct showed indifference or reckless disregard for others' health/safety;
- (3) the plaintiff had financial vulnerability;
- (4) the conduct involved repeated actions rather than one incident; and
- (5) the harm resulted from intentional malice, trickery, or deceit rather than mere accident.

State Farm Mut. Auto. Ins. Co. v. Campbell, 538 U.S. 408, 419 (2003); Bennett v. Reynolds, 315 S.W.3d 867, 874 (Tex. 2010). Courts generally deem evidence of one or two reprehensibility factors sufficient to support exemplary damages. See, e.g., Hallmark Cards, Inc. v. Monitor Clipper Partners, LLC, 758 F.3d 1051, 1061 (8th Cir. 2014); Diesel Mach., Inc. v. B.R. Lee Indus., Inc., 418 F.3d 820, 839 (8th Cir. 2005); Wellogix, 716 F.3d at 885–86; Horizon Health, 520 S.W.3d at 876-77

(punitive damages not negated when only one factor satisfied; excessiveness threshold merely lowered). Here, there was evidence of multiple factors.

First, TSI contends that HouseCanary "failed to achieve financial viability in the marketplace," Br.59, mooting any challenge to the third factor and showing HouseCanary's vulnerability. TSI also recognized that HouseCanary's need to invest for growth left it in a financial "quagmire." 42RR75-77.

Second, the evidence demonstrates that the harm to HouseCanary resulted from intentional malice, trickery, or deceit, not mere accident, satisfying the fifth factor. *See, e.g.*, DX-1072, DX-593, discussed in Statement of Facts, *supra*.

TSI's intentional cover-up further confirmed the willful nature of its misappropriation.

## 2. The exemplary damages award is proportional to the compensatory damages award.

The punitive award's comportment with Texas' statutory cap is strong evidence it complies with due process. In providing a cap on exemplary damages at twice the amount of economic damages, Texas Civil Practice & Remedies Code § 41.008 provides a "sufficiently definite and meaningful constraint on the discretion of [Texas] factfinders in awarding punitive damages" to justify a strong presumption that compliant awards will satisfy due process. *Pacific Mut. Life Ins. Co. v. Haslip*, 499 U.S. 1, 22 (1991). Courts of appeal have broadly endorsed the proposition that a "punitive damages award that comports with a statutory cap provides strong evidence

that a defendant's due process rights have not been violated." *Romano v. U-Haul Int'l*, 233 F.3d 655, 673 (1st Cir. 2000); *see also Arizona v. ASARCO LLC*, 773 F.3d 1050, 1055 (9th Cir. 2014); *E.E.O.C. v. AutoZone, Inc.*, 707 F.3d 824, 840 (7th Cir. 2013); *E.E.O.C. v. Fed. Express Corp.*, 513 F.3d 360, 3678 (4th Cir. 2008). TSI has identified no case striking down an exemplary damages award that was no more than twice compensatory damages *and* fell within a state's statutory cap. On this record, there is nothing about a 2:1 ratio to "jar one's constitutional sensibilities." *Haslip*, 499 U.S. at 18.

TSI selectively quotes from *State Farm* to suggest that when exemplary damages are "substantial," an award equal to compensatory damages reaches the "outermost limit" of due process. Br.60. But *State Farm* expressly "decline[d] to impose" any such "bright-line ratio which a punitive damages award cannot exceed" or impose any "rigid benchmarks that a punitive damages award may not surpass." 538 U.S. at 425; *see also Bennett*, 315 S.W.3d at 879; *Horizon Healthcare*, 520 S.W.3d at 880. In *Owens-Corning Fiberglas Corp. v. Malone*, the Texas Supreme Court held that a multi-million-dollar exemplary damages award in an asbestos products liability suit "yielding a combined ratio of punitive to compensatory damages of slightly more than 2 to 1" was "well within constitutional limits." 972 S.W.2d 35, 46-47 (Tex. 1998).

Federal cases provide additional examples affirming multi-million-dollar exemplary awards at or exceeding a 2:1 ratio. *See, e.g., Brand Mktg. Group LLC v. Intertek Testing Servs., N.A., Inc.*, 801 F.3d 347, 366 (3d Cir. 2015) (5:1 for negligent misrepresentation); *Diesel Mach.*, 418 F.3d at 840 (4:1 for wrongful termination of car dealership); *Dziadek v. Charter Oak Fire Ins. Co.*, 867 F.3d 1003, 1013 (8th Cir. 2017) (4.3:1 ratio in deceit action). As the Federal Circuit noted in *Rhone-Poulenc Agro, S.A. v. DeKalb Genetics Corp.*, a fraud, trade secret misappropriation, and patent infringement case, a "\$50 million punitive award is barely above three times the compensatory award of \$15 million in this case," and therefore "the proportion of punitive damages to compensatory damages does not even approach the possible threshold of constitutional impropriety." 345 F.3d 1366, 1372 (Fed. Cir. 2003).

### 3. TSI's claim that the award is vastly disproportionate to civil penalties in comparable cases lacks merit.

Finally, there is no merit to TSI's argument that the exemplary damages award here is unconstitutional because it is disproportionate to civil penalties. Br.60. TSI confuses Texas Civil Practice & Remedies Code § 134.005(a)(1)—a statutory damages provision entitling a successful plaintiff to statutory damages in addition to actual damages—with "a civil penalty" provision like the one in *Gore*, imposed "upon petition by the Attorney General or a district attorney acting in the name of the state." Ala. Code § 8-19-11 (1993); *see also Chapa*, 212 S.W.3d at 309 (analyzing an exemplary damages award against a \$10,000 "civil penalty" under the Texas

Occupations Code, *not* against a provision allowing statutory damages on top of actual damages). The Texas Supreme Court recently distinguished civil penalty provisions from damages provisions, observing that "[d]amages are [m]oney claimed by, or ordered to be paid to, a person as compensation for loss or injury," while a "penalty is [p]unishment imposed on a wrongdoer, especially, a sum of money exacted as punishment for either a wrong to the state or a civil wrong (as distinguished from compensation for an injured party's loss)." *In re Xerox Corp.*, 555 S.W.3d 518, 529-30 (Tex. 2018) (internal quotation marks omitted).

### IV. The Seven-Week Trial Does Not Need to Be Repeated.

TSI seeks a new trial for three reasons. TSI alleges (a) flaws in the jury charge, (b) incurable jury argument, and (c) "newly-discovered" evidence. Br.61-74. These arguments are partly unpreserved and completely unmeritorious.

### A. The trial court composed the charge correctly.

TSI styles its charge arguments as *Casteel* challenges, but these arguments rest on the mistaken premise there is an insufficiency problem with the trade secret liability findings. Br.61-62 (citing an earlier part of TSI's brief). That issue has been covered already and need not be repeated. TSI voices three additional complaints about the charge (Br.62-64), but those fare no better.

## 1. There is evidence of improper means.

TSI contends there is "no legally sufficient evidence to prove misappropriation by improper means." Br.62. This is groundless. The jury heard seven straight weeks of evidence that TSI used improper means to steal intellectual property.

The improper means jury questions follow the Pattern Jury Charge (*see* PJC Bus., Consumer, Ins., & Employment § 111.2), with a definition of "improper" straight from the statute. Under section 134A.002(2), "improper means" includes the following:

theft, bribery, misrepresentation, breach or inducement of a breach of a duty to maintain secrecy, to limit use, or to prohibit discovery of a trade secret, or espionage through electronic or other means.

Tex. Civ. Prac. & Rem. Code § 134A.002(2); *see* Question 37 & 38 (following the statute verbatim). TSI's conduct fits this definition like a glove.

As detailed above, there is abundant evidence of misrepresentation. *See supra* at 42-43, 53-56.

As to breach of a duty "to limit use" or "to prohibit discovery of a trade secret" or "breach of a duty to maintain secrecy," TSI promised in the NDA, MSLA, and AMSLA not to reverse engineer HouseCanary's confidential and licensed information, develop its own products with such information, or create databases or derivative products. PX-1 ¶ 2(A)(vi); PX-2 at A-3; PX-3 at 13. It breached all of

these duties as outlined above. *See supra* 26-49. The evidence created a fact issue about improper means, which the jury resolved in HouseCanary's favor.

## 2. TSI did not object about complexity scores or AVMs.

TSI argues that it is impossible to know which complexity scores or AVMs the jury found to be misappropriated. Br.62-63. Like all charge complaints, this one needed to be lodged at the charge conference. *See In re B.L.D.*, 113 S.W.3d 340, 349 (Tex. 2003). TSI's objections to Question 37 and 38 said nothing about complexity scores or AVMs. *See* 49RR19-21.

TSI claims that it objected that "neither 'Complexity Score' nor 'AVM' were defined by the jury charge." Br.63. This argument has two flaws. First, "[f]ailure to submit a definition or instruction shall not be deemed a ground for reversal of the judgment unless a substantially correct definition or instruction has been requested in writing." Tex. R. Civ. P. 278. This complaint about terms not being "defined" (Br.63) is unpreserved. *See United Parcel Serv., Inc. v. Rankin*, 468 S.W.3d 609, 620 (Tex. App.—San Antonio 2015, pet. denied).

Second, TSI's objections never mentioned complexity scores or AVMs. *See* 49RR19-21. The objections did not "apprise the trial court of the error alleged such that the court has the opportunity to correct the problem." *Burbage v. Burbage*, 447 S.W.3d 249, 257 (Tex. 2014).

Finally, TSI's unpreserved charge complaint is no more than a repeat of its legal sufficiency challenge regarding misappropriation of HouseCanary's complexity scores, previously addressed. *Supra* at 11-12, 32-33, 49.

## 3. Question 39 is proper.

TSI protests that the Question 39 has a single damage blank instead of five. Br.64. But Question 39 conforms perfectly to the way the damage evidence came in from both sides. At bottom, TSI is repeating its mistaken premise that a sufficiency problem afflicts the liability case. *See* Br.64 ("if the Court concludes ..."). That issue was already addressed. *Supra* at 26-49.

# B. HouseCanary did not make improper jury argument and TSI's failure to object waived the issue on appeal.

TSI challenges several statements in HouseCanary's arguments as improper. First, TSI waived this challenge by failing to object or seek a curative instruction for any of the statements. *See Crnic v. Vision Metals, Inc.*, No. 14-03-01307-CV, 2005 WL 81629, at \*3 (Tex. App.—Houston [14th Dist.] Jan. 6, 2005, no pet.) ("To preserve error on curable jury arguments, a party must object *and request an instruction to disregard the argument.*") (citing *Otis Elevator Co. v. Wood*, 436 S.W.2d 324, 333 (Tex. 1968)) (emphasis added); *Jones v. Rep. Waste Servs. of Tex., Ltd.*, 236 S.W.3d 390, 405 (Tex. App.—Houston [1st Dist.] 2007, pet. denied) (same). Nor does these come anywhere close to the "rare" subset of improper

arguments that are "incurable." Br.65; Living Centers of Texas, Inc. v. Penalver, 256 S.W.3d 678, 680-82 (Tex. 2008)

Second, TSI is wrong that the arguments at issue are improper. The law does not prohibit counsel from arguing to the jury that an opponent's statements were misleading. It merely requires that the arguments be "based on evidence or invited by opposing counsel." Penalver, 256 S.W.3d at 681. The references to "false and misleading questions and answers" and a "house of lies," Br.58/65, came in the context of HouseCanary's counsel's reminding the jury of what they had witnessed just days before, when evidence had to be reopened for HouseCanary to publish to the jury a signed copy of the NDA that TSI had repeatedly argued was unsigned. 50RR11-13. Notably (and contrary to TSI's assertion at Br.65), there was not a single objection to this line of argument, likely because the court had just admonished TSI's lawyers for spending weeks suggesting to the jury that a signed NDA did not exist. 47RR92-97. The Texas Supreme Court recognized that counsel's argument that "maybe [Plaintiff] really believes that.... But it is not credible, folks" was "not improper because there was direct evidence, as well as inferences from the evidence, which supported the argument." Reese, 584 S.W.2d at 837.

TSI also complains, post-hoc after failing to object, about the reference in HouseCanary's closing argument to "a head fake." Br.58. TSI ignores that this was

a direct response to TSI counsel's closing argument and the evidence introduced at trial. 50RR64:25-65:23. *See Clark v. Bres*, 217 S.W.3d 501, 510-11 (Tex. App.— Houston [14th Dist.] 2006, pet. denied) (jury argument referring to party as "a thief, liar, cheat, and a fraud" not error where "the evidence admitted at trial was sufficient for the jury to have found that Clark had in fact lied to appellees, stolen appellees' money, cheated, and defrauded appellees").

Finally, TSI protests HouseCanary's argument to the jury regarding punitive damages and inviting the jury to "draw the line on corporate unethical behavior." Br.58. 50RR72. In *Gannett Outdoor Co. of Texas v. Kubeczka*, the court considered an incurable-argument complaint that "counsel urged jurors to send a message to the billboard industry that the citizens of Harris County would not tolerate its attitude." 710 S.W.2d 79, 86 (Tex. App.—Houston [14th Dist.] 1986, no writ). The court rejected this argument explaining the "send a message" statement was not problematic because the plaintiff's punitive damages were supported by "sufficient evidence in the record from which the jury could reasonably have found Appellant misrepresented the truth, withheld material evidence and ignored recommendations to render the sign safe." *Id.* at 87. The same is true here.

## C. TSI's new trial sideshow changes nothing about the jury's verdict.

After a trial filled with stunningly false testimony by TSI and Quicken Loans witnesses, TSI made one more shocking admission: Shortly before judgment was

entered by Judge Canales and facing a potential injunction that would expose its ongoing misuse of HouseCanary's technology, TSI *disabled* the servers supporting its MyAVM product following an "internal investigation" by its own lawyers. ("On September 14, 2018, I approved and supervised the disablement of the MyAVM program on the Amrock servers."). 2[2dSCR]3983.

To distract from the jury's verdict, the court's judgment and this staggering disclosure, TSI contrived a misinformation campaign. This Court need not entertain the new trial story at all because TSI did not preserve this challenge for appeal. It is black letter Texas law that a verification is required for a motion for new trial—and it is undisputed that TSI provided no such verification with its motion. 3[2dSCR]4427, 5067; Verification & Affidavits—When Verification is Required, O'CONNOR'S TEXAS RULES, CIVIL TRIALS, Ch. 10-B, § 3.1 ("It is necessary to verify a motion for new trial and include affidavits when the motion is based on the grounds listed in TRCP 324(b)(1)"); *Higgins v. Higgins*, No. 08-99-00266-CV, 2000 WL 1757765, at \*3 n.15 (Tex. App.—El Paso Nov. 30, 2000, no pet.) (recognizing that "motion for new trial based on newly discovered evidence must be verified and supported by affidavit").

The verification is required to demonstrate that TSI could not have discovered the evidence even with the exercise of diligence. No TSI lawyer could make this statement under oath, as the purported evidence involved: 1) witnesses who were

listed by TSI as *trial* witnesses but not called; 2) a witness TSI did call and retained as a consultant but later claimed was a turncoat when he couldn't win the day for the company; and 3) issues that were disclosed and vetted in discovery and at trial. Because no lawyer could make the necessary representations, TSI did not verify the motion. Although the trial court exercised its discretion to hear this testimony, TSI's decision not to include any evidence on the diligence element before the trial court, including a verification from its trial counsel, is fatal to its challenge on appeal. *Medlock v. Comm'n for Lawyer Discipline*, 24 S.W.3d 865, 872 (Tex. App.—Texarkana 2000, no pet.) ("We also note that *neither affidavit contains, as is required in newly discovered evidence cases, a statement that with the exercise of due diligence*, such evidence could not have been discovered before the hearing.").

In any event, what TSI offered was the opposite of "new evidence." TSI and Quicken Loans used their influence in the real estate industry to bring forward individuals—who had been on TSI's witness list prior to trial—and claimed they were "whistleblowers." Their promised tales of "fraud and collusion" turned out to be simply fodder for press releases. It was old news that TSI's own "star" witness Jordan Petkovski—who denigrated HouseCanary's technology on the stand—once sought a job from HouseCanary's CEO Jeremy Sicklick. Documents produced during discovery revealed as much. DX-613. Judge Canales' decision to deny a new trial based on this evidence—which was neither new nor moving—was no

abuse of discretion. *See BZ Tire Shop v. Brite*, 387 S.W.3d 837, 838 (Tex. App.—San Antonio 2012, no pet.); *Waffle House, Inc. v. Williams*, 313 S.W.3d 796, 813 (Tex. 2010).

#### 1. TSI cannot meet even a basic showing of diligence.

TSI cannot show that any of what it asked the court to consider post-trial constituted newly discovered evidence. TSI emphasizes that the four individuals it brought to the evidentiary hearing were not "deposed or involved in the trial." Br.67. But that was by TSI's own election as all of TSI's supposed new "whistleblowers" were on TSI's own trial witness list. 7[2dSRR] (DX-1, DX-2). On the first day of the new trial hearing, TSI wrongly told the court that only one of the four "new" witnesses had appeared on TSI's witness list. 2[2dSRR]18. When HouseCanary pointed out that *all four* had appeared on TSI's witness list, the court cautioned TSI at the bench: "Do not misrepresent something to me. Okay. If those four were on your witness list and you just told me only one was on your witness list, double-check that." *Id.* at 20.

This Court has recognized that "Texas law provides that the burden is on the movant to show he *could not have* discovered the evidence had he tried, not that discovering is so burdensome he should not have had to try." *GJR Mgmt. Holdings*, *L.P. v. Jack Raus*, *Ltd.*, 126 S.W.3d 257, 262 (Tex. App.—San Antonio 2003, pet. denied) (emphasis in original). As a matter of law, their testimony cannot be new

evidence. *Martinez v. ABC Supply Co.*, No. 05-16-00157-CV, 2017 WL 1536502 (Tex. App.—Dallas Apr. 27, 2017, no pet.) (affirming trial court ruling that witness's testimony was not newly discovered evidence since movant "knew of [the witness'] existence" prior to trial.); *In re A.C.*, 11-09-00164-CV, 2011 WL 3925516 (Tex. App.—Eastland Sept. 8, 2011, pet. denied) (denying newly discovered evidence challenge because movant failed to explain why he could not discover the witness' existence before trial).

TSI argues the diligence requirement should be "relaxed," Br.68, but offers no basis for doing so. TSI says it "did not suspect such duplicity from its own fiduciary," Br.69, but TSI was well aware of Petkovski's desire for a job at HouseCanary at the time of the relationship and during trial. At the new trial hearing, Majewski admitted that his twin brother David Majewski—a vice president at TSI— "certainly knew" that Petkovski wanted a job at HouseCanary at the time. 5[2dSRR]182. A designated trial exhibit, introduced by TSI in the deposition of Chris Stroud, makes this clear. See DX-613 (TSI employee "mentioned that Jordan had intimated that he was interested in joining HouseCanary in the past" and "was wondering whether Jeff [Eisenshtadt] is going after [HouseCanary] to keep Jordan at TSI."); 3[2dSCR]5207, 5596. Sicklick testified openly in his deposition about meetings and dinners with Petkovski (3[2dSCR]5211) including direct visits with him. *Id.* ("In the period from November 2014 through January of 2015, I saw Jordan two or three times [on 'direct visits']."). Sicklick testified that Petkovski agreed to speak to investors on HouseCanary's behalf. 3[2dSCR]5208. He also testified that Petkovski asked if Steve O'Brien could work directly with HouseCanary. *Id.* At trial, *HouseCanary* introduced evidence about the ongoing relationship between the HouseCanary and TSI (and specifically Petkovski) prior to October 2014. *See* 22RR60, 66; 26RR71-72; 40RR65-72.

Finally, TSI makes unsubstantiated claims to imply that testimony was suppressed during trial because of consulting agreements. This is categorically false. No witness who testified at trial for HouseCanary had a consulting agreement. In stark contrast, numerous TSI trial witnesses had consulting agreements with TSI, including Ryan Yang and supposed-traitor Jordan Petkovski. 21RR34; 34RR98; DX-642. Former TSI employee Watson testified that he felt he had been threatened by TSI to accept TSI's consulting agreement offer during discovery in this case. 35RR159-61. Following this testimony, TSI demanded a curative instruction from the court to ensure the jury understood that consulting agreements were perfectly ethical and the trial court granted that request. 36RR105 ("...Texas attorneys, and attorneys allowed to practice in Texas, routinely provide that sort of reimbursement and compensation."). 9 None of this can excuse TSI's lack of diligence.

<sup>&</sup>lt;sup>9</sup> TSI asserts that "HouseCanary has since admitted [the consulting agreements] have no legitimate purpose." Br.70 (citing 2dSupp.RR7:313). But the cite says nothing of the sort.

The cases TSI cites confirm that showing diligence based on fraud requires evidence, not mere assertions. In re Williams found no abuse of discretion in denying a motion for new trial where, as here, "there is, in fact, no showing of fraudulent misrepresentation or concealment by the adverse party." No. 12-06-00361-CV, 2007 WL 1241517, at \*2 (Tex. App.—Tyler Apr. 30, 2007, no pet.). An "allegation of intrinsic fraud" must be supported by "evidence," i.e., "affidavits from competent witnesses available to testify who swore to facts that demonstrated almost beyond doubt that the verdicts rested on perjured testimony. Id. at \*3 (emphasis added); see also Steed v. Winder, 130 S.W.2d 403, 405 (Tex. Civ. App.—Galveston 1939, no writ) (new trial warranted where movant asserted that he relied on a specific false statement and provided "sworn motion and supporting testimony in this new trial hearing, assert[ing] that he did so rely, that he had no reason or ground for suspecting that such testimony had been untrue."). This is far from the case where there has been "nothing to indicate" that TSI was put on inquiry notice as required to show diligence for obtaining a new trial. Alexander v. Soloman, 15 S.W. 906, 908 (Tex. 1891). The other cases TSI cites address the "discovery rule" for extending statute of limitations and, there too, the standard is stringent: Plaintiff must be "unable to know of the wrongful act before expiration of the limitations period." E.g., Willis v. Maverick, 760 S.W.2d 642, 644-45 (Tex. 1988) (discovery rule applies in legal malpractice cases due to the "special relationship between an attorney and

client"); see also Wakefield v. Bank of Am., N.A., No. 14-16-00580-CV, 2018 WL 456721, at \*5 (Tex. App.—Houston [14th Dist.] Jan. 18, 2018, no pet.) (declining to apply discovery rule in favor of a borrower because no fiduciary relationship existed between borrower and lender). Hull v. S. Coast Catamarans, L.P. has even less application as it involved a grant of new trial based on late disclosure of an expert report. 365 S.W.3d 35, 43 (Tex. App.—Houston [1st Dist.] 2011, pet. denied).

## 2. TSI's purported "new" evidence regurgitates known facts that failed at trial.

TSI contends the new trial hearing contained "stunning facts." Br.71. Not so for anyone who sat through the 7-week trial. Cumulative evidence cannot provide a basis for a new trial. *Watts v. Watts*, 396 S.W.3d 19, 23 (Tex. App.—San Antonio 2012, no pet.). TSI put on weeks of evidence, including from supposed turncoat Jordan Petkovski, claiming that HouseCanary's product was "vaporware" and that HouseCanary never had a working application. Petkovski testified repeatedly that TSI could not use the Appraiser App. 19RR46 ("Q. Was Title Source able to use and evaluate the HouseCanary Appraiser app during this time frame? A. Unfortunately, not successfully. Q. Why not? A. Because the app was not functional. It did not do what it was supposed to do."); 22RR101. CEO Eisenshtadt testified that the app was not usable. 13RR90. TSI employee Mike Brocker-Querio testified that the app was not functional. 14RR37-38. The jury rejected all of it.

Rob Walker was supposed to provide "new evidence" that the HouseCanary AVMs came from a third party named Black Knight. But none of this was new or significant. The jury heard ample evidence from TSI seeking to prove this point. 27RR19-24, 38, 64-71, 182; 40RR37-39; 42RR68; 44RR70-73.

TSI claims there was withheld evidence regarding testing of HouseCanary's AVM which warrants a new trial. This is likewise misguided, as Judge Canales explicitly noted during the hearing. 3[2dSRR]256 ("I said earlier, and I've said it a few times, I know there may be some—some times that a motion for new trial on new evidence where a discovery issue might be applicable. I haven't heard anything on that issue."). TSI rests this argument on the testimony of Rob Walker—who initially claimed he had seen AVM test results during his employment with HouseCanary. But he later admitted that he didn't know if what he had seen "were test results of the HouseCanary AVM." 3[2dSRR]232. That testimony is consistent with the HouseCanary documents, which show that third-party testing results did not exist during the parties' negotiations. 7[2dSRR] DX-13 (agreeing to start processing test files in January 2016). TSI asked Stroud about Platinum's later test results at his deposition on February 3, 2017—undermining any contention of this being obscured evidence. 4[2dSRR]188-90; 3[2dSCR]5421-26.

TSI has also failed to show materiality. During the actual trial, the jury heard how TSI performed its *own* testing. In July 2015, TSI sent HouseCanary 10,000

sample properties, and Ryan Yang, of TSI's data science team, performed tests of the AVM using those properties. DX-112; DX-128; 29RR33. In August 2015, a few months before the AMSLA was signed, Yang told TSI executives that "Compinator [(the AVM HouseCanary was intended to replace)] has a much higher ratio in missing data (lower hit rate) compared with HouseCanary across all types of properties, especially in Condo." DX-128. In short, "HC's performance is better." *Id.* TSI wasn't relying on third party testing *or* representations from HouseCanary in deciding to proceed with the relationship—it was relying on its own, independent evaluation.

## 3. TSI's "whistleblowers" lacked even a shred of credibility.

TSI describes the whistleblowers who "came forward" after trial. Br.17. Each was so obviously beholden to TSI and Quicken Loans that Judge Canales was taken aback by their lack of credibility.

Anthony Roveda—who apparently had no interest in the entire case or trial until he saw a large verdict and so sent the email referenced in TSI's brief—initially told the Court he had no contracts or agreements with Quicken Loans. 3[2dSRR]50. On cross-examination, he conceded that shortly after supplying his declaration in this case, his company received a sit-down meeting with Quicken Loans and signed an NDA to discuss a potential business relationship. 3[2dSRR]114-17.

Tom Ciulla revealed that far from blowing the whistle, he had been aggressively contacted by a TSI investigator who called his employer, Equifax, to demand a telephone meeting. 4[2dSRR]62-69. Ciullia asked the investigator to stop. TSI escalated matters further. Two days later Ciulla received a phone call from the CEO of Quicken Loans, Jay Farner. *Id.* at 68. Farner contacted him through his employer Equifax—for whom Quicken Loans is an "important customer"—to pressure him to testify. *Id.* at 66. TSI upped the ante by hitting Ciulla with a (unenforceable) subpoena—purportedly compelling him to travel from Massachusetts to Texas. Ciulla's attorney told him that the cost of fighting TSI now outran the cost of surrendering to the harassment. *Id.* at 69-71.

Daniel Majewski—whose wife has worked in the Quicken Loans FOC for over 20 years (and was still working there during the hearing) and served as the company's first CIO—testified only after being urged to do so in a call from the General Counsel of Quicken Loans, Angelo Vitale. 5[2dSRR]173-78.

Majewski did reveal an improper relationship at the new trial hearing but it was his *own* improper conduct as a HouseCanary employee. Even though he was HouseCanary's Vice President of Business Development, he surreptitiously sent Jordan Petkovski and David Majewski (TSI's Vice President of Business Development, and Daniel's twin brother) information about HouseCanary's proprietary business plans and even directed TSI not to pay HouseCanary.

5[2dSRR]226 (Majewski told TSI not to pay because he "wanted to protect Title Source"). Majewski admitted that his "allegiance was to making sure that Title Source was protected." 5[2dSRR]155. He further admitted that he sent these emails from his personal email account so that "HouseCanary wouldn't know that [he was] forwarding this information" and admitted that such covert conduct "doesn't square very well with [his] self-professed integrity." *Id.* at 160-61.

Rob Walker admitted that TSI is a significant customer of his current employer, Veros, for which he manages sales, and one he wants to keep. 3[2dSRR]199, 237-40. Walker did offer one piece of testimony that might reasonably have impacted the jury—confirming the outrageousness of TSI's tradesecret defense. At trial, TSI's star trade secret witness, Claude Wang, testified that

. At the hearing, Walker was asked, "You think that a -- an AVM could be created in two months?" 4[2dSRR]235. He answered, "Not from scratch, no." *Id*. Walker agreed that such a contention was "pretty ridiculous." *Id*. Further undermining Walker's critique of the HouseCanary AVM was his admission that his current employer, Veros, a competitor with HouseCanary in the AVM space, *resells the HouseCanary AVM and has customers who specifically request that HouseCanary AVM*. 3[2dSRR]211-12.

TSI's tactic of trying to create a media circus with its "whistleblowers" failed to meet even the most basic standards for new trial grounds.

## PRAYER FOR RELIEF

The judgment should be affirmed.

Wallace B. Jefferson
State Bar No. 00000019
wjefferson@adjtlaw.com
Rachel A. Ekery
State Bar No. 00787424
rekery@adjtlaw.com
Nicholas Bacarisse
State Bar No. 24073872
nbacarisse@adjtlaw.com
ALEXANDER DUBOSE &
JEFFERSON LLP

515 Congress Avenue, Suite 2350 Austin, TX 78701 (512) 482-9300 (512) 482-9303 (Fax)

Robert B. Dubose
State Bar No. 00787396
rdubose@adjtlaw.com
ALEXANDER DUBOSE &
JEFFERSON LLP
1844 Harvard Street
Houston, TX 77008-4342
(713) 523-2358
(713) 522-4553 (Fax)

Thomas R. Phillips
State Bar No. 00000022
tom.phillips@bakerbotts.com
Benjamin A. Geslison
State Bar No. 24074269
ben.geslison@bakerbotts.com
BAKER BOTTS L.L.P.
98 San Jacinto Blvd., Suite 1500
Austin, TX 78701
(512) 322-2500
(512) 332-2501 (Fax)

David M. Gunn
State Bar No. 08621600
dgunn@beckredden.com
Erin H. Huber
State Bar No. 24046118
ehuber@beckredden.com
Jim Taylor
State Bar No. 00788512
jtaylor@beckredden.com
BECK REDDEN LLP

Respectfully submitted,

1221 McKinney, Suite 4500 Houston, TX 77010 (713) 951-3700 (713) 951-3720 (Fax)

Max L. Tribble, Jr. State Bar No. 20213950 mtribble@susmangodfrey.com Matthew C. Behncke State Bar No. 24069355 behncke@susmangodfrev.com Rocco Magni State Bar No. 24092745 rmagni@susmangodfrey.com Bryce T. Barcelo State Bar No. 24092081 bbarcelo@susmangodfrey.com Jonathan J. Ross State Bar No. 00791575 iross@susmangodfrev.com Joseph S. Grinstein State Bar No. 24002188 igrinstein@susmangodfrey.com SUSMAN GODFREY L.L.P. 1000 Louisiana Street, Suite 5100 Houston, TX 77002-5096 (713) 651-9366 (713) 654-6666 (Fax)

Ricardo Cedillo State Bar No. 04043600 rcedillo@lawdcm.com

DAVIS, CEDILLO & MENDOZA, INC.

755 E. Mulberry, Suite 500 San Antonio, TX 78212 (210) 822-6666 (210) 822-1151 (Fax)

R. Laurence Macon
State Bar No. 12787500
larry@maconlawfirm.net
THE MACON LAW FIRM, PLLC
750 Rittiman Road
San Antonio, TX 78209
(210) 961-8503
(210) 961-8509 (Fax)

Kalpana Srinivasan (Admitted *Pro Hac Vice*)
California Bar No. 237460
<a href="mailto:ksrinivasan@susmangodfrey.com">ksrinivasan@susmangodfrey.com</a>
SUSMAN GODFREY L.L.P.
1901 Avenue of The Stars, Suite 950
Los Angeles, CA 90067
(310) 789-3100
(310) 789-3150 (Fax)

Elisha B. Barron (Admitted *Pro Hac Vice*)
New York Bar No. 5036850
ebarron@susmangodfrey.com
SUSMAN GODFREY L.L.P.
1301 Avenue of the Americas, 32nd Fl.
New York, NY 10019
(212) 336-8330
(212) 336-8340 (Fax)

COUNSEL FOR APPELLEE, HOUSECANARY, INC. F/K/A CANARY ANALYTICS, INC.

## **CERTIFICATE OF SERVICE**

I hereby certify that on October 9, 2019, a true and correct copy of the above and foregoing Brief of Appellee was forwarded to all counsel of record for Appellant, via Federal Express, as follows:

Catherine M. Stone
<a href="mailto:cstone@langleybanack.com">cstone@langleybanack.com</a>
<a href="Langley & Banack">Langley & Banack</a>, Inc.
<a href="mailto:red">TAS</a>
<a href="mailto:cstone-red">E. Mulberry Ave.</a>, Suite 700
<a href="mailto:san Antonio">San Antonio</a>, TX 78212

David M. Prichard

dprichard@prichardyoungllp.com

PRICHARD YOUNG

10101 Reunion Place, Suite 600

San Antonio, TX 78216

Jeffrey B. Morganroth

jmorganroth@morganrothlaw.com

MORGANROTH & MORGANROTH, PLLC

344 N. Old Woodward Ave., Suite 200

Birmingham, MI 48009

Allyson N. Ho
<a href="mailto:aho@gibsondunn.com">aho@gibsondunn.com</a>
<a href="mailto:GIBSON">GIBSON</a>, DUNN & CRUTCHER, LLP
<a href="mailto:2100">2100</a> McKinney Avenue, Suite 1100
<a href="mailto:Dallas">Dallas</a>, TX 75201-6912

Helgi C. Walker
<a href="mailto:hwalker@gibsondunn.com">hwalker@gibsondunn.com</a>
<a href="mailto:GIBSON">GIBSON</a>, DUNN & CRUTCHER, LLP
<a href="mailto:honger: https://doi.org/10.1001/j.html">https://doi.org/10.1001/j.html</a>
<a href="mailto:hwalker@gibsondunn.com">hwalker@gibsondunn.com</a>
<a href="mailto:hunder.hun

David M. Gunn

### CERTIFICATE OF COMPLIANCE

- 1. This brief complies with the type-volume limitation of Tex. R. App. P. 9.4 because it contains 22,665 words, excluding the parts of the brief exempted by Tex. R. App. P. 9.4(i)(2)(B).
- 2. This brief complies with the typeface requirements of Tex. R. App. P. 9.4(e) because it has been prepared in a proportionally spaced typeface using Microsoft Word 2016 in 14 point Times New Roman font.

Dated: October 9, 2019.

David M. Gunn

Counsel for Appellee

# IN THE FOURTH COURT OF APPEALS SAN ANTONIO, TEXAS

TITLE SOURCE, INC.,

Appellant,

V.

HOUSECANARY ANALYTICS, INC., F/K/A CANARY ANALYTICS, INC., Appellee.

Appeal from the 73rd District Court, Bexar County, Texas Trial Court Cause No. 2016-CI-06300 Hon. David A. Canales, Presiding

## APPENDIX TO BRIEF OF APPELLEE

#### **TAB**

- A Verdict (1[2dSCR]675-726)
- B Final Judgment (Supp. CR filed 10/1/19, at 4-5)
- C Glossary of Terms and Acronyms
- D Compendium of Highlighted Documents and/or Graphics Displayed to the Jury

# TAB A

Verdict



2:45 O'CLOCK PM

MAR 1 4 2018

DONNA KAY ATRINNEY

District Cierk, Boxar County, Tenas

CAUSE NO. <u>2016-CI-06300</u>

TITLE SOURCE, INC.,

Plaintiff,

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S

BEXAR COUNTY, TEXAS

HOUSECANARY, INC.,

f/k/a CANARY ANALYTICS, INC.,

Defendant.

5

The District court of S

BEXAR COUNTY, TEXAS

73RD JUDICIAL DISTRICT

#### **CHARGE OF THE COURT**

Members of the Jury:

After the closing arguments, you will go to the jury room to decide the case, answer the questions that are attached, and reach a verdict. You may discuss the case with other jurors only when you are all together in the jury room.

Remember my previous instructions: Do not discuss the case with anyone else, either in person or by any other means. Do not do any independent investigation about the case or conduct any research. Do not look up any words in dictionaries or on the Internet. Do not post information about the case on the Internet. Do not share any special knowledge or experiences with the other jurors. Do not use your cell phone or any other electronic device during your deliberations for any reason. I will give you a number where others may contact you in case of an emergency.

Any notes you have taken are for your own personal use. You may take your notes back into the jury room and consult them during deliberations, but do not show or read your notes to your fellow jurors during your deliberations. Your notes are not evidence. Each of you should rely on your independent recollection of the evidence and not be influenced by the fact that another juror has or has not taken notes.

You must leave your notes with the bailiff when you are not deliberating. The bailiff will give your notes to me promptly after collecting them from you. I will make sure your notes are kept in a safe, secure location and not disclosed to anyone. After you complete your deliberations, the bailiff will collect your notes. When you are released from jury duty, the bailiff will promptly destroy your notes so that nobody can read what you wrote.

Here are the instructions for answering the questions:

- 1. Do not let bias, prejudice, or sympathy play any part in your decision.
- 2. Base your answers only on the evidence admitted in court and on the law that is in these instructions and questions. Do not consider or discuss any evidence that was not admitted in the courtroom.
- 3. You are to make up your own minds about the facts. You are the sole judges of the credibility of the witnesses and the weight to give their testimony. But on matters of law, you must follow all of my instructions.

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- 4. If my instructions use a word in a way that is different from its ordinary meaning, use the meaning I give you, which will be a proper legal definition.
- 5. All the questions and answers are important. No one should say that any question or answer is not important.
- 6. Answer "yes" or "no" to all questions unless you are told otherwise. A "yes" answer must be based on a preponderance of the evidence, unless you are told otherwise. Whenever a question requires an answer other than "yes" or "no," your answer must be based on a preponderance of the evidence, unless you are told otherwise.

The term "preponderance of the evidence" means the greater weight of credible evidence presented in this case. Both witness testimony and documents count as evidence when weighing the preponderance of the evidence. If you do not find that a preponderance of the evidence supports a "yes" answer, then answer "no." A preponderance of the evidence is not measured by the number of witnesses or by the number of documents admitted in evidence. For a fact to be proved by a preponderance of the evidence, you must find that the fact is more likely true than not true.

- 7. Do not decide who you think should win before you answer the questions and then just answer the questions to match your decision. Answer each question carefully without considering who will win. Do not discuss or consider the effect your answers will have.
  - 8. Do not answer questions by drawing straws or by any method of chance.
- 9. Some questions might ask you for a dollar amount. Do not agree in advance to decide on a dollar amount by adding up each juror's amount and then figuring the average.
- 10. Do not trade your answers. For example, do not say, "I will answer this question your way if you answer another question my way."
- 11. Unless otherwise instructed, the answers to the questions must be based on the decision of at least 10 of the 12 jurors. The same 10 jurors must agree on every answer. Do not agree to be bound by a vote of anything less than 10 jurors, even if it would be a majority.
- 12. A fact may be established by direct evidence or by circumstantial evidence or both. A fact is established by direct evidence when proved by documentary evidence or by witnesses who saw the act done or heard the words spoken. A fact is established by circumstantial evidence when it may be fairly and reasonably inferred from other facts proved.
- 13. In answering questions about damages, answer each question separately. Do not increase or reduce the amount in one answer because of your answer to any other question about damages. Do not speculate about what any party's ultimate recovery may or may not be. Any recovery will be determined by the court when it applies the law to your answers at the time of judgment.
  - 14. Comments, arguments, and suggestions of attorneys are not evidence.

As I have said before, if you do not follow these instructions, you will be guilty of juror misconduct, and I might have to order a new trial and start this process over again. This would waste your time and the parties' money, and would require the taxpayers of this county to pay for another trial. If a juror breaks any of these rules, tell that person to stop and report it to me immediately.

#### **Definitions and Instructions**

When used in this charge, the following terms have the following meanings:

"Title Source" means Title Source, Inc., now known as Amrock, Inc.

"HouseCanary" means HouseCanary, Inc.

"Master Software License Agreement" means the Master Software License Agreement between Title Source and HouseCanary, dated January 29, 2015.

"Amendment One" means the Amendment Number One to Master Software License Agreement between Title Source and HouseCanary, dated November 11, 2015.

With respect to Amendment One, you are instructed that:

- 1. The term "Value Report" as used on pages 2, 3, 4, and 5 of Amendment One means the HouseCanary Value Report in the form and as contemplated in Exhibit F attached to Amendment One.
- 2. The term "Property Score" as used on pages 2, 4, and 11 of Amendment One means the "HouseCanary Property Score" identified in Exhibit A to Amendment One.

"Non-Disclosure Agreement" means the Non-Disclosure Agreement, dated December 6, 2013.

A party's conduct includes the conduct of another who acts with the party's authority. Authority for another to act for a party must arise from the party's agreement that the other act on behalf and for the benefit of the party. If a party so authorizes another to perform an act, that other party is also authorized to do whatever else is proper, usual, and necessary to perform the act expressly authorized.

#### Question No. 1

Did HouseCanary commit fraud against Title Source in connection with the Master Software License Agreement?

#### Fraud occurs when-

- 1. a party makes a material misrepresentation, and
- 2. the misrepresentation is made with knowledge of its falsity or made recklessly without any knowledge of the truth and as a positive assertion, and
- 3. the misrepresentation is made with the intention that it should be acted on by the other party, and
- 4. the other party relies on the misrepresentation by entering into a binding agreement and thereby suffers injury, and
- 5. the reliance was justifiable.

"Misrepresentation" means: (i) a false statement of fact; or (ii) a promise of future performance made with an intent, at the time the promise was made, not to perform as promised; or (iii) a statement of opinion based on a false statement of fact; or (iv) a statement of opinion that the maker knows to be false; or (v) an expression of opinion that is false, made by one who has, or purports to have, special knowledge of the subject matter of the opinion. "Special knowledge" means knowledge or information superior to that possessed by the other party and to which the other party did not have equal access.

Whether reliance was "justifiable" depends on the relying party's individual characteristics, abilities, and appreciation of facts and circumstances at or before the time of the alleged fraud.

#### Fraud also occurs when-

- 1. a party fails to disclose a material fact within the knowledge of that party, and
- 2. the party knows that the other party is ignorant of the fact and does not have an equal opportunity to discover the truth, and
- 3. the party intends to induce the other party to take some action or refrain from acting by failing to disclose the fact, and
- 4. the other party suffers injury as a result of acting or refraining from acting without knowledge of the undisclosed fact.

A fact or misrepresentation of fact is "material" if a reasonable person would attach importance to and would be induced to act on the information in determining his choice of actions in the transaction in question.

Answer "Yes" or "No":

If you have answered "Yes" to Question No. 1, then answer the following question. Otherwise, do not answer the following question.

#### Question No. 2

Answer "Yes" or "No" for each of the following.

A. Did Title Source waive or ratify the fraud, if any, found by you in Question No. 1?

Waiver or ratification occurs when the plaintiff is induced by fraud to enter into a contract but, after becoming aware of the fraud, continues to accept benefits under the contract or conducts itself in a way that recognizes the contract as binding.

Waiver is an intentional surrender of a known right or intentional conduct inconsistent with claiming the right.

Ratification is the adoption or confirmation by a party, while having knowledge of all material facts, of a prior act which did not then legally bind that party and which it had the right to repudiate.

Answer "Yes" or "No.":

B. Is Title Source estopped from complaining of the fraud, if any, found by you in response to Question No. 1?

Title Source is estopped if the following circumstances occurred:

- 1. Title Source
  - a. by words or conduct made a false representation or concealed material facts, and
  - b. with knowledge of the facts or with knowledge or information that would lead a reasonable person to discover the facts, and
  - c. with the intention that HouseCanary would rely on the false representation or concealment in acting or deciding not to act; and
- 2. HouseCanary
  - a. did not know and had no means of knowing the real facts and
  - b. relied to its detriment on the false representation or concealment of material facts.

Answer "Yes	" or "No"	'÷
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If you have answered "Yes" to Question No. 1 and "No" to all subparts of Question No. 2, then answer the following question. Otherwise, do not answer the following question.

#### Question No. 3

What sum of money, if any, if paid now in cash, would fairly and reasonably compensate Title Source for its damages, if any, that were proximately caused by the fraud found in Question No. 1?

"Proximate cause" means a cause that was a substantial factor in bringing about an event, and without which cause such event would not have occurred. In order to be a proximate cause, the act or omission complained of must be such that person using the degree of care required of him would have foreseen that the event, or some similar event, might reasonably result therefrom. There may be more than one proximate cause of an event.

In answering questions about damages, answer each question separately. Do not increase or reduce the amount in one answer because of your answer to any other question about damages. Do not speculate about what any party's ultimate recovery may or may not be. Any recovery will be determined by the court when it applies the law to your answers at the time of judgment.

Consider the elements of damages listed below, if any, and none other. Do not add any amount for interest on damages, if any.

Answer in dollars and cents, if any, as to the following:

ANSWER:

The amount, if any, that the expected benefit to Title Source of HouseCanary's full compliance with the Master Software License Agreement exceeds the benefit that HouseCanary delivered to Title Source under the Master Software License Agreement.

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Answer the following question only if you have unanimously answered "Yes" to Question No. 1 and entered a dollar amount in Question No. 3. Otherwise, do not answer the following question.

To answer "Yes" to the following question, your answer must be unanimous. You may answer "No" to the following question only upon a vote of ten or more jurors. Otherwise, you must not answer the following question.

#### Question No. 4

Do you find by clear and convincing evidence that the harm to Title Source inquired about in Question No. 1 resulted from malice or fraud attributable to HouseCanary?

"Clear and convincing evidence" means the measure or degree of proof that produces a firm belief or conviction of the truth of the allegations sought to be established.

"Fraud" has the same meaning as defined in Question No. 1.

"Malice" means a specific intent by HouseCanary to cause substantial injury or harm to Title Source.

Malice or fraud is attributable to HouseCanary if—

- 1. HouseCanary authorized the doing and the manner of the act, or
- 2. An employee, manager, vice-principal, or officer who committed the fraud was unfit and HouseCanary was reckless in employing him; or
- 3. An employee, manager, vice-principal, or officer who committed the fraud was employed in a managerial or executive capacity and was acting in the scope of employment; or
- 4. HouseCanary or one of its officers, vice-principals, or executives ratified or approved the fraud.

A person is a manager or employed in a managerial capacity if—

- that person has authority to employ, direct, and discharge an employee of 1. HouseCanary; or
- 2. HouseCanary has confided to that person the management of the whole or a department or division of the business of HouseCanary.

A person is a "vice-principal" if—

- 1. that person is a corporate officer; or
- 2. that person has authority to employ, direct, and discharge an employee of HouseCanary; or
- 3. that person is engaged in the performance of nondelegable or absolute duties of HouseCanary; or
- 4. HouseCanary has confided to that person the management of the whole or a department or division of the business of HouseCanary.

Answer "Yes" or "No":	
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Answer the following question only if you have unanimously answered "Yes" to Question No. 4. Otherwise, do not answer the following question.

You must unanimously agree on the amount of any award of exemplary damages.

#### Question No. 5

What sum of money, if any, if paid now in cash, should be assessed against HouseCanary and awarded to Title Source as exemplary damages, if any, for the conduct found in response to Question No. 4?

"Exemplary damages" means an amount that you may in your discretion award as a penalty or by way of punishment.

Factors to consider in awarding punitive damages, if any, are:

- 1. The nature of the wrong.
- 2. The character of the conduct involved.
- 3. The degree of culpability of HouseCanary.
- 4. The situation and sensibilities of the parties concerned.
- 5. The extent to which such conduct offends a public sense of justice and propriety.
- 6. The net worth of HouseCanary.

"Net worth" means the total current assets of an entity minus the total current liabilities of that entity.

Answer in dollars and cents	, if any: \$
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#### Question No. 6

Did HouseCanary commit fraud against Title Source in connection with Amendment One?

Fraud occurs when-

- 1. a party makes a material misrepresentation, and
- 2. the misrepresentation is made with knowledge of its falsity or made recklessly without any knowledge of the truth and as a positive assertion, and
- 3. the misrepresentation is made with the intention that it should be acted on by the other party, and
- 4. the other party relies on the misrepresentation by entering into a binding agreement and thereby suffers injury, and
- 5. the reliance was justifiable.

"Misrepresentation" means: (i) a false statement of fact; or (ii) a promise of future performance made with an intent, at the time the promise was made, not to perform as promised; or (iii) a statement of opinion based on a false statement of fact; or (iv) a statement of opinion that the maker knows to be false; or (v) an expression of opinion that is false, made by one who has, or purports to have, special knowledge of the subject matter of the opinion. "Special knowledge" means knowledge or information superior to that possessed by the other party and to which the other party did not have equal access.

Whether reliance was "justifiable" depends on the relying party's individual characteristics, abilities, and appreciation of facts and circumstances at or before the time of the alleged fraud.

Fraud also occurs when-

- 1. a party fails to disclose a material fact within the knowledge of that party, and
- 2. the party knows that the other party is ignorant of the fact and does not have an equal opportunity to discover the truth, and
- 3. the party intends to induce the other party to take some action or refrain from acting by failing to disclose the fact, and
- 4. the other party suffers injury as a result of acting or refraining from acting without knowledge of the undisclosed fact.

A fact or misrepresentation of fact is "material" if a reasonable person would attach importance to and would be induced to act on the information in determining his choice of actions in the transaction in question.

Answer "Yes" or "No":	NO

If you have answered "Yes" to Question No. 6, then answer the following question. Otherwise, do not answer the following question.

#### Question No. 7

Answer "Yes" or "No" for each of the following.

A. Did Title Source waive or ratify the fraud, if any, found by you in Question No. 6?

Waiver or ratification occurs when the plaintiff is induced by fraud to enter into a contract but, after becoming aware of the fraud, continues to accept benefits under the contract or conducts itself in a way that recognizes the contract as binding.

Waiver is an intentional surrender of a known right or intentional conduct inconsistent with claiming the right.

Ratification is the adoption or confirmation by a party, while having knowledge of all material facts, of a prior act which did not then legally bind that party and which it had the right to repudiate.

B. Is Title Source estopped from complaining of the fraud, if any, found by you in response to Question No. 6?

Title Source is estopped if the following circumstances occurred:

- 1. Title Source
  - a. by words or conduct made a false representation or concealed material facts, and
  - b. with knowledge of the facts or with knowledge or information that would lead a reasonable person to discover the facts, and
  - c. with the intention that HouseCanary would rely on the false representation or concealment in acting or deciding not to act; and
- 2. HouseCanary
  - a. did not know and had no means of knowing the real facts and
  - b. relied to its detriment on the false representation or concealment of material facts.

Answer	"Yes"	or	"No":	•

If you have answered "Yes" to Question No. 6 and "No" to all subparts of Question No. 7, then answer the following question. Otherwise, do not answer the following question.

#### Question No. 8

What sum of money, if any, if paid now in cash, would fairly and reasonably compensate Title Source for its damages, if any, that were proximately caused by the fraud found in Question No. 6?

"Proximate cause" means a cause that was a substantial factor in bringing about an event, and without which cause such event would not have occurred. In order to be a proximate cause, the act or omission complained of must be such that person using the degree of care required of him would have foreseen that the event, or some similar event, might reasonably result therefrom. There may be more than one proximate cause of an event.

In answering questions about damages, answer each question separately. Do not increase or reduce the amount in one answer because of your answer to any other question about damages. Do not speculate about what any party's ultimate recovery may or may not be. Any recovery will be determined by the court when it applies the law to your answers at the time of judgment.

Consider the elements of damages listed below, if any, and none other. Do not add any amount for interest on damages, if any.

Ans	wer in de	ollars and cents, if any, as to the following:	ANSWER:
	A.	The amount, if any, that the expected benefit to Title Source of HouseCanary's full compliance with Amendment One exceeds the benefit that HouseCanary delivered to Title Source under Amendment One.	\$
	B.	Additional software costs, if any not saved	\$

Answer the following question only if you have unanimously answered "Yes" to Question No. 6 and entered a dollar amount in Question No. 8. Otherwise, do not answer the following question.

To answer "Yes" to the following question, your answer must be unanimous. You may answer "No" to the following question only upon a vote of ten or more jurors. Otherwise, you must not answer the following question.

#### Question No. 9

Do you find by clear and convincing evidence that the harm to Title Source inquired about in Question No. 6 resulted from malice or fraud attributable to HouseCanary?

"Clear and convincing evidence" means the measure or degree of proof that produces a firm belief or conviction of the truth of the allegations sought to be established.

"Fraud" has the same meaning as defined in Question No. 6.

"Malice" means a specific intent by HouseCanary to cause substantial injury or harm to Title Source.

Malice or fraud is attributable to HouseCanary if—

- 1. HouseCanary authorized the doing and the manner of the act, or
- 2. An employee, manager, vice-principal, or officer who committed the fraud was unfit and HouseCanary was reckless in employing him; or
- 3. An employee, manager, vice-principal, or officer who committed the fraud was employed in a managerial or executive capacity and was acting in the scope of employment; or
- 4. HouseCanary or one of its officers, vice-principals, or executives ratified or approved the fraud.

A person is a manager or employed in a managerial capacity if—

- 1. that person has authority to employ, direct, and discharge an employee of HouseCanary; or
- 2. HouseCanary has confided to that person the management of the whole or a department or division of the business of HouseCanary.

A person is a "vice-principal" if-

- 1. that person is a corporate officer; or
- 2. that person has authority to employ, direct, and discharge an employee of HouseCanary; or
- 3. that person is engaged in the performance of nondelegable or absolute duties of HouseCanary; or
- 4. HouseCanary has confided to that person the management of the whole or a department or division of the business of HouseCanary.

Answer "Yes" or "No":	
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CHARGE OF THE COURT	

Answer the following question only if you have unanimously answered "Yes" to Question No. 9. Otherwise, do not answer the following question.

You must unanimously agree on the amount of any award of exemplary damages.

#### Question No. 10

What sum of money, if any, if paid now in cash, should be assessed against HouseCanary and awarded to Title Source as exemplary damages, if any, for the conduct found in response to Question No. 9?

"Exemplary damages" means an amount that you may in your discretion award as a penalty or by way of punishment.

Factors to consider in awarding punitive damages, if any, are:

- 1. The nature of the wrong.
- The character of the conduct involved.
- 3. The degree of culpability of HouseCanary.
- 4. The situation and sensibilities of the parties concerned.
- 5. The extent to which such conduct offends a public sense of justice and propriety.
- 6. The net worth of HouseCanary.

"Net worth" means the total current assets of an entity minus the total current liabilities of that entity.

Answer in	dollars a	nd cents	if anv \$	
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Did Title Source commit fraud against HouseCanary in connection with Amendment One?

#### Fraud occurs when-

- 1. a party makes a material misrepresentation, and
- 2. the misrepresentation is made with knowledge of its falsity or made recklessly without any knowledge of the truth and as a positive assertion, and
- 3. the misrepresentation is made with the intention that it should be acted on by the other party, and
- 4. the other party relies on the misrepresentation by entering into a binding agreement and thereby suffers injury, and
- 5. the reliance was justifiable.

"Misrepresentation" means: (i) a false statement of fact; or (ii) a promise of future performance made with an intent, at the time the promise was made, not to perform as promised; or (iii) a statement of opinion based on a false statement of fact; or (iv) a statement of opinion that the maker knows to be false; or (v) an expression of opinion that is false, made by one who has, or purports to have, special knowledge of the subject matter of the opinion. "Special knowledge" means knowledge or information superior to that possessed by the other party and to which the other party did not have equal access.

Whether reliance was "justifiable" depends on the relying party's individual characteristics, abilities, and appreciation of facts and circumstances at or before the time of the alleged fraud.

#### Fraud also occurs when-

- 1. a party fails to disclose a material fact within the knowledge of that party, and
- 2. the party knows that the other party is ignorant of the fact and does not have an equal opportunity to discover the truth, and
- 3. the party intends to induce the other party to take some action or refrain from acting by failing to disclose the fact, and
- 4. the other party suffers injury as a result of acting or refraining from acting without knowledge of the undisclosed fact.

A fact or misrepresentation of fact is "material" if a reasonable person would attach importance to and would be induced to act on the information in determining his choice of actions in the transaction in question.

Answer "Yes" or "No."

Answer: Yes

If you have answered "Yes" to Question No. 11, then answer the following question. Otherwise, do not answer the following question.

#### Question No. 12

Answer "Yes" or "No" for each of the following.

A. Did HouseCanary waive or ratify the fraud, if any, found by you in Question No. 11?

Waiver or ratification occurs when the plaintiff is induced by fraud to enter into a contract but, after becoming aware of the fraud, continues to accept benefits under the contract or conducts itself in a way that recognizes the contract as binding.

Waiver is an intentional surrender of a known right or intentional conduct inconsistent with claiming the right.

Ratification is the adoption or confirmation by a party, while having knowledge of all material facts, of a prior act which did not then legally bind that party and which it had the right to repudiate.

Answer "Yes" or "No.":

B. Is HouseCanary estopped from complaining of the fraud, if any, found by you in response to Question No. 11?

HouseCanary is estopped if the following circumstances occurred:

- 1. HouseCanary
  - a. by words or conduct made a false representation or concealed material facts, and
  - b. with knowledge of the facts or with knowledge or information that would lead a reasonable person to discover the facts, and
  - c. with the intention that Title Source would rely on the false representation or concealment in acting or deciding not to act; and
- 2. Title Source
  - a. did not know and had no means of knowing the real facts and
  - b. relied to its detriment on the false representation or concealment of material facts.

Answer "Yes" or "No":

If you have answered "Yes" to Question No. 11 and "No" to all subparts of Question No. 12, then answer the following question. Otherwise, do not answer the following question.

#### Question No. 13

What sum of money, if any, if paid now in cash, would fairly and reasonably compensate HouseCanary for its damages, if any, that were proximately caused by the fraud found in Question No. 11?

"Proximate cause" means a cause that was a substantial factor in bringing about an event, and without which cause such event would not have occurred. In order to be a proximate cause, the act or omission complained of must be such that a person using the degree of care required of him would have foreseen that the event, or some similar event, might reasonably result therefrom. There may be more than one proximate cause of an event.

In answering questions about damages, answer each question separately. Do not increase or reduce the amount in one answer because of your answer to any other question about damages. Do not speculate about what any party's ultimate recovery may or may not be. Any recovery will be determined by the court when it applies the law to your answers at the time of judgment. Do not add any amount for interest on damages, if any.

Consider the following elements of damages, if any, and none other.

Lost Profits, if any, that were a natural, probable, and foreseeable consequence of Title Source's fraud.

Answer separately in dollars and cents for damages, if any.

Answer: 33, 8 Millions

Answer the following question only if you unanimously answered "Yes" to Question No. 11 and entered a dollar amount in Question No. 13. Otherwise, do not answer the following question.

To answer "Yes" to the following question, your answer must be unanimous. You may answer "No" to the following question only upon a vote of ten or more jurors. Otherwise, you must not answer the following question.

#### Question No. 14

Do you find by clear and convincing evidence that the harm to HouseCanary inquired about in Question No. 11 resulted from malice or fraud attributable to Title Source?

"Clear and convincing evidence" means the measure or degree of proof that produces a firm belief or conviction of the truth of the allegations sought to be established.

"Fraud" has the same meaning as defined in Question No. 11.

"Malice" means a specific intent by Title Source to cause substantial injury or harm to HouseCanary.

Malice or fraud is attributable to Title Source if-

- 1. Title Source authorized the doing and the manner of the act, or
- 2. An employee, manager, vice-principal, or officer who committed the fraud was unfit and Title Source was reckless in employing him; or
- 3. An employee, manager, vice-principal, or officer who committed the fraud was employed in a managerial or executive capacity and was acting in the scope of employment; or
- 4. Title Source or one of its officers, vice-principals, or executives ratified or approved the fraud.

A person is a manager or employed in a managerial capacity if—

- 1. that person has authority to employ, direct, and discharge an employee of Title Source; or
- 2. Title Source has confided to that person the management of the whole or a department or division of the business of Title Source.

A person is a "vice-principal" if-

- 1. that person is a corporate officer; or
- 2. that person has authority to employ, direct, and discharge an employee of Title Source; or
- 3. that person is engaged in the performance of nondelegable or absolute duties of Title Source; or
- 4. Title Source has confided to that person the management of the whole or a department or division of the business of Title Source.

Answer "Yes" or "No": Ye5

Answer the following question only if you unanimously answered "Yes" to Question 14. Otherwise, do not answer the following question.

You must unanimously agree on the amount of any award of exemplary damages.

## Question No. 15

What sum of money, if any, if paid now in cash, should be assessed against Title Source and awarded to HouseCanary as exemplary damages, if any, for the conduct found in response to Question No. 14?

"Exemplary damages" means an amount that you may in your discretion award as a penalty or by way of punishment.

Factors to consider in awarding exemplary damages, if any, are—

- 1. The nature of the wrong.
- 2. The character of the conduct involved.
- 3. The degree of culpability of Title Source.
- 4. The situation and sensibilities of the parties concerned.
- 5. The extent to which such conduct offends a public sense of justice and propriety.
- 6. The net worth of Title Source.

"Net worth" means the total current assets of an entity minus the total current liabilities of that entity.

Answer in dollars and cents, if any.

Answer: 67.6 Millings

Did HouseCanary fail to comply with the Master Software License Agreement?

A failure to comply must be material. The circumstances to consider in determining whether a failure to comply is material include:

- 1. the extent to which the injured party will be deprived of the benefit which he reasonably expected;
- 2. the extent to which the injured party can be adequately compensated for the part of that benefit of which he will be deprived;
- 3. the extent to which the party failing to perform or to offer to perform will suffer forfeiture;
- 4. the likelihood that the party failing to perform or to offer to perform will cure its failure, taking into account the circumstances including any reasonable assurances;
- 5. the extent to which the behavior of the party failing to perform or to offer to perform comports with standards of good faith and fair dealing.

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Answer "Yes" or "No"	140

Did Title Source fail to comply with the Master Software License Agreement?

A failure to comply must be material. The circumstances to consider in determining whether a failure to comply is material include:

- 1. the extent to which the injured party will be deprived of the benefit which he reasonably expected;
- 2. the extent to which the injured party can be adequately compensated for the part of that benefit of which he will be deprived;
- 3. the extent to which the party failing to perform or to offer to perform will suffer forfeiture;
- 4. the likelihood that the party failing to perform or to offer to perform will cure its failure, taking into account the circumstances including any reasonable assurances;
- 5. the extent to which the behavior of the party failing to perform or to offer to perform comports with standards of good faith and fair dealing.

Answer "Yes" or "No"	Yes
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If you answered "Yes" to Question No. 16 and "Yes" to Question No. 17, then answer the following Question. Otherwise do not answer this Question.

# Question No. 18

If both parties	failed to	comply,	which	party	failed	to	comply	with	the	Master	Software
License Agreement firs	t?										

Answer "HouseCanary" or "Title Source":

If you answered "Yes" to Question No. 16, then answer the following question. Otherwise, do not answer the following question.

## Question No. 19

Was HouseCanary's failure to comply, if any, with the Master Software License Agreement excused?

Answer "Yes" or "No" for each of the following.

1. Failure to comply by HouseCanary is excused if compliance with the Master Software License Agreement is waived by Title Source.

Waiver is an intentional surrender of a known right or intentional conduct inconsistent with claiming the right.

Answer	((1/22))		CAT_	,,
Answer	** Y es**	Ωt		

Answer:

- 2. Failure to comply by HouseCanary is excused if the following circumstances occurred:
  - a. Title Source
    - i. by words or conduct made a false representation or concealed material facts, and
    - ii. with knowledge of the facts or with knowledge or information that would lead a reasonable person to discover the facts, and
    - iii. with the intention that HouseCanary would rely on the false representation or concealment in acting or deciding not to act; and
    - b. HouseCanary
      - i. did not know and had no means of knowing the real facts, and
      - ii. relied to its detriment on the false representation or concealment of material facts.

Answer "Yes" or "No."

Answer:	 

3. Failure to comply by HouseCanary is excused if the failure to comply was ratified by Title Source.

Ratification is the adoption or confirmation by a party, while having knowledge of all material facts, of a prior act which did not then legally bind that party and which it had the right to repudiate.

Answer "Yes" or "No."

Answer:		

- 1. Answered "Yes" to Question No. 16, "No" to Question No. 17, and "No" to all subparts of Question No. 19;
  OR
- 2. Answered "Yes" to Question No. 16, "HouseCanary" in Question No. 18, and "No" to all subparts of Question No. 19.

Otherwise do not answer this Question.

## Question No. 20

What sum of money, if any, if paid now in cash, would fairly and reasonably compensate Title Source for its damages, if any, that resulted from HouseCanary's failure to comply, if any, with the Master Software License Agreement found in Question No. 16?

In answering questions about damages, answer each question separately. Do not increase or reduce the amount in one answer because of your answer to any other question about damages. Do not speculate about what any party's ultimate recovery may or may not be. Any recovery will be determined by the court when it applies the law to your answers at the time of judgment.

Consider the elements of damages listed below, if any, and none other. Do not add any amount for interest on damages, if any.

Answer in dollars and cents, if any, as to the following:

ANSWER:

The amount, if any, that the expected benefit to Title Source of HouseCanary's full compliance with the Master Software License Agreement exceeds the benefit that HouseCanary delivered to Title Source under the Master Software License Agreement.

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If you answered "Yes" in response to Question No. 17, then answer the following Question. Otherwise do not answer this Question.

## Question No. 21

Was Title Source's failure to comply, if any, with the Master Software License Agreement excused?

Answer "Yes" or "No" for each of the following.

1. Failure to comply by Title Source is excused if compliance with the Master Software License Agreement is waived by HouseCanary.

Waiver is an intentional surrender of a known right or intentional conduct inconsistent with claiming the right.

Answer "Yes" or "No."

	X/D	
Answer: _		

- 2. Failure to comply by Title Source is excused if the following eircumstances occurred:
  - a. HouseCanary
    - i. by words or conduct made a false representation or concealed material facts, and
    - ii. with knowledge of the facts or with knowledge or information that would lead a reasonable person to discover the facts, and
    - iii. with the intention that Title Source would rely on the false representation or concealment in acting or deciding not to act; and
  - b. Title Source
    - i. did not know and had no means of knowing the real facts, and
    - ii. relied to its detriment on the false representation or concealment of material facts.

Answer "Yes" or "No."

3. Failure to comply by Title Source is excused if the failure to comply was ratified by HouseCanary.

Ratification is the adoption or confirmation by a party, while having knowledge of all material facts, of a prior act which did not then legally bind that party and which it had the right to repudiate.

Answer "Yes" or "No."

Answer:	NO	

Did HouseCanary fail to comply with Amendment One?

A failure to comply must be material. The circumstances to consider in determining whether a failure to comply is material include:

- 1. the extent to which the injured party will be deprived of the benefit which he reasonably expected;
- 2. the extent to which the injured party can be adequately compensated for the part of that benefit of which he will be deprived;
- 3. the extent to which the party failing to perform or to offer to perform will suffer forfeiture;
- 4. the likelihood that the party failing to perform or to offer to perform will cure its failure, taking into account the circumstances including any reasonable assurances;
- 5. the extent to which the behavior of the party failing to perform or to offer to perform comports with standards of good faith and fair dealing.

	6.23	
Answer "Yes" or "No"	NO	

Did Title Source fail to comply with Amendment One?

A failure to comply must be material. The circumstances to consider in determining whether a failure to comply is material include:

- 1. the extent to which the injured party will be deprived of the benefit which he reasonably expected;
- 2. the extent to which the injured party can be adequately compensated for the part of that benefit of which he will be deprived;
- 3. the extent to which the party failing to perform or to offer to perform will suffer forfeiture;
- 4. the likelihood that the party failing to perform or to offer to perform will cure its failure, taking into account the circumstances including any reasonable assurances;
- 5. the extent to which the behavior of the party failing to perform or to offer to perform comports with standards of good faith and fair dealing.

Answer "Yes" or "No" Yes

If you answered "Yes" to Question No. 22 and "Yes" to Question No. 23, then answer the following Question. Otherwise do not answer this Question.

# Question No. 24

If both parties	failed to	comply,	which party	failed to	comply with	Amendme	nt One first?
Answer "Hous	eCanary	" or "Titl	le Source"				

If you answered "Yes" to Question No. 22, then answer the following question. Otherwise, do not answer the following question.

## Question No. 25

Was HouseCanary's failure to comply, if any, with Amendment One excused?

Answer "Yes" or "No" for each of the following.

1. Failure to comply by HouseCanary is excused if compliance with Amendment One is waived by Title Source.

Waiver is an intentional surrender of a known right or intentional conduct inconsistent with claiming the right.

Answer "Yes" or "No."
Answer:
2. Failure to comply by HouseCanary is excused if the following circumstances occurred:
a. Title Source
<ul> <li>i. by words or conduct made a false representation or concealed material facts, and</li> </ul>
<li>ii. with knowledge of the facts or with knowledge or information that would lead a reasonable person to discover the facts, and</li>
iii. with the intention that HouseCanary would rely on the false representation or concealment in acting or deciding not to act; and
b. HouseCanary
<ul> <li>i. did not know and had no means of knowing the real facts, and</li> <li>ii. relied to its detriment on the false representation or concealment of material facts.</li> </ul>
Answer "Yes" or "No."
Answer:
3. Failure to comply by HouseCanary is excused if the failure to comply was ratified by Tit Source.
Ratification is the adoption or confirmation by a party, while having knowledge of all material facts, of a prior act which did not then legally bind that party and which it had the right to repudiate.
Answer "Yes" or "No."

- 1. Answered "Yes" to Question No. 22, "No" to Question No. 23, and "No" to all subparts of Question No. 25;

  OR
- 2. Answered "Yes" to Question No. 22, "HouseCanary" in Question No. 24, and "No" to all subparts of Question No. 25.

Otherwise do not answer this Question.

# Question No. 26

What sum of money, if any, if paid now in cash, would fairly and reasonably compensate Title Source for its damages, if any, that resulted from HouseCanary's failure to comply, if any, with Amendment One found in Question No. 22?

In answering questions about damages, answer each question separately. Do not increase or reduce the amount in one answer because of your answer to any other question about damages. Do not speculate about what any party's ultimate recovery may or may not be. Any recovery will be determined by the court when it applies the law to your answers at the time of judgment.

Consider the elements of damages listed below, if any, and none other. Do not add any amount for interest on damages, if any.

Answer	in	dollars	and	cents	if	anu	26	to	the	follo	urina
THISWCL	111	donars	anu	cents,	11	апу.	as	το	uc	тощо	owing

ANSWER:

i.	The amount, if any, that the expected benefit to
	Title Source of HouseCanary's full compliance with
	Amendment One exceeds the benefit that HouseCanary
	delivered to Title Source under Amendment One.


• •		_		_	_
11.	Additional	software	costs, if	t any.	. not saved.

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25		
Υ		

If you answered "Yes" in response to Question No. 23, then answer the following Question. Otherwise do not answer this Question.

# Question No. 27

Was Title Source's failure to comply, if any, with Amendment One excused?

Answer "Yes" or "No" for each of the following.

1. Failure to comply by Title Source is excused if compliance with the Amendment One is waived by HouseCanary.

Waiver is an intentional surrender of a known right or intentional conduct inconsistent with claiming the right.

Answer "Yes" or "No."	
	ND
	NU

- 2. Failure to comply by Title Source is excused if the following circumstances occurred:
  - a. HouseCanary
    - i. by words or conduct made a false representation or concealed material facts, and
    - ii. with knowledge of the facts or with knowledge or information that would lead a reasonable person to discover the facts, and
    - iii. with the intention that Title Source would rely on the false representation or concealment in acting or deciding not to act; and
  - b. Title Source
    - i. did not know and had no means of knowing the real facts, and
    - ii. relied to its detriment on the false representation or concealment of material facts.

Answer "Yes" or "No."

	. / A
Answer:	NU

3. Failure to comply by Title Source is excused if the failure to comply was ratified by HouseCanary.

Ratification is the adoption or confirmation by a party, while having knowledge of all material facts, of a prior act which did not then legally bind that party and which it had the right to repudiate.

Answer "Yes" or "No."	
Answer:	KD.

- 1. Answered "Yes" to Question No. 23, "No" to Question No. 22, and "No" to all subparts of Question No. 27;
  OR
- 2. Answered "Yes" to Question No. 23, "Title Source" in Question No. 24, and "No" to all subparts of Question No. 27.

Otherwise do not answer this Question.

#### Question No. 28

What sum of money, if any, if paid now in cash, would fairly and reasonably compensate HouseCanary for its damages, if any, that resulted from Title Source's failure to comply, if any, with Amendment One in Question No. 23?

In answering questions about damages, answer each question separately. Do not increase or reduce the amount in one answer because of your answer to any other question about damages. Do not speculate about what any party's ultimate recovery may or may not be. Any recovery will be determined by the court when it applies the law to your answers at the time of judgment. Do not add any amount for interest on damages, if any.

Consider the following elements of damages, if any, and none other.

Answer separately in dollars and cents for damages, if any:

Lost profits, if any, that were a natural, probable, and foreseeable consequence of Title Source's failure to comply with Amendment One.

Answer: 33,8 Millions

Did HouseCanary fail to comply with the Non-Disclosure Agreement?

A failure to comply must be material. The circumstances to consider in determining whether a failure to comply is material include:

- 1. the extent to which the injured party will be deprived of the benefit which he reasonably expected;
- 2. the extent to which the injured party can be adequately compensated for the part of that benefit of which he will be deprived;
- 3. the extent to which the party failing to perform or to offer to perform will suffer forfeiture;
- 4. the likelihood that the party failing to perform or to offer to perform will cure its failure, taking into account the circumstances including any reasonable assurances;
- 5. the extent to which the behavior of the party failing to perform or to offer to perform comports with standards of good faith and fair dealing.

	NO	
Answer "Yes" or "No"	/ \ \ \ \	

Did Title Source fail to comply with the Non-Disclosure Agreement?

A failure to comply must be material. The circumstances to consider in determining whether a failure to comply is material include:

- 1. the extent to which the injured party will be deprived of the benefit which he reasonably expected;
- 2. the extent to which the injured party can be adequately compensated for the part of that benefit of which he will be deprived;
- 3. the extent to which the party failing to perform or to offer to perform will suffer forfeiture;
- 4. the likelihood that the party failing to perform or to offer to perform will cure its failure, taking into account the circumstances including any reasonable assurances;
- 5. the extent to which the behavior of the party failing to perform or to offer to perform comports with standards of good faith and fair dealing.

Answer "Yes" or "No."

Answer: Ves

If you answered "Yes" to Question No. 29 and "Yes" to Question No. 30, then answer the following Question. Otherwise do not answer this Question.

Question No. 31

If	both	parties	failed to	comply,	which	party	failed	to	comply with	the	Non-Disclosure
Agreemer	it first	?							- '		

Answer "HouseCanary" or "Title Source"

If you answered "Yes" to Question No. 29, then answer the following Question. Otherwise, do not answer the following Question.

## Question No. 32

Was HouseCanary's failure to comply, if any, with the Non-Disclosure Agreement excused?

Answer "Yes" or "No" for each of the following.

1. Failure to comply by HouseCanary is excused if compliance with the Non-Disclosure Agreement is waived by Title Source.

> Waiver is an intentional surrender of a known right or intentional conduct inconsistent with claiming the right.

Answe	r "Yes" or "No."
	Answer:
2.	Failure to comply by HouseCanary is excused if the following circumstances occurred

- - a. Title Source
    - i. by words or conduct made a false representation or concealed material facts, and
    - ii. with knowledge of the facts or with knowledge or information that would lead a reasonable person to discover the facts, and
    - iii. with the intention that HouseCanary would rely on the false representation or concealment in acting or deciding not to act; and
  - b. HouseCanary
    - i. did not know and had no means of knowing the real facts, and
    - ii. relied to its detriment on the false representation or concealment of material facts.

Answer "Yes" or "No."	
Answer:	

3. Failure to comply by HouseCanary is excused if the failure to comply was ratified by Title Source.

> Ratification is the adoption or confirmation by a party, while having knowledge of all material facts, of a prior act which did not then legally bind that party and which it had the right to repudiate.

Answer "Yes" or "No."	·
Answer:	

- 1. Answered "Yes" to Question No. 29, "No" to Question No. 30, and "No" to all subparts of Question No. 32;

  OR
- 2. Answered "Yes" to Question No. 29, "HouseCanary" in Question No. 31, and "No" to all subparts of Question No. 32;

Otherwise do not answer this Question.

### Question No. 33

What sum of money, if any, if paid now in cash, would fairly and reasonably compensate Title Source for its damages, if any, that resulted from HouseCanary's failure to comply, if any, found in Question No. 29?

Consider the elements of damages listed below, if any, and none other. Do not add any amount for interest on damages, if any.

Answer in dollars and cents, if any, as to the following:

ANSWER:

Nominal damages for HouseCanary's breach, if any, of the Non-Disclosure Agreement.

Nominal damages can be a negligible amount from \$1 to \$100.

\$			
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If you answered "Yes" in response to Question No. 30, then answer the following Question. Otherwise do not answer this Question.

#### Question No. 34

Was Title Source's failure to comply, if any, with the Non-Disclosure Agreement excused?

Answer "Yes" or "No" for each of the following.

1. Failure to comply by Title Source is excused if compliance with the Non-Disclosure Agreement is waived by HouseCanary.

Waiver is an intentional surrender of a known right or intentional conduct inconsistent with claiming the right.

Answer "Yes" or "No."

Answer:	X/D
IMOWCI.	/ T

- 2. Failure to comply by Title Source is excused if the following circumstances occurred:
  - a. HouseCanary
    - i. by words or conduct made a false representation or concealed material facts, and
    - ii. with knowledge of the facts or with knowledge or information that would lead a reasonable person to discover the facts, and
    - iii. with the intention that Title Source would rely on the false representation or concealment in acting or deciding not to act; and
  - b. Title Source
    - i. did not know and had no means of knowing the real facts, and
    - ii. relied to its detriment on the false representation or concealment of material facts.

Answer "Yes" or "No."

Answer: NO	
------------	--

3. Failure to comply by Title Source is excused if the failure to comply was ratified by HouseCanary.

Ratification is the adoption or confirmation by a party, while having knowledge of all material facts, of a prior act which did not then legally bind that party and which it had the right to repudiate.

Answer "Yes" or "No."

Answer:	ND	

Did HouseCanary fail to comply with the system availability requirements in Exhibit D to Amendment One?

Section 2 of Exhibit D to Amendment One addresses certain "system availability" requirements. It provides that, with the exception of Scheduled Maintenance, HouseCanary was required to have its systems and Licensed Software (including reports) and any API available 24 hours per day, 7 days per week, with a 99% uptime guarantee.

"Uptime" means: (i) with respect to Licensed Software, that the Licensed Software is reachable, Appraisers can access their respective Appraisals, and can complete Appraisals, and (ii) with respect to APIs or data streams provided by HouseCanary, that the API or stream is reachable, operational and receiving successful responses.

"Licensed Software" includes the HouseCanary Appraiser (the specifications for which are in Exhibit B to the Master Software License Agreement) and the API outlined in Exhibit A to Amendment One.

As part of the uptime requirement, HouseCanary was required to ensure that cumulative uptime availability did not fall below 90.0% for two or more consecutive months or for more than 4 months in a rolling year.

Answer "Yes" or "No":	ND	
-----------------------	----	--

Did Title Source fail to comply with Section 7.2 of Amendment One?

Section 7.2 of Amendment One states:

Section 12.2(ii) of Exhibit A of the License Agreement is hereby amended and restated in its entirety to read as follows: "(ii) Termination by Licensee. If Company breaches any material term or condition of this Agreement, Company will have thirty (30) days after the delivery of written notice by Licensee to reasonably cure the breach. If such breach is not cured within such thirty (30) day period, Licensee will have the right (but not the obligation) to terminate this Agreement upon six (6) months prior written notice. Additionally, if Company becomes insolvent or seeks protection under any bankruptcy, receivership, trust, deed, creditor's arrangement, or comparable proceeding, or if any such proceeding is instituted against such Party and not dismissed within sixty (60) days, Licensee will have the right (but not the obligation) to terminate this Agreement upon written Notice."

Answer "Yes" or "No."

Answer:  $\sqrt{e}$ 

Did HouseCanary own a trade secret in the information listed below?

"Trade secret" means all forms and types of information, including business, scientific, technical, economic, or engineering information, and any formula, design, prototype, pattern, plan, compilation, program device, program, code, device, method, technique, process, procedure, financial data, or list of actual or potential customers or suppliers, whether tangible or intangible and whether or how stored, compiled, or memorialized physically, electronically, graphically, photographically, or in writing if:

- (A) the owner of the trade secret has taken reasonable measures under the circumstances to keep the information secret; and
- (B) the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, another person who can obtain economic value from the disclosure or use of the information.

"Improper means" includes theft, bribery, misrepresentation, breach or inducement of a breach of a duty to maintain secrecy, to limit use, or to prohibit discovery of a trade secret, or espionage through electronic or other means.

"Proper means" means discovery by independent development, reverse engineering unless prohibited, or any other means that is not improper means.

"Reverse engineering" means the process of studying, analyzing, or disassembling a product or device to discover its design, structure, construction, or source code provided that the product or device was acquired lawfully or from a person having the legal right to convey it.

"Owner" means, with respect to a trade secret, the person or entity in whom or in which rightful, legal, or equitable title to, or the right to enforce rights in, the trade secret is reposed.

Answer "Yes" or "No" for each of the following.

A.	HouseCanary AVMs	Answer: $yes$
B.	Similarity Score	Answer: Yes
C.	Data Dictionary	Answer: Yes
D.	Data Compilation	Answer. Yes
E.	Complexity Score	Answer: /e S

If you answered "Yes" to any subpart of Question No. 37, then answer the following question only for any subpart to which you answered "Yes." If you did not answer "Yes" to any subpart of Question No. 37, do not answer the following question.

#### Question No. 38

Did Title Source misappropriate HouseCanary's trade secrets?

To find misappropriation of a trade secret, you must find that Title Source:

- (1) Acquired the trade secret, and that Title Source knew or had reason to know that the trade secret was acquired by improper means; or
- (2) Disclosed or used the trade secret without HouseCanary's express or implied consent, and that Title Source used improper means to acquire knowledge of the trade secret; or
- (3) Disclosed or used the trade secret without HouseCanary's express or implied consent, and that Title Source, at the time of the disclosure or use, knew or had reason to know its knowledge of the trade secret was acquired under circumstances giving rise to a duty to maintain secrecy or limit its use.

"Improper means" include theft; bribery; misrepresentation; breach or inducement of a breach of a duty to maintain secrecy, to limit use, or to prohibit discovery of a trade secret; or espionage through electronic or other means.

Answer "Yes" or "No" only as to any subpart in Question No. 37 to which you answered "Yes."

A.	HouseCanary AVMs	Answer: Yes
B.	Similarity Score	Answer: Yes
C.	Data Dictionary	Answer: Yes
D.	Data Compilation	Answer: Yes
E.	Complexity Score	Answer: Yes

If you answered "Yes" to any subpart of Question No. 38, then answer the following Question. Otherwise, do not answer the following Question.

#### Question No. 39

What sum of money, if any, if paid now in cash, would fairly and reasonably compensate HouseCanary for its damages, if any, caused by Title Source's misappropriation, if any?

In answering questions about damages, answer each question separately. Do not increase or reduce the amount in one answer because of your answer to any other question about damages. Do not speculate about what any party's ultimate recovery may or may not be. Any recovery will be determined by the court when it applies the law to your answers at the time of judgment. Do not add any amount for interest on damages, if any.

Answer separately in dollars and cents for damages, if any.

1. The value of the HouseCanary trade secrets to Title Source at the time of Title Source's misappropriation.

Answer: 201. 6 millions

2. The price that a willing buyer and a willing seller would have agreed on, at the time of Title Source's misappropriation as a fair price for Title Source's use of the trade secrets.

Answer: 64,1 Millius

If you answered with any dollar amount to any subpart of Question No. 39, then answer the following question. Otherwise, do not answer the following question.

Assign percentages of responsibility only to those you found caused or contributed to cause the damages, if any, found by you in response to Question No. 39. The percentages you find must total 100 percent. The percentages must be expressed in whole numbers. The percentage of responsibility attributable to any one is not necessarily measured by the number of acts or omissions found.

## Question No. 40

For each person you found caused or contributed to cause the harm to HouseCanary, find the percentage of responsibility attributable to each:

1. Title Source:

\_/DO %

2. HouseCanary

\_\_\_\_%

Total 100 %

Answer the following question only if you unanimously answered "Yes" to any subpart of Question No. 38. If you did not answer "Yes" to any subpart of Question No. 38, do not answer the following question.

To answer "Yes" to the following question, your answer must be unanimous. You may answer "No" to the following question only upon a vote of ten or more jurors. Otherwise, you must not answer the following question.

# Question No. 41

Do you find by clear and convincing evidence that Title Source willfully and maliciously misappropriated HouseCanary's trade secrets?

"Willful and malicious misappropriation" means intentional misappropriation resulting from the conscious disregard of the rights of the owner of the trade secret.

"Clear and convincing evidence" means the measure or degree of proof that produces a firm belief or conviction of the truth of the allegations sought to be established.

Answer "Yes" or "No."

Answer: Yes

Answer the following question only if you unanimously answered "Yes" to Question 41. Otherwise, do not answer the following question.

You must unanimously agree on the amount of any award of exemplary damages.

#### Question No. 42

What sum of money, if any, if paid now in cash, should be assessed against Title Source and awarded to HouseCanary as exemplary damages, if any, for the conduct found in response to Question No. 38?

"Exemplary damages" means an amount that you may in your discretion award as a penalty or by way of punishment.

Factors to consider in awarding exemplary damages, if any, are—

- 1. The nature of the wrong.
- 2. The character of the conduct involved.
- 3. The degree of culpability of Title Source.
- 4. The situation and sensibilities of the parties concerned.
- 5. The extent to which such conduct offends a public sense of justice and propriety.
- 6. The net worth of Title Source.

"Net worth" means the total current assets of an entity minus the total current liabilities of that entity.

Answer in dollars and cents, if any.

Answer: 403,2 Millions

- 1. Answered "Yes" to Question No. 30, "No" to Question No. 29, and "No" to all subparts of Question No. 34;
- 2. Answered "Yes" to Question No. 30, "Title Source" in Question No. 31, and "No" to all subparts of Question No. 34.

Otherwise do not answer this Question.

# Question No. 43

What sum of money, if any, if paid now in cash, would fairly and reasonably compensate HouseCanary for its damages, if any, that resulted from Title Source's failure to comply, if any, with the Non-Disclosure Agreement you found in Question No. 30?

In answering questions about damages, answer each question separately. Do not increase or reduce the amount in one answer because of your answer to any other question about damages. Do not speculate about what any party's ultimate recovery may or may not be. Any recovery will be determined by the court when it applies the law to your answers at the time of judgment. Do not add any amount for interest on damages, if any.

Answer separately in dollars and cents for damages, if any.

Consider the following elements of damages, if any, and none other:

1. The value of the HouseCanary trade secrets to Title Source at the time of Title Source's breach of the Non-Disclosure Agreement.

Answer: 201.6 million.

2. The price that a willing buyer and a willing seller would have agreed on, at the time of Title Source's breach of the Non-Disclosure Agreement, as a fair price for Title Source's use of the trade secret.

Answer: 64/ MILLIBUS

- 1. Answered "Yes" to Question No. 17, "No" to Question No. 16, and "No" to all subparts of Question No. 21;

  OR
- 2. Answered "Yes" to Question No. 17, "Title Source" in Question No. 18, and "No" to all subparts of Question No. 21.

Otherwise do not answer this Question.

# Question No. 44

What sum of money, if any, if paid now in cash, would fairly and reasonably compensate HouseCanary for its damages, if any, that resulted from Title Source's failure to comply, if any, with the Master Software License Agreement you found in Question No. 17?

In answering questions about damages, answer each question separately. Do not increase or reduce the amount in one answer because of your answer to any other question about damages. Do not speculate about what any party's ultimate recovery may or may not be. Any recovery will be determined by the court when it applies the law to your answers at the time of judgment. Do not add any amount for interest on damages, if any.

Answer separately in dollars and cents for damages, if any.

Consider the following elements of damages, if any, and none other:

1. The value of the HouseCanary trade secrets to Title Source at the time of Title Source's breach of the Master Software License Agreement.

Answer: 201.6 Millions

2. The price that a willing buyer and a willing seller would have agreed on, at the time of Title Source's breach of the Master Software License Agreement, as a fair price for Title Source's use of the trade secret.

Answer: 641 Millions

- 1. Answered "Yes" to Question No. 23, "No" to Question No. 22, and "No" to all subparts of Question No. 27;

  OR
- 2. Answered "Yes" to Question No. 23, "Title Source" in Question No. 24, and "No" to all subparts of Question No. 27.

Otherwise do not answer this Question.

# Question No. 45

What sum of money, if any, if paid now in cash, would fairly and reasonably compensate HouseCanary for its damages, if any, that resulted from Title Source's failure to comply, if any, with Amendment One?

In answering questions about damages, answer each question separately. Do not increase or reduce the amount in one answer because of your answer to any other question about damages. Do not speculate about what any party's ultimate recovery may or may not be. Any recovery will be determined by the court when it applies the law to your answers at the time of judgment. Do not add any amount for interest on damages, if any.

Answer separately in dollars and cents for damages, if any.

Consider the following elements of damages, if any, and none other:

1. The value of the HouseCanary trade secrets to Title Source at the time of Title Source's breach of the Amendment One.

Answer: 201.6 Millions

2. The price that a willing buyer and a willing seller would have agreed on, at the time of Title Source's breach of the Amendment One, as a fair price for Title Source's use of the trade secret.

Answer: 641 Millions

# **Presiding Juror**:

- 1. When you go into the jury room to answer the questions, the first thing you will need to do is choose a presiding juror.
  - 2. The presiding juror has these duties:
    - a. have the complete charge read aloud if it will be helpful to your deliberations;
    - b. preside over your deliberations, meaning manage the discussions, and see that you follow these instructions;
    - c. give written questions or comments to the bailiff who will give them to the judge;
    - d. write down the answers you agree on;
    - e. get the signatures for the verdict certificate; and
    - f. notify the bailiff that you have reached a verdict.

Do you understand the duties of the presiding juror? If you do not, please tell me now.

## Instructions for Signing the Verdict Certificate:

- 1. Unless otherwise instructed, you may answer the questions on a vote of ten jurors. The same ten jurors must agree on every answer in the charge. This means you may not have one group of ten jurors agree on one answer and a different group of ten jurors agree on another answer.
  - 2. If ten jurors agree on every answer, those ten jurors sign the verdict.

If eleven jurors agree on every answer, those eleven jurors sign the verdict.

If all twelve of you agree on every answer, you are unanimous and only the presiding juror signs the verdict.

- 3. All jurors should deliberate on every question. You may end up with all twelve of you agreeing on some answers, while only ten or eleven of you agree on other answers. But when you sign the verdict, only those ten who agree on every answer will sign the verdict.
- 4. There are some special instructions before Question Nos. 4, 5, 9, 10, 14, 15, 41, and 42 explaining how to answer those questions. Please follow the instructions. If all twelve of you answer those questions, you will need to complete a second verdict certificate for those questions.

Do you understand these instructions? If you do not, please tell me now.

amunum

DAVID A. CANALES JUDGE PRESIDING 73RD JUDICIAL DISTRICT COURT

## Verdict Certificate

Check one:	
Our verdict is unanimous. All twel	ve of us have agreed to each and every answer.
The presiding juror has signed the certification	te for all twelve of us.  Xiber T CASIGNO
Signature of Presiding Juror	Printed Name of Presiding Juror
Our verdict is not unanimous. Ele signed the certificate below.	even of us have agreed to each and every answer and have
Our verdict is not unanimous. Te signed the certificate below.	en of us have agreed to each and every answer and have
Signature	Name Printed
1.	
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If you have unanimously answered Questions Nos. 4, 5, 9, 10, 14, 15, 41, and 42, then you must sign this certificate also. Otherwise, do not sign this certificate.

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## Additional Verdict Certificate

I certify that the jury was unanimous in answering the following questions that the Presiding Juror has checked below. All 12 of us agreed to each of the answers. The Presiding Juror has signed the certificate for all 12 of us.

QUESTION NO. 4:

QUESTION NO. 5:

QUESTION NO. 9:

QUESTION NO. 10:

QUESTION NO. 14:

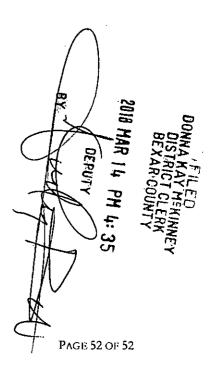
QUESTION NO. 15:

QUESTION NO. 41:

QUESTION NO. 42:

Signature of Presiding Juror

Printed Name of Presiding Juror



# TAB B

**Final Judgment** 



#### CAUSE NO. <u>2016-CI-06300</u>

TITLE SOURCE, INC.	\$	IN THE DISTRICT COURT
	S	
V.	S	73RD JUDICIAL DISTRICT
	S	
HOUSECANARY, INC.	\$	
FORMERLY KNOWN AS	\$	
CANARY ANALYTICS, INC.	\$	BEXAR COUNTY, TEXAS

## FINAL JUDGMENT

On January 31, 2018, this case was called to trial.

Plaintiff and Counterclaim Defendant Title Source, Inc., now known as Amrock, Inc. (hereinafter "Title Source"), appeared through its corporate representative and by its counsel of record and announced ready.

Defendant and Counterclaim Plaintiff HouseCanary, Inc., formerly known as Canary Analytics, Inc. (hereinafter "HouseCanary"), appeared through its corporate representative and by its counsel of record and announced ready for trial.

A jury consisting of twelve qualified jurors, having been previously demanded, was duly impaneled and sworn in by the Court. The case proceeded to trial and the jury heard the evidence and arguments of counsel. On March 16, 2018, the jury returned a verdict and made findings that the Court received, accepted, filed, and entered of record. The questions submitted to the jury and the jury's answers are attached as Exhibit "A" and are incorporated by reference into this judgment. On September 19-21, 2018, pursuant to the agreement of the parties, the Court heard all evidence regarding the issue of attorney's fees.

The Court **RENDERS** judgment in favor of HouseCanary against Title Source. The Court further **RENDERS** judgment that Title Source takes nothing on its claims against HouseCanary. The Court **ORDERS** that HouseCanary recover from Title Source, and Title Source is **ORDERED** to immediately pay to HouseCanary, the following amounts:

- 1. The sum of \$235,400,000.00 in actual damages;
- 2. Prejudgment interest in the amount of \$28,989,154.00, calculated as simple interest at the rate of 5 percent on actual damages from May 19, 2016, through October 24, 2018, the day before the date of this Final Judgment;
- 3. The sum of \$470,800,000.00 in punitive damages;
- 4. The sum of \$4,528,711.79 in reasonable and necessary attorney's fees;
- 5. All costs of court as provided for by TEX. R. CIV. P. 131, et seq.; and
- 6. Post-judgment interest on all monetary sums awarded to HouseCanary herein at the rate of 5 percent per annum, compounded annually, from and after the date of this judgment until it is satisfied.

It is ORDERED that all relief not expressly granted herein is denied. It is further

## DOCUMENT SCANNED AS FILED

**ORDERED** that this judgment is enforceable upon entry and all writs and processes necessary or appropriate for the enforcement or collection of this judgment may issue as necessary. This judgment is final, disposes of all issues and all parties, and is appealable.

SIGNED on October 25, 2018.

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DAVID A. CANALES
PRESIDING JUDGE
73RD JUDICIAL DISTRICT COURT

# TAB C

## **GLOSSARY OF TERMS AND ACRONYMS**

## **GLOSSARY OF TERMS AND ACRONYMS**

Because of the significant number of acronyms relevant to this dispute, and the presence of non-intuitive terms, HouseCanary provides the following glossary to assist the Court.

#### AMSLA

Amendment Number One to the Software License Agreement executed by HouseCanary and TSI on November 11, 2015. The AMSLA is referenced as "Amendment One" in the trial court's charge.

## App

A software application for mobile devices. In some exhibits this abbreviation is used as part of the phrase "Appraiser App," which refers to the mobile version of the Appraiser software, a program for creating home appraisals available on both mobile devices and computers.

#### AVM

Automated Valuation Model. A computer model or algorithm designed to estimate the value of a subject property.

## Compinator

A third-party AVM created by FNC, Inc. and used by TSI prior to its relationship with HouseCanary.

## • Complexity Score

An algorithm to assess the difficulty of appraising a particular property.

## FoC

Family of Companies. TSI, along with One Reverse Mortgage, were affiliates of Quicken Loans and members of the Quicken Loans "Family of Companies."

#### HPI

A Housing Price Index or Home Price Index is a measure of average price changes in sales.

#### HVE

A Home Value Estimator is a synonym for an Automated Valuation Model.

## JSON

JavaScript Object Notification is a file format for data. Mortgage data is often saved in JSON format.

## Machine Learning

A method of data analysis that automates analytical model building. It is a branch of artificial intelligence based on the idea that systems can learn from data, identify patterns and make decisions with minimal human intervention.

## • MSLA

The Master Software License Agreement executed on January 29, 2015 by HouseCanary and TSI.

## MyAVM

MyAVM was TSI's eventual name for its internal AVM.

#### • R Code

A computer programming language used in the field of statistics.

## • Similarity Score

An algorithm to measure the similarity of a subject property to nearby properties using the most important property characteristics to buyers in a given market.

## • Value Report

A report containing a valuation for a single property, a list of properties comparable to the subject property identified by a similarity score, property and neighborhood characteristics, and predicted future value trends.

# TAB D

Compendium of Highlighted Documents and/or Graphics Displayed to the Jury

## Compendium of Highlighted Documents and/or Graphics Displayed to the Jury

Set out below are certain graphics and images of documents displayed to the jury during the trial of this matter and referenced in Appellee's Brief.

#### From DX-1027



House Canary Diligence - Quicken/Title Source Call Notes

Call #1 – February 6<sup>th</sup>, 2015 (Call between House Canary team and Title Source appraisal team providing feedback on initial alpha build of HC Appraiser product)

Jordan Petkovski - VP & Chief Appraiser, Title Source

#### Key Takeaways:

- -Product looks great. Questions over a couple of UI bugs and minor fixes (e.g., skipping data entry in a particular field and then coming back to fill-in/update data later). Fix expected in next build version.
- -"Blown away" by how quickly HC was able to build product to this point.
- -Hard to find words about how exciting it is to see this product actually take shape. Been waiting years for someone to do this

#### Key Takeaways:

- -"I've been an appraiser for 25 years and this is the biggest disruptive technology in our industry since the PC and the digital camera"
- -Believes HC Appraiser will lead to 90%+ reduction in current volume of repurchase demands from Fannie/Freddie. HC Appraiser will allow for reduction in review staff and their re-assignment to more productive activities.
- -Beyond the nearer term benefits noted above, Quicken/TS believes the back end analytics and insights capabilities of HC are significant, but those benefits are not necessary to drive the near-term urgency of getting HC Appraiser live and rolled out.
- -In terms of rollout, Quicken/TS believes there are likely a small (<10%) segment of current appraisers, mainly those who are older and close to retirement, who they may not be force onto HC platform for appraisals. But the overwhelming majority of appraisers will quickly and gladly adopt program out of their own self-interest (i.e., less time spent on rote data entry and get paid more \$\$). Work scheduling system will prioritize users of HC such that if you aren't on system, it will cost you work and money.

#### From PX-55

From: Wang, Bryan

Sent: Tuesday, May 05, 2015 1:23 PM

To: Scharrer, Brooke; Beal, Richard; Davis, Stuart; Nesbitt, Elaine; Walters, Dawn

Cc: Martin, David; Brownell, Gary

Subject: RE: Follow up regarding HouseCanary data & analytics

I heard the House Canary is coming to Title Source for a high level demo. I am more interested in knowing what data they have. It would be great if they could give this group a demo regarding their data.

#### From DX 120

From: Surdyk, Troy

Sent: . Wednesday, July 22, 2015 7:32 PM

To: Bedard, Bryan; Walrath, Teresa; Parker (MARSA), Stefanie; Rothfus, Kyle; Watts, Cheri:

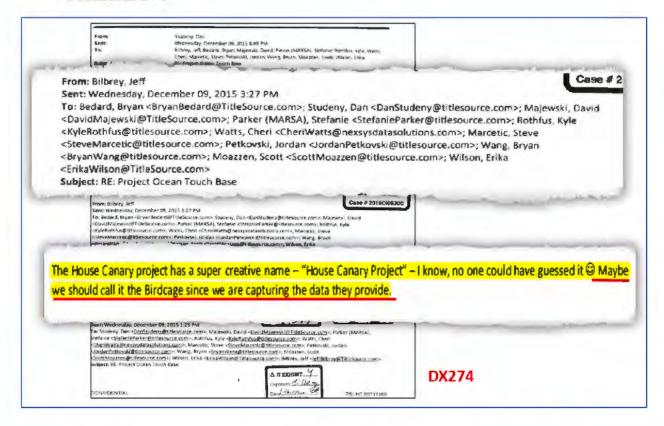
Majewski, David; Marcetic, Steve; Studeny, Dan; Petkovski, Jordan; Wang, Bryan; Moazzen,

Scott

Subject: RE: Project Ocean Touch Base

Project Ocean Meeting 7/21

Data is the main focus, we care most about the data we can acquire and then use/build products for ourselves.



## Conf. Call Notes - 10/13/15

Monday, October 26, 2015 12:43 PM

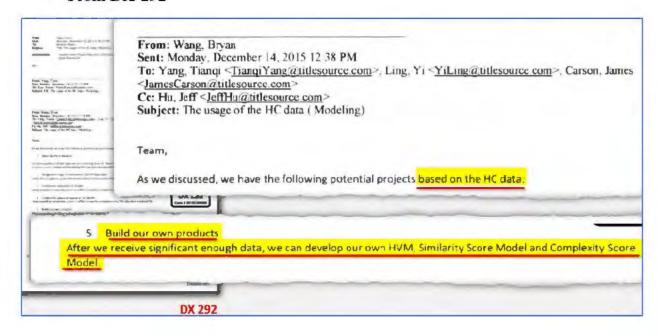
Conference Call with JP, Alcott, & Ben

- Two remaining questions that need to be answered before signing this contract (to be answered at the 2pm Thursday call with JP, JE, BDH, JH, Bryan Bedard, & Dave Majewski) are:
  - We don't just want the data in product form, we want product offering and underlying data behind the product (we don't anticipate this to be a huge problem)
  - We have to be able to figure out the right language in case we get cold feet while also
    figuring out what time & talk looks like when we do want to do bigger things with the
    data (client servicing, marketing, etc.)

## Contract Discussion - 11/9/15

Monday, November 09, 2015 10-01 AM

 Long term - using data we collect to develop new models & turn those into products we'll sell to our clients



## • From **DX-135**

From: Wang, Bryan

Wednesday, August 12, 2015 7:14 PM Sent:

To: Yang, Tiangi

Subject: RE: Data needed for HC

Can you check the HC data dictionary to make a list?

Bryan Wang

Sent with Good (www.good.com)

From: Yang, Tianqi

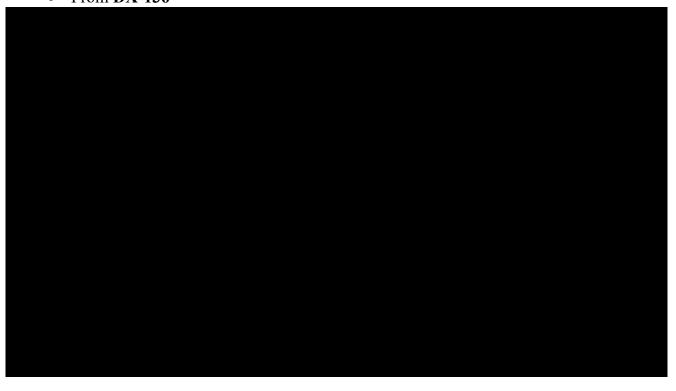
Sent: Tuesday, August 11, 2015 5:29:21 PM To: Wang, Bryan

Subject: Data needed for HC

Bryan,

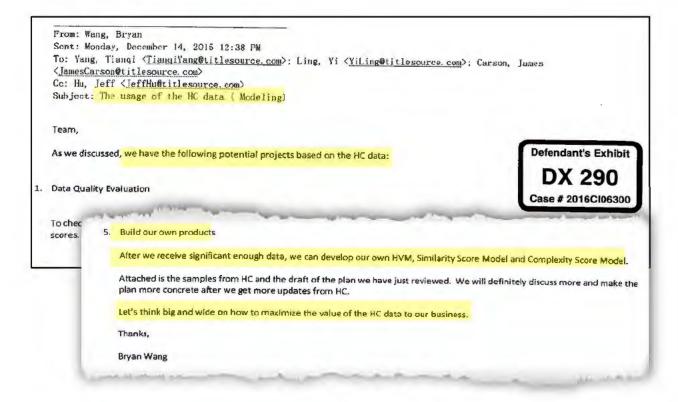
Brainstorming data we need turns out a lot harder than I thought. I clustered the variables into four groups.

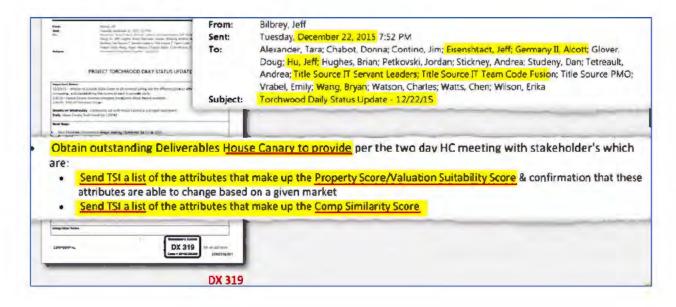
## • From **DX-136**

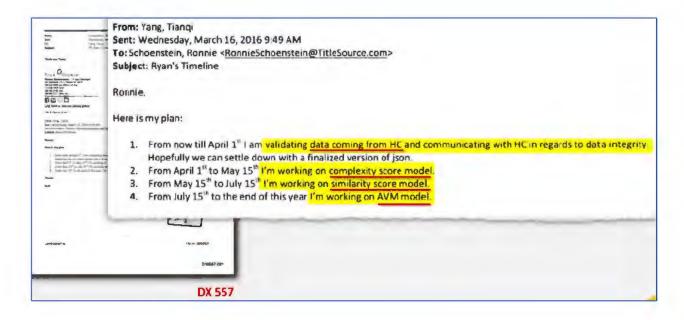


From: Carson, James Sent: Tuesday, March 08, 2016 2:02 PM To: Stickney, Andrea < Andrea Stickney @ Title Source.com>; Petkovski, Jordan < Jordan Petkovski @ title source.com>; Chabot, Donna < DonnaChabut@titlesource.com>; Studeny, Dan < DanStudeny@titlesource.com>; Hughes, Brian «BrianHughes@TitleSource.com»; Eisenshtadt, Jeff < Jeff@TitleSource.com»; Hu, Jeff < JeffHu@titlesource.com»; Wang, Bryan</p> «BryanWang@titlesource.com»; Title Source IT Servant Leaders <TitleSourceITServantLeaders@Titlesource.com»; Nacy, Meiissa</p> <MelissaNacy@titlesource.com>; Vrabel, Emily <EmilyVrabel@titlesource.com>; Schoenstein, Ronnie RonnieSchoenstein@TitleSource.com>; Title Source IT 8I BA <TitleSourceITBIBA@Titlesource.com> Cc: Title Source IT Team Smart Drive <TitleSourceITTeamSmartDrive@titlesource.com>; Rachamallu, Reddy <ReddyRachamallu@TitleSource.com>; Tu, Catherine <CatherineTu@TitleSource.com>; Perry, Ben <BenPerry@TitleSource.com>; Muscat, Christine (TSI) <ChristineMuscat@TitleSource.com>; Germany II, Alcott <alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord="mailto:com"><alcord=" <AndreaTetreault@TitleSource.com>; Watson, Charles < Charles Watson@TitleSource.com>; Bilbrey, Jeff <JeffBilbrey@TitleSource.com> Subject: Smart Drive Appraisal Status Update Here is your weekly Smart Drive project status update for Appraisal Production and Partner Highlights this week Tianqi (Ryan ) continues making progress on developing our complexity model using House Canary data, which was scheduled to begin entering our shared folders today (although a security issue put this on temporary hold). scheduled to begin entering our shared folders today (slowing to security lawe put this on temporary hold). As 2,000 or so House Canary files roll into our system each day, Ryan will work on a data storage solution, as well as continue training the property Complexity model this week. He'll also be validating the data to make sure we're receiving a complete dataset. Ryan will continue development of the Appraisal Complexity Model, as well as continue working with our Model Deployment team on finding a data storage solution for House Canary Data.

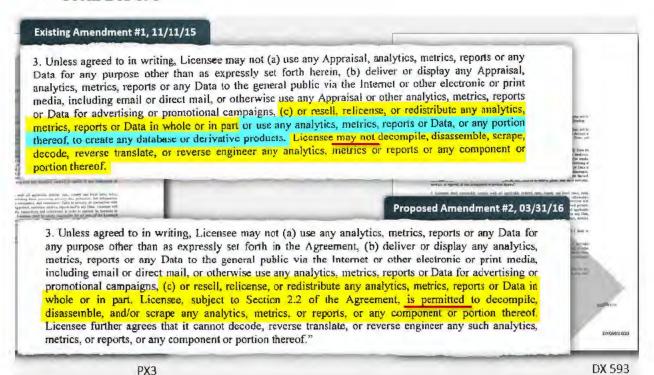
From:	Yang, Tiangi		
Sent:	Wednesday, January 06, 2016 3:57 PM Watson, Charles Bilbrey, Jeff RE: Property Attributes and similarity score information		
To:			
Cc:			
Subject:			
	elpful! I am surprised that HC is willing to share these information		
ow this is indeed he			
The state of the s			



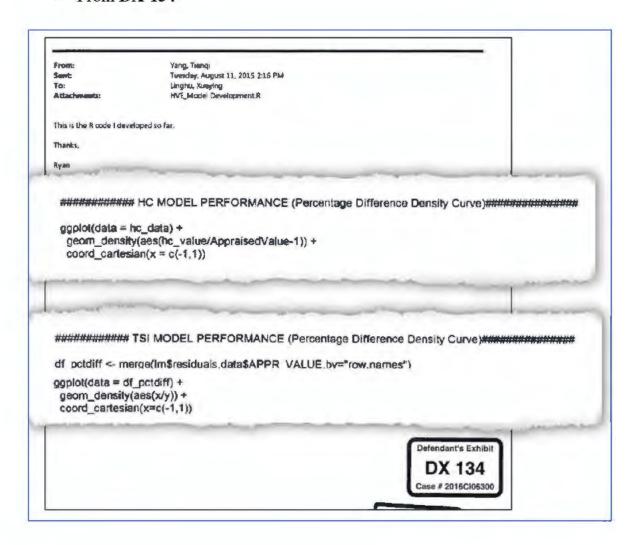




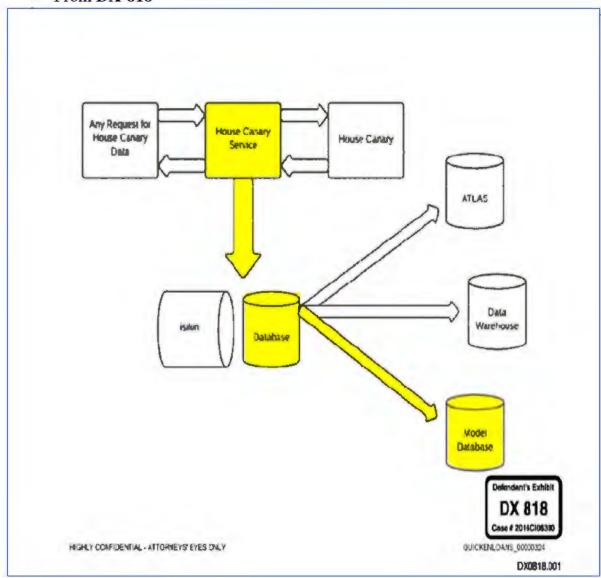
## From DX-593

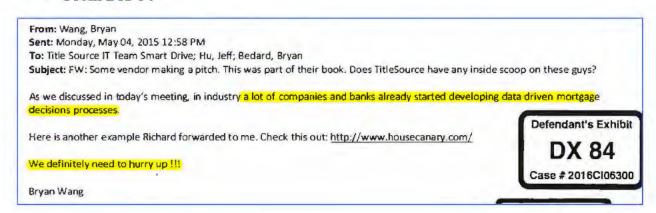


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tid94bd8eec1M90aae9Hac7fd44629	ES!	3839 Sandfull 31	Ruci WY	37901	1001 Not enough data available to create report	200 20160414	4/14/2016 15:28
8272(e20bd374478bbb1f5a571f00ca0	Lsl	Wiping a Vandor Wigns the lee		46101	1004 Unable to validate address	200 20160414	4/14/2016 15:78
37368571b43b4f57abe9e2ac4dSeeb6d	tsi	15046 Leader St		77072	1001 Not enough data available to create report	200 20160414	4/18/2016 15:78





4. Unless agreed to in writing, Licensee may not (a) use any Appraisal, analytics, metrics, reports or any Data for any purpose other than as expressly set forth herein, (b) deliver or display any Appraisal, analytics, metrics, reports or any Data to the general public via the Internet or other electronic or print media, including email or direct mail, or otherwise use any Appraisal or other analytics, metrics, reports or Data for any externally facing advertising or promotional campaigns. (c) or resell, relicense, reports or Data in whole or in part or use any analytics, metrics, reports or Data, or any portion thereof, to create any database or derivative products. Licensee may not decompile, disassemble, sorape, decode, reverse translate, or reverse engineer any analytics, metrics or reports or any component or portion thereof.

HC Note: Sections 5-10 must be reverted back. Sections 5, 8 and 10 are required by HC's licensors.

aiso to read to apply to appraisers. Both employees and appraiser more than likely use third party email who have redundancy centers overseas. TSI caused be liable for the actions of our employees or contractors in this sense. Furthermore, this restriction needs to be made explicitly mutual and should be added to the body of the Master.

Comment [A29]: HC hate. This entire vector must be reverted. The license grant is limited.

Comment [A30]: This will need to be removed as TST does intend to strin the report and use the data chewhore internally. This data will be combined with our own data.

## From PX-424H

From: Majewski, David \DavidMajewski@TitleSource com>

Sent: Friday, August 21, 2015 2:06 AM

To: Eisenshtadt, Jeff Seff@TitleSource.com>

Subject: Appraisal Spend/HC

Attach: Spend Comparison 8 20 2015 pptx

Jeff -

Here are the numbers you were looking for on "current state" spend versus a House Canary substitution with similar products. In my opinion, based on what I last heard were the most recent terms presented by HC, this appears to be extremely advantageous to us on:

products. In my opinion, based on what I last heard were the most recent terms presented by HC, this appears to be extremely advantageous to us on:

In my opinion, based on what I perceive as the first disruptive technology in the valuation industry in ever, this is an excellent differentiator for TSI(FOC) in this space. From my understanding of the most recent proposal terms, the 5 month, no charge arrangement would mitigate our risk and provide a trial opportunity of their efficacy and responsible to any opinion, with a minimum breakeven from our current valuation expenditures and

In my opinion, based on what I perceive as the first disruptive technology in the valuation industry in ever, this is an excellent differentiator for TSI(FOC) in this space. From my understanding of the most recent proposal terms, the 5

David

#### • From **DX-106**

On Wed, Jul 8, 2015 at 5:06 PM, Petkovski, Jordan <<u>JordanPetkovski@titlesource.com</u><mailto:<u>JordanPetkovski@titlesource.com</u>>> wrote: Got it and yes...it's impressive.

From: Kevin Klosterman [mailto:kevinklosterman@gmail.com<mailto:kevinklosterman@gmail.com>]

Sent: Wednesday, July 08, 2015 4:35 PM

To: Petkovski, Jordan Subject: House Canary

I CC'd you on my note to Joan as she knows we are on the same loop on valuation visionism:)

Have you seen a working version House Canary's product yet?

## • From **DX-479**

From: Brocker-Querio, Mike

Sent: Monday, February 22, 2016 7:59 PM

To: Daniel Majewski

Subject: RE: HouseCanary Accounts.

Damn. This is seriously cool.

Thanks again for getting us the login information!

From: Daniel Majewski [mailto:dmajewski@housecanary.com]

Sent: Monday, February 22, 2016 2:46 PM

To: Brocker-Querio, Mike < MikeBrocker-Querio@TSIAppraisal.com>

Subject: Re: HouseCanary Accounts.

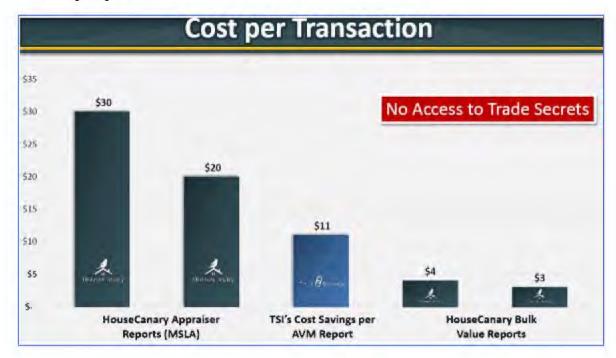
Mike,

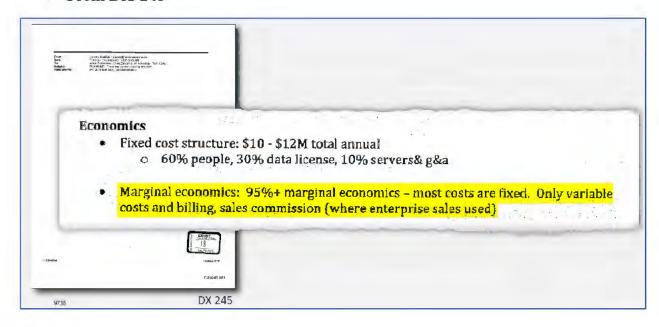
appraiser.housecanary.com

Sorry.. My bad. Let me know if it works.

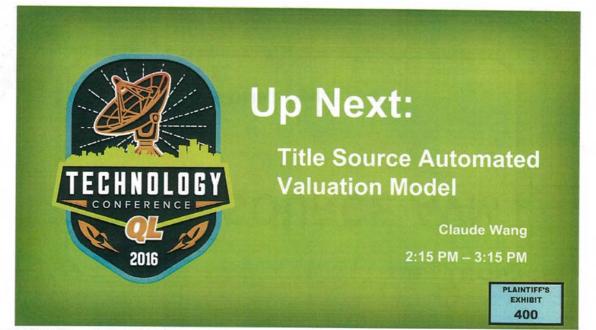
Dan

## • 4[CR]9700





## • From **PX-400**



HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

P-400 - 1

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